S. HRG. 105–851

Senate Hearings

Before the Committee on Appropriations

Department of Transportation and Related Agencies Appropriations

Fiscal Year 1999

105*th* CONGRESS, SECOND SESSION

H.R. 4328/S. 2307

Department of Transportation and Related Agencies Appropriations, 1999
(H.R. 4328/S. 2307)

S. HRG. 105–851

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1999

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

ONE HUNDRED FIFTH CONGRESS

SECOND SESSION

ON

H.R. 4328/S. 2307

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1999, AND FOR OTHER PURPOSES

Architectural and Transportation Barriers Compliance Board
Department of Transportation
General Accounting Office
National Transportation Safety Board
Nondepartmental witnesses
Office of Management and Budget
Surface Transportation Board

Printed for the use of the Committee on Appropriations

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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1999

MONDAY, MARCH 16, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Birmingham, AL.

The subcommittee met at 9:33 a.m. at "Great Hall", Hill University Center, University of Alabama at Birmingham, Birmingham, AL, Hon. Richard C. Shelby (chairman) presiding.

Present: Senator Shelby.

APPALACHIAN REGIONAL CORRIDORS

PANEL 1

CONGRESSIONAL WITNESSES

STATEMENTS OF:
HON. ROBERT ADERHOLT, U.S. REPRESENTATIVE FROM ALABAMA
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JESSE L. WHITE, JR., FEDERAL COCHAIRMAN, APPALACHIAN REGIONAL COMMISSION
DON VAUGHN, ASSISTANT TRANSPORTATION DIRECTOR, ALABAMA DEPARTMENT OF TRANSPORTATION

OPENING REMARKS

Senator SHELBY. The subcommittee will come to order.

At this time, I would like to recognize Dr. William Deal the dean of the School of Medicine at the University of Alabama in Birmingham, for any remarks that he might care to make.

Thank you, Doctor Deal.

Dr. DEAL. Thank you, Senator.

On behalf of the University of Alabama at Birmingham and its 30,000 students, faculty, and staff members, I would like to welcome you, Senator, and this subcommittee to this campus. Senator Shelby has been very instrumental and supportive of the development of this campus since he was elected to Congress in 1979 and we are very grateful for that. He, along with Congressmen Bachus and Aderholt, have helped us and are fully supportive of the School of Medicine and our human genetics initiative which is well underway.

Senator Shelby is also the first Alabama Senator to serve on the Senate Appropriations Committee since the legendary Senate Lister Hill who had so much to do with the development of the medical center. We are grateful for your leadership, Senator, and again, welcome all of you to this campus. Thank you.

Senator SHELBY. Thank you, Dean.

I want to thank each of you for being here today as we examine the cost and the benefits associated with the completion of the Appalachian development highway system, and specifically Corridor X.

Last year, as part of the Transportation appropriations bill, this subcommittee provided $300 million of Federal funds to the Appalachian highway system. About $40 million of that went to the State of Alabama to advance the progress of Corridor X. This $40 million was over and above the money the State of Alabama received through the Federal-Aid Highway Program.

The reason this money is necessary is to compensate for the Federal Government's poor track record in living up to its promise to finish this crucial highway system. The Appalachian development highway system was created in 1965 with the intent of linking the underdeveloped Appalachian region to the National Interstate System. Today, 33 years later, we still have large segments of the Appalachian highway system which are incomplete. One of the largest unfinished sections of the system in America is Corridor X here in Alabama.

When completed, Corridor X will be a 97-mile highway from the Mississippi State line to I–65 here in Birmingham. In conjunction with other routes in Mississippi, it will provide a freeway-type route from Birmingham to Memphis and will facilitate trade and economic development in northwest Alabama. Not only will it make the movement of goods and people between Memphis and Birmingham more efficient, but this highway project will also bring much-needed jobs to the region. According to the road information program, each $1 billion in new Federal highway investment nationwide generates an estimated 1,018 jobs in Alabama.

Completing Corridor X will also provide critical highway safety improvements in this area. Anyone who has driven much in northwest Alabama knows how dangerous the roads can be, and this new highway will do more to improve highway safety than any other project in recent memory. Highway fatalities in Alabama increased by 11 percent from 1992 to 1996. Nationwide, 77 percent of all fatal crashes occur on two-lane roads while only 14 percent of fatal crashes occur on roads with four or more lanes. In Alabama, 53 percent of the roads on the National Highway System, excluding the Interstate System, are two lanes.

Automobile accidents not only cost lives but they have economic costs as well. Motor vehicle crashes cost Alabama citizens about $2 billion per year or $471 for every resident of the State for emergency services, medical costs, property damages, and lost market productivity. Driving on roads in need of repair costs Alabama $394 million a year or $126 per motorist in extra vehicle repairs and operating costs. Increasing the investment in our Nation's highways will help change this and improve the lives of all of our citizens.

The purpose of this hearing today in Birmingham is to gain a better understanding of how completing Corridor X and the Appalachian highway system as a whole will benefit the people of Alabama and other people in Appalachia. Our first witness today will be Congressman Robert Aderholt who represents the 4th District in which most of Corridor X lies.

Congressman Aderholt is a member of the House Appropriations Committee and also is a member of the Transportation Subcommittee as well. He worked with me on last year's appropriations bill to ensure that the funds for Corridor X became a reality, and has effectively used his seat on the Appropriations Committee to represent his district.

Congressman Spencer Bachus who represents most of the Birmingham area is our next witness and has also been a staunch advocate in Washington for Corridor X. He sits on the House Transportation and Infrastructure Committee and will continue to have a strong voice in the final Federal Highway reauthorization bill.

We will also hear from the Honorable Jesse White, the Federal Cochairman of the Appalachian Regional Commission. The ARC is responsible for administering the Appalachian development highway system, and we are pleased to have Mr. White with us here today in Birmingham.

The last witness on the first panel is Mr. Don Vaughn, Assistant Transportation Director of the Alabama Department of Transportation. Mr. Vaughn, along with Director Jimmy Butts, is responsible for running the Department of Transportation of the State on a daily basis and for setting the State of Alabama's priorities for highway construction.

The second panel today will focus on the economic and safety benefits of Corridor X. We will have Mr. William Buechner, director of economics and research at the American Road & Transportation Builders Association; Mr. Barry Copeland, vice president of government affairs at the Birmingham Area Chamber of Commerce. He is also the regional director of BellSouth Communications. Mr. Frank Filgo, president and CEO of Alabama Trucking Association, and Mr. Al Gibbs, director of corporate affairs of the Alabama Chapter of the American Automobile Association.

Congressman Aderholt, Congressman Bachus, we welcome you here today to join me in this hearing. Your written statements will be made part of the record in its entirety.

Congressman Aderholt, you may proceed as you wish.

STATEMENT OF REPRESENTATIVE ADERHOLT

Mr. ADERHOLT. Thank you, Senator, for having us here today and allowing us to speak on the importance of Corridor X. A tremendous amount of progress has been made toward the eventual completion——

Senator SHELBY. Pull that microphone up closer to you, if you would.

Mr. ADERHOLT. A tremendous amount of progress has been made toward the eventual completion of this project in the past year in Washington, and I look forward to the first day when Corridor X is open.

When I was first elected to Congress back in 1996, Corridor X was my No. 1 priority. Working with the Alabama congressional delegation, the State Department of Transportation, local elected officials, and interested citizens in north Alabama, we were able to secure the largest general fund appropriation in history, $45 million for the current fiscal year, before the State match. Working together, we were able to get this done and it is something we can certainly all be proud of. However, this is just the first step toward the completion of Corridor X.

This year will prove to be the crucial year when a sense of fairness is restored to Alabama for transportation funding and the necessary resources for the completion of Corridor X are secured. Along with the annual preparations process, this year Congress, as you know, will reauthorize the Intermodal Surface Transportation Efficiency Act, also known as ISTEA.

Congress last authorized ISTEA legislation back in 1991. Unfortunately, Alabama did not fare well in that legislation. Alabama is a donor State, meaning we pay more in gasoline taxes in transportation trust fund than we receive in return for transportation infrastructure project. In fact, Alabama has only got approximately 78 cents on the dollar since 1991.

The lack of a sound surface transportation infrastructure is harming our ability to compete with other areas in the Southeast. Congress has already responded with the largest funding for surface transportation in history last year with $23.3 billion which is up from $20.9 billion the previous year and more than $1 billion over the President's request. And I pledge to continue to build on this progress this year.

Certainly the Alabama congressional delegation has been working together to ensure that this does not happen again with the reauthorization. Thankfully we are in a much better position this time around with members of the Alabama delegation being on key committees.

The No. 1 concern of the delegation is to ensure that Alabama does not receive the short end of the stick on the overall amount of funding that comes from the Federal Government. Certainly as you're well aware, the Senate, last week, passed a 6-year reauthorization of ISTEA and the House will shortly do the same. What is important to know is that all competing long-term reauthorizations are better for Alabama than the current law.

A central issue to ISTEA debate is specific funding category for the Appalachian development highway system. Historically, the main problem for the Appalachian development highway system, which includes Corridor X, has been a stable, dedicated source of funding.

Since the Appalachian development highway system is not part of the Interstate Highway System, it is hard to rely on an annual appropriations process. This is why, in some years, Alabama has had significant levels of funding and other years it received very small amounts. This makes it very difficult for long-term planning and it is part of the reason that the Appalachian development highway system is only 78 percent completed while the Interstate Highway System is 99 percent completed.

The House, the Senate, and the President have all decided to include a specific funding category for the Appalachian development highway system. The real battle seems to be what level of funding will be secured in the final version of the bill. The President's proposal includes $2.1 billion over 6 years for the Appalachian development highway system, the House proposal includes $2.5 billion and the Senate's proposal has $2.2 billion for the Appalachian development highway system.

The funds for the Appalachian development highway system are disbursed by a funding formula based solely on the costs to complete the entire system of which Corridor X is one part. Alabama's share is 11 percent so under the competing bills, we will receive over $200 million before the State match from the highway trust fund. This figure does not take into account the appropriations process, and as I mentioned earlier, and has been mentioned, we worked together last year to secure $45 million in the Transportation appropriation bill last year. Each year we will be in a position to steer additional funds to Corridor X on top of the authorized funding from the highway trust fund.

I have discussed the process to complete Corridor X up in Washington because I know everyone here understands what is important to complete this project. There are two very consequential reasons why the highway must be completed now. The first is economic development for northwest Alabama, and certainly, the second, which is certainly just as important and, in my opinion, more important, is safety.

It is unacceptable omission that there is no Interstate Highway from Memphis to Birmingham. This makes it more costly for businesses in Birmingham but also has slowed economic growth in northwest Alabama. If you look at a map of Alabama, the counties that are experiencing surging economic activity are generally those with an Interstate Highway running through them. Many of the counties in northwest Alabama will be able to create more jobs when Corridor X is completed.

In addition, more businesses will be willing to locate along Corridor X in northwest Alabama because the transportation infrastructure is sound.

An equally compelling reason to complete Corridor X is safety concerns. The current two-lane route on U.S. 78 is one of the most dangerous highways in the Nation. In Marion and Walker Counties, we have averaged one death per month over the past 50 months. This simply must change and it will do so when Corridor X is completed. U.S. 78 was designed and built more than 50 years ago when traffic patterns were significantly lower.

In addition, the decades of wear and tear have taken their toll that have resulted in hundreds of traffic fatalities. Completion of Corridor X will be a win-win situation for commuters and businesses. And I'm pleased that the people in Birmingham have linked hands with the people of northwest Alabama to see Corridor X come to fruition. Working together, I believe that we can ensure our transportation infrastructure is ready to take us into the 21st century.

PREPARED STATEMENT

Senator SHELBY. Thank you, Congressman Aderholt. We will insert your complete statement in the record.

[The statement follows:]

PREPARED STATEMENT OF CONGRESSMAN ROBERT ADERHOLT

Thank you for having me here today and allowing me to speak on the importance of Corridor X. A tremendous amount of progress has been made toward the eventual completion of this project in the past year in Washington and I look forward to the first day when Corridor X is opened.

When I was elected to Congress in 1996, Corridor X was my number one priority. Working with the Alabama Congressional Delegation, the State Department of Transportation, local elected officials and interested citizens in North Alabama, we were able to secure the largest general fund appropriation in history—$45 million for the current fiscal year before the state match. Working together we were able to get this done and it is something we can all be proud of. However, that was just a good first step toward the completion of Corridor X.

This year will prove to be the crucial year when a sense of fairness was restored to Alabama for transportation funding and the necessary resources to complete Corridor X were secured. Along with the annual appropriations process, this year Congress will reauthorize the Intermodal Surface Transportation Efficiency Act (ISTEA).

Congress last reauthorized the ISTEA legislation in 1991. Unfortunately, Alabama did not fare well in that legislation. Alabama is a "donor state" meaning we pay more in gasoline taxes to the transportation trust funds than we receive in return for transportation infrastructure projects. In fact, Alabama has only gotten 78 cents on the dollar since 1991.

The lack of a sound surface transportation infrastructure is harming our ability to compete with other areas in the Southeast. Congress has already responded with the largest funding for surface transportation in history last year, $23.3 billion which is up from $20.9 billion the previous year and more than $1 billion over the President's request. I pledge to continue to build on this progress this year.

The Alabama Congressional Delegation has been working together to ensure this does not happen again with the reauthorization. Thankfully, we are in a much better position this time around, with Members on the key committees.

For example, in the Senate, Senator Shelby is the Chairman of the Transportation Appropriations Subcommittee which actually appropriates funding for the various transportation projects. Senator Sessions is on the Environment and Public Works Committee which has prime jurisdiction over the reauthorization of ISTEA.

In the House, Congressman Bachus is a member of the Transportation and Infrastructure Committee and the Subcommittee on Surface Transportation which has prime jurisdiction over the reauthorization of ISTEA. Congressman Callahan, Congressman Cramer and I are members of the House Transportation Appropriations Subcommittee which appropriates funding for the transportation projects.

The number one concern of the delegation is to ensure Alabama does not receive the short end of the stick on the overall amount of funding that comes from the Federal government.

Last week the Senate passed a six-year reauthorization of ISTEA and the House will shortly do the same. What is important to note is that all competing long term reauthorizations are better for Alabama than current law.

The debate for us is moving in the right direction. The central question has been answered. The State of Alabama will receive far more favorable treatment this time around. The real issue is how much more will Alabama receive as compared with current law.

A central issue in the ISTEA debate is a specific funding category for the Appalachian Development Highway System. Historically, the main problem for the Appalachian Development Highway System which includes Corridor X has been a stable dedicated source of funding. Since the Appalachian Development Highway System is not part of the Interstate Highway System, it has had to rely on the annual appropriations process. This is why in some years Alabama has seen significant levels of funding and other years it received very small amounts. This is why in some years Alabama has seen significant levels of funding and other years it received very small amounts. This makes it very difficult for long term planning and is part of the reason that the Appalachian Development Highway System is only 78 percent completed and the Interstate Highway System is 99 percent completed.

The House, the Senate and the President have all decided to include a specific funding category for the Appalachian Development Highway System. The real battle seems to be what level of funding will be secured in the final version of the bill. The President's proposal (NEXTEA) includes $2.1 billion over six years for the ADHS, the House's proposal (BESTEA) includes $2.5 billion for the ADHS, and the Senate's proposal has $2.2 billion for the ADHS.

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Completion of Corridor X will be a win-win situation for commuters and businesses. I am pleased that the people in Birmingham have linked hands with the people in North West Alabama to see Corridor X come to fruition. Working together we will ensure our transportation infrastructure is ready to take us into the 21st century.

STATEMENT OF REPRESENTATIVE BACHUS

Senator SHELBY. Congressman Bachus.

Mr. BACHUS. Thank you, Senator Shelby.

First of all, I want to thank you on behalf of everyone in the Birmingham area for your strong, strong emphasis on the corridor act and for the funding that you have been able to direct toward this project.

I have been asked to address project status and also funding issues. First of all, I think there has been a growing recognition on the part of the Birmingham community and of north Alabama for the need for this road. I would like to commend the chamber of commerce, I would like to commend Congressman Aderholt. He has made this his No. 1 project. And I think anytime you get a Congressman who takes on one project and concentrates on it, you see an effect. And I think that his efforts, really daily efforts, have resulted in a lot more emphasis on this project because it actually has a voice that can be identified, and that voice is Robert Aderholt in the House.

With you as chairman of the Transportation and Appropriations Committee, I do not know that people in this room realize the significance of that, but if you wanted to put someone on any committee that would have more ability to influence funding for this project, it would be transportation chairman, Senate Appropria-

tions Committee, and we just happen to have Richard Shelby as the chairman of that subcommittee.

Senator SHELBY. I thank you.

Mr. BACHUS. I will say this, I think because of, not only chamber of commerce but a group of mayors all along the route pushing very hard for this project, informing us about the importance for their communities, it has grown really to where it is, in the Southeast, one of the top priorities of the Surface Transportation Committee on which I sit. And I think I have very good news for the community, for north Alabama, today, as far as the status of the ISTEA bill, the House of Representatives will increase funding, if the House bill—the Senate and the House bill are very similar, and I want to commend you and Senator——

Senator SHELBY. Congressman, I think they would be interested in your expanding your remarks on ISTEA right here today.

Mr. BACHUS. What we have is, Alabama has been receiving about $335 million for highways from the Federal Government. Under the new ISTEA bill, it will receive something in the neighborhood of $555 million, so you're talking about a 65-percent increase in funding.

In addition to that, prior to this year, there was no funding for Appalachian highways. The Energy and Commerce Committee funded the Appalachian Regional Commission and they have dedicated about $10 million—now this is in addition to the ISTEA highway money, they have committed about $10 million through Energy and Commerce a year, prior to this year when you and Congressman Aderholt increased the funding level about fourfold.

Under the new Appalachian regional funding mechanism, and Congressman Aderholt mentioned that our share, there is a big—for the first time, there is a separate category for highways. It is a several-billion-dollar category, and Alabama's share will go from 8 to 11 percent of Appalachian regional money. And what that means, bottom line, is that for Corridor X and Corridor Y—I think it is Corridor Y—Corridor V across Alabama, there will be about $40 million—and this figure could change in the next few weeks, but will be somewhere between $40 and $44 million for those projects alone, per year.

Senator SHELBY. In addition to everything else.

Mr. BACHUS. In addition to the—first of all, we go from $335 to $555 million in highway money under ISTEA. In addition, we have an earmark for Corridor X and Corridor V of over $40 million a year.

Compare that with the present spending levels of about $10 million a year and you see that, in Federal money, we're dedicating four to five times as much as we have been.

The Surface Transportation Committee estimates that about 62 percent of that money ought to go to Corridor X because Corridor V is further toward completion. Now Mr. Vaughn could speak to this probably a little better and give you the completion ratio. But bottom line, we will—the Senate has passed its ISTEA Bill. The House Surface Transportation Committee, on March 24, which is very close to today, March 24, we hope to report a bill out and have it pass the House before April 1. It will then go to a conference. But Alabama will get basically a bigger pie—I mean, there will be

a bigger pie for all the States and Alabama will get a bigger slice of the pie.

Now, as far as the impact of this project on the State of Alabama, the Surface Transportation Committee believes that this project, more than any other, will benefit metropolitan Birmingham—will benefit north Alabama and northwest Alabama. It is one of metropolitan Birmingham's two missing links; one to the Midwest, the other to Florida and south Georgia and panhandle of Florida. The other transportation need for the City of Birmingham is actually a project that is not even in Birmingham but will be an upgrading of the road between Montgomery and Dothan to tie into I–10, which will have an economic benefit for Birmingham.

We also—the third project for Birmingham that is basically on a—I think a must-do basis, is the northern beltline.

Senator SHELBY. Absolutely.

Mr. BACHUS. That will have probably more impact on commuters and on the economic development here in Birmingham. That project, because we are increasing total spending by 67 percent of moneys given to the State, and those moneys are not dedicated to any one project, so the State of Alabama will be free to direct as little or as much as they want to to the northern beltline and to Corridor X, in addition to these $40 to $50 million that both the authorization committee and the Appropriations Committee have targeted for these projects.

I will say that, as much as you talk about the economic benefit, and our whole second panel is going to talk about economic benefit. The chamber has done a lot of work there, I would simply say that what you're doing is you're linking the Southeast and the Midwest which have more potential for growth than any other sectors, any other regions in the country. You're linking them with an interstate highway which they presently do not have.

Other than the economic benefits, and for first time, I'll read part of my written statement because I think this probably says it best:

> But even more importantly, Corridor X is needed to improve safety. It seems that every week we lose another Alabamian on the dangerous stretch of road that is now U.S. 78. The completion of Corridor X will mean a safer commute and community, not only for our residents along the road, but for others traveling between Alabama and the Midwest.

Finally, I would like to compliment you, Senator Shelby and Senator Sessions. In the House of Representatives we added a University of Alabama Transportation Center.

Senator SHELBY. That is right.

Mr. BACHUS. I was pleased last week to see that the Senate has also added $3.6 million—and we do not know exactly how much this will be, but approximately or potentially $3.6 million over the next 6 years for the University of Alabama at Birmingham, Tuscaloosa, and Huntsville to study the transportation needs of our State.

We talk about multimillion-dollar projects, but I am as excited about our future leaders, our present students being involved in our universities and in planning our transportation future based on our transportation needs. I think that any time you direct money toward planning, you do it in a scientific, scholarly way, you save a lot of money and you get a much better system.

So with that, I'll close just by simply saying, Senator Shelby, I think you having this hearing here today, one of the few hearings nationwide, by the Appropriations Committee, shows not only—you've already shown by the appropriations you've put behind this project but also by being here today will make my job in the Surface Transportation Committee—this hearing today is going to make it a lot more to my advantage in gaining additional funds.

INFRASTRUCTURE IMPORTANCE TO ECONOMIC DEVELOPMENT

Senator SHELBY. Thank you, Congressman.

I just want to make an observation or two. One, Senator Sessions is not present, but Congressman Bachus alluded to what happened in the Senate last week as far as ISTEA, the reauthorization bill. Senator Sessions serves on that committee, a very important committee which is counterpart to what Congressman Bachus serves on in the House.

Congressman Aderholt and I do not serve on the authorizing committee, we serve on the Appropriations. So we have a good balance, I believe, for Alabama.

A lot of you are here because you realize how important infrastructure is for economic development, for safety, and so forth. I believe that, if you look back, Corridor X should have been finished 10, 12 years, 15 years ago, and perhaps we did not have the clout, honestly, but we've got the positions now, in Alabama. In the House, with Congressman Bachus, Congressman Aderholt, Congressman Callahan, and in the Senate, and we're going to do it.

I see Mary Buckelew here, and there are a lot of officials, mayors, and councilmen from all over, but she is the chairperson of the Jefferson County Commission. We've talked about something we're not holding a hearing on today but Congressman Bachus brought up, and that is the northern beltline. The northern beltline. I would—I think after this, down the road, we should have a hearing focusing only on the northern beltline.

Everybody here in Jefferson County that drives through Jefferson County knows what 459 has meant. Can you imagine what the extension around tying on to 459 south of Bessemer and tying on up into northern Jefferson County will mean to the development of Jefferson County, especially west Jefferson County. It will be like daylight and dark. And we're going to do that. I know Spencer, you alluded to it, and that is very important to you, but it is important to all of us. It is important to economic development and I appreciate that.

I appreciate both of you appearing here today. Congressman Bachus is my Congressman from Tuscaloosa, in my district, and I remind him that when I want to get his attention, you know, I say, look, we vote for you. You know, he likes that. [Laughter.]

He says, keep voting for me.

But you understand what this hearing is about: Corridor X and how it ties in with the system of highways in Alabama. You serve on the committee dealing with ISTEA in the House. This is a historic authorization bill that you're moving in the House.

What is the timetable, what do you think? I know you cannot say exactly because nobody has an exact clock, an exact science in Washington.

Mr. BACHUS. Well, we had a breakthrough in the Senate, really, not in the House. I wish I could come here and say that the House of Representatives had had a breakthrough last week.

Senator SHELBY. We had the breakthrough, but you all will come back now.

Mr. BACHUS. That is right.

And what that breakthrough was, though, that the—was that the 4.3 cents which——

Senator SHELBY. Explain that to the people here if you would.

Mr. BACHUS. Over the past 40 years, we've had a Congress which I think we all realize has increased spending and gone into deficit spending, sometimes called the tax-and-spend Congress. And what it did is, of the gas tax which were dedicated to roads, they diverted 4.3 cents to the general fund for other projects.

Senator SHELBY. And by 4.3 cents, that is——

Mr. BACHUS. Out of each gallon.

Senator SHELBY. You're talking about billions of dollars down the road, aren't you?

Mr. BACHUS. Talking about billions of dollars. You're basically talking about about 45 cents in taxes, of gas taxes for every gallon of gasoline. And they took about 10 percent of that. That is where the figure came from and they took about 10 percent of it and diverted it into the general fund. You have consistently voted against that, I've noticed, and——

Senator SHELBY. Against putting it in the general fund, but to use it for the intended purpose, right?

Mr. BACHUS. And the intended purpose is for roads. So that makes an $80 billion difference.

So when we go from our total appropriation of about one-half the increase, little less than one-half is just from the effort of you and I and Congressman Aderholt, and really I think the Alabama delegation, with perhaps some exception, voted to dedicate to highways.

Also Alabama is getting—as I said, they're getting a bigger share of the pie, so the Senate was able to get the votes to redirect that money toward highways. And so the House Surface Transportation Committee will report out a bill, our goal is by March 24, as I said. We hope to get it to the floor and I think will get it to the floor before April 1. I think it will probably be a 1- or 2-day process on the floor of the House. Then it will go into a conference. And we ought to have a new highway bill before May 1.

What the State of Alabama needs to do, as you and I know, we are giving them the contract authority for 555 million dollars' worth of spending.

Senator SHELBY. That is a lot of jobs and a lot of planning.

Mr. BACHUS. Yes; this year they had contract authority for about $340 million. I believe they let about $325 million of that. They will need to be prepared to let those contracts and to start moving dirt. I think that to a certain extent, they've—there has been a lot of money spent on consultants. I do not think that is necessary on this project. The design work is complete, the route has been chosen. What we need is to move dirt and lay concrete.

Senator SHELBY. And fast.

Mr. BACHUS. That is right. They can direct—they will have $220 million more a year for all their projects. In addition, they will

have $44 million, somewhere between $40 and $44 million specifically for these two projects. I would urge the State, as soon as that bill is passed, on or before May 1, to be in a position to let contracts.

Senator SHELBY. I'm not in the State legislature, I spent some time as a State senator, but I—since I'm in Jefferson County, I believe that the people of Jefferson County ought to be treated equitably when it comes to building and finishing their roads and their highways because they pay in more to the highway fund in Alabama than any other county. And they have not always gotten back what they paid in, and a lot of you have raised this with me. I think you've got to raise that with the Governor, with your State House delegation, with your State Senate delegation. But it ought to be that way because this area is very important. Congressman Aderholt——

Mr. BACHUS. In fact, we've got two things that have hurt us. There has—the money has not been directed back to Jefferson County and Commissioner Gary White, I think, was the first person that actually did an extensive study on that, and I think has done a good job on——

Senator SHELBY. He is a good commissioner, outstanding.

Mr. BACHUS. He has done an outstanding job on letting people in Jefferson County know that they have not been getting back from the State nearly their fair share.

We also—if you look at the funding, north Alabama has not gotten its fair share. So it has been a combination of those two factors. And I think we need to insist on equity. We now have equity from the Federal level and I want to stress—you know this and I know this, but very little of this—now Corridor X and Corridor V will have committed funds, but this $550 million a year is unearmarked. The Governor's association——

Senator SHELBY. And I trust it will not be squandered, don't you?

Mr. BACHUS. Yes; and that will be—you do not come to Washington to determine what projects will be built and which will not, you go to Montgomery to make those determinations, and that as we think it should be.

And so I hope people realize that——

Senator SHELBY. I do, too.

Mr. BACHUS. That we're not earmarking——

Senator SHELBY. Well, I appreciate your remarks. We understand.

Congressman Aderholt, I want to ask you one question. In your opinion, what is the most important reason for Corridor X to be finished and how soon——

Mr. ADERHOLT. Right. Well, first of all, I think safety has to be the most compelling reason to complete Corridor X. Economic growth, as you know, is normally the central reason to upgrade transportation infrastructure and certainly that is an important aspect here.

But really, in looking at U.S. Highway 78, as it currently exists, and the completion of Corridor X, the lives that have already been lost will continue to be lost until Corridor X is completed and really the human cost cannot be—the cost there cannot be tabulated and

the dollar amounts pale in comparison to the lives of loved ones that have been lost in northwest Alabama.

But that is not to downplay that the economic growth is very central, and I think to overlook that, certainly, would be a mistake. But I have received a number of newspaper stories and photographs from constituents to illustrate the need to complete Corridor X and, as I mentioned earlier in my opening statement, I think for the last 50 months, there has been an average of one life per month that has been lost on Highway 78, just in the Walker and Marion County area.

Senator SHELBY. At this point, can we get Mr. Jesse White, who is the Federal cochairman, Appalachian Regional Commission, Mr. Don Vaughn, assistant transportation director, if you gentlemen would come up, I wanted to get the Congressmen's remarks first.

Your written statements will be made part of the record, if you would. Mr. White, since you're a very important player in this, since you represent the Appalachian Regional Council, the people here in the room would be very interested in your overview: where are we going, how soon we can get there, and where we are today.

You might want to bring that microphone up close to you, otherwise they will not be able to hear you.

STATEMENT OF JESSE L. WHITE, JR.

Mr. WHITE. Well, thank you very much, Mr. Chairman. First of all, let me commend you on bringing a hearing out into the Appalachian region. We have started a practice of trying to take at least one of our Commission meetings out into the region every year, I think it is good for our people to be able to join us.

Let me thank you personally for your strong support for the ARC and that of the two Congressmen who joined me at the table, as well as, really, the entire Alabama delegation. Those Congressmen from Appalachia and Alabama, and I believe the whole Alabama delegation has consistently supported——

Senator SHELBY. Would you tell the audience, just to remind them, where Appalachian area begins, as far as your group is concerned? Just delineate it if you could.

Mr. WHITE. My first day on the job, which was a little over 4 years ago, I was meeting with the staff and looking at the map, and I asked them, I said, is Appalachia defined by God or by Congress. And they said, young man, you must be new to Washington, there is no difference.

Senator SHELBY. Oh, there is no difference.

Mr. WHITE. So it is geologically pretty pure. It runs along the spine of the mountain chain, and it starts in southern New York, comes down the mountain chain and includes, you know, what we think of as Central——

Senator SHELBY. You are referring to the map on the left now?

Mr. WHITE. Map on the left, that is the Appalachian region.

Senator SHELBY. OK.

Mr. WHITE. We are 399 counties in all of West Virginia and parts of 12 other States, and that includes New York, parts of New York, Pennsylvania, Ohio, Maryland, then western North Carolina, western South Carolina, southwestern Virginia, parts of Tennessee,

north Georgia, and then we swing, of course, across the South and get north Alabama and north Mississippi.

Senator SHELBY. OK.

Mr. WHITE. One thing that is very unique about the ARC, we are unique in Washington in the sense that we are a true Federal/State partnership. The Commission consists of a Federal representative appointed by the President, and I sit with the 13 Governors. And the interesting thing about it is, Congress gave us each one vote. I'm the only Federal official that does not have the final authority to spend money or issue regulations, I have to get the Governors to go along with me, the Governors have to get me to go along with them, so it is really a joint policymaking model that is about 30 years ahead of its time.

Our origins go back to when John Kennedy was campaigning for President in West Virginia in 1959 and was stunned at the poverty he saw. Said he would do something about it, if elected, and appointed, once he was elected, what was called the President's Appalachian Regional Commission [PARC], the PARC Commission.

It issued its report to President Johnson after Kennedy was assassinated and Johnson pushed through the Appalachian Regional Development Act of 1965.

It is interesting, the opening sentence of the PARC Report says, the following, it is kind of a haunting sentence. It says, "We find that Appalachia is a region apart, both geographically and statistically." And it went ahead to paint a picture of a region that had really been left out of the mainstream of the American economy.

And the first and foremost reason for that was its geographical isolation. And one of its first findings was that, right next to this huge population corridor going up and down the east coast and along the gulf coast, stood this area that had been left out of the Interstate System.

Senator SHELBY. Isolated.

Mr. WHITE. Isolated. And this report said, until this region is connected to the mainstream of the American economy, it will never be able to participate.

And so Congress authorized what has become a 3,025-mile highway system designed to connect us to the interstate grid, and that is really the heart of the work that the ARC does.

In addition, the Congress found that highways were the first and most important condition of economic growth, but not the only one, and so it authorized us to work in what we call our area development program, which our local development districts worked with us on, and that is everything in terms of industrial parks, education and training, water and sewer, the basic elements of community and economic development that you have to have to capitalize on your highways.

And so we have a full gamut of economic development programs, about two-thirds of the money that Congress has given us in the history of the ARC has gone to building our highway system. It is now about 79 percent complete, and I believe as Congressman Aderholt said, the interstate is 99 percent complete, so we're a little behind.

We have always been funded, our highways have basically always been funded out of the general fund, and what is historic this

year, as the Congressmen have pointed out, and as have you, Senator, is that for the first time in history, the President and both Houses of Congress are now committed to funding our roads out of the trust fund. This is a huge development, because we've been able to get only about $100 million a year divided by 13 States to build our roads. And now we're looking at something like $2.2——

Senator SHELBY. We did better last year, didn't we?

Mr. WHITE. Well, I'm going to come to that.

Senator SHELBY. Go ahead.

Mr. WHITE. But now we're looking at $2.2 to $2.5 billion out of the trust fund.

Last year, thanks a lot to you and Senator Byrd in the Senate and our colleagues in the House, we had a banner year. In fact, the ARC had the highest appropriations level last year in our history. In our regular appropriations, we went into conference with $160 million from both Houses and came out with $170 million. So that was pretty good. And then we had this special $300 million earmark for our highway system.

So we want to thank you very much for your leadership. I think the actions that the Congress took last year sort of catapulted us to this position where we now have consensus on really making a substantial investment in completing the system. So not only on behalf of Alabamians, but on behalf of the 22 million people that live in the Appalachian region, I would like to thank you.

The way our system works, Mr. Chairman, is Congress has authorized 3,025 miles for our highway system that you see on the map on the left. The Commission then establishes what the corridors are, and they are not numbers, they are letters. We go from A to X. We are talking about two of the corridors here in Alabama. X was actually one of the last ones added to our system, I think it was added in the midseventies, if memory serves correctly.

Of our entire system, 2,259 miles now are open, 117 miles are under construction, which is about a 79-percent completion rate as has been mentioned. The bad news is that the last 21 percent will cost more than the first 79 percent because we're going through some of the toughest terrain and because, obviously, prices have escalated. It would have been cheaper if we had gone ahead and finished this sooner.

But now we are looking at a price tag of about $8.5 billion for the system, the Federal share of $6.8 billion. There is already some money in the pipeline, the remaining Federal cost is about $6.2 billion. So as you can see, this proposal and NEXTEA is really an investment to finish at least one-third of the system in the next 6 years. So that is just tremendous news.

Congress allocates this money to the Commission. I sit down with the Governors once a year in this power-sharing arrangement I mentioned, and we vote an allocation to the States. And that allocation is based on the cost to complete. In other words, Alabama's part of the cost of complete as a percentage of the whole, determines what Alabama gets, and that is, as has been mentioned, that is about 11.1 percent.

In terms of the two corridors in Alabama, X and V, there are about 231 miles in these two corridors eligible for funding, about

125 miles of that are open, about 40 miles are being built, 66 miles are left remaining.

In terms of V, which is the road that runs down from Tennessee through Huntsville, that is a 145-mile corridor.

Senator SHELBY. Does that tie on through Chattanooga?

Mr. WHITE. Yes, sir; I believe it does.

Senator SHELBY. OK.

Mr. WHITE. 100 miles are now open, 23 miles are under construction, so you have got about an 85 percent completion effort on V.

In terms of X, it is 95 miles authorized, 26 miles are open, 17 miles are under construction so we only have about a 45-percent completion.

Senator SHELBY. Mr. White, I know this is not on scale—it was done by my staff—but does this give you a rough idea of where we are as far as, you see, starting over in Mississippi in the blue, the deep blue, coming into Alabama where——

Mr. WHITE. Yes, sir; that is——

Senator SHELBY. And then the red would be what is not finished coming into Birmingham, is that correct?

Mr. WHITE. Right. That is largely an accurate scale.

Senator SHELBY. OK.

Mr. WHITE. I myself will be driving that corridor this afternoon. I grew up in Mississippi, I have driven it before, so I have a personal passion for seeing it completed. I am looking forward to the beautiful countryside of Alabama, I am not looking forward to parts of the road that I will have to travel this afternoon. I am going to Ole' Miss, my alma mater tonight, where the President's Commission on Race is meeting, and that will be quite an emotional meeting for me because I was a freshman at Ole' Miss in the Meredith year. So that will be quite an event.

So there is no question that this corridor needs to be completed, Mr. Chairman. The economic benefits are obvious, the safety needs have been mentioned. We are currently undertaking a comprehensive study of the economic impact of our corridors, we will be sharing that with you as it is completed this year. And we are also undertaking a study of the safety impacts of our corridors. We will also be sharing that with you, and I look forward to working with you and our colleagues on the Hill, the entire delegation from Alabama, in finishing our work.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. White. We have your written statement and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF JESSE L. WHITE, JR.

Mr. Chairman, I am pleased to be here in Alabama on behalf of the Clinton Administration to talk about the importance of completing the Appalachian Development Highway System (ADHS). Today, more than 30 years after the first spadeful of dirt was turned on the ADHS, only 79 percent of the system is open or under construction. This Administration believes strongly that it is in the national interest to accelerate the day when Appalachia will be fully served by a system of modern highways. We are pleased to join with your Subcommittee in working toward this goal.

This Subcommittee's strong support this past year for the Appalachian Regional Commission and its highway program has helped give us the largest highway fund-

ing level in the Commission's history. Mr. Chairman, thanks to you, Senator Byrd, and other key Members of Congress, we are now able to make substantial progress toward completing this critical highway system—and honoring the commitment that the nation made to our region over three decades ago that we would have a network of modern highways that could provide the engine for economic growth in small communities all across Appalachia. On behalf of our governors and our small towns and communities, I say a heartfelt thanks.

There is no single item more crucial to the economic development of Appalachia than completion of the Appalachian Development Highway System. This highway system is the cornerstone of the Commission's plan to develop the region, crisscrossing Appalachia and linking the region to the national interstate highway system. From its inception—now almost 33 years ago—the ARC highway system has been designed to be an instrument of economic development, first, by improving commerce and transportation within the region, and second, by opening the region to the rest of the nation and linking it to national and international markets.

BACKGROUND

A modern system of highways is a critical response to Appalachia's isolation—a product of treacherous terrain, narrow winding roads, and low travel speeds. That isolation itself accounts for much of the region's relative economic stagnation. Because of high construction costs and low traffic counts, the interstate highway system had largely bypassed Appalachia, leaving vast areas of the region cut off from the mainstream of American economic life. Moreover, the poor condition of the roads that did exist within Appalachia made driving hazardous and discouraged commerce and economic development.

Congress expressly authorized a regional highway system based not on traffic counts but on its development potential—its ability to open up the region, connecting communities and workers to broader markets and fostering the prosperity that flows from this expanded commerce. Corridors were chosen to close the gap between key markets on either side of Appalachia that were not linked by the interstate system to the region.

The old system of roads—characterized by low travel speeds, long travel distances, poor design standards, and unsafe conditions—made the delivery of basic services difficult, expensive, and occasionally impossible, further impeding the region's opportunity for growth. Without an effective system of highways, adequate health care, for example, would be unavailable to literally thousands of Appalachian citizens, and children would have to travel hours on dangerous winding roads to school.

Thus those wise men and women who guided the creation of ARC in the 1960's declared that highways were an essential condition for the region's future growth. In the intervening years, their wisdom has been vindicated. Today the economic impetus to complete the system has never been more compelling. In today's global marketplace, a modern system of highways is a critical first step in fostering economic growth and enabling Appalachia to become a net contributor to the national economy.

STATUS

Congress has authorized 3,025 miles for the Appalachian Development Highway System. The Commission has established 26 highway corridors, with each of the region's 13 states being served by at least one corridor. To date 2,259 miles of the system are open to traffic, with another 117 miles under construction. The good news is that 79 percent of the system is open or under construction. The bad news is that the remaining 649 miles are some of the most difficult and expensive to build.

Last year ARC concluded a study of the cost to complete the system. The estimated total cost, as of September 30, 1996, was $8.5 billion, with the federal share of that cost estimated at $6.8 billion. After deducting federal funds that were available for use in fiscal year 1997, the federal share was estimated at $6.2 billion.

The highways are planned, designed and constructed by the individual state highway agencies using funds made available from several Federal sources including appropriations to the ARC and funds from the 1991 ISTEA and other appropriations, such as the special appropriation your Subcommittee provided for fiscal year 1998. The sequencing of the building of corridors within a state is the prerogative of each respective governor.

The Commission allocates funds among our states based essentially on each state's relative share of the cost to complete the entire system. At lower appropriations levels, we do provide a floor and a ceiling, in order to provide a bit more equity

among the states. According to our latest cost-to-complete study, Alabama's share is 11.1 percent.

ECONOMIC IMPACT

The economic benefits of highway improvements are remarkable. A recent Department of Transportation report showed that historically almost 30 percent of the nation's growth in the rate of productivity can be attributed to highway improvements. The major performance measures of the Appalachian Development Highway System are the travel efficiencies and the regional economic development which the ADHS has spurred. Even though the entire system is only three-quarters complete, studies have found that the ADHS has significantly improved travel efficiencies and measurably boosted employment, income and population growth in the region, while enhancing safety and reducing the costs and difficulty of extending health, education, and other critical services to the region.

A 1993 study for the National Science Foundation, which examined 27 years of Appalachian regional development, found that economic growth in the region was greatest in those counties with ADHS corridors. Those 110 counties with ARC highways grew 69 percentage points faster in income, 6 percent faster in population growth and 49 percentage points faster in earnings than did counties with similar socioeconomic characteristics outside the region.

Last year ARC launched a major study of the economic impact of our highway system. The study—which is a comprehensive analysis of segments of 12 ADHS corridors that are 75 percent or more complete—will look at safety benefits, reduced travel times, reduced vehicle operating costs resulting from the completion of the segments, and, most importantly, the job creation that has occurred as a consequence of our highways. The study is being conducted under a contract with Wilbur Smith Associates, a firm nationally recognized for its feasibility studies and sophisticated econometric analysis. We are now reviewing the preliminary data from the study and expect to have a full report available later in the spring. We will certainly share those results with you when they become available. I am confident that those data will tell a compelling story of how the ADHS is transforming the economic landscape of Appalachia.

At the request of your committee, we are also conducting a study of the impact that the completed ADHS corridors will have on safety. Based on information provided by state highway agencies, this study, which the Federal Highway Administration is conducting for us, will compare accident data from completed sections of the ADHS with data from accidents on unbuilt segments of the ADHS. The analysis of the information is expected to show a significant reduction in accidents attributable to the highway improvements on the corridors under the ADHS program. This report is expected to be completed in May, and we will share it with you just as soon as it becomes available.

Mr. Chairman, these studies can quantify the impact of the ADHS, but they fail to capture the human dimension of these highways. A year and a half ago then-Highway Administrator Rodney Slater and I spent three days traveling the ADHS in four states—the first time in history that the ARC Federal Co-Chairman and the Federal Highway Administrator had jointly examined our system. Along the route of the proposed Corridor G in West Virginia, we cautiously—and nervously—navigated a winding two-lane U.S. highway, coming to an abrupt stop at a railroad crossing a couple of miles from our scheduled lunch engagement in Williamson, West Virginia. We waited almost 15 minutes as two long coal trains passed in front of us. For us it was only a minor inconvenience—we were just a few minutes late for lunch. But what if there had been an ambulance rushing a pregnant mother to the hospital? Or a farmer needing immediate medical assistance? And imagine the competitive disadvantage these kinds of inefficient and unscheduled delays cause local companies in this area.

ADHS IN ALABAMA

As you are aware, Alabama's portion of the system includes two corridors, X and V, totaling 242.7 miles. Both of these corridors will provide east-west access between the Appalachian region of Alabama and the surrounding area while also providing missing links to the national interstate system.

The completion of Corridor V from the Mississippi state line near Red Bay through Decatur and Huntsville is well underway. The 145-mile corridor follows State Route 24, Interstate 565, and U.S. 72 across the state with over 84 percent of the corridor open to traffic or under construction at a total cost of $289.2 million. The 1997 cost estimate showed some $183.5 million of work remained to be completed on the corridor. This includes construction on new location and added lanes

on Alabama Route 24 from Red Bay east to Moulton, completion of an unbuilt section in Decatur, and upgrading the existing highway east of Interstate 565 in Huntsville.

Corridor X linking Birmingham, Jasper, and Weston will be instrumental in providing an outlet for the traffic congestion along the U.S. 78 corridor, and it should contribute significantly to reducing the number of serious accidents along U.S. 78. I will myself be driving along this route this afternoon, as I travel to Oxford, Mississippi, to join a discussion of the President's Initiative on Race, so I will get a chance to experience first hand again—as I have in the past as a native of this area—the congestion and safety problems along this corridor that a number of your constituents have written me about.

Portions of the 98-mile corridor are complete or under construction from Jasper west to Mississippi, with 44 percent of the corridor open to traffic or under construction at a total cost of $292 million. The remaining work was estimated at $716 million in the 1997 cost estimate.

Remaining work includes construction on new location from Brilliant southeast to Birmingham. Final design is under way from Brilliant to west of Jasper, and final design and construction are under way on various sections around Jasper. Final design is under way on sections from Jasper to northwest of Birmingham, and an environmental study is under way on the final section, including the connection to Interstate 65 in Birmingham.

The scope of the work, however, tells only part of the story. The real impact of the Appalachian highway system in Alabama and throughout the region is on the lives, and livelihoods, of the people who travel these roads. Corridor X, when completed, will offer a safer, faster, smoother alternative to the heavy traffic and hazardous intersections that characterize the unimproved sections of U.S. 78 in Alabama. Moreover, it will provide a non-stop freeway connection between Birmingham and Memphis when it hooks up with the interstate-quality section of U.S. 78 at Tupelo. When completed, Corridor X will save time, money, and lives—it's just that simple and that important.

LEGISLATIVE STATUS

This fiscal year, the Commission received a record $402.5 million in appropriations for the highway system, thanks in no small part to your efforts, Mr. Chairman, in providing a special $300 million in the Department of Transportation Appropriations bill. This increase will allow expedited work in Alabama and the 12 other Appalachian states. As a result of this increase in funding, Alabama's ARC highway allocation for fiscal year 1998 is just over $50 million—that is roughly $40 million more than Alabama would have had available without the special $300 million appropriation, and Senator Shelby, we thank you again for your work on this.

I am also pleased that the Clinton Administration has made an unparalleled commitment to the timely completion of the Appalachian highway system by requesting $2.19 billion for the ADHS in its six-year NEXTEA proposal. This marks the first time that an Administration has proposed funding for our highways out of the Highway Trust Fund. It is my understanding that this is the same figure that is in the Senate's version of the highway authorization. The bill that the House is expected to consider in a few weeks also proposes funding our system out of the Highway Trust Fund, at a six-year total of $2.25 billion. These are significant developments that will, for the first time, provide a steady and reliable source of funding for the system.

In summary, the completion of the 3,025-mile Appalachian Development highway system is essential to bringing Appalachia into the national and international economic mainstream. ARC is committed to building the entire system and welcomes the kind of increase in funding that Congress is considering. The proposed additional authorizations would provide a multi-year source of funding which is essential to the concentrated effort needed to complete the system as contemplated when Congress established the Appalachian highway program.

Once again, Mr. Chairman, I thank you for your strong advocacy of the Appalachian Regional Commission programs, and your untiring work on behalf of the people of Alabama and Appalachia. It is because of people like you that we have made the progress we have on the Appalachian highway system, and for the first time, can look forward to the prospect of completing the system in the foreseeable future, thereby redeeming the promise that the nation made to our region over three decades ago.

FAVORABLE OUTLOOK FOR ARC

Senator SHELBY. Mr. White, just in a nutshell, can you sum up where we are and where do you think we will be at the rate we are going, you know, with all of the good news, assuming that we work it out as Congressman Bachus says, between the House and the Senate ultimately, in a conference, a favorable conference for ARC plus additional money that we're going to be working on every year with ARC.

Mr. WHITE. Right.

Senator SHELBY. The best strategy for us, as far as a deadline, I know deadlines slip but, you know, this has slipped too long. Where are we going to be in 5 years if we really work like the devil on this?

Mr. WHITE. Well, I think as just a rough rule of thumb——

Senator SHELBY. Yeah, I know that.

Mr. WHITE. If we get the NEXTEA enacted as——

Senator SHELBY. What Congressman Bachus was talking about.

Mr. WHITE. Within the range we are talking about, you could see one-third of that red become blue and, of course, that is just using the ADHS earmark. That does not count other moneys that perhaps would be appropriated——

Senator SHELBY. That is right.

Mr. WHITE [continuing]. And applied to that, either by the Congress or by Alabama.

Senator SHELBY. What we can add each year as we did last year makes that faster.

Mr. WHITE. Makes it faster, yes.

Senator SHELBY. So we are seeing the light at the end of the tunnel——

Mr. WHITE. I believe so.

Senator SHELBY [continuing]. Although it is not bright yet, it is getting brighter is it not?

Mr. WHITE. Yes, sir.

Senator SHELBY. OK. Mr. Vaughn——

Mr. BACHUS. Senator Shelby, I might say this, when we talk about the Federal match, we're talking about one-third within the next 3 years. There also is a State match——

Mr. WHITE. Right.

Mr. BACHUS. Which—so we're talking about——

Mr. WHITE. That's another 20 percent.

Mr. BACHUS. Another 20 percent. So you are talking about—you are talking about close to 40—closer to 40 percent funding, I believe.

Senator SHELBY. That is good. Mr. Vaughn——

Mr. VAUGHN. Thank you, Senator Shelby.

Senator SHELBY. You are the one to comment on where we are going and how we're going to get there fast.

STATEMENT OF DON VAUGHN

Mr. VAUGHN. Well, we are going faster than we have been, thanks to your leadership in the Senate and your ability to bring more funds to Alabama.

Congressman Aderholt, Congress Bachus, along with Congressman Callahan and Congressman Cramer, and all your interest in transportation.

Senator SHELBY. Senator Sessions, too.

Mr. VAUGHN. And Senator Sessions, certainly. I did not mean to forget Senator Sessions.

It has certainly done a lot to increase Alabama's clout as far as transportation is concerned, and we look forward to graduating from the donor State status into a State that can receive additional funding to help us meet our transportation needs.

The 4.3 cents that Congressman Bachus referred to earlier is a major step in the right direction. That is a gasoline tax, it is a user fee and it should go nowhere but to transportation and we were very pleased to see that come out.

May 1, the Senate has met their goal, their deadline, and I was real pleased to hear Congressman Bachus say that the House was going to meet the May 1 deadline as well. May 1 is a significant date because that is when the current extension expires and no more Federal funding authorizations after May 1. So we are very encouraged to hear that the House is moving and hopefully will not allow that to happen.

Now let me address some of the merits and needs of Corridor X. The basic route of Corridor X was included in the original interstate and defense highway plans developed in the mid-1930's. Unfortunately, when the Interstate System was approved in the mid-1950's, this route was one of the final segments deleted from the original 40,000 miles.

Public interest in the route was revived with passage of the Appalachian Regional Development Act of 1965 which had the stated goal to provide a highway system to open areas with developmental potential where commerce and communication had been inhibited by lack of access.

Corridor X was added to the Appalachian Development Highway Program with the passage of the Surface Transportation Act of 1978. In June 1979, the Federal Highway Administration authorized the Alabama Highway Department at that time to begin work to determine the location of the 97-mile freeway project. In 1978, Senator, I worked in the location section of the Highway Department, was involved in making the original estimate. It was 97 miles and estimated to cost $100 million, and we were aghast it was going to cost $1 million a mile to build this freeway system.

Senator SHELBY. We should have built it, should we not? [Laughter.]

Mr. VAUGHN. To date, the Department has obligated $420 million for both Corridors X and V. Of that amount, Corridor X has received $228 million Federal dollars which includes $91 million of special appropriations over and above the Appalachian developmental highway funds.

This money has constructed 23 miles of freeway which are open to traffic from the Mississippi State line to Marion County Road 45, south of Hamilton. Additionally, there are 19 miles currently under construction. One section extends the freeway from Marion County 45 to State Route 129 at Winfield and another constructs a new segment from Walker County Road 11 to U.S. 78 near Seedrum. A

third section, the Jasper bypass, extends from U.S. 78 west of Jasper to the Bevill Industrial Park Road east of Jasper. Currently all remaining sections of Corridor X are in the final design and/or right-of-way acquisition phases.

The cost to complete right-of-way acquisition and construct the remaining portion of Corridor X is estimated at this time to be approximately $600 million. The Department has an available balance of $60 million to be spent on both Corridors X and V. This balance consists of $9 million carried over from previous years and $51 million allocated by Congress this year.

When Corridor X is completed, it is estimated that U.S. 78 will see an 18- to 50-percent reduction in the amount of traffic that would have used U.S. 78 had Corridor X not been built. Additionally, some studies indicate a 39-percent decrease in traffic accidents along U.S. 78 with Corridor X in place.

Currently in the Jasper area, the traffic using U.S. 78 is a mixture of long-distance commercial trucks and local and commuter vehicles. With the completion of Corridor X, safety will be enhanced by the separation of these two classes of traffic. Further the proposed freeway will encourage economic development and diversification in an area dominated by the coal industry. A completed Corridor X will result in easier access from the rural areas of west Alabama to the State's largest metropolitan area with its cultural, educational, and medical facilities.

At current funding levels, the Department's plan would have all segments of Corridor X either open to traffic or under construction in a three-phase program over the next 12 to 15 years. The first phase, a 19-mile segment between Marion County 45 and the Jasper bypass will complete the freeway from the Mississippi State line to east of Jasper at an estimated cost of approximately $100 million.

The second phase, a 16-mile segment from U.S. 78 at Graysville to I–65 will address an area of heavy congestion on U.S. 78. This portion of the route is estimated to cost nearly $300 million.

The final phase of construction, from east of Jasper to U.S. 78 at Graysville is a 20-mile segment that will cost $200 million and complete Corridor X from the Mississippi State line to Birmingham. This total 97-mile Corridor X freeway will represent a nearly $900 million investment in transportation infrastructure.

Thank you very much.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Vaughn. We will insert your prepared statement in the record.

[The statement follows:]

PREPARED STATEMENT OF DONALD W. VAUGHN

The basic route of Corridor X was included in the original interstate and defense highway plans developed in the mid-1930's. Unfortunately, when the interstate system was approved in the mid-1950's, this route was one of the final segments deleted from the original 40,000 miles.

Public interest in the route was revived with passage of the Appalachian Regional Development Act of 1965 which had the stated goal to "provide a highway system to open areas with developmental potential where commerce and communication have been inhibited by a lack of access." Corridor X was added to the Appalachian

Development Highway Program with the passage of the Surface Transportation Act of 1978.

In June of 1979, the Federal Highway Administration authorized the Alabama Department of Transportation to begin work to determine the location of the 97 mile freeway project. To date, the department has obligated $420 million for both Corridors X and V. Of that amount, Corridor X has received $228 million, which includes $91 million of special appropriations over the APD funds.

This money has constructed 23 miles of freeway which are open to traffic from the Mississippi State line to Marion CR–45 south of Hamilton.

Additionally, there are 19 miles currently under construction. One section extends the freeway from Marion CR–45 to SR–129 at Winfield and another constructs a new segment from Walker CR–11 to US–78 at Cedrum. A third section, the Jasper Bypass, goes from US–78 west of Jasper to the Bevill Industrial Park Road east of Jasper.

Currently, all remaining sections of Corridor X are in the final design and right-of-way acquisition phases.

The cost to complete right-of-way acquisition and construct the remaining portions of Corridor X is estimated to be approximately $600 million. The Department has an available balance of $60 million to be spent on both Corridor X and V. This balance consists of $9 million carried over from previous years and $51 million allocated by Congress for this year.

When Corridor X is completed, it is estimated that US–78 will see an 18 percent to 50 percent reduction in the amount of traffic that would have used US–78 had Corridor X not been built. Additionally, some studies indicate a 39 percent decrease in traffic accidents on US–78.

Currently, in the Jasper area, the traffic using US–78 is a mixture of long distance commercial trucks and local and commuter vehicles. With the completion of Corridor X, safety will be enhanced by the separation of these two classes of traffic. Further, the proposed freeway will encourage economic development and diversification in an area dominated by the coal industry. A completed Corridor X will result in easier access from the rural areas of west Alabama to the state's largest metropolitan area with its cultural, educational, and medical facilities.

At current funding levels, the Department's plan would have all segments of Corridor X either open to traffic or under construction in a three phase program over the next 15 years.

The first phase, a 19 mile segment between Marion CR–45 and the Jasper Bypass, will complete the freeway from the Mississippi State line to east of Jasper at an estimated cost of approximately $100 million.

The second phase, a 16 mile segment from US–78 at Graysville to I–65, will address an area of heavy congestion on US–78. This portion of the route is estimated to cost nearly $300 million.

The final phase of construction, from east of Jasper to US–78 at Graysville, is a 20 mile segment that will cost $200 million and complete Corridor X from the Mississippi State line to Birmingham.

The total 97 mile Corridor X freeway will represent a nearly $900 million investment in transportation infrastructure.

IMPORTANCE OF TRANSPORTATION PROJECTS

Senator SHELBY. First of all, on behalf of the committee, I want to thank Congressman Bachus, Congressman Aderholt, Mr. White, and Mr. Vaughn for appearing here. And we are going to keep working this, we are going to finish it, are we not? Thank you.

This will complete the first panel. We appreciate this, and all of your statements will be made part of this hearing record in their entirety.

Mr. BACHUS. Senator Shelby, let me make one final comment.

Senator SHELBY. Yes, sir.

Mr. BACHUS. Working on the Surface Transportation Committee, I have come to realize that when we talk about transportation projects, what we are really talking about is our future.

Senator SHELBY. That is right.

Mr. BACHUS. Without them, there will not be any economic growth in this area. With them, we and our children will continue

to prosper and a strong economy is a part of that equation. And that is not going to be—that will not happen unless we put the money behind the transportation infrastructure.

Senator SHELBY. We are going to make it happen working together. It has got to.

Thank you, gentlemen.

PANEL 2

NONDEPARTMENTAL WITNESSES

STATEMENTS OF:

WILLIAM BUECHNER, DIRECTOR, ECONOMICS AND RESEARCH, AMERICAN ROAD AND TRANSPORTATION BUILDERS ASSOCIATION

BARRY COPELAND, VICE CHAIRMAN, GOVERNMENTAL AFFAIRS, BIRMINGHAM AREA CHAMBER OF COMMERCE

J. FRANK FILGO, PRESIDENT, ALABAMA TRUCKING ASSOCIATION

AL GIBBS, DIRECTOR, CORPORATE AFFAIRS, AAA-ALABAMA

INTRODUCTION OF WITNESSES

Senator SHELBY. Our second panel will focus on the economic and safety benefits of Corridor X. We will have Mr. William Buechner, director of economics and research at the American Road and Transportation Builders Association. As I said earlier, Mr. Barry Copeland, vice chairman of government affairs, Birmingham Area Chamber of Commerce. Mr. Frank Filgo, president and CEO of Alabama Trucking Association and Mr. Al Gibbs, director of corporate affairs of the Alabama Chapter of the American Automobile Association.

Gentlemen, if you would come to the hearing table.

All of your written testimony will be made part of the record in its entirety for the purpose of this hearing and if you will sum up briefly your testimony, you have had the benefit of what was here today.

Mr. Buechner.

STATEMENT OF WILLIAM BUECHNER

Mr. BUECHNER. Thank you, Mr. Chairman. My name is William Buechner and I am the director of economics and research for the American Road and Transportation Builders Association.

Senator SHELBY. Do you want to take that microphone closer to you? It is not very sensitive.

Mr. BUECHNER. Mr. Chairman, before I begin my statement, I would like to express the appreciation of ARTBA and our members for your leadership in expanding Federal investment in highways, particularly the large increase provided for fiscal year 1998 in last year's appropriations bill. Your leadership has been instrumental in getting us to the funding level we enjoy today, and that is widely recognized and appreciated by our members.

ARTBA is a national association with more than 4,000 members representing virtually every segment of the transportation construction industry that has an interest in Federal investment in transportation infrastructure programs. We have 32 State chap-

ters, including a very strong chapter in Alabama, the Alabama Road Builders where we have a very long-time affiliation.

During the past year and a half, ARTBA has been doing a lot of research into economics and safety aspects of highways, and we want to represent some of the findings here this morning.

First, highways benefit a State in two ways. First is the short-term stimulus that the local economy gets from highway construction. The second and far more important is the long-term benefit as the new highway facilitates new business and expands the access of local firms to a larger market.

The transportation construction industry is a major American industry and a major source of jobs. According to the Department of Transportation, the industry of designing, building, maintaining, and manufacture—and managing the Nation's transportation infrastructure is a $140 billion industry, more than 60 percent of those expenditures are for highways, and in fact 70 percent of construction expenditures for transportation are for highways.

And to put this in perspective, this industry is about 50 percent larger than the output of all of the farms in the United States and it is about the same size as the electronics industry, including the entire computer industry. So it is a major industry in the American economy.

It is an industry that employs over 1.6 million people, which is about 1.3 percent of all of the payroll jobs in the United States, some of those jobs are with the private contractors who do the construction work, a number of the jobs are with the State and local transportation departments that maintain and manage the highways as well as jobs in the industries that supply materials and services to the highway contractors.

In Alabama, the industry employs over 27,000 people. Again, most of those are in design and construction and maintenance of the highway system, which is about 1½ percent of all the payroll jobs in the State. So it is an even more important industry in Alabama than it is for the rest of the country. And in general, these are very well paying jobs with average hourly earnings about 20 to 40 percent above jobs in other sectors of the economy.

You referred to a Tripp study this morning, we said that for every $1 billion of highway expenditures, about 1,000 jobs are created in Alabama. But that is kind of the trickle-down effect from spending this money anywhere in the country.

When a project is done here, the job creation impact is even much stronger and it is probably onsite, when the Corridor X project is being built, we are probably talking well above 1,000, plus there are the jobs in the supplier industries which add to that. And with a major company like Vulcan Materials right here in Birmingham, the impact on Alabama is going to be much bigger than the figure that Tripp was quoting.

But even more important for a State like Alabama is the long-term impact that a project like Corridor X can have on the State's economy.

Last year, ARTBA published a study on the importance of the Federal Highway Program to the economic prosperity of the individual States, and we have supplied a copy of that for the hearing record. We found using data from the 1993 Commodity Flow Sur-

vey which had just come out last year that 75 percent of all the product shipments in the United States are carried by truck, which means that the Nation's economy is overwhelmingly dependent on highways for transportation.

In Alabama, the figures show that the State's economy is even more dependent on highways than most of the rest of the Nation. In this State, 82.6 percent——

Senator SHELBY. Why is that? Go ahead, Mr. Buechner.

Mr. BUECHNER. Well, that is a good question. It is just—it is a good question, and I don't know that I can answer it. It may be the product composition and it may be the availability of alternatives, but I expect it is the product composition.

Senator SHELBY. That lends itself to surface transportation?

Mr. BUECHNER. To truck transportation.

And there are only six other States that are more dependent on highway transportation to ship their States' products to market than Alabama. And I will just—Arkansas, North and South Carolina, Georgia, Tennessee, and Wisconsin. Those are the only six States that depend more on highway transportation than Alabama does.

Senator SHELBY. And what are the others? Rail and air and water?

Mr. BUECHNER. Rail and air and ports, water shipment.

The reason why highways are so important is the effect that they have on cost savings and productivity growth for a State's business firms. About one-quarter of the growth in productivity after World War II is attributable to the expansion of our highway system, particularly the interstates.

What this means is that firms, having access to good roads, enjoy a cost and productivity advantage over those that do not. High transportation costs limit the size of a firm's market, which means that it cannot take advantage of the low cost and economy of scales that occur as a firm's volume of output grows. It takes the ability to produce for a national market to achieve the economies of scale and low production costs that makes a State's economy competitive, which is why, when a new highway opens up, you almost always see an explosion of economic activity.

So the completion of Corridor X should provide a strong platform for significant economic growth and development in northwestern Alabama.

There is another aspect of highway investment that is often overlooked which is that highway investments are investments that last for generations. The Commerce Department has just released its most recent figures on the fixed reproducible tangible assets of the United States, and they show that the economic life of a typical highway is 67 years before it has to be replaced. There is no other productive investment that lasts that long. Office buildings, commercial buildings, factories, 30 to 40 years, equipment 10 to 15 years, even computers like 3 to 5 years before they have to be replaced. The only other asset in the American economy that lasts so long is personal homes.

So it does not mean that highways do not have to be maintained any more than it means that homes do not have to be maintained.

What it means is that when you build a highway, you are building a productive asset that will last for three or four generations.

Finally, I want to say some words about safety to complement some of the comments that were made earlier.

The United States has one of the safest highway systems in the world. ARTBA is about to publish a major study on highway safety. We find that since the early 1950's, the fatality rate on U.S. highways has declined from 7 fatalities per 100 million miles traveled to 1.7. About a 75-percent decline.

If we had the same fatality rate today as we had in the early 1950's, more than 165,000 people a year would be killed on the Nation's highways today rather than 42,000.

The available evidence—I mean, there are lots of reasons for this, seatbelts, higher drinking age, improvements in automobile design. But the available evidence suggests that much of the improvement in highway safety during the past 40 years has been due to investment in building safer highways.

During the 1950's, most of our travel was on two-lane roads. These roads are much less safe than interstate quality highways. Even today, the fatality rate on local, rural two-lane highways is about five times the rate on interstate highways.

The good part of the reason for the decline in the fatality rate has been the shift in travel from unsafe roads to safe roads. The investment in highway improvements that we have made during the last 40 years, we calculate, has saved more than 2 million lives.

Looking at Alabama, we find some very interesting juxtaposition here. Alabama in 1996 had a fatality rate that was one-third higher than the national average.

Senator SHELBY. Say that again.

Mr. BUECHNER. The fatality rate per 100,000 vehicle-miles traveled in Alabama was one-third higher than the national average. This is Federal Highway Administration data.

Senator SHELBY. Were we the highest in the Nation?

Mr. BUECHNER. Not the highest, seventh highest.

Senator SHELBY. Who was the highest? Oh, boy, seventh highest?

Mr. BUECHNER. Seventh highest.

Senator SHELBY. OK.

Mr. BUECHNER. For fatalities.

At the other side——

Senator SHELBY. If you will furnish that data for the record.

Mr. BUECHNER. Pardon?

Senator SHELBY. If you will furnish that.

Mr. BUECHNER. I will supply that, yes.

At the other end, it had a nonfatal rate about two-thirds of the national average, which means accidents without fatalities much lower than the rest of the country, the fifth lowest.

And so what that suggests is that Alabama's drivers are among the safest in the Nation, but when they get into an accident, they are far more likely to be killed than drivers in other parts of the country.

In our view, the main culprit is the composition of the roads that Alabama drivers use. It is not that Alabama's roads are worse than anyone else's, it is that in Alabama there is a much smaller per-

centage of the total road mileage is interstate quality and a much higher percentage is the two-lane, rural roads.

And as a result, Alabamians do much less of their driving on interstate-quality roads, which have one-fifth the fatality rate as drivers in the rest of the Nation. In Alabama, 20 percent of vehicle-miles traveled are on interstate or interstate-quality roads, the rest of the country is 30 percent.

So Alabamians appear to have a higher fatality rate because they do more of their travel on roads that are not as safe and are not as forgiving when an accident occurs than drivers in the rest of the country.

So expanding the system of interstate-quality roads in Alabama by completing projects like Corridor X should not only have a beneficial impact on the economic growth and development of the northwestern part of the State, it should also have a big impact on highway safety and help save the lives of many Alabamians in the years to come.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Buechner. We have your written statement and it will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF WILLIAM R. BUECHNER

My name is William Buechner and I am the director of economics and research for the American Road and Transportation Builders Association.

Mr. Chairman, before I begin my statement, I would like express the appreciation of ARTBA and our members for your leadership in expanding federal investment in highways, particularly the large increase provided for fiscal year 1998 in last year's appropriations bill. Your leadership has been instrumental in getting us where we are today, and that is widely recognized and appreciated by our members.

ARTBA is a national association with more than 4,000 members from every segment of the transportation construction industry with an interest in federal investment in transportation infrastructure programs. We have 32 state chapters, including a long-time affiliation with the Alabama Road Builders, one of our strongest state chapters. I have a Ph.D. in Economics from Harvard University and I served for 22 years as a senior economist with the Joint Economic Committee of Congress before joining ARTBA, where I helped Committee members set up more than 300 hearings. This, however, is my first opportunity to appear as a witness before a Congressional committee and I am honored that it is before your committee and on such an important subject.

I want to thank you very much for this opportunity to testify on the economic benefits of highway investment, and I hope my comments will be useful as you evaluate the potential benefits of the Corridor X project.

During the past year and a half, ARTBA has been conducting research into the economic impact of transportation investment, particularly investment in highways, and we want to present some of the findings here this morning.

Highways benefit a state two ways. The first is the short-term stimulus to the local economy from highway construction. The second is the long-term benefit as the new highway facilitates new business and expands the access of local firms to a larger market.

The transportation construction industry is a major American industry and a major source of jobs.

Designing, building, maintaining and managing the nation's transportation infrastructure is a $140 billion industry, and more than 60 percent of those expenditures are for highways. To get a sense of the size of this industry and its economic importance, it is almost 50 percent larger than the entire farming sector, whose total output in 1997, according to the national income and product accounts, was $94 billion. The total value of the services of all the lawyers in the country was $105 billion. The total output of the electronics industry, which includes the computer industry,

was about $150 billion, virtually the same size as the transportation construction industry.

Transportation construction is an industry that employs 1.6 million people. Many of these jobs are with the private contractors who do the actual construction, but equally important are the jobs created in state and local transportation departments to maintain and manage the highways, and jobs in the industries that supply materials and services to the highway contractors.

In Alabama, transportation construction employs over 27,000 people, again most in the design, construction, maintenance and management of the state's highway system. That is about 1.5 percent of all of the jobs on nonfarm payrolls in Alabama, which is above the national average of 1.3 percent. In general, these are well-paid jobs, with average hourly earnings about 20 to 40 percent higher than those in other sectors of the economy.

And according to the Federal Highway Administration, each $1 billion of highway investment generates a total of 42,100 jobs, including the jobs at the construction site, the jobs in the supplier industries, and jobs that are induced by the increased economic activity. The cost to complete Corridor X is apparently in the range of $700 million, which means that at the peak of construction the number of new jobs created will approximate 10,000, including the jobs in supplier industries and the jobs generated as the new workers spend their wages in Alabama.

But even more important for a state like Alabama is the long-term impact that a project like Corridor X can have on the state's economy.

Last year, ARTBA published a study on the importance of the federal highway program to the economic prosperity of the individual states. We used data from the 1993 commodity flow survey, which had just been released by the Department of Transportation, to determine how much each state's economy depended on highway transportation to ship their products. This survey covered all shipments of products at both the factory and wholesale level, except for raw agricultural products.

We found that 75.1 percent of all product shipments in the United States are carried by truck, when measured by value of shipment. This means the nation's economy is overwhelmingly dependent on highways to transport freight from producer to destination. For years, advocates of highway investment have been saying that a strong economy depends on a first-class highway system. These data show just how important highways are, and I would like to submit a copy of the study for the hearing record.

For Alabama, the figures show that the state's economy is even more dependent on highways than most of the rest of the nation. 82.6 percent of the state's products are shipped by truck. In 1993, total product shipments by the Alabama economy came to $88.8 billion (with the strong growth in the economy since then, that figure would be above $100 billion today). Of that total, $73.4 billion was transported by truck. Only six other states are more dependent on highway transportation to get their products to market than Alabama—Arkansas, North and South Carolina, Georgia, Tennessee and Wisconsin—which indicates the potential importance of a project like Corridor X to the state's economy.

Economists have known for more than a decade and a half that investment in highways, particularly the core Interstate and National Highway System, has been an important source of cost savings and productivity growth for the nation's private business firms. A recent study by New York University for the Federal Highway Administration attributes about one-quarter of the growth of productivity after World War II to the expansion of our highway system.

What this means is that firms having access to good roads enjoy a cost and productivity advantage over those that don't. High transportation costs limit the size of a firm's market, which means it can't take advantage of the low costs and economies of scale that occur as a firm's volume of output grows. It takes the ability to produce for a national market to achieve the economies of scale and low production costs that make a state's economy competitive. When a new highway opens, there is almost always an explosion of economic activity as firms previously limited by inadequate roads now have access to a much larger market and can take advantage of economies of scale that simply weren't possible in a small local market.

The Appalachian Regional Development Act of 1965 recognized this even without the recent studies when it authorized construction of a new highway network that would connect the isolated and underdeveloped parts of Appalachia with the rest of the nation's economy. The act recognized that these highways "will open up an area or areas with a developmental potential where commerce and communication have been inhibited by lack of adequate access."

More recently, studies by the Appalachian Regional Commission, referred to in a recent floor statement by Senator Byrd, have found that "it is almost impossible for communities still awaiting completion of their segments of these highways to attract

businesses and investment opportunities to their areas, largely due to an inadequate transportation system inhibiting their access to the national markets."

Completion of the Corridor X project should provide a strong platform for significant economic growth and development in northwestern Alabama.

There is another aspect of highway investment that is often overlooked, which is that highways are investments that last for generations. Late last year, the Commerce Department released its most recent figures on the fixed reproducible tangible assets of the United States. The data showed that the useful economic life of a typical highway is 67 years before it has to be torn up and replaced. No other productive investment lasts as long. Office buildings and factories, for example, have an average useful life of 41 years and 32 years respectively. The only asset that lasts longer is personal homes. This doesn't mean a highway won't require any maintenance during those 67 years, any more than it means a home won't need maintenance. What it does mean is that a highway once built will benefit the economy for three or four generations before it has to be rebuilt.

I would also like to say a few words about the contribution of highway investment to safety.

The United States has one of the safest highway systems in the world. Since the early 1950's, the fatality rate on U.S. highways has declined from 7.0 fatalities per 100 million vehicle miles traveled to 1.7 in 1996. If we had the same fatality rate today as we had then, more than 165,000 people would be dying in highway accidents each year, rather than 42,000. The injury rate has also declined significantly, by more than half.

Some of the decline in highway fatalities has been due to the increased use of seatbelts and air bags, the higher drinking age and reduced drunk driving, and improvements in automobile design. But the available evidence suggests that much of the improvement in highway safety during the past 40 years has been due to investment in safer highways.

During the 1950's, virtually all travel in the United States was on 2-lane roads. These roads are much less safe than Interstate quality highways. For example, the fatality rate on rural local roads in 1996 was 3.67 per 100 million vehicle miles traveled, compared to 0.76 on the Interstate Highway System—almost five times as dangerous. The interstates and similar highways have much wider lanes, better visibility, wide shoulders, directional dividers, and a variety of other safety features that make them far more forgiving even at high speeds than 2-lane and unimproved four-lane roads.

Today, over thirty percent of all vehicle miles traveled are on the Interstate Highways and Interstate-quality roads. This shift in travel from relatively unsafe to relatively safe roads has been a major contributor to the reduction in the highway fatality rate since the early 1950's. Our nation's investment in highway improvements during the past 40 years has saved more than 2 million lives.

Looking at Alabama, Alabama in 1996 had a fatality rate that was one-third higher than the national average but, at the same time, it had a non-fatal accident rate that was less than two-thirds of the national average. Alabama, in fact, had the seventh-highest fatality rate among the states, but the fifth-lowest accident rate. These figures suggest that Alabama's drivers are among the safest in the country, but when they get into an accident they are far more likely to be killed than in other parts of the country.

I think the main culprit is the composition of Alabama's roads. The number of miles of Interstate and Interstate-quality highways in Alabama is a much smaller fraction of total highway mileage than in the rest of the nation—less than one percent in Alabama compared to almost one-and-one-half percent in the rest of the country—and, as a result, Alabamans do much less of their driving on Interstate quality roads than drivers in the rest of the nation—20 percent versus 30 percent.

Alabamans thus appear to have a higher fatality rate because they do more of their travel on roads that are not as safe and are less forgiving when an accident occurs than drivers in the rest of the country. ARTBA's research indicates that every $9,000 invested by the federal government in highway construction and improvements during the post-war period eliminated one non-fatal injury and every $320,000 saved a life.

Expanding the system of Interstate-quality roads in Alabama by completing projects like Corridor X should not only have a beneficial impact on the economic growth and development of the northwestern part of the state, it should also have a big impact on highway safety and help save the lives of many Alabamans in the years to come.

Mr. Chairman, I hope this information is useful to you and I will be happy to answer any questions.

THE ROAD TO PROSPERITY: THE IMPORTANCE OF THE FEDERAL HIGHWAY PROGRAM TO THE ECONOMIC PROSPERITY OF INDIVIDUAL STATES

(A study prepared by the Economics and Research Division of the American Road and Transportation Builders Association)

EXECUTIVE SUMMARY

During the past decade, numerous studies have demonstrated that public investment in highways has contributed significantly to the nation's economic growth by lowering transportation costs and increasing private sector productivity. Although creation of the Federal-aid highway program by Congress preceded this research by some decades, this important federal program is clearly built on the recognition that a good highway system is a critical component of a healthy economy.

State governments are also well aware that highways make an important contribution to a healthy state economy by lowering transportation costs within the state and providing efficient transportation for state residents. But the federal-aid highway program is under attack, despite its proven contribution to the nation's economic growth and prosperity. Serious proposals have been made that would withdraw our government's long-standing commitment to build and maintain a high quality national highway system. The ultimate example of the threat is a bill introduced by Senator Connie Mack (R-FL) and Congressman John Kasich (R-OH) to dismantle most of the federal-aid highway program and turn most highway responsibilities over to the states.

One factor contributing to this attack on the federal highway program is that little information exists on how much each state's economy depends on the transportation services provided by highways, particularly highways located in other states. What fraction of each state's products is shipped by truck over highways? How much is shipped only on its own highways and how much is shipped over the highways of other states? How vulnerable is each state's economy to highway decisions made by policymakers in other states?

The purpose of this study is to determine how much the economy of each state depends on out-of-state highways, i.e., our national system of highways. The importance of highways to state economies can be measured by the percent of the state's products shipped by truck. Products shipped entirely within a state use only the state's own highway system. Products shipped to destinations in other states by truck depend on out-of-state highways and thus benefit from a national system. Based on data from the 1993 Commodity Flow Survey, this study uses the percent of a state's products shipped to out-of-state markets by truck to measure the state's economic benefit from a national highway system.

Figure 1 illustrates that state economies depend heavily on highways, and out-of-state highways in particular, to ship their products. The study findings include:

—Nationwide, 75.1 percent of the value of products are shipped by truck, while 24.9 percent use some other mode such as rail or air or a multi-modal combination.[1]

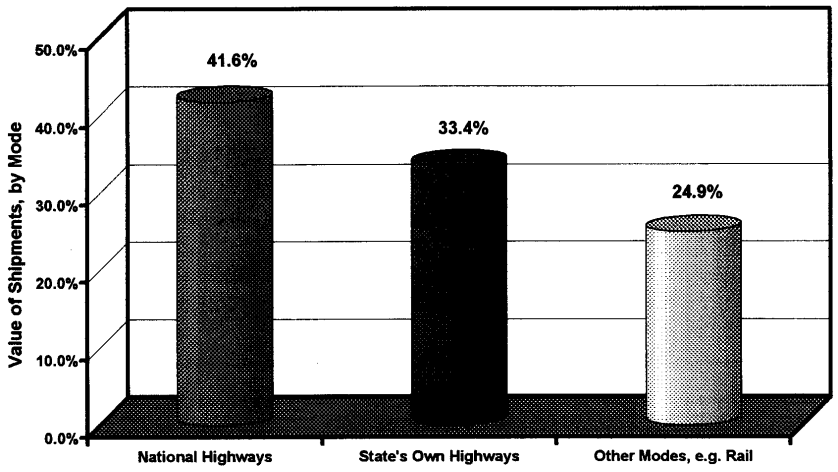
—One third of products by value are shipped by truck entirely within the originating state and thus depend only on the state's own highway system for transportation.

—Almost 42 percent of the total value of products are shipped out-of-state by truck and thus depend on the highways of other states. This means the economies of the individual states, on average, rely even more heavily on out-of-state highways, or the "national" highway system, to ship products to their ultimate markets than on their own highways.

—Some states are more dependent than others on highway transportation to move their products. The attached table summarizes the importance of highways to the economies of the individual states. In the table, the states are ranked according to their dependence on the national highway system, as measured by the percent of the state's products that are shipped out-of-state by truck.

[1] When measured by tons or ton-miles, the truck share is smaller, largely because other modes like rail carry more high-weight but low-value products.

Fig. 1 State Economic Dependence on Highways
Average for 50 States



STATE ECONOMIC DEPENDENCE ON HIGHWAYS

State	Percent of all State products shipped by truck ranked by percent shipped out-of-State		
	Out-of-State	In-State	Total
Arkansas	63.1	24.5	87.6
Tennessee	62.5	21.4	84.0
South Carolina	59.0	27.7	86.7
Mississippi	58.0	24.2	82.2
Delaware	56.4	13.9	70.3
Nevada	56.2	24.4	80.5
Kentucky	56.0	21.2	77.2
Rhode Island	55.8	16.9	72.8
Connecticut	54.9	18.1	73.0
Georgia	53.9	30.8	84.7
Kansas	53.6	21.5	75.0
Indiana	53.5	23.8	77.3
Maryland	53.4	27.4	80.8
Nebraska	53.3	27.0	80.3
North Carolina	52.7	34.3	87.1
New Jersey	52.7	25.5	78.2
Wisconsin	52.6	31.2	83.8
Alabama	52.4	30.3	82.6
Pennsylvania	50.0	30.6	80.6
Missouri	49.6	22.9	72.5
Iowa	48.9	31.4	80.3
Virginia	48.1	33.1	81.3
West Virginia	47.3	17.6	64.9
New Hampshire	47.2	19.6	66.8
Illinois	46.6	28.0	74.6
Ohio	45.3	31.6	76.9
South Dakota	44.7	35.5	80.1
Maine	44.1	30.5	74.6
Massachusetts	43.6	28.4	72.0

STATE ECONOMIC DEPENDENCE ON HIGHWAYS—Continued

State	Percent of all State products shipped by truck ranked by percent shipped out-of-State		
	Out-of-State	In-State	Total
Idaho	43.0	27.5	70.5
Vermont	42.5	32.4	75.0
New York	41.4	34.6	76.0
Utah	40.5	29.2	69.7
Oklahoma	39.4	28.8	68.2
Minnesota	37.8	32.9	70.7
Colorado	37.3	37.2	74.6
Michigan	35.1	41.9	76.9
Arizona	34.8	37.4	72.2
North Dakota	31.1	32.2	63.2
Oregon	30.8	33.4	64.3
Washington	25.7	39.0	64.7
New Mexico	25.7	39.8	65.5
Texas	24.6	43.7	68.3
Louisiana	22.0	26.5	48.5
Florida	21.8	55.9	77.6
California	21.2	46.3	67.5
Montana	19.6	42.1	61.7
Wyoming	12.9	16.9	29.8
Alaska	0.6	44.1	44.7
Hawaii	.....	61.4	61.4
U.S. average	41.6	33.4	75.1

Source: U.S. DOT. 1993 Commodity Flow Survey, Tables 1 and 8.

—Arkansas is the most highway-dependent state, shipping more than 87 percent of its products by truck. Another 14 states—led by North and South Carolina, Tennessee and Georgia—ship 80 percent of their products by highway, while only three states—Wyoming, Alaska, and Louisiana—ship less than half of their products by highway.

—Arkansas is also the state most dependent on national highways, shipping 63 percent of its products by truck out of state, followed by Tennessee, South Carolina, and Mississippi. Altogether, 19 states ship more than 50 percent of their products by truck on out-of-state highways.

The core strategy for reauthorization of the Federal highway program should be to preserve and strengthen the national highway system, since the economic prosperity of the vast majority of states depends even more on out-of-state highways than on in-state highways. Devolving the highway program to the states would be self-defeating in the long run even for states whose own resources for highways might exceed their share of federal highway funds, if higher transportation costs and limited access to markets for the state's products resulted from a deterioration in the quality of the nation's highway system. Ultimately, the state's output and income would fall below the potential that could be attained with an excellent national highway system.

In economic terms, the goal of federal highway funding should be to allocate resources in such a way as to maximize the national benefit from the highway system. This means looking at our national highways as a single unit and allocating federal resources wherever they are needed to yield the best possible national system. What each state should do is ask what kind of highway system is necessary for maximizing the state's economic prosperity—by minimizing the transportation cost and maximizing the market penetration of the products made in the state, to both in-state and out-of-state markets. Each state should then work toward a distribution of federal highway funds that achieves this goal.

ABOUT THE AUTHOR [2]

Dr. William R. Buechner is director of economics and research for the American Road and Transportation Builders Association in Washington, D.C. He has a Ph.D. in economics from Harvard University and was senior economist for the Joint Economic Committee of Congress for 22 years. Dr. Buechner can be reached for questions or comments at 202–289–4434 or via e-mail at wbuechner@www.artba-hq.org.

INTRODUCTION—THE THREAT TO THE NATION'S HIGHWAY SYSTEM

During the past decade, numerous studies have demonstrated that public investment in highways has contributed significantly to the nation's economic growth by lowering transportation costs and increasing private sector productivity. Although creation of the Federal-aid highway program by Congress preceded this research by some decades, this important federal program is clearly built on the recognition that a good highway system is a critical component of a healthy economy.

State governments are also well aware that highways make an important contribution to a healthy state economy. Good highways attract businesses to a state by reducing the cost of transporting raw materials and products. Highways will become even more critical to state economic performance as companies increase their use of just-in-time and other cost-cutting logistics. The quality of a state's highway system also has a significant impact on workers and consumers, particularly as it affects the economic cost of delays and congestion and the safety of highway users. In addition, a good highway system can help improve the environment, since cars are at their least efficient burning fuel when idling in traffic jams. From almost every perspective, highways are the catalyst that make a state's economy go.

Building and maintaining highways costs money. A significant part of this comes from the federal government—financed by the federal gasoline tax and other highway user fees. Each time the motorist pulls up to the gasoline pump, twelve cents per gallon of the price goes into the Highway Trust Fund.[3] This is distributed back to the states according to a complex formula for investment in highways. Currently, the funding level for the federal highway program is almost $20 billion a year. The only federal program distributing more money to the states is Medicaid. Although the President's budget for fiscal year 1998 calls for keeping Federal outlays for highways just under $20 billion per year through fiscal year 2002, ARTBA and its allies in the transportation construction industry—as well as many influential members of Congress—are urging a substantial increase.

The federal-aid highway program, however, is under attack, despite its proven contribution to the nation's economic growth and prosperity. The current law authorizing the federal-aid program—the Intermodal Surface Transportation Efficiency Act (ISTEA)—expires on September 30, 1997. A new law must be enacted in order for the program to continue into fiscal year 1998 and beyond.

While most Members of Congress support reauthorization of the federal program, serious proposals have been made that would withdraw our government's longstanding commitment to build and maintain a high quality national highway system. The ultimate example of the threat is a bill introduced by Senator Connie Mack (R-FL) and Congressman John Kasich (R-OH) to dismantle most of the federal-aid highway program and turn most highway responsibilities over to the states. Most of the federal highway gasoline tax would be repealed, leaving highway funding decisions up to individual states. Less radical approaches that have also gained advocates would turn large parts of the federal highway program into a block grant that states could use for highway needs as they wish.

ECONOMIC IMPORTANCE OF HIGHWAYS TO STATE PROSPERITY

What such proposals overlook is the economic importance of a nation-wide highway system and how much each state's economic prosperity depends on the transportation services provided by highways, especially those that lay beyond its own boundaries. While a top-quality highway system is essential to a state's economic prosperity, no state economy could survive without access to markets throughout the rest of the country. Not only are top-quality highways in other states an essential element of state economic prosperity, for some states, in fact, data suggest that out-of-state highways may be even more important for the state's economic prosperity than the state's own highways. In this case, a state may find that the benefits

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[2] Mr. Felix Ammah-Tagoe of the Bureau of Transportation Statistics provided valuable comments. Any remaining errors are my own.

[3] Although the federal gasoline tax is 18.3 cents per gallon, 2 cents per gallon goes into the Highway Trust Fund to be used for mass transit and 4.3 cents per gallon is diverted into the Treasury's general fund.

of higher investment in the national highway system could greatly exceed the benefits of a ''better'' distribution formula for federal highway funds. But no state could be expected to recognize the importance of investment in a national highway system without information about the contribution of highway transportation to the state's economy.

The purpose of this study is to determine how much the economy of each state depends on out-of-state highways, i.e., our national system of highways. The study addresses a number of questions that bear on this issue: What fraction of each state's products is shipped by truck? How much is shipped only on its own highways and how much is shipped over the highways of other states? How vulnerable is each state's economy to highway decisions made by policymakers in other states?

There are numerous ways products can be shipped—by rail, air, barge, truck or some combination. The basic indicator used by this study to measure the contribution of highways to state prosperity is the percent of the state's products by value that are shipped by truck.[4] This overall measure of the importance of highways is then allocated into two parts—the percent of shipments carried by trucks that begin and end entirely within the same state and the percent that begin in one state and end in another. This division makes it possible to measure the importance of out-of-state highways to each state's economy. Products shipped by truck entirely within a state are carried only on the state's own highways and don't use out-of-state highways. Products shipped by truck to destinations in other states, by contrast, require the use of out-of-state highways and thus benefit from a national system. For this study, the percent of a state's total shipments that are carried to out-of-state markets by truck serves to measure the state's benefits from the existence of a national highway system.

The data for this study were drawn from the 1993 Commodity Flow Survey, which the Bureau of Transportation Statistics and the Bureau of the Census conducts every five years as part of the Economic Census program. For each state, the Commodity Flow Survey provides detailed information on total shipments by establishments in mining, manufacturing, wholesale, and selected retail and service industries by mode of transportation and by destination.[5] These data were used to compute for each state the percent of all products shipped by truck, both to in-state destinations and to out-of-state destinations. These results were used to measure the contribution of highway transportation to each state's economic prosperity.

STATE ECONOMIC DEPENDENCE ON TRUCK TRANSPORTATION

Table 1 shows that the vast majority of states are heavily dependent on highway truck transportation for product shipments. For each state, Table 1 reports (1) the total value of product shipments originating in the state, (2) the total value of products shipped by truck, and (3) the percent of products shipped by truck. Table 1 lists states in descending order according to the percent of products shipped by truck.

Table 1 shows that, but for three states, more than 60 percent of each state's products by value are shipped by truck and thus depend on highways as the mode of transportation. This ranges from a low of 29.8 percent for Wyoming to a high of 87.6 percent for Arkansas. For the nation as a whole, 75.1 percent of products by value are shipped over highways. This means that only one-quarter of products by value in this country are shipped by a mode of transportation other than truck, such as rail or air.

Table 1 does not include products shipped by truck-based multi-modal systems, such as truck-rail or truck-air, or the truck share of parcel post and courier services, because the truck share of these forms of shipments is not split out. In addition, shipments by governments are not covered by the Commodity Flow Survey. The tables in this study thus present the minimal or most conservative measure of the contribution of highway-based transportation to state economies.

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[4] While value of shipments by truck provides the best measure of the contribution of highways to state economic prosperity, ton-miles shipped by truck would provide a better indicator of highway needs, including both initial pavement requirements and subsequent maintenance expenditures.

[5] The Commodity Flow Survey does not cover shipments of raw agricultural products from farm to processing plants like grain elevators, but does cover shipments of food and kindred products from processing plants through the manufacturing, wholesale and retail levels.

TABLE 1.—STATE ECONOMIC DEPENDENCE ON HIGHWAYS

[Percent of State's products shipped by truck]

State	Ranked by percent shipped by truck		
	Total value of product shipments (millions)	Value shipped by truck	
		(Million)	(Percent)
Arkansas	$66,954	$58,661	87.6
North Carolina	209,398	182,302	87.1
South Carolina	83,621	72,531	86.7
Georgia	210,143	177,921	84.7
Tennessee	170,056	142,788	84.0
Wisconsin	143,318	120,103	83.8
Alabama	88,845	73,412	82.6
Mississippi	56,268	46,263	82.2
Virginia	114,590	93,116	81.3
Maryland	98,508	79,553	80.8
Pennsylvania	248,758	200,525	80.6
Nevada	19,597	15,785	80.5
Nebraska	42,534	34,168	80.3
Iowa	79,900	64,169	80.3
South Dakota	9,585	7,682	80.1
New Jersey	252,790	197,627	78.2
Florida	172,045	133,567	77.6
Indiana	178,704	138,203	77.3
Kentucky	112,047	86,546	77.2
Michigan	256,289	197,153	76.9
Ohio	325,626	250,395	76.9
New York	261,894	199,006	76.0
Kansas	70,519	52,923	75.0
Vermont	8,599	6,445	75.0
Illinois	346,604	258,562	74.6
Colorado	58,765	43,816	74.6
Maine	20,233	15,085	74.6
Connecticut	71,357	52,075	73.0
Rhode Island	19,475	14,174	72.8
Missouri	136,929	99,285	72.5
Arizona	68,569	49,497	72.2
Massachusetts	111,722	80,467	72.0
Minnesota	110,180	77,928	70.7
Idaho	16,518	11,645	70.5
Delaware	16,140	11,340	70.3
Utah	35,599	24,818	69.7
Texas	451,847	308,561	68.3
Oklahoma	48,702	33,214	68.2
California	638,523	430,764	67.5
New Hampshire	16,465	11,002	66.8
New Mexico	11,794	7,721	65.5
West Virginia	34,924	22,673	64.9
Washington	123,245	79,757	64.7
Oregon	81,939	52,661	64.3
North Dakota	10,528	6,657	63.2
Montana	10,167	6,272	61.7
Hawaii	11,462	7,033	61.4
Louisiana	96,194	46,621	48.5
Alaska	8,120	3,631	44.7
Wyoming	9,012	2,690	29.8

TABLE 1.—STATE ECONOMIC DEPENDENCE ON HIGHWAYS—Continued

[Percent of State's products shipped by truck]

State	Ranked by percent shipped by truck		
	Total value of product shipments (millions)	Value shipped by truck	
		(Million)	(Percent)
U.S. total	5,845,601	4,388,793	75.1

Source: U.S. DOT. 1993 Commodity Flow Survey. Table 1.

The fact that 75 percent of products by value are shipped to their destination by truck does not mean these products require highway transportation. Most could probably be shipped by some other mode if the appropriate highways did not exist or were too costly. But for-profit companies generally choose the least-costly mode of transportation to move their products to market. The current evidence indicates that for 75 percent of products the least-cost mode of transportation is by truck over the nation's highways. While other modes could ultimately deliver these products to their destinations, the transportation costs would be higher and our national standard of living would thus be lower.[6]

STATE DEPENDENCE ON IN-STATE VERSUS OUT-OF-STATE HIGHWAYS

The next question is how much each state makes use of the national highway system to ship products to markets beyond the state's own borders. To estimate the dependence of state economies on a national highway system, this study break each state's total highway use into two categories according to the final destination of the product—(1) products shipped entirely within the originating state and (2) products shipped to other states.

This study assumes that products shipped entirely within the originating state make use only of highways lying within the state's boundaries. If we assume that each state has a goal of maximizing state output and income by providing the least costly system for transporting products within the state, the states alone could be responsible for highways since each state would develop a highway system that is optimal for the needs of its own state economy. There is no apparent role for the federal government in building or funding highways to facilitate product movements that occur entirely within individual states. The final result—fifty separate state highway systems—would be optimal for the nation, however, only if each state were a closed economy, that is with no shipments of products to or from other states.

Table 2 shows how much of each state's economy consists of products that are shipped entirely within the state. In addition to data on the total value of all shipments from the first column of Table 1, Table 2 presents data for each state on (2) the value of products shipped entirely within-state, (3) the value of products shipped within-state by truck and (4) the percent of all products shipped within-state by truck.

The final column in Table 2 thus provides an estimate of the fraction of each state's economy that operates using just the state's own highway system. For most states, this amounts to only a fraction of the state's current value of product shipments.

TABLE 2.—STATE ECONOMIC DEPENDENCE ON INSTATE HIGHWAYS

[Percent of State's products shipped in-State by truck]

State	Total value of product shipments (millions)	Value of products shipped in-State		In-State shipments by truck as percent of total shipments (percent)
		Total (millions)	By truck (millions)	
Hawaii	$11,462	$10,616	$7,033	61.4

[6] This would not be the case if highway transportation were subsidized more heavily than other modes of transportation. But highways are generally financed by user fees such as taxes on gasoline and diesel fuels, tolls, etc. If subsidies for highways exist, they would be relevant only in comparison with subsidies for other modes.

TABLE 2.—STATE ECONOMIC DEPENDENCE ON INSTATE HIGHWAYS—Continued

[Percent of State's products shipped in-State by truck]

State	Total value of product shipments (millions)	Value of products shipped in-State		In-State shipments by truck as percent of total shipments (percent)
		Total (millions)	By truck (millions)	
Florida	172,045	108,737	96,105	55.9
California	638,523	390,988	295,410	46.3
Alaska	8,120	6,558	3,584	44.1
Texas	451,847	271,287	197,271	43.7
Montana	10,167	5,389	4,276	42.1
Michigan	256,289	122,712	107,265	41.9
New Mexico	11,794	5,700	4,694	39.8
Washington	123,245	68,745	48,125	39.0
Arizona	68,569	29,272	25,627	37.4
Colorado	58,765	24,898	21,873	37.2
South Dakota	9,585	3,839	3,402	35.5
New York	261,894	107,813	90,685	34.6
North Carolina	209,398	79,789	71,847	34.3
Oregon	81,939	33,992	27,395	33.4
Virginia	114,590	41,861	37,963	33.1
Minnesota	110,180	44,081	36,245	32.9
Vermont	8,599	2,940	2,787	32.4
North Dakota	10,528	3,948	3,388	32.2
Ohio	325,626	121,973	102,954	31.6
Iowa	79,900	28,082	25,108	31.4
Wisconsin	143,318	50,305	44,735	31.2
Georgia	210,143	69,671	64,621	30.8
Pennsylvania	248,758	87,707	76,031	30.6
Maine	20,233	6,972	6,165	30.5
Alabama	88,845	30,050	26,878	30.3
Utah	35,599	12,900	10,408	29.2
Oklahoma	48,702	16,783	14,016	28.8
Massachusetts	111,722	37,469	31,708	28.4
Illinois	346,604	117,910	97,218	28.0
South Carolina	83,621	25,512	23,168	27.7
Idaho	16,518	5,256	4,550	27.5
Maryland	98,508	30,521	26,984	27.4
Nebraska	42,534	12,357	11,477	27.0
Louisiana	96,194	47,385	25,500	26.5
New Jersey	252,790	79,196	64,413	25.5
Arkansas	66,954	17,584	16,434	24.5
Nevada	19,597	5,081	4,776	24.4
Mississippi	56,268	16,174	13,644	24.2
Indiana	178,704	50,699	42,545	23.8
Missouri	136,929	36,318	31,356	22.9
Kansas	70,519	17,839	15,128	21.5
Tennessee	170,056	43,550	36,450	21.4
Kentucky	112,047	27,314	23,748	21.2
New Hampshire	16,465	3,651	3,233	19.6
Connecticut	71,357	14,820	12,896	18.1
West Virginia	34,924	8,874	6,163	17.6
Rhode Island	19,475	4,062	3,298	16.9
Wyoming	9,012	2,630	1,524	16.9
Delaware	16,140	2,388	2,240	13.9

TABLE 2.—STATE ECONOMIC DEPENDENCE ON INSTATE HIGHWAYS—Continued

[Percent of State's products shipped in-State by truck]

State	Total value of product shipments (millions)	Value of products shipped in-State		In-State shipments by truck as percent of total shipments (percent)
		Total (millions)	By truck (millions)	
U.S. total	5,845,601	2,394,198	1,954,344	33.4

Source: U.S. DOT. 1993 Commodity Flow Survey, Tables 1 and 8.

Table 2 shows that, nationwide, just one-third of all products by value are shipped entirely within the originating state by truck. This ranges from a low of 13.6 percent for Delaware to a high of 61.4 percent for Hawaii. Among mainland states, only Florida ships more than half of its products entirely within the state by truck. These shipments, since they originate and end entirely within a single state, do not make use of out-of-state highways. The highway systems of individual states would suffice.

Product shipments by truck to other states, by contrast, require the use of out-of-state highways to reach their destination. Theoretically, it would be possible for the states acting together to develop highway systems to move products across state lines. This would be easiest, but still not easy, for states that share a common border, since they share a common interest in minimizing the transportation costs of shipping goods from producers to consumers.[7] But it would be immensely difficult for the states to coordinate the development of a multi-state highway system which facilitates shipments among non-adjacent states, since states have no economic interest in minimizing the transportation cost for shipments that neither originate nor end within their borders. In a federal system like ours, a strong case can be made that only the federal government has an interest in developing a national highway system that minimizes the cost of transporting goods among non-adjacent states.[8]

Table 3 presents data for each state on total out-of-state shipments by truck, including shipments to both adjacent and non-adjacent states, with states listed in descending order of dependence on out-of-state highways. This table shows how much of the economic activity in each state depends on the national highway system for access to markets in other states.

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[7] In theory, a highway system to accommodate flows between adjacent states could be developed entirely at the state level without federal participation. The only requirement is that both shipping and receiving states recognize the benefits of minimizing transportation costs. The shipping state would benefit from expanded markets for its products, thus increasing the real incomes of producers, while the receiving state would benefit from expanded sources of supply for purchasers, thus reducing prices and raising real incomes for its households. The same would hold true for shipments in the opposite direction. The results would be a mini version of the benefits from trade, with both producers and households in both states better off. The main bargaining issue between adjacent states would be the distribution of the costs of an integrated highway system, since that would affect the distribution of the net benefits between the two states.

This process becomes more complex, however, when it is recognized that most states border more than one other state. A state highway system that minimizes transportation costs with one adjacent state may not minimize transportation costs with another adjacent state. Florida is a simple case, since it borders only two states. An integrated system that minimizes shipping costs between Florida and Georgia might be less than optimal between Florida and Alabama or Alabama and Georgia. Beyond that, Georgia would have an interest in also accommodating trade with North and South Carolina, while Alabama would also want to take into account its own economic interests in trade with Mississippi and Tennessee. Tennessee would face the most complex task, since it is bordered by eight other states, each of which is bordered by numerous other states. To the extent that development of integrated highways between adjacent states were hampered by complex relationships between multiple border states, their economies would be negatively affected.

[8] The most complex problems involve shipments between non-adjacent states. While states have an economic interest in developing highways to transport goods to and from adjacent states, they have no inherent interest in shipments that neither originate or end within the state. Why, for example, would taxpayers in Georgia spend any of their own money on highways that would minimize the cost of shipping products from Florida producers to South Carolina markets? Why would any state spend its own money to facilitate trans-state shipments? States would augment their own state highway systems to accommodate trans-shipments only if they were paid to do so. But the potential costs and risks of leaving this up to the states indicate the need for federal involvement in developing a national highway system.

Overall, about 42 percent of all products by value are shipped out of state by truck. This means that states on average are significantly more dependent on out-of-state highways to transport products to their ultimate markets than on their own state highway systems. Dependence on highways to transport products out of state varies from a low of 13 percent of shipments by value for Wyoming to 63 percent for Arkansas.

The following map, based on Table 3, suggests how much each state's economy could suffer if the federal government's responsibility for developing and maintaining a national highway system were to be dismantled and replaced by a system where the states were responsible for funding and managing their own highway systems. For 19 states, half or more of the state's products by value are shipped to out-of-state destinations by truck. The economies of these states are thus more dependent on the national highway system than on all other forms of transportation combined, including their own state highways and non-highway-based modes such as air or rail. Any change in policy that could result in a deterioration of the national highway system will reverberate throughout their state economies, increasing the transportation costs for their producers and reducing their access to out-of-state markets. Another 19 states depend on the national highway system to ship a third or more of their products to out-of-state markets. The economies of these states would also be seriously affected by a deterioration of the national highway system.

AN INDEX OF NATIONAL HIGHWAY DEPENDENCE

As a final step in measuring the contribution of our national highway system to the economy of each state, Table 4 presents an index of national highway dependence. The index number for each state is the ratio of the percent of products shipped out-of-state by truck to the percent of products shipped within-state by truck. An index number greater than 1 indicates that more of the state's economy depends on the national highway system than on the state's own highway system for transportation. The higher the index number, the greater is the state's dependence on the national highway system. The economy of Delaware, for example, is four times as dependent on national highways to transport its products than on Delaware's own highways. Rhode Island, Connecticut and Tennessee are about three times as dependent on the national highway system as on their own highways. The Colorado economy, by contrast, is equally dependent on in-state and out-of-state highways, while only 12 states are more dependent on their own highways than on the national highway system. On average, state economies are 25 percent more dependent on the national highway system than on their own highway systems to ship their products.

Products Shipped Out of State by Truck

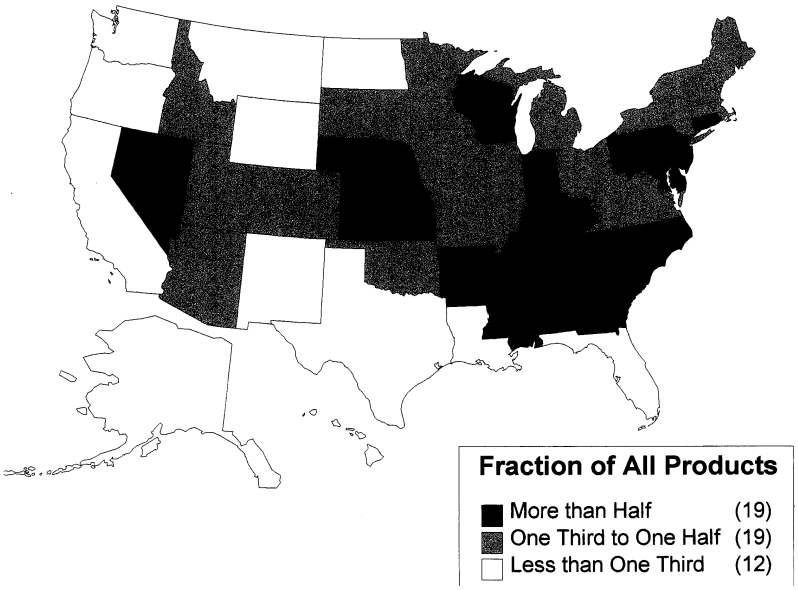

TABLE 3.—STATE ECONOMIC DEPENDENCE ON NATIONAL HIGHWAY SYSTEM

[Percent of State's products shipped out-of-State by truck]

State	Total value of product shipments (million)	Value of out-of-State shipments by truck			Out-of-State ship. by truck as percent of total shipments (percent)
		To adjacent States (million)	To nonadjacent States (million)	Total (million)	
Arkansas	$66,954	$20,111	$22,116	$42,227	63.1
Tennessee	170,056	37,367	68,971	106,338	62.5
South Carolina	83,621	16,662	32,701	49,363	59.0
Mississippi	56,268	10,472	22,147	32,619	58.0
Delaware	16,140	3,778	5,322	9,100	56.4
Nevada	19,597	7,315	3,694	11,009	56.2
Kentucky	112,047	26,941	35,857	62,798	56.0
Rhode Island	19,475	4,196	6,680	10,876	55.8
Connecticut	71,357	13,596	25,583	39,179	54.9
Georgia	210,143	61,697	51,603	113,300	53.9
Kansas	70,519	11,538	26,257	37,795	53.6
Indiana	178,704	46,388	49,270	95,658	53.5
Maryland	98,508	19,312	33,257	52,569	53.4
Nebraska	42,534	6,184	16,507	22,691	53.3
North Carolina	209,398	36,890	73,565	110,455	52.7
New Jersey	252,790	49,300	83,914	133,214	52.7
Wisconsin	143,318	29,803	45,565	75,368	52.6
Alabama	88,845	17,615	28,919	46,534	52.4
Pennsylvania	248,758	58,136	66,358	124,494	50.0
Missouri	136,929	26,094	41,835	67,929	49.6
Iowa	79,900	17,309	21,752	39,061	48.9
Virginia	114,590	17,795	37,358	55,153	48.1
West Virginia	34,924	7,1 16	9,394	16,510	47.3

TABLE 3.—STATE ECONOMIC DEPENDENCE ON NATIONAL HIGHWAY SYSTEM—Continued

[Percent of State's products shipped out-of-State by truck]

State	Total value of product shipments (million)	Value of out-of-State shipments by truck			Out-of-State ship. by truck as percent of total shipments (percent)
		To adjacent States (million)	To nonadjacent States (million)	Total (million)	
New Hampshire	16,465	2,517	5,252	7,769	47.2
Illinois	346,604	48,834	112,517	161,351	46.6
Ohio	325,626	58,972	88,469	147,441	45.3
South Dakota	9,585	2,078	2,202	4,280	44.7
Maine	20,233	822	8,098	8,920	44.1
Massachusetts	111,722	16,894	31,865	48,759	43.6
Idaho	16,518	2,426	4,669	7,095	43.0
Vermont	8,599	1,271	2,387	3,658	42.5
New York	261,894	47,668	60,653	108,321	41.4
Utah	35.599	3,585	10,825	14,410	40.5
Oklahoma	48,702	8,777	10,421	19,198	39.4
Minnesota	110,180	11,834	29,849	41,683	37.8
Colorado	58,765	6,311	15,632	21,943	37.3
Michigan	256,289	28,734	61,154	89,888	35.1
Arizona	68,569	12,537	11,333	23,870	34.8
North Dakota	10,528	1,783	1,486	3,269	31.1
Oregon	81,939	16,641	8,625	25,266	30.8
Washington	123,245	6,868	24,764	31,632	25.7
New Mexico	11,794	1,804	1,223	3,027	25.7
Texas	451,847	26,050	85,240	111,290	24.6
Louisiana	96,194	8,308	12,813	21,121	22.0
Florida	172,045	7,071	30,391	37,462	21.8
California	638,523	23,893	111,461	135,354	21.2
Montana	10,167	771	1,225	1,996	19.6
Wyoming	9,012	663	503	1,166	12.9
Alaska	8,120	0	47	47	.6
Hawaii	11,462	.....	.....	.....	.....
U.S. total	5,845,601	892,727	1,541,729	2,434,456	41.6

Source: U.S. DOT. 1993 Commodity Flow Survey, Tables 1 and 8.

TABLE 4.—INDEX OF NATIONAL HIGHWAY DEPENDENCE

State	Percent of State products shipped by truck		Index of national highway dependence
	Out-of-State	In-State	
Delaware	56.4	13.9	4.06
Rhode Island	55.8	16.9	3.30
Connecticut	54.9	18.1	3.04
Tennessee	62.5	21.4	2.92
West Virginia	47.3	17.6	2.68
Kentucky	56.0	21.2	2.64
Arkansas	63.1	24.5	2.57
Kansas	53.6	21.5	2.50
New Hampshire	47.2	19.6	2.40
Mississippi	58.0	24.2	2.39
Nevada	56.2	24.4	2.31
Indiana	53.5	23.8	2.25
Missouri	49.6	22.9	2.17
South Carolina	59.0	27.7	2.13

TABLE 4.—INDEX OF NATIONAL HIGHWAY DEPENDENCE—Continued

State	Percent of State products shipped by truck		Index of national highway dependence
	Out-of-State	In-State	
New Jersey	52.7	25.5	2.07
Nebraska	53.3	27.0	1.98
Maryland	53.4	27.4	1.95
Georgia	53.9	30.8	1.75
Alabama	52.4	30.3	1.73
Wisconsin	52.6	31.2	1.68
Illinois	46.6	28.0	1.66
Pennsylvania	50.0	30.6	1.64
Idaho	43.0	27.5	1.56
Iowa	48.9	31.4	1.56
Massachusetts	43.6	28.4	1.54
North Carolina	52.7	34.3	1.54
Virginia	48.1	33.1	1.45
Maine	44.1	30.5	1.45
Ohio	45.3	31.6	1.43
Utah	40.5	29.2	1.38
Oklahoma	39.4	28.8	1.37
Vermont	42.5	32.4	1.31
South Dakota	44.7	35.5	1.26
New York	41.4	34.6	1.19
Minnesota	37.8	32.9	1.15
Colorado	37.3	37.2	1.00
North Dakota	31.1	32.2	0.96
Arizona	34.8	37.4	.93
Oregon	30.8	33.4	.92
Michigan	35.1	41.9	.84
Louisiana	22.0	26.5	.83
Wyoming	12.9	16.9	.77
Washington	25.7	39.0	.66
New Mexico	25.7	39.8	.64
Texas	24.6	43.7	.56
Montana	19.6	42.1	.47
California	21.2	46.3	.46
Florida	21.8	55.9	.39
Alaska	.6	44.1	.01
Hawaii	.....	61.4	.....
U.S. average	41.6	33.4	1.25

Source: ARTBA from 1993 Commodity Flow Survey data.

CONCLUSION—PRESERVING THE NATIONAL HIGHWAY SYSTEM

Although some policymakers would dismantle the federal highway program, the central importance of the nation's highway system to the economic prosperity of the nation and of the individual states dictates, for most states, a different approach.

The core strategy for reauthorization of the Federal highway program should be to preserve and strengthen the national highway system, since the economic prosperity of the vast majority of states depends more on out-of-state highways than on in-state highways.[9] Devolving the highway program to the states would be self-defeating in the long run even for states whose own resources for highways might ex-

[9] As a corollary, the U.S. Department of Transportation has recently released data, based on the 1993 Commodity Flow Survey, showing how much of the truck traffic within each state consists of through-state shipments compared to shipments that either originate or end within the state. The large volume of through-state shipments also supports the need for a federal highway program. See Bureau of Transportation Statistics. "Truck Movements in America: Shipments From, To, Within, and Through States." BTS/97–TS/1, May 1997.

ceed their share of federal highway funds, if higher transportation costs and limited access to markets for the state's products resulted from a deterioration in the quality of the nation's highway system. Ultimately, the state's output and income would fall below the potential that could be attained with an excellent national highway system.

In economic terms, the goal of federal highway funding should be to allocate resources in such a way as to maximize the national benefit from the highway system. This means looking at our national highways as a single unit and allocating federal resources wherever they are needed to yield the best possible national system. What each state should do is ask what kind of highway system is necessary for maximizing the state's economic prosperity—by minimizing the transportation cost and maximizing the market penetration of the products made in the state, to both in-state and out-of-state markets. Each state should then work toward a distribution of federal highway funds that achieves this goal.

STATEMENT OF BARRY COPELAND

Senator SHELBY. Mr. Copeland.

Mr. COPELAND. Senator, thank you for allowing me the opportunity to testify at today's hearing.

Senator SHELBY. Do you want to use that microphone? You probably do not need it.

Mr. COPELAND. I am sorry. I am sure I do.

My name is Barry Copeland, I serve as volunteer chairman of the Birmingham Area Chamber of Commerce, Governmental Affairs Division. The chamber would, first of all, like to wish Mr. White a safe trip this afternoon. We need his leadership in Washington and we hope he's all right on Corridor X as he travels today.

The Birmingham Area Chamber salutes you, Senator Shelby, along with Congressmen Bachus and Aderholt for your outstanding leadership on this critical matter of completing Corridor X. This has emerged as the No. 1, most important objective of our chamber of commerce and we represent 4,000 business members in this five-county area of metropolitan Birmingham.

Just as an aside, those 4,000 members of the chamber employ more than 280,000 people in this five-county area.

Senator SHELBY. Two hundred and how many?

Mr. COPELAND. More than 280,000 people employed by our members.

Determining that this highway project would be our top priority was not a decision arrived at easily, nor is it considered lightly by the chamber. To reach this decision, the chamber went through an exhaustive process of first surveying the 4,000 members, then holding intensive planning sessions and finally having recommendations reviewed, debated, and then voted upon by our board of directors and trustees. The Corridor X completion emerged as the No. 1 priority.

Midway last year, the chamber board voted to add work and completion on the northern beltline as a coequal priority.

Additionally, we have worked very hard at the chamber to achieve the full cooperation of a number of other chambers of commerce, county commissions, mayors, and other publicly elected officials all the way from Birmingham up through Hamilton and we call this regional entity the Corridor X task force. It is truly bipartisan in nature, many of the people on the task force are here with us today demonstrating a broad-based regional bipartisan support for the Corridor X project throughout most of north Alabama.

The Birmingham area chamber and the Corridor X task force believe this highway is critical because of two factors, and you have heard discussion on this today: Highway safety and economic development. We have initiated our own research as to the number of accidents along the unfinished stretch of Corridor X and have found some interesting numbers. Alarming would be a better word.

Between 1993 and 1996, there were 5,353 accidents on Highway 78, and those numbers are substantially higher than those reported by the Alabama Department of Transportation and Public Safety Department. The reason is, just as an aside, when the Public Safety Department counts a traffic accident, if that traffic accident occurred at an intersection on Corridor X and was assigned to an intersecting road, the Public Safety Department in Alabama might not have tally-stroked that as an accident on the highway.

So we surveyed local municipalities up and down the highway and the counties involved for Marion, Walker, and Jefferson Counties and came up with a number that is roughly one-third higher than those reported in the State but we feel a more accurate——

Senator SHELBY. One-third higher than the other parts of the State?

Mr. COPELAND. No; one-third higher than those reported on the same highway by the State simply because the local municipalities keep records of those traffic accidents at intersections.

Senator SHELBY. Did you compare the rate of accidents on other roads in Alabama compared to 78——

Mr. COPELAND. No, sir.

Senator SHELBY. And see if that was higher?

Mr. COPELAND. We did not.

Senator SHELBY. OK.

Mr. COPELAND. We were trying to gauge, Senator, as accurate as possible a picture of the traffic accident rate. If you have traveled the corridor, you know the high presence of white crosses up and down that highway indicating fatalities, and you have heard testimony this morning about that.

But the traffic accident rate itself we felt was significantly higher than what we had access to and the surveys indicated that.

Senator SHELBY. All right.

Mr. COPELAND. Without a doubt, having a two-lane highway handle this huge volume of passenger and freight traffic between cities such as Birmingham and Memphis is just a recipe for disaster.

The completion of Corridor X will also mean tremendous economic impact in this area of Alabama. In fact, it already has. As jobs are being talked about now, as this new money becomes available in that corridor, you are seeing communities like Jasper advertise themselves aggressively as a great place to live, the first time in many, many years.

We have strong expressions of interest from companies such as Federal Express with headquarters in Memphis for the completion of this highway. I think it is safe to say it will effectively link Alabama's markets with a huge basin of markets in the Midwestern United States; however, common sense would dictate that Corridor X be completed before any other competing corridors to Memphis from Atlanta because you already have rights of way in place, you have a major interstate link of I–20 which already links Atlanta to

Birmingham. And so we look at Corridor X as a de facto interstate that is just waiting to happen and we hope that it will.

As an additional and equally important priority that the chamber has established is the northern beltline, around the northern part of Birmingham, which would relieve some very serious traffic congestion. It is our hope that the last leg of Corridor X will be the first leg of the northern beltline because they will intersect.

We know that funding pledges have been made at the State level to complete Corridor X or to have construction under way from the Mississippi line into Jasper by 1999 and we have heard today projections even beyond that. Now we urgently need the Senate Appropriations Subcommittee on Transportation to continue the very pressing funding needs for Corridor X, tying it into the Birmingham metropolitan highway system and again, ideally, linking Corridor X with the northern beltline.

In sum, much has been accomplished, and again we are grateful to you and to the Congressmen who are here today for your leadership. We urge your committee to continue accelerating the funding timetable for this highway so that it will be completed in a timely fashion for economic development reasons and for the saving of lives and the damage to property that we have heard about before.

Thank you again for your outstanding leadership and your personal interest in this, and at the Birmingham area chamber, we stand ready to do whatever we need to do to support you in this.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Copeland. Your written statement will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF BARRY COPELAND

Mr. Chairman, thank you for allowing me the opportunity to testify at today's hearing.

The Birmingham Area Chamber of Commerce wishes to salute you, Congressmen Bachus and Aderholt for your collective leadership on the critical matter of completing Corridor X, the long awaited controlled access highway between Birmingham and Memphis. This has emerged as the number one objective of the Birmingham Area Chamber of Commerce, our 4,000 business members and the 280,000-plus employees represented by these member businesses.

Determining this highway project to be our Chamber's top priority was not a decision that was arrived at easily—nor is it considered lightly. To reach this decision, our Chamber went through an exhaustive process of first surveying our 4,000 members, then holding intensive planning sessions and finally having the recommendations reviewed and deliberated upon by our Board of Directors and Trustees.

Additionally, we have worked very hard to achieve the full cooperation of multiple chambers of commerce, county commissions and mayors all the way from Birmingham to Hamilton. We call this regional entity the "Corridor X Task Force." Many of them are here this morning, proving what broad based, regional support there is for Corridor X throughout Alabama.

The Birmingham Area Chamber and the Corridor X Task Force believes that this highway is critically needed because of two factors: Highway safety and economic development. We have initiated our own research as to the number of accidents along the unfinished stretch of Corridor X and have found that between 1993–1996 there were 5,353 accidents on Highway 78—numbers substantially higher than those reported by the Alabama Highway Department.

Without a doubt, having a two lane highway handle the huge volume of passenger and freight traffic between two major cities such as Birmingham and Memphis is a recipe for disaster. We urge you to continue your efforts to identify funding quickly—otherwise, highway accidents and fatalities will continue to mount.

Completion of Corridor X will also mean a tremendous economic impact to all of Alabama. It will effectively link Alabama markets with huge mid-western markets that are currently very difficult to access using ground transportation. Furthermore, much talk has been made about the need for a separate interstate highway link between Memphis and Atlanta. However, common sense would dictate that Corridor X be completed first so that a de facto interstate highway could then exist between Memphis and Atlanta, running through Birmingham.

An additional highway priority for our Chamber of Commerce is the Northern Beltline around Birmingham to relieve serious traffic congestion. It is our sincere hope that the last leg of Corridor X will serve as the first leg of the Northern Beltline. Funding pledges have been made to complete Corridor X (or have construction underway) from the Mississippi state line to Industrial Drive in Jasper by 1999.

Now we urgently need the Senate Appropriations Subcommittee on Transportation to consider the very pressing need of finalizing Corridor X by tying it into the Birmingham highway system, ideally linking Corridor X into the Northern Beltline.

It is our understanding that approximately $54 million has been designated for Corridor X in 1998. That still leaves an additional $546 million necessary to complete this long overdue roadway. We urge this committee to continue to accelerate the funding timetable for this highway so that it will be completed in time to save lives and promote vitally needed economic development in Alabama.

Thank you again for your outstanding leadership on this. Our Chamber will continue to press as hard as possible on this issue. Please keep up the good work and let us know whenever we may be of assistance to you.

STATEMENT OF J. FRANK FILGO

Senator SHELBY. Mr. Filgo.

Mr. FILGO. Thank you, Mr. Chairman.

The trucking industry is a significant catalyst to the economy of the State of Alabama. Trucking's job is to deliver the goods, cost effectively and safely. This not only benefits our customers but the economic prosperity of the State of Alabama and its communities as well.

Over 80 percent of Alabama's manufactured goods, some 237 million tons annually, are hauled by truck. Projections are, by the year 2000, trucks will be asked to haul over 269 million tons of Alabama's products to market. Furthermore, three-quarters of Alabama's communities depend exclusively on trucks where there are no rail or water routes.

In order for our industry to do its job efficiently, we require a well-built transportation infrastructure which links our communities with one another and to the markets outside our State. Well-planned and maintained roads and bridges enable trucks to deliver the goods to market at a reasonable cost on time and with less instances of highway fatalities or accidents.

Corridor X is a major truck route. Based on truck classification counts, approximately 7.5 percent of the traffic present on U.S. Highway 78 during the morning peak hour, and approximately 7.2 percent of the traffic present during the afternoon peak hour is medium or large truck traffic. Simply put, the existing conditions are unsafe for all that share the road. Our professional truckdrivers have families, too, and we want our workplace to be a safe place for all.

As you know, Corridor X runs through or adjacent to Fayette, Jefferson, Lamar, Marion, Walker, and Winston Counties. The area's largest employers are manufacturers of mobile homes, auto parts and trucks, textiles, among other industries. Until Corridor X is completed, these six Alabama counties will not be in a position

to experience economic growth. That, as I understand is the purpose of ADHS.

It has been said that Alabama is open for business, but until Corridor X is completed, the six-county region which includes the greater Birmingham area and impacts the entire State of Alabama will never realize its true economic potential. Alabama's economy cannot prosper off a north and southbound truck route. Trucks need to travel east and west, too, but cannot unless our roads head in that direction.

We in the trucking industry realize that good roads and bridges are sound investments with the benefits far outweighing the initial cost. Each typical five-axle semi-trailer pays over $10,000 annually in State and Federal taxes. We would like to see more of our highway user fees dedicated to the purpose for which they were paid.

The trucking industry wishes to thank the Alabama U.S. congressional delegation for support of Corridor X and the overall need for better roads to move Alabama's economy. Senate bill 1173, allocating more than a $26 billion increase for highway funding recently passed U.S. Senate. Much of that increase will be allocated to the States.

Now the U.S. House of Representatives must address the highway funding issue. We urge all Alabama highway users to join with the trucking industry in supporting the increased funding for our Nation's roadways of which Corridor X is an essential component.

Thank you.

STATEMENT OF AL GIBBS

Senator SHELBY. Thank you. Mr. Gibbs.

Mr. GIBBS. Thank you, Senator Shelby. I am Al Gibbs, director of corporate affairs for AAA-Alabama.

Senator SHELBY. Take that microphone closer to you, please. Thank you.

Mr. GIBBS. We are the State affiliate of the 40-million-member American Automobile Association, and it is a pleasure to be here this morning to address you on behalf of AAA-Alabama's 225,000 members and all Alabama motorists.

Anyone who has ever driven on Highway 78 between Birmingham and Memphis will attest that completion of Corridor X should be a priority item on our State's transportation improvement plan. But we favor its completion not just for the economic benefits it will have for the State or for the additional tourism that Alabama will gain or for the congestion relief and air quality improvement that will be derived, we advocate its completion for the purpose of reducing injuries and needless deaths.

The simple fact is that the Highway 78 route is inadequate to handle the volumes of cars and trucks that travel it, and too many crashes and deaths occur that probably would not occur if the route were a controlled-access interstate-quality highway.

We automobile owners and drivers realize that we are not the only users of our roads. By sharing our roads with big trucks loaded with coal or timber or gasoline or large mobile homes is just a part of everyday driving. We depend on them to deliver the goods and services we need to live our lives and we have become accustomed to their presence on the road, but we are deathly afraid of

their size and weight, especially on noninterstate highways such as Highway 78 where drivers face more driving variables and distractions.

Road conditions are a factor in an estimated 30 percent of traffic fatalities. Highway improvements such as wider lanes and shoulders, adding or improving medians and upgrading roads from two lanes to four lanes can reduce traffic fatalities and crashes.

You mentioned earlier that the Tripp information—the road information program, Tripp, noted that 77 percent of all fatal crashes occur on two-lane roads while only 14 percent occur on roads with four or more lanes.

A study by the AAA Foundation for Traffic Safety, this report right here which you have, outlines the safety benefits we can achieve if we invest our transportation resources wisely. For example, by increasing lane width 1 foot, we can reduce crashes by 12 percent. Removing hazards within 10 feet of a road would reduce these types of crashes by 25 percent. Removing hazards that are within 20 feet would reduce crashes by 44 percent.

Every dollar we spend making these improvements on lower grade roads actually produces a savings of nearly $3. In our view, that's a wise investment. Allowing Federal gas tax dollars to accumulate in the highway trust fund is not a wise investment. It may look like a savings on paper but in reality it merely shifts expenses to other areas of the economy. It pushes up the cost of insurance, it pushes up the cost of health care. It pushes up the cost of doing business and it delays the inevitable time when road and bridge work not done today will have to be done anyway, but at that point the work will not only be more urgent, it will be much more costly.

Fortunately, there are obvious solutions. First, Congress must pass the ISTEA legislation quickly, and we are pleased to see the Senate and we see that the House has a sense of urgency as well. Second, we should invest every penny in the highway trust fund the way American motorists intended when they passed the gasoline tax, to keep our transportation system running safely and efficiently.

AAA's goal is to ensure safety and freedom of mobility for this generation and generations to come. In addition to improving roads and saving lives, spending the trust fund as it was intended will produce two beneficial side effects: American motorists will get what they are paying for. That is all they want, and Congress and the administration will protect one of their greatest assets, and I'm not referring to the transportation infrastructure, I'm referring to the trust of the American people.

The money has been collected for transportation, it should not be hijacked. Returning highway tax dollars to the State held hostage in the highway trust fund could go a long way toward completing Corridor X.

We sincerely thank you for the work that you are you doing on this important project and AAA-Alabama supports your efforts.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Gibbs. Your written statement will be made part of the record.

[The statement follows:]

PREPARED STATEMENT OF AL GIBBS

It is a pleasure to be here this morning to address you on behalf of AAA-Alabama's 225,000 members and all Alabama motorists.

Anyone that has ever driven on Highway 78 between Birmingham and Memphis will attest that completion of Corridor X should be a priority item on our State's transportation improvement plan.

We favor its completion not just for the economic benefits that it will have for the State, or for the additional tourism that Alabama will gain, or for the congestion relief and air quality improvement that will be derived * * * we advocate its completion for the purpose of reducing injuries and needless deaths.

The simple fact is that the Highway 78 route is inadequate to handle the volumes of cars and trucks that travel it, and too many crashes and deaths occur that probably would not occur if the route were a controlled access interstate quality highway.

We automobile owners and drivers realize that we are not the only users of our roads. Sharing our roads with big trucks, loaded with coal or timber, or gasoline, or large mobile homes is just a part of everyday driving. We depend on them to deliver the goods and services we need to live our lives, and we've become accustomed to their presence on the road. But we are also deathly afraid of their size and weight, especially on non-interstate highways such as Highway 78 where drivers face more driving variables and distractions.

Road conditions are a factor in an estimated 30 percent of traffic fatalities. Highway improvements such as wider lanes and shoulders, adding or improving median, and upgrading roads from two lanes to four lanes can reduce traffic fatalities and crashes.

According to information gathered and analyzed by the road information program (TRIP), 77 percent of all fatal crashes occur on two lane roads while only 14 percent occur on roads with four or more lanes.

A study by the AAA foundation for traffic safety a copy of which you should have in front of you outlines the safety benefits we can achieve if we invest our transportation resources wisely.

For example:

—By increasing lane width one foot, we can reduce crashes by 12 percent.

—Removing hazards within 10 feet of a road would reduce these types of crashes by 25 percent.

—Removing hazards that are within 20 feet would reduce crashes by 44 percent.

Every dollar we spend making these improvements on lower-grade roads actually produces a savings of nearly $3. In our view, that's a wise investment.

Allowing Federal gas tax dollars to accumulate in the highway trust fund is not a wise investment. It may look like a savings on paper but, in reality, it merely shifts expenses to other areas of the economy:

—It pushes up the cost of insurance.

—It pushes up the cost of health care.

—It pushes up the cost of doing business.

—And it delays the inevitable time when road and bridge work not done today will have to be done anyway. But at that point, the work will not only be more urgent, it will be much more costly.

Fortunately, there are obvious solutions.

First, Congress must pass the ISTEA legislation quickly and, fortunately, the House and Senate now seem to have that sense of urgency.

And second, we should invest every penny in the highway trust fund the way American motorists intended when they passed the gasoline tax to keep our transportation system running safely and efficiently.

AAA's goal is to ensure safety and freedom of mobility for this generation and generations to come.

In addition to improving roads and saving lives * * * spending the trust fund as it was intended will produce two beneficial side effects.

1. American motorists will get what they're paying for. That's all they want. And * * *

2. Congress and the administration will protect one of their greatest assets. I'm not referring to the transportation infrastructure. I'm referring to the trust of the American people.

—The money has been collected for transportation.

—It shouldn't be highjacked.

Returning highway tax dollars to the State, held hostage in the highway trust fund, could go a long way toward completing Corridor X.

We sincerely thank you for the work you are doing on this important project and AAA-Alabama supports your efforts.

[CLERK'S NOTE.—The study referred to in Mr. Gibbs' statement does not appear in the hearing record, but is available for review in the subcommittee's files.]

SUBCOMMITTEE RECESS

Senator SHELBY. Gentlemen, I am going to have some questions for the record, but other than that, we want to thank you, all of you, for appearing here today. We think this field hearing is important. You heard the testimony earlier of the two Congressmen and others. I think it defines where we want to go and I believe we must, must finish this and we will.

Thank you very much, and let's keep working until this is finished and, as Congressman Bachus brought up, let's then work on—or perhaps before then, the northern beltline. It is so important to the people of Alabama and to the American people.

Thank you. This hearing is recessed.

[Whereupon, at 11 a.m., Monday, March 16, the subcommittee was recessed, to reconvene at 10:06 a.m., Thursday, March 19.]

MATERIAL SUBMITTED SUBSEQUENT TO CONCLUSION OF HEARING

[CLERK'S NOTE.—The following material was not presented at the hearing, but was submitted to the subcommittee for inclusion in the record subsequent to the hearing:]

CORRIDOR X: BACKGROUND, MARCH 16, 1998

Project Description.—Corridor X is a 96.9 mile controlled access facility from the Mississippi state line to I–65 that is part of the Appalachian Development Highway System administered by the Appalachian Regional Commission. Upon its completion, and in conjunction with other routes in Mississippi, it will provide a freeway-type route from Birmingham to Memphis. This road will greatly increase accessibility into northwest Alabama which should significantly increase economic development in the region.

Project Status.—For the corridor, approximately 23 miles have been opened to traffic and 21 miles are currently under construction. The environmental documentation has been completed on the entire corridor and all of the Right-of-Way has been authorized, except for a 1.8 mile segment at I–65 and U.S. 31 in Jefferson County.

Funding Status.—The total project cost is estimated to be $570 million (80 percent federal, 20 percent state), but the state of Alabama is only seeking about $258 million in ISTEA and state funds over the next five years. These funds will be used to complete two portions of the Corridor: (1) the segment from SR 129 in Marion County to U.S. 78 west of Jasper in Walker County and (2) an 11.9 mile segment from U.S. 78 in Graysville in Jefferson County to I–65 in Birmingham. These two segments should be finished by 2002. The rest of the Corridor will not be completed until after 2002.

Economic and Safety Benefits.—The major economic benefits result from the opening up of the northwest region of the State by providing the transportation connection that will promote growth and development in the region. The primary safety benefits will be the removal of current U.S. 78 traffic from a rural two-lane highway to a freeway type facility and eliminating U.S. 78 traffic conflicts through several small towns.

Additional information:

—In fiscal years 1996 and 1997, Corridor X was eligible for an average of $9 million in Appalachian Highway Funds.

—In fiscal year 1998, that figure increased more than 500 percent—to about $50 million. $40 million of this amount were contained in the Transportation Appropriations Bill.

—This additional money will allow the state to make significant progress on Corridor X.

—Corridor X is critical to the state's economy. It will provide a more direct link between Memphis and Birmingham, and will foster job creation.

—Senator Shelby is committed to securing as much funding as possible for the Appalachian Highway System, so that the state of Alabama will have the ability to finish this important highway.

STATUS OF CORRIDOR X SEGMENTS

[March 16, 1998]

Segment	Length (miles)	Status
AL/MS State Line to County Road 45 (south of Hamilton)	23	Completed.
County Road 45 (south of Hamilton) to SR 129 (Marion County)	7	Under construction.

STATUS OF CORRIDOR X SEGMENTS—Continued

[March 16, 1998]

Segment	Length (miles)	Status
SR 129 (Marion County) to County Road 11 (Walker County)	16	Design phase.
County Road 11 to U.S. 78 (west of Jasper in Walker County)	4	Under construction.
West of U.S. 78 to Burton Creek	3	Design phase.
Burton Creek to Jasper Industrial Park Road	11	Under construction.
Jasper Industrial Park Road to I–65 Birmingham	31	Design phase.

RESOLUTION OF THE CITY OF CORDOVA, ALABAMA, REGARDING CORRIDOR X DEVELOPMENT

Whereas, the development of the Appalachian Regional Highway known as Corridor X connecting Memphis, Tennessee to Birmingham, Alabama and points between; and

Whereas, construction on this important artery for trade and tourism has lagged in its funding and development; and

Whereas, Appalachian Highway dollars will soon be appropriated that far exceed amounts appropriated in recent years, resulting in a major increase of Federal funding for the two Appalachian corridors in Alabama; and

Whereas, lives are being lost at an alarming rate because of unacceptable conditions along the over-traveled roadway; and

Whereas, the Governor of Alabama has pledged to match with appropriate funding all Federal money coming to the state for Appalachian highway development; and

Whereas, the economic potential of northwest Alabama is largely at bay until significant headway is made on Corridor X: Now, therefore, be it

Resolved, That the officials of Cordova, Alabama, who below sign in witness to this document, fully support and encourage the speedy completion of Corridor X; and be it further

Resolved, That the Governor of Alabama, in full understanding of the y and emergency nature of this important highway project, be urged to appropriate additional funding to Corridor X until the citizens of north Alabama are convinced the project is proceeding with haste and appropriateness

Attest:

ELAINE STOVER, *City Clerk.*
SHELLY DRUMMOND, *Mayor.*

LETTER FROM BARRY COPELAND, VICE CHAIRMAN, GOVERNMENTAL AFFAIRS, THE BIRMINGHAM AREA CHAMBER OF COMMERCE

MARCH 11, 1998.

Hon. RICHARD SHELBY,
U.S. Senator, Alabama, Chairman, Senate Appropriations Subcommittee on Transportation, 110 Hart Building, Washington, DC.

DEAR CHAIRMAN SHELBY: The Birmingham Area Chamber of Commerce wishes to salute you for your outstanding leadership on the critical matter of completing Corridor X, the long awaited controlled access highway between Birmingham and Memphis. This has emerged as the number one objective of the Birmingham Area Chamber of Commerce, its 4,000 business members and the 280,000-plus employees represented by these member businesses.

Determining this highway project to be our Chamber's top priority was not a decision that was arrived at easily—nor is it considered lightly. To reach this decision our Chamber went through an exhaustive process of first surveying our 4,000 members, then holding intensive planning sessions and finally having the recommendations reviewed and deliberated upon by our Board of Directors and Trustees.

The Birmingham Area Chamber believes that this highway is critically needed because of two factors: Highway safety and economic development. We have initiated our own research as to the number of accidents along the unfinished stretch of Corridor X and have found 5,353 accidents on Highway 78 between 1993–1996—numbers substantially higher than those reported by the Alabama Highway Department. Without a doubt, this highway that is currently two lane for much of its route is

direly needed to be upgraded to interstate status to handle the volume of passenger and freight traffic between the major cities of Birmingham and Memphis. Otherwise, highway accidents and fatalities will continue to mount.

Completion of Corridor X will mean a tremendous economic impact to all of Alabama. It will effectively link Alabama markets with huge mid-western markets that are currently very difficult to access using ground transportation. Furthermore, much talk has been made about the need for a separate interstate highway link between Memphis and Atlanta. However, common sense would dictate that Corridor X be completed first so that a de facto interstate highway could then exist between Memphis and Atlanta running through Birmingham.

An additional highway priority for our Chamber is the Northern Beltline around Birmingham to relieve serious traffic congestion. It is our sincere hope that the last leg of Corridor X will serve as the first leg of the Northern Beltline. Funding pledges have been made to complete Corridor X (or have construction underway) from the Mississippi state line to Industrial Drive in Jasper by 1999. Now we urgently need the Senate Appropriations Subcommittee on Transportation to consider the very pressing need of finalizing Corridor X by tying it into the Birmingham highway system, ideally linking Corridor X into the Northern Beltline.

Thank you again for your outstanding leadership on this. Our records show that over $50 million will be spent on Corridor X in 1998. That is a step in the right direction but, as you know, the total price tag to complete it is $600 million. Please keep up the good work and let us know whenever we may be of assistance to you.

Sincerely,

BARRY COPELAND,
Vice Chairman, Governmental Affairs.

RESOLUTION OF THE WALKER COUNTY COMMISSION

Whereas, redevelopment of the area parallel to U.S. Highway 78 from Memphis to Birmingham is a highway project originally planned to connect the last two major Southern cities not already connected by a controlled access highway; and

Whereas, work on this project, begun 30 years ago, is presently lagging, almost to a stop; and

Whereas, citizens of Walker County, Alabama, and other passengers and drivers along the way continue to lose their lives at a rate of almost one per month over the last four years; and

Whereas, trade and tourism are suffering because of the inability to travel safely and with expediency along the present U.S. Highway 78: Now, therefore, be it

Resolved, That the Walker County Commission pledges its full support to the efforts of the Birmingham Area Chamber of Commerce and the Corridor X Task Force; and be it further

Resolved, That the Walker County Commission urges the full support and assistance of The Honorable Jeff Sessions, The Honorable Richard Shelby, The Honorable Robert Aderholt, The Honorable Spencer Bachus, and The Honorable Bud Cramer, in efforts to complete this valuable roadway with full expediency and with the knowledge that it is according to the good pleasure and will of this body and of the populace of our great County.

This the 1st day of April, 1997.

BRUCE HAMRICK, *Chairman.*

RESOLUTION OF THE CITY OF JASPER, AL

Whereas, accelerated funding for the completion of Corridor X has been a top priority for the City of Jasper, Alabama, all this year and in the past year; and

Whereas, we have received increased funding from the federal government through the Appalachian Regional Commission; however funding from the State, other than matching federal funds, have not come forth: Now, therefore, be it

Resolved by the City Council of the City of Jasper, Alabama, That the Honorable Fob James, Governor of the State of Alabama, be asked to commit a minimum of Forty Million Dollars in State Department of Transportation funds, exclusive of matching funds, for Corridor X in the proposed Highway Bond Issue.

This the 2nd day of September, 1997.

Approved.

DON GOETZ, *Mayor.*

RESOLUTION NO. 96–97–16, CITY OF SUMITON, CORRIDOR X DEVELOPMENT

Whereas, the development of the Appalachian Regional Highway known as Corridor X connecting Memphis, Tennessee to Birmingham, Alabama and points between; and

Whereas, construction on this important artery for trade and tourism has lagged in its funding and development; and

Whereas, Appalachian Highway dollars will soon be appropriated that far exceed amounts appropriated in recent years, resulting in a major increase of Federal funding for the two Appalachian corridors in Alabama; and

Whereas, lives are being lost at an alarming rate because of unacceptable conditions along the over-traveled roadway; and

Whereas, the Governor of Alabama has pledged to match with appropriate funding all Federal money coming to the state for Appalachian highway development; and

Whereas, the economic potential of northwest Alabama is largely at bay until significant headway is made on Corridor X: Now, therefore, be it

Resolved, That the officials of Sumiton, Alabama, fully support and encourage the speedy completion of Corridor X; and be it further

Resolved, That the Governor of Alabama, in full understanding of the urgency and emergency nature of this important highway project, be urged to appropriate additional funding to Corridor X until the citizens of North Alabama are convinced the project is proceeding with haste and appropriateness.

Approved.

PETE ELLEN, *Mayor.*

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1999

THURSDAY, MARCH 19, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:06 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Domenici, Gorton, Bennett, Faircloth, Lautenberg, Byrd, Reid, and Kohl.

DEPARTMENT OF TRANSPORTATION MAJOR FUNDING ISSUES

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE SECRETARY

STATEMENT OF HON. RODNEY E. SLATER, SECRETARY OF TRANSPORTATION

OPENING REMARKS

Senator SHELBY. The subcommittee will come to order.

We will focus on a few specifics of the President's budget request later in the hearing, Mr. Secretary, but first I wanted to say that it has been a pleasure working with you for the past year. I venture to say that both you and I have learned a great deal, though you probably knew a lot more than I did, about our Nation's transportation systems. That was your first as Secretary of Transportation and it was my first as chairman of the Transportation Appropriations Subcommittee. But I have enjoyed working with you and your staff.

FUNDING PRIORITIES

Last year, we discussed some of the criteria by which we should evaluate the cost effectiveness of transportation programs. In putting together last year's Appropriations Act, I tried to focus our limited Federal resources on programs and projects that create jobs, create opportunities, create economic activity, and improve mobility in America, while, at the same time, reflecting the priorities articulated in the President's budget request and in the programs highlighted by members of the committee and the Senate.

I think that 1998 has been a good year for transportation. However, in the budget constrained environment in which we all must operate, the task of this subcommittee has been a balancing act of allocating resources among a host of worthwhile priorities. This year will be no exception.

The Senate-passed ISTEA reauthorization legislation envisions highway obligation limitation levels significantly higher than the record level we appropriated last year. I support those increased levels. But I am also fully cognizant of the pressure these levels will place on the other accounts in this bill.

The first dollar in this bill will be a highway dollar. The last dollar in this bill will be a highway dollar. And in between, we will focus on safety programs.

We will have to wait and see what happens with the ISTEA funding levels as the budget process moves forward and as the House takes up consideration of the reauthorization bill. I look forward to the completion of both these efforts because this is one Senator who believes that investment in our highway infrastructure is an investment in our future economic growth, opportunity, and an improved quality of life for all Americans.

Last year, the administration's budget request effectively called for a freeze on the obligation limitation for highways, and I note that this year's request does effectively the same thing.

So it seems that where goes the Congress on highway investment the administration gets to within a year or so. I applaud you for that conclusion.

Although your request is not at a level that I think is realistic in light of where the authorization process seems to be headed, it is only 12 to 18 months behind where Congress is, and I think that is a major improvement over what we have had in the past.

I will not comment at this time on the failure of the President's budget to live within the discretionary budget caps, but I am sure that the chairman of the Budget Committee, the distinguished Senator from New Mexico, who is also a member of this subcommittee, may have a few words for you on that score.

FUNDING CHALLENGES

Meeting the high level of highway funding needs will be made more challenging this year by two factors: an increase in the first year outlay scoring for Federal-aid highways, from 17 to 27 percent, and the need to fill some holes in the budget where the administration has assumed they will reap receipts from user fees in a number of programs, many of which are not in place or even authorized.

So every dollar we put in highways will cost us more in the first year of obligation. And, as we begin our attempt to meet the authorized highway obligation level, we must also backfill over $200 million in user fee holes.

I would also like to make the observation that the subcommittee will be well served by moving a bill early this year. If we move early, we maximize our ability to focus on the issues related to transportation. If our bill is not completed and sent to the President for signature by the August recess, I am concerned that the highway number will come under pressure from the administra-

tion, where highway investment clearly is not the priority that it is in the Congress.

Today we are honored to have the Secretary of Transportation, Hon. Rodney Slater, to testify. He will be followed by a panel of two administrators, from the Federal Aviation Administration, Jane Garvey, and the Commandant of the Coast Guard, Adm. Bob Kramek.

Senator Lautenberg.

STATEMENT OF SENATOR LAUTENBERG

Senator LAUTENBERG. Thank you very much, Mr. Chairman.

You have learned fast, Mr. Chairman, and though I would gladly change places with you, I have great respect for the work you have done and the leadership you have provided. We have worked well together.

I am kind of getting used to second place. I am the ranking Democrat on the subcommittee. I am also the ranking Democrat on the Budget Committee. I heard your admonition, Mr. Chairman. Last night, we passed the budget through the committee and, hopefully, we will see it on the floor in the next week or so. We have taken care of, in that budget, the ISTEA proposal that passed the Senate. It will require, as you have suggested, Mr. Chairman, quite a bit of juggling or balancing to get the funding that we would like to see.

Mr. Chairman, I note the appearance here of Senator Byrd, who brings a level of experience that none of us in the room has in terms of matters of transportation. I get the feeling, Mr. Chairman, that this is a particularly important subcommittee meeting when Admiral Byrd—I mean, of course, Senator Byrd—can find time on his schedule to be here with us. So we will pay attention, Mr. Chairman, I am sure.

Also, I am glad to see our good friend and very successful Secretary, Rodney Slater, here with us.

I want to take 1 minute, if I might, Mr. Chairman, to note the fact that Adm. Robert Kramek is going to have his last appearance before this subcommittee. He is finishing his tour of duty, which he has done with distinction.

I want to thank you, Admiral, for your advocacy and your diligence in making sure that the Coast Guard has the resources it needs to function and that it does its tasks so admirably, as it has in its long history.

I am very proud of the Coast Guard. I see all of the responsibilities that they have and those that we continue to give them, and they carry them out exceptionally. We wish Admiral Loy well in his upcoming opportunity.

INFRASTRUCTURE INVESTMENT

Over these past few months, critical events have shaped our paths in terms of transportation investment. The Senate passed its ISTEA reauthorization bill with historic levels for highway and transit and with healthy investments for safety programs. The Amtrak reauthorization bill was signed into law, spelling out very clearly appropriate funding levels for Amtrak.

Now Congress and the public have spoken in favor of increased investment in our infrastructure.

Mr. Chairman, so often we ignore the opportunity or the obligation to make the long-term investments in infrastructure. You can never quite make it up when you fail to put in sufficient funds at the moment. The highways are, indeed, in need of repair, upgrading, and so forth. But we need to make investments in all modes of transportation service.

Congress and the public support that. Congress and the public have also strongly endorsed the balanced budget agreement that we adopted last year.

These three events—ISTEA and increased levels for mass transit and highways, Amtrak reauthorization, and the balanced budget—present enough challenges to our subcommittee than we ever could have hoped for.

INVESTMENT BALANCE

Our goals should be to ensure that funding for our national transportation system reflects the balance in a transportation network that fills the needs and the special requirements of regions or sectors or population centers in the country.

We need not punish one mode of transportation for the benefit of another. The Senate just endorsed a balanced surface transportation plan for the next 6 years. And a few months ago, a funding plan for Amtrak to reach operating self-sufficiency was put in place.

This subcommittee has been charged with meeting these goals. We have met such commitments for years and we should continue to do so this year.

We should not forget that spending Federal dollars on our national passenger rail service is a wise investment in this age of traffic-clogged highways, airport congestion, and increased pollution controls. Also, to mention a very important thing that we see happening around us, there is the continuous rise in the importation of oil from abroad. This is not a position I like to see us in and I am sure others share that point of view.

While hundreds of billions of dollars are spent every decade on highway and airport improvements, a mere fraction on a relative basis is spent on the country's rail system. If we underfund Amtrak, we must be ready to find somewhere else the hundreds of billions of dollars that will be needed to build more airports and highways to deal with the resulting congestion.

Just look at our aviation system today. It is so crowded that it is almost impossible to maintain timely schedules. You see people sleeping in airports, having their meals while sitting on the floor. All of these things need investment.

The congestion also causes health problems. We know that. Air pollution is a very serious problem in the country.

We also have to remember how important mass transit is to our national economy—our national economy, I point out—and our quality of life.

Right now, U.S. businesses lose an estimated $40 billion a year in economic costs due to traffic congestion, and if all transit commuters drove to work, instead of taking transit, the annual cost of

congestion on our highways would climb, it is estimated, by at least another $15 billion.

Transit has always played a key role in linking Americans with jobs, education, health care, and other services, and will increasingly do so in the future.

Unfortunately, our challenges do not stop with mass transit, Amtrak, and highways. As I noted, we are confronted with serious needs for FAA activities that affect the safety in our skies—and I am pleased to see the administrator here—the security in our airports, and the upgrading of equipment, the accommodation of current and expected growth in commercial and general aviation.

As the year 2000 looms ahead, the FAA is working its "war room" to fix computers that may not recognize this simple change of date. Our air traffic control mainframe computers and equipment are so antiquated that the original manufacturers can no longer provide support, and I can attest to that—having come out of the computer business and having long ago discarded equipment in my company that we still use in FAA.

Our air traffic controllers are stretched thin. But armed with the ambitious plan proposed 1 year ago by the White House Commission on Aviation Safety and Security, and educated by the National Civil Aviation Review Commission report entitled "Avoiding Aviation Gridlock and Reducing the Accident Rate," I call attention to the fact that they forecast that, unless we invest in the aviation system worldwide, by the year 2010, we can expect a major crash somewhere in the globe every 7 to 10 days. We cannot permit that condition to exist.

So we have to have some ideas as to where we will go.

Mr. Chairman, I do not mean to place a heavier load on you than the one you already have, but you know what we have to do and I know that you support these investments in infrastructure.

Our collaborative working relationship during the last appropriations process produced a balanced bill. I look forward to getting the same result working with you, Mr. Chairman, this year.

Thank you very much.

Senator SHELBY. Senator Byrd.

STATEMENT OF SENATOR BYRD

Senator BYRD. Thank you, Mr. Chairman. Thank you for the leadership that you are demonstrating as chairman of this subcommittee in promoting additional investments in our transportation infrastructure.

I thank you also, Senator Lautenberg, for the continued demonstration of efforts that you have put forth in the same regard.

INFRASTRUCTURE INVESTMENT

I wonder when the administration is going to catch on. I don't see any indication that beefing up infrastructure is one of the administration's top priorities. It should be.

When Mr. Clinton ran the first time for Presidential office, he emphasized infrastructure. I have not heard much about that lately. But the American people, and I think the Congress, support increased funding for infrastructure.

So we are ahead of the administration. I hope the administration will rush to catch up.

Darius the Great, who was King of Persia by virtue of the neigh of a horse, ruled from 522 B.C. to 485 B.C. He was defeated by the Greeks at the Battle of Marathon in 490 B.C. But he recognized the importance of highways and the Persians built great highways, linking the leading cities of Persia—Susa, Ecbatana, Nineveh, Sardis, Smyrna, and all the way down to Egypt. Reaching the Black Sea and the Mediterranean, the Persians knew the importance, as I say, of highways.

Sir Francis Bacon recognized the importance of highways. He said there are three things that make a Nation great and prosperous—a fertile soil, busy workshops, and easy conveyance for men and goods from place to place.

He was later sent to the Tower, but not for that belief. [Laughter.]

He was sent to the Tower because he was impeached. We got impeachment from our English brethren, the first impeachment occurring in 1376, during the reign of Edward III, when Richard Lyons and some other high officers were impeached.

Bacon was impeached for accepting bribes, and he admitted it. But I remember him for what he said about transportation modes.

SURFACE TRANSPORTATION BILL

Now, recently, we passed a very important bill, and I am sure you are aware, because I have discussed it with you, Mr. Secretary, you are aware of the effort that Senator Gramm, Senator Warner, Senate Baucus, and I put forth to add $26 billion to the ISTEA II, bringing the figure up from $147 billion to $173 billion.

Do you support that continued amount? Do you support that?

Secretary SLATER. Clearly, Senator Byrd, you and Senator Gramm, Senator Chafee, Senator Baucus, and all of the other Members are to be commended for the strong voice that you have given to increased investment in infrastructure. We support record level investment. We want to do it, though, in a way that is consistent with the balanced budget agreement. But that is something we will work out over time.

Senator BYRD. Well, do you support that level?

Secretary SLATER. This was a very strong statement. I commended the bill on the day of passage and said that the Senate had done a great job. I feel very good about that level of investment.

APPALACHIAN HIGHWAY SYSTEM

Senator BYRD. Included in that level was $2.19 billion for the Appalachian Highway System, which is 32 years past due. That amount of money was recommended by the President in his proposed ISTEA legislation.

Secretary SLATER. Yes, sir.

Senator BYRD. That will be a great step forward toward completion of those Appalachian highways, which are important to the 13 States that are involved.

Do you support that $2.19 billion for Appalachian highways?

Secretary SLATER. Most definitely, sir.

Senator BYRD. And the administration supports it?

Secretary SLATER. Oh, yes.

As you noted, it was a part of the administration's proposed budget for fiscal year 1999.

Senator BYRD. I can't understand why the President has recommended a freeze in highway funding at the 1998 level over the next 5 or 6 years.

Secretary SLATER. That freeze, though, Senator, is at a record level. I can tell you that the President, as you've noted and as many others have noted, said early-on in his administration that he was committed to rebuilding America. We have seen an increase in investment by about 42 percent over the period 1990 to 1993. But, again, we need to deal with these issues in the context of putting our fiscal house in order, ensuring that we have a balanced system, and we are definitely poised to do just that, working in partnership with this committee and with this Congress.

Senator BYRD. Well, I think it is important to repair and to maintain and to further build the transportation infrastructure in this country.

Secretary SLATER. Yes, sir.

Senator BYRD. We have sworn fealty at the altar of a balanced budget. But I think we have to also think of America's competitive position in world markets. I think we have to remember our own people who are engaged in business ventures. They will benefit by public investments in infrastructure.

I have not heard the administration express support for the $2.19 billion for the Appalachian Highway System recently. I hope you will express support for it.

Secretary SLATER. I do today, sir, and I do so with the full commitment of the President in that regard.

Senator BYRD. Very well.

Now Henry Clay was a great advocate, as you will remember, of the American system, which included Federal spending for internal improvements. He helped to lead the way in building the Old Cumberland Road. The Old Cumberland Road is sometimes referred to, and was then, as the Old National Road. It extended from Cumberland, MD, to Wheeling, WV, and on to Vandalia, IL. It was begun in 1811, and by 1818, the Congress had invested the huge amount of $3 million in that highway.

Henry Clay, who was a great leader, a great American leader, a great U.S. Senator, and who was Speaker of the House of Representatives early on in his political career, was an advocate of that highway and assisted in getting congressional appropriations for it. So I feel that we are working in pretty big shoes when we support Clay's American system, at least that part of it, improved infrastructure.

Well, Mr. Chairman, I thank you for giving me this opportunity to speak of infrastructure and I thank the Secretary for his appearance here today and for his support of the Appalachian Highway System.

We are going to dedicate a link of that highway system this year, and I am going to see to it that our Republican Governor, who is a friend of mine from our first years in the legislature, 52 years ago, together—he later became the youngest Governor in the State of West Virginia and now he has become the oldest Governor in the

State of West Virginia, though he is still about 5 years behind me—he is a great friend of mine and I am going to ask him to be sure that Secretary Slater is invited to that meeting and that he is on the program.

I look forward to hearing Secretary Slater there.

Thank you, Mr. Secretary, and thank you, Mr. Chairman.

Senator LAUTENBERG. Mr. Chairman, before we go on, whenever I am with Senator Byrd, I always learn something new. I just have a problem remembering the dates, the names, and all those things. But, other than that, I conclude with "I wish I had said that."

Thank you.

Senator SHELBY. I think we all wish we had said it if we had known about it, learned it, and remembered it. [Laughter.]

Senator Byrd could be a full professor of classics and I think we would all benefit from it. Perhaps he is.

Senator REID. Mr. Chairman.

Senator SHELBY. Senator Reid.

Senator REID. The lectures that Senator Byrd gave on the Roman Empire are the subject matter of a course that is now in its third year of being taught at the University of Las Vegas. The text for that is the lectures of Senator Byrd.

Senator FAIRCLOTH. Mr. Chairman.

Senator SHELBY. Senator Faircloth.

Senator FAIRCLOTH. I was really excited in that one time I had thought he had said pork chops, but he had said workshops. [Laughter.]

Senator LAUTENBERG. Is that from the hog farmer? [Laughter.]

Senator SHELBY. I want now to recognize Senator Faircloth. We are now talking about infrastructure and highways. In a previous life, in his State of North Carolina, he knew something about highways, infrastructure, and transportation because he was the man in charge of all of that.

Senator Faircloth, we are glad to have you as a member of this committee and we recognize you now.

STATEMENT OF SENATOR FAIRCLOTH

Senator FAIRCLOTH. Thank you, Mr. Chairman. Thank you for all you are doing. I will be very brief.

The budget overall was very good. I found some things in it that were disturbing, but we are going to need to find ways to strengthen the highway budget. We are falling behind. But the new ISTEA bill reflects this.

One thing that concerned me was the Amtrak budget when, clearly, we appropriate money for capital expenditures, rails, and cars, and then come right under it and say but if you don't want to spend it for this, you can spend it for operating expenses—salaries, people, whatever.

Why even budget it if we are going to leave all that flexibility in there? I think it is a ridiculous way to be committing money.

I am very much pleased at the increased commitment to aviation. I think the Airport Improvement Program is critical for the safety of this country. I am confident that Ms. Garvey is going to do a good job to bring it about.

I had asked for a report from the inspector general on the computer fiasco. I have not gotten it yet. But I would still like to know anything Ms. Garvey can enlighten me with as to what went on there and what is going on.

I cannot think of anything more frightening than flying in airplanes in fogs, clouds, and rain with an antiquated control system about which we are totally helpless. When you sit down in the seat of that plane, you cannot do anything.

So I would even put that ahead of anything.

Senator Byrd, I can dodge a pothole, but there is not a thing I can do if that pilot drives that plane in the ground.

In the proposed Coast Guard budget, the administration proposes a new user fee as a source of funding. A user fee is nothing but a tax increase, and I don't think we need any tax increases.

I will not be voting for a user fee.

I have several questions of Mr. Slater and Ms. Garvey. But thank you, Mr. Chairman for letting me be here.

Senator BYRD. Mr. Chairman, might I just answer my friend from North Carolina——

Senator SHELBY. Yes, Senator Byrd.

Senator BYRD. A State whose motto is "To be rather than to seem."

Senator FAIRCLOTH. Absolutely that is the motto.

Senator BYRD. It is a motto of which one can be justly proud.

As to dodging potholes——

Senator FAIRCLOTH. Well, you understand the context of what I am saying.

Senator BYRD. I do.

Senator FAIRCLOTH. The driver has a little control over that.

Senator BYRD. I was just going to point out, as I recall—and perhaps Mr. Slater can correct me—I believe 42,000 people lose their lives on highways every year.

Secretary SLATER. That's correct.

Senator BYRD. If that is a correct figure——

Secretary SLATER. It is.

Senator BYRD. It seems to me it would break down to about 110, perhaps, a day.

Secretary SLATER. That's correct.

Senator BYRD. Can you imagine an airliner crashing every day and killing 110 people? That is the equivalent.

If that happened, the administration would be out there every day saying more money for highways, more money for highways. I think when we reduce it to those terms, we realize the significance of the importance of safety on our highways.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Reid.

STATEMENT OF SENATOR REID

Senator REID. Thank you, Mr. Chairman.

Secretary Slater, I saw you and your colleagues in the gallery when ISTEA passed last week. I noted the pleasure in all of your demeanor last week and I am sure it was because the vote was so resounding in favor of ISTEA.

So I think that answers the question as to whether or not you favor our additional funding. I was happy to join with Senator Byrd and others in adding that additional money which makes the bill a better bill than it was before.

I–15

The State of Nevada is growing so rapidly. I have spoken to you personally about the tremendously difficult problems that we have. In Las Vegas, we have about 300 people moving there each day. That has created real problems in trying to maintain our infrastructure.

We have come to realize the importance of, and we have a joint venture now with California, trying to do something about I–15—the connecting highway between southern California and southern Nevada. It used to be just a Nevada problem because people looked at that as a way of moving people to and from the resorts in Nevada. But we have now come to a partnership with the State of California because they now realize that it is also a way to move commerce between California and the rest of the country. When that road is clogged up, people stand and wait, causing their employers tremendously increased costs for moving the produce and other products that they have around the country.

So moving people and goods quickly and efficiently through the Nation is one of the most important things that ISTEA will allow us to do.

The original ISTEA, as you know, Mr. Secretary, was one of the most far reaching and innovative pieces of legislation ever produced by Congress. We decided to no longer look at completing the Interstate System but, rather, at focusing on connecting different modes of transportation to meet the needs of the future. That was the right thing to do.

ISTEA II will continue along those lines.

LAKE TAHOE

I want to say, as part of that, how grateful I am to you and the administration for your attention to Lake Tahoe, this gem that the State of Nevada shares with the State of California, which Mark Twain said was the fairest place on all the Earth.

Now Mark Twain had not been to many other places. But the fact is he, I think, in his mind's eye, like those of us who visit Lake Tahoe, recognized that if there is a fairer place on the Earth, it would take something to be.

You and the administration have stepped in and been very responsive to the issues that are facing that very struggling lake. I appreciate that.

DRUNK DRIVING

I am glad to see that we have some requests for almost $40 million for alcohol incentive grants. These grants are designed to encourage States to pass strong anti-drunk driving legislation.

A couple of weeks ago, I had a very tough decision. I had to vote against an amendment offered by my friend and colleague, Senator Lautenberg, lowering the drunk driving level from 0.1 to 0.08. It

was difficult because I had stated publicly before and have also since that I favor lowering that rate. The problem is, in the State of Nevada, three successive legislatures have turned that down. So I had to vote against my friend and that was difficult to do.

MOTOR CARRIER SAFETY

I see that you are asking for a 17-percent increase in motor carrier safety grants. That is another program I support.

I don't want to make a big deal out of it here today. But, again, the ranking member of this subcommittee and I have been very concerned about triple trailer trucks, those large, combination trucks.

I have tried over the last 4 months to work something out with the trucking industry, and I think we had a real good program worked out, a study program worked out. Some people from the safety industry did not agree with what we were trying to do. So, sadly, we are not going to be able to do anything in this bill to provide more information on these combination vehicles, especially in unresolved issues like length, weight, infrastructure damage, environmental concerns, and, most importantly, safety.

Therefore, I would hope, Mr. Secretary, that your office would do what you can to get us more information about triple trailer trucks. The information is simply not there. There is a lot of information put out by various special interest groups about how safe these vehicles are.

Well, anyone driving down the highway next to one of these knows that that is a stretch. We badly need information and we were going to put something in this bill to mandate that. But that is not going to be the case now.

So I would hope that you and your agency, generally, would take a close look at that.

Secretary SLATER. OK.

Senator REID. I have just a couple of more things, Mr. Chairman.

PASSENGER RAIL

I am a fan of Amtrak. We spend so much time here talking about our airports, which are very important. I agree with Senator Faircloth that we need to do everything we can to assure the safety of our airports.

We spend huge amounts of money on our highways. But when we spend a few dollars on a rail transportation system, people become very concerned.

You know, it really is planes, trains, and automobiles. It takes all three, and we need to devote more time to passenger travel by rail. That is why Senator Moynihan and I, as a member of this committee, have spent a great deal of time working on magnetic levitation. There is some money in this ISTEA bill that, hopefully, will allow that to proceed further than it has.

SURFACE TRANSPORTATION BOARD

I have another concern and that is with the new Surface Transportation Board. I think they need a lot of work done. On two almost identical programs dealing with railroads, they came up with

totally different answers. In Reno, NV, where we have a Union Pacific-Southern Pacific merger, the Surface Transportation Board refused to do an environmental impact statement. That is too bad. They really should have done that.

The only thing I will say publicly here about the Surface Transportation Board is that I am going to watch very closely their funding level. I think, from what I have seen today, we may have been better off keeping the Interstate Commerce Commission than in coming up with this Surface Transportation Board, which I think at this point has been a total failure.

Mr. Chairman, I appreciate the work that you have done on this subcommittee. I also appreciate the work of the ranking member. You have both been a pleasure to work with and I look forward to our doing some good things this year as we complete the conference on the surface transportation bill and doing some good things with you, Senator Lautenberg, on the Appropriations Transportation Subcommittee.

Senator LAUTENBERG. Thank you very much.

Senator SHELBY. Senator Bennett.

STATEMENT OF SENATOR BENNETT

Senator BENNETT. Thank you, Mr. Chairman.

I won't attempt in any way to try to duplicate the memory and history lesson from the Senator from West Virginia, but I will comment in the spirit of the comments that have been going around here that I do have a sudden flash of deja vu.

I remember sitting at exactly that same table where you are sitting, Mr. Secretary, when I worked for the Department of Transportation, and being questioned by the Senator from Nevada, Alan Bible. I find that kind of an interesting flash that I had not thought of again. It was in this room with the same State being represented by a distinguished Senator on this panel. I remember how hard I prepared for that particular appearance.

Senator FAIRCLOTH. How did you come out? [Laughter.]

Senator BENNETT. We did all right. We got all the money we wanted. Yes; we got all the money we wanted. [Laughter.]

Senator REID. Bible was much more generous than Shelby. [Laughter.]

INFRASTRUCTURE FOR OLYMPICS

Senator BENNETT. Mr. Secretary, I was in Nagano, Japan, through the closing ceremonies of the Olympics and the closing event of the Olympics over there. I did not spend all of my time going to Olympic events, however. I went to see the transportation officials there to ask them questions about their challenges relating to putting on the Winter Olympics because we are going to be faced with similar challenges in the United States.

Their principal problem, of course, was the weather, and you cannot control that. But they put in an enormous amount of money and effort in creating an infrastructure that would make it possible for the Olympic guests to get to and from the various venues.

I came away with a more humble opinion of just how daunting that challenge is—I guess I should say a more exalted opinion and

a more humble attitude. That would be the proper way of describing that.

The folks in Japan did a tremendous job and required a tremendous amount of preparation and infrastructure.

I want publicly to commend you for the way you, personally, and Mr. Jack Basso, your Budget Director, institutionally have responded to the challenges that we have had in Salt Lake City as we have started to get ready for these Olympic games.

I note that your predecessor, Secretary Peña, was quoted as saying that he wished he could have done more to help alleviate the transportation snafus in Atlanta, but that he was proscribed by the legislative and regulatory situation with which he was faced.

We have worked with you and the Mayor of Salt Lake has worked with you to try to make sure you don't feel those kind of proscriptions or that your successor does not if you are not Secretary in 2002 when it comes to the Salt Lake games.

I would just ask this question. Do you now feel comfortable that you have all of the discretion you need in order to assist Salt Lake City in putting on those games?

Secretary SLATER. Senator, I do feel comfortable and I can say, without reservation, that you and the citizens of Utah will have the full support of this administration as we work with the Congress to respond to your transportation needs and challenges.

Senator BENNETT. I sincerely thank you for that and for, again, repeating your attitude and that of the members of your staff in helping us work that out.

As a Republican, I am hoping there will be a different administration when the games come along, of course, but I recognize that these are America's games and they rise above any kind of partisanship.

We are grateful to you and your staff members for your willingness to work with us.

Senator REID. Senator Bennett, there will be another administration. It will be President Gore.

Senator SHELBY. Well, I think that is debatable.

Senator BENNETT. Yes; that is the subject for another time. [Laughter.]

I do have some questions for Administrator Garvey with respect to the air traffic control pattern around Salt Lake International Airport, and I will save those questions for when we hear from the administration.

Thank you.

Senator SHELBY. Before I recognize Senator Domenici, and I am sure he has some statements and questions, Senator Bond wanted me to say to you, Mr. Secretary, that he is now chairing a VA–HUD Subcommittee on Appropriations and could not be here. But he told me to express to you his appreciation for the call. He is, of course, a member of this subcommittee. He cannot be at two places at once.

Senator Domenici.

STATEMENT OF SENATOR DOMENICI

Senator DOMENICI. Contrary to your thoughts, I don't have a lot to say today, but I do have something to say.

Senator SHELBY. All right.

SUPPORT FOR ISTEA REAUTHORIZATION

Senator DOMENICI. First, Mr. Secretary, I believe it is imperative as the ISTEA bill works its way through the other body and into conference that the administration, as soon as possible—and maybe it is already too late—come out in open support for it. We need the open support. Clearly, we cannot be magicians.

If we are going to spend what is prescribed in that bill, then we don't have enough money for everything else that the President asked for. I personally hope that, because we cannot support a few things that he wants—and I am not now talking about the tobacco tax, Senator Lautenberg—if we cannot support other things, I hope he will not remain silent on the fact that we have had to spend substantial money to build the roadways of America which are in disrepair, and the mass transportation system. While it was slow getting started in America, mass transit is a very desirable commodity across this land. It is not just parochial. It is everywhere. It is as important as highways in many places, and in many respects it is a very big step up ahead of highways in terms of environmental contributions and the like.

Now this is not a little bit of money. Again, we are not magicians. If we are going to fund this bill, then we have to find offsets to pay for it, and those normally will be restraints in spending someplace else. We are choosing to use the President's offsets, things that he found were not needed, but, obviously, he has spent them elsewhere.

That creates a very serious problem.

You worked with us during that debate and during our negotiations. We thank you for that. I do believe there are some in the administration—I do not say it is you, and I do not say it is the President at this point—but there are some who have expressed great concern about how much we are spending on highways versus other priorities that the President had sought in his budget.

Let me assure you that I do not believe this is a Republican initiative. I don't think we have to run around saying we have ISTEA in our budget, and we are proud of it. I think we are going to say everybody wants ISTEA in our budget. I believe Congress will be there on that issue with over 90 percent of the votes in this U.S. Senate.

If I am reading the House right, it might get everybody in the House by the time they figure it out how to dole the funding out. I don't know whether they know how to do that yet. [Laughter.]

In any event, excuse me. I should be a little more cautious. [Laughter.]

I don't know that I can say it any stronger than that. I hope that in due course my good friend, Senator Byrd, when we proceed through this process, will assist us in trying to get this done in terms of White House support for it.

We don't need it, and the Senator might remind me that it is our prerogative to spend money and authorize programs. I understand that. However, we still do have the President around who has a bully pulpit, and we need him supporting highway construction in the United States.

I am not going to be able to stay for questions, so I am going to submit them through the chairman.

USER FEES

I do want to mention to the committee one very serious thing, and that is that part of the President's ability to pay for transportation programs comes from three user fees, one big and two small. The aviation user fee is $6-plus billion. I think it is interesting that at this late date, you have not submitted the language for that proposal to any committee. It is very important that that be done because if you write the legislation one way, it goes to the Finance Committee. If you write it another way, there is a chance the appropriators could do it if they wanted to.

Frankly, we need to see how you are imposing that fee. You have two smaller fees, and there is no doubt about those. If the committee chooses to do them, they can do them under the leadership of our chairman.

I would also say to all the Senators and to you, Mr. Secretary, there is a very strong movement abreast not to let the Appropriations Committee put on user fees, even if they had been within the jurisdiction of those committees heretofore. That will be something to watch.

I don't know how we will meet some of these spending targets without some of these proposals. That will be an issue hovering around, and you will be confronted with it, Mr. Secretary, in terms of whether we get the right amount of money to spend or not.

Thank you very much and thank you, Mr. Chairman.

Senator SHELBY. Thank you.

Senator Kohl.

STATEMENT OF SENATOR KOHL

Senator KOHL. Thank you very much, Senator Shelby.

Like the other Senators, Mr. Slater, I am very pleased to have you here along with Ms. Garvey and Admiral Kramek. We are talking about a tremendous expenditure over the next several years for transportation in our society. It is fully justified and I think fully necessary.

A country is judged by the condition of its roads, its highways, its bridges, and its air transportation, and a country's ability to compete in this world, I think, is directly correlated with the condition of its transportation system. That is one of the most important things we do here, to appropriate money to see to it that the transportation system in our country is as modern and up to date as that in any other country in the world.

So I recognize how important this authorization is and how necessary it is.

My State is like most other States. The condition of our roads, our bridges, and our transit systems is not nearly what it should be and the requirements, the financial requirements, over the next several years are overwhelming. That money has to come from somewhere and a good deal of it comes from those of us here at the Federal level.

So, again, I am pleased that we are making that initiative.

Like Senator Domenici, I am concerned that we pay for it in a way that is responsible and in a way that is bipartisan. It is easy to say we are going to spend an awful lot of money before you decide where it is going to come from. But that is the hard part, deciding where it is going to come from.

I trust that we, in our wisdom, will do it in a balanced and in a fair way. If we can do that, then I think we will have made some very important decisions with respect to the future of our country here, this morning and this year.

So I am pleased to have you with us this morning.

Thank you, Senator Shelby.

Senator REID. Mr. Chairman.

Senator SHELBY. Senator Reid.

Senator REID. I would ask if I could submit some questions in writing.

Senator SHELBY. Without objection, we will submit your questions for the record and also those of Senator Domenici.

Secretary Slater, your written statement will be made part of the record in its entirety. You may proceed as you wish.

STATEMENT OF RODNEY E. SLATER

Secretary SLATER. Thank you, Mr. Chairman, members of the committee.

Let me thank you for the opportunity to come before you today to testify in support of President Clinton's fiscal year 1999 transportation budget proposal. I will submit my written statement for the record.

Senator SHELBY. Thank you.

Secretary SLATER. Let me say at the outset that a number of questions have been asked by you. We had the occasion to answer some of them as they came forward and I am sure that others will be asked as you have the opportunity to individually ask questions. But for those that were asked, such as the request for information related to triple trailers, clearly understand that we will be responsive to those kinds of requests.

Let me also say that I really thank the members for the education in transportation that this audience has been afforded as all of you have made your statements, dealing with its importance to the economy, focusing on the importance of it as it relates to safety, even dealing with the importance of it as it relates to national security and the positive impact that it can have on our environment.

I would like to address some of those issues as well, as I come before you and talk about the President's $43.3 billion transportation budget for fiscal year 1999.

This is a part of the first balanced budget to be submitted by a President in more than 30 years, and yet it still provides for a record level of investment in transportation.

It continues the President's commitment to creating—as many of you have called for—a balanced, integrated transportation system that is clearly international in its reach, intermodal in its form, intelligent in its character, and inclusive in its service.

In this regard, I am very pleased today to have the Commandant of the Coast Guard, Admiral Kramek, who will talk about the work we do in managing our waterways; and also Administrator Garvey,

who will talk about the importance of aviation when it comes to working with maritime and giving our transportation system an international reach.

TRANSPORTATION INVESTMENT

When I took office a year ago, I reflected on what the transportation needs were today and what they are in the context of the 21st century and the new millennium. Clearly, safety was recognized as our top priority, but also there was the issue of wise investment.

Mr. Chairman, you reminded us that last year we talked about cost effectiveness as it relates to infrastructure investment.

We also have the question of integrating our transportation systems so that they become one national, balanced, integrated transportation system. And there is the need to bring a commonsense approach to the way we work together and the way we work with our partners in the private sector and the American people.

We are working with the Congress to enact legislation that, I believe, adopts and responds to the principles that I have just referred to in an innovative and commonsense way. For example, the Congress recently passed Amtrak reform legislation that will allow Amtrak management, working with labor, to plan for the long-term future of this most important part of our transportation system.

As we look at ISTEA reauthorization we are concerned about the issue of record-level investment, and we all want that. But if we look carefully at this piece of legislation, as all of you have noted in your comments, we see that we have the chance not only to strengthen the highway program and the transit program to deal with potholes and the like, but we also have the opportunity to enhance the environment, to give access to jobs for those moving from welfare to work, and to harness technology so as to enhance the quality of our transportation system.

I commend the Senate for taking a major step forward just last week in passing ISTEA legislation that addresses all of these concerns that are priorities of this administration. I also note the fact that on that day, March 12, a year to the day after the President unveiled our National Economic Crossroads Transportation Efficiency Act [NEXTEA] proposal, many of the principles that were talked about a year ago were reflected in this Senate legislation. So, clearly, you have the strong support of this administration to work with you to figure out how we make the necessary tradeoffs—to provide for record level investment in a bill that is also visionary in its focus.

DOT STRATEGIC PLAN

Quickly, let me just talk about our strategic plan. I know that you have interests in that. This is a plan that will help us to put in place the kind of vision for a transportation future that all of you have mentioned, one that will allow us to enhance safety, to improve mobility, to promote economic growth and trade, to protect the environment, and to support national security.

If you look at our bill, we provide $3.1 billion for safety programs, an 11-percent increase and a record 7.3 percent of our total

budget. We will do much on the aviation front and we will do much across the board for transportation.

Record level investment for infrastructure investment is at $30 billion, 42 percent higher than that of the previous administration. There is $1.1 billion for technology, $250 million for ITS investment, $90 million for Flight 2000 investment, and on and on.

Let me close by saying that we also believe that, as transportation officials, we can enhance the environment. So we provide $1.9 billion in that regard, with $1.3 billion going for the Congestion Mitigation and Air Quality Improvement [CMAQ] Program. Also, I would be remiss if I did not mention the quality effort of the Coast Guard and all of the others who work with our transportation programs as we deal with the issue of national security.

But the Coast Guard, because of its drug interdiction efforts—so vital to America's future and its security—is to be commended. That is why we have in our budget an increase to an amount of $437 million for their efforts.

In closing, Mr. Chairman, members of the committee, I look forward to the questions that you have already thought of and will offer forthwith. But, more importantly, I look forward to working with you and ensuring that our Nation has the best transportation system in the world and a transportation system that can meet the challenges of a new century and a new millennium.

Mr. Chairman, thank you for the opportunity to come before you, and members of the committee, thank you as well.

PREPARED STATEMENT

Senator SHELBY. Thank you, Secretary Slater. We will insert your prepared statement in the hearing record.

[The statement follows:]

PREPARED STATEMENT OF RODNEY E. SLATER

Mr. Chairman, Members of the Subcommittee. Thank you for the opportunity to testify in support of the fiscal year 1999 budget proposals for the Department of Transportation.

OVERVIEW

President Clinton's historic budget for fiscal year 1999, the first balanced budget in 30 years, ends the deficit three years ahead of schedule while continuing to invest in America and preparing us for the 21st century.

As the President said in his State of the Union Address: "Americans have pursued a new strategy for prosperity: fiscal discipline to cut interest rates and spur growth . . . investments in education and skills, in science, technology and transportation, to prepare our people for the new economy."

A budget of $43.3 billion is proposed for critical Department of Transportation (DOT) programs. This budget level is evidence of the Administration's continuing commitment to building an integrated transportation system that is intermodal in form, international in reach, intelligent in character and inclusive in service. The fiscal year 1999 budget request provides the resources to ensure a safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people.

When I took office one year ago, I reflected on what we need to address transportation programs now and into the 21st century. In looking to the future, we can learn from the past. Today our transportation system is the best in the world. Why? Because of: technological innovation; infrastructure innovation; and institutional innovation.

In the intervening period, we have developed a Strategic Plan that has been called the best in government.

STRATEGIC GOALS

Philip Guedalla said in his book "The Hundred Years" that "the true history of the United States is the history of transportation." Helping us to give form to our vision for a transportation system that will address the needs of the coming century are the Department's strategic goals to meet America's transportation needs by: enhancing safety; improving mobility; promoting economic growth and trade; protecting our environment; and supporting national security.

Our vision of transportation for the new millennium is of an integrated transportation system that serves the United States by being fast, safe, efficient, accessible and convenient. It is a transportation system that is not just about concrete, asphalt and steel—but rather is about providing opportunity for all Americans. This vision for America's transportation system is supported by the goals and programs funded in the fiscal year 1999 budget.

MEASURING PERFORMANCE

It is important not only to make transportation investments but also to determine their effectiveness. Fiscal year 1999 is the first year that we will formally submit performance measures. We have in fact developed aggressive measures, and I look forward to working with you, Mr. Chairman, and this committee, to examine the performance of our investments and thus ensure the best possible management of our resources.

SAFETY

After taking office a little more than a year ago, I stated that safety must be the Department's number one priority. To give life to that concept, the Department's programs promote public health and safety by working toward elimination of transportation-related deaths, injuries and property damage.

The fiscal year 1999 budget proposes a total of $3.1 billion in new appropriations for safety programs. This is an 11 percent increase over the fiscal year 1998 level and a record 7.3 percent of total DOT resources.

Highway crashes in particular are a significant burden to our society, not to mention the impact on families and communities. In the 21st century, we at DOT would like the news of someone being killed in a car crash to become a thing of the past. We have much work to do to make this happen.

Our goal for fiscal year 1999 is to reduce the number of transportation-related deaths to fewer than those that occurred in 1995, which was at a level of 44,407, despite a projected increase in miles traveled. It will not be easy to achieve these goals, but it is essential that we commit ourselves to do so.

The fiscal year 1999 budget includes a 22 percent increase in funding for the National Highway Traffic Safety Administration (NHTSA), to $406 million, to advance highway safety. These resources will help encourage states to pass strong anti-drunk driving legislation and to strengthen occupant protection laws. They will also help states fight their highway problems directly through increased enforcement and education programs designed to meet local conditions. Funding will support the President's Initiative to Increase Seat-Belt Use Nationwide; increased research to improve our safety techniques; and expansion of the Safe Communities program, a community-based approach to improving highway safety. Such community-based programs have already shown results. For example, in Massachusetts, a community-based program has reduced fatal crashes by 18 percent, and alcohol-related crashes by 42 percent.

The Motor Carrier Safety Program is proposed to increase by 18 percent to $100 million, including funding for initiatives to improve safety by targeting unsafe carriers while reducing regulatory burdens on the safe ones. These programs work, and in fact we have seen a reduction in fatalities from large truck crashes from 1986 to 1996.

Aviation safety funding is proposed to increase by 18 percent to $975 million to fund additional safety personnel and continue ongoing emphasis on assuring the safety of new entrant airlines. We plan to add 45 new safety inspectors and certification personnel.

Railroad safety funding is proposed to increase by over eight percent to $62 million to fund 32 new safety personnel and to strengthen the Federal Railroad Administration's new results-oriented approach to safety. In fiscal year 1999, we aim to reduce (from 1995 baselines): the fatality rate from 1.71 to 1.57 or less per million train-miles, the number of rail-related crashes from 3.91 to 3.44 or less per million train-miles, the rate of crashes at highway-rail crossings from 2.85 to 2.40 or less

per million train-miles, and the rate of rail-related trespasser fatalities from 2.81 to 2.58 or less per million train-miles.

The Coast Guard's maritime safety funding is proposed to increase by nine percent to $808 million, to fund critical search and rescue, boating safety and marine safety programs. With these programs, we aim to reduce the number of recreational boating fatalities by ten percent from 1993 levels, and reduce the worker fatality rate on board commercial vessels from 52 per 100,000 workers in 1993 to 42 or fewer per 100,000 in 1999. This is only the beginning and we will continue to strive for even better results in the future.

Overall, much of the increase proposed in the fiscal year 1999 budget over the fiscal year 1998 appropriated levels is for safety programs. We propose this because it is our top priority and it is necessary to enhance the safety record even further in the coming years. Last year, this Subcommittee supported the increases in safety funding that we proposed for NHTSA and other programs. I appreciate that support and hope that we can work together to provide the additional safety funding increases proposed in this budget.

I would now like to discuss the Department's cooperative working relationship with the National Transportation Safety Board (NTSB). Under this Administration, the Department's record of responsiveness to NTSB recommendations has substantially improved. We are proud of having achieved an 82 percent acceptance rate of recommendations since 1993, compared to a 70 percent rate from 1967 to 1992. Since 1993, we have closed nearly 800 recommendations issued prior to that time, in addition to the 495 we have closed that were issued since 1993.

The Department takes seriously the safety issues presented on the NTSB's "Most Wanted" list. Over 75 percent of the 45 recommendations on the list issued to the Department are in the "open acceptable" category, meaning that the NTSB concurs with actions the Department is taking to address the recommendations. We believe our record and performance will continue to be high and we look forward to working closely with the NTSB to address current and future recommendations.

MOBILITY

Mobility means helping Americans get to where they need to go through an integrated transportation system.

Infrastructure Investment

President Clinton's commitment to "rebuild America," signaled his understanding that improvements needed to be made to the nation's transportation system. Working with both House and Senate Appropriations Subcommittees, we have increased transportation infrastructure investment to record levels—for the first five years of this Administration, 25 percent above the 1990–1993 average levels. Our fiscal year 1999 proposed level is a record 42 percent above the 1990–1993 average levels.

We are now beginning to see the results of these actions. Conditions of the National Highway System have improved by reducing the percentage of miles classified in "fair" condition or worse. Transit capacity has increased by 3.5 percent in just two years. Improvements have been made in nationally important roads and bridges and work has been undertaken on a number of airport capacity expansion projects.

Our goals for fiscal year 1999 are to continue these improvements. We plan to: increase the percentage of miles on the NHS that meet pavement performance standards for acceptable ride quality; increase capacity and reduce delays in the national airspace system; and increase the number of intercity and commuter trains scheduled along the most congested segments of the Washington/Boston Corridor by 2005.

The Federal Government cannot fund every project that is envisioned. However, we can continue to leverage the transportation dollar so it goes the furthest it can and meets the needs of all of the American people.

The record $30 billion in Federal infrastructure investment that we propose for fiscal year 1999 does just that. The Federal-aid highway obligation limitation is proposed at $21.5 billion, equal to last year's record level. Included in this amount is a new $90 million program to improve the flow of goods and people across the borders. In addition, $100 million is proposed for a new infrastructure credit program and $150 million for State Infrastructure Banks. These two programs will help leverage other investments and bring projects to completion sooner.

A total of $4.6 billion is proposed for transit capital funding. This includes $3.6 billion for Formula Programs, $100 million for Access to Jobs and Training and $876 million for Major Capital Investments. In that regard, transit capital investment is estimated to have averted $15 billion a year in congestion costs. Turning to people's needs, our Access to Jobs proposal supports the kind of programs which enabled Elaine Kinslow, whom President Clinton introduced during his State of the

Union Address, to move from welfare to work. Again, by funding these programs we need to recognize that transportation is to serve the people. And what better way than to provide the opportunity for meaningful work and the means to get to and from that workplace.

As part of NEXTEA, President Clinton proposed a record $175 billion over six years for surface transportation. Since then, the President's 1993 deficit reduction plan and the strong economy have combined to cut the deficit faster than expected. Because of this progress, the President is willing to consider additional transportation funding within the context of the Balanced Budget Agreement.

Surface transportation is but one part of our intermodal transportation system. The budget will provide the means for our aviation system to handle the growing number of flights. We propose to fund the airport grants program at last year's appropriated level of $1.7 billion. Some examples of the type of projects that may be financed are: new runways that increase capacity and allow airports to handle more traffic; new taxiways and operating areas to reduce ground delays; and various safety and security improvements.

Passenger rail is another critical component of our nation's inclusive transportation system. The fiscal year 1999 budget includes historic funding levels for Amtrak—$621 million in capital in addition to the $2.2 billion available in fiscal year 1998 and fiscal year 1999 from the Taxpayer Relief Act. This funding will give Amtrak the ability to upgrade its system, and to replace aging rail cars in preparation for the demands of the 21st century.

Critical Operations

Improvement in transportation operations for which the Department is responsible, most notably Federal Aviation Administration (FAA) and Coast Guard, will also contribute to our mobility goals.

Funding for FAA operations is proposed to increase by 5.5 percent to $5.6 billion. This will fund 185 additional air traffic controllers and 150 additional maintenance technicians. Additional funding is also proposed to make operational the air traffic control and aeronautical navigation equipment now being delivered as part of the air traffic control system modernization. This new equipment will further reduce the number of outages, reduce delays, and allow optimum use of capacity to accommodate growth in operations. To keep that modernization on track, $2.1 billion, 14 percent above last year, is proposed for FAA's facilities and equipment budget.

We also are making every effort possible to ensure that critical air traffic control and other systems are compliant with proper fixes to the year 2000 date problem. FAA has completed assessment of all mission critical systems and 125 out of 209 such systems are already certified as year 2000 compliant. FAA plans to have all renovation of software and hardware that is needed for these remaining systems in place by September of 1998, and all testing and validation completed by January of 1999.

Coast Guard's operating expenses budget is proposed to be funded at $2.8 billion, about two percent above last year's level. Its capital budget is proposed at $443 million, 11 percent above last year's level. It includes $28 million for a deepwater replacement capability analysis, so that we will be in a position to field the lowest cost, best systems to meet our deepwater fleet needs. To offset some of Coast Guard's capital investment, we are proposing fees to recover a portion of the Coast Guard's costs for its navigational services to commercial users.

ECONOMIC GROWTH AND TRADE

America's economy is in the best shape in a generation, with steady growth, high employment, low inflation, and low interest rates. Part of this success is due to investments which make transportation efficient and flexible, keeping costs low. Economic growth and trade represents an ultimate outcome for virtually all of our transportation programs.

In addition to infrastructure investment and innovative financing, we also are looking to new technologies to help keep America competitive. We're proposing a total of $1.1 billion for research and development.

—This includes $250 million for intelligent transportation systems, which can cut by a third the cost of the new highway capacity we need.

—Also included is $90 million for Flight 2000, a demonstration of technologies and operational procedures which will exploit new capabilities such as GPS and aeronautical data link and will lead to earlier introduction of free flight in the national airspace system.

—The Nationwide Differential Global Positioning System, proposed to be funded at $8.5 million in fiscal year 1999, will provide positioning, navigation, and timing accuracy for the nation's surface transportation network. This system will

help provide for the safe and efficient movement of trains and other modes of transportation throughout the nation.

To further support economic growth, we at the Department must ensure that we are good stewards of tax dollars and that the management of our programs is the best that it can possibly be. To that end, the Department, and specifically the Federal Highway Administration, have taken very seriously an effort to consolidate field offices. We have made some progress, but much more is proposed for this year and beyond.

—We are implementing field office co-location via sensible space sharing to improve customer service, reduce costs and increase efficiency. To date, NHTSA and FHWA have co-located in Baltimore and work is underway to co-locate all DOT offices in Kansas City. In addition, workgroups in Fort Worth and Denver are developing plans on how to best serve the public through co-location.

—In order to provide one-stop shopping closer to major customers, FHWA and FTA are setting up jointly-staffed metropolitan offices in Los Angeles, Philadelphia, Chicago and New York City.

—FHWA, based on a task force review during 1997, plans to reduce the number of its regional level offices. By the spring of 1998, FHWA will complete a detailed implementation plan for this reduction, including estimated costs and budget allocations. A report to you on the review and the plans was delivered recently.

Our ultimate goal of economic growth can be hindered, however, when programs are held up and projects are delayed due to lack of authorization. Our Federal aviation and surface transportation programs need to be reauthorized this year.

We are currently developing our proposal for aviation reauthorization, keeping in mind the recommendations made by the National Civil Aviation Review Commission. Our proposed surface transportation reauthorization, the National Economic Crossroads Transportation Efficiency Act, is pending before Congress and the Senate has just passed the ISTEA II bill. I applaud the Senate for helping advance this important legislation.

As we work with Congress toward consensus on these two major bills, the President's proposal to establish a Transportation Fund for America will help us overcome some of the obstacles that have cropped up in past efforts. This fund highlights the importance of transportation and will assure users that, should Congress reduce mandatory spending or provide newly enacted revenues, these funds can be targeted for transportation spending.

HUMAN AND NATURAL ENVIRONMENT

The fiscal year 1999 budget includes several programs and initiatives aimed at reducing air and water pollution, preserving wetlands and open space, and making transportation facilities more compatible with the environment. No matter how much is done to improve the capacity and efficiency of our transportation system, we can not call our approach "intelligent" unless we tend to its effects on our environment, and ultimately our health.

The Congestion Mitigation and Air Quality Improvement (CMAQ) program, our largest environmental program, is pending reauthorization with ISTEA. It helps communities meet national standards for healthy air by funding innovative projects that promote transit ridership, clean fuel use, and emissions-reducing inspection and maintenance programs. A record level of $1.26 billion is proposed for CMAQ in fiscal year 1999.

Both Coast Guard and FAA play vital roles in protecting the quality of the environment. For fiscal year 1999, the Department requests $309 million for the Coast Guard to prevent pollution, conduct pollution investigations, and supervise federally-funded cleanups. We also request a total of $39 million to ensure that all DOT facilities are environmentally safe.

Prolonged exposure to high-levels of noise is a critical environmental concern. To continue addressing this problem, the fiscal year 1999 budget includes funds in FAA's Airport Grant program to help families and businesses relocate away from airports where noise exceeds healthy levels, and to pay for sound insulation in existing property.

To help improve transportation's energy efficiency, $10 million is proposed to promote the development and demonstration of Advanced Vehicles, Components and Infrastructure in cooperation with the Department of Energy. This research effort will be geared to demonstrate technologies for reducing emissions, enhancing energy efficiency and reducing dependence on foreign oil.

The Department's environmental goals for fiscal year 1999 include reducing transportation-related emissions by one percent annually over ten years, and reducing

the number of residents exposed to significant aircraft noise (65 decibels or greater) by 60 percent from 1995 levels.

NATIONAL SECURITY

DOT plays a critical role in ensuring that the transportation system is secure, that borders are safe from illegal intrusion, and that the transportation system can meet national defense needs in time of emergency.

—To remain vigilant in our efforts to prevent terrorism, the fiscal year 1999 budget includes $100 million for the FAA to continue to purchase explosives detection equipment to be deployed at our nation's airports.

—Even though not in this Subcommittee's jurisdiction, I would like to mention the $98 million included in DOT's budget for the Maritime Security Program. The 47 vessels supported by this program are committed to carry military cargo during war or national emergencies.

—Last year, the Coast Guard intercepted and confiscated a record 103,617 pounds of cocaine and 102,538 pounds of marijuana. The fiscal year 1999 budget includes $437 million for the Coast Guard's drug interdiction program.

Our goals in the national security area for fiscal year 1999 are to increase the detection rate for simulated explosive devices and to reduce the flow of illegal drugs and migrants via maritime channels.

CONCLUSION

We in the Department of Transportation must set high goals and with our partners we must be architects of change. We must ensure our success in the 21st century by recognizing the crossroads we are at today—recognizing the need not only to invest in our current infrastructure, but to take full advantage of technology and leave a more efficient, safer, and environmentally sound transportation system for our children.

The budget that we have proposed for fiscal year 1999 takes a major step in that direction. I look forward to working with this Subcommittee and the entire Senate and House to pass a forward-looking transportation appropriations bill and to ensure that critical programs are provided long-term reauthorization.

EXPIRATION OF STEA AUTHORIZATION

Senator SHELBY. Last year a short-term funding bill, with which we are very familiar, the Surface Transportation Extension Act [STEA] of 1997, was enacted to fill the gap left by ISTEA's expiration on September 30. To get the money flowing to highway projects again, the extension legislation provided $5.5 billion in new funding authority for the major Federal-aid programs and gave States the flexibility to transfer, among other programs, unobligated balances left over from the first 6 years of ISTEA, which was about $10 billion nationally.

Secretary SLATER. Yes, sir.

Senator SHELBY. However, an obligation ceiling of approximately $9.8 billion was also in force. Most significantly, the States are not allowed to obligate any Federal-aid highway funds after May 1 of this year unless a new multiyear authorization bill was passed, which has been referred to.

If reauthorization is not completed by May 1, will the States be able to continue their highway programs?

Secretary SLATER. Mr. Chairman, unfortunately, they will not. This bill is important.

Senator SHELBY. It's imperative, isn't it?

Secretary SLATER. It is imperative in terms of the long-term security of our transportation system, and also in giving those transportation officials at the State and local levels the assurance of knowing that there will be a smooth flow of needed infrastructure investment.

I do commend the Congress for providing the extension. But, clearly, the Congress recognized the importance of reauthorization legislation by providing some limits to our ability to allocate and make resources available after a given date—May 1.

Again, I commend the Senate for stepping up to the plate and moving their legislation expeditiously. Also, the House has expressed its commitment to do so as well.

So I believe that the Congress is ready to act. Clearly, the administration is ready to work in partnership with you to act.

Senator SHELBY. Thank you.

Secretary SLATER. Thank you, sir.

ENFORCEMENT OF NHTSA SUBPOENAS

Senator SHELBY. Mr. Secretary, more people are killed on our Nation's highways each year than are killed in other modes of transportation combined. We have talked about this.

Secretary SLATER. That's correct. Senator Byrd mentioned it.

Senator SHELBY. The National Highway Traffic Safety Administration is charged with promoting highway safety in our country. One of the primary responsibilities is to investigate product defects within the auto industry to help ensure that the cars we all drive are safe. My question is this, Mr. Secretary.

When this agency conducts an investigation of a particular automobile and issues a subpoena to an automaker to provide information on that particular vehicle, and the automaker does not fully comply with the subpoena—either by providing false information or by simply withholding pertinent information—can the agency impose a fine or penalty of any sort on the company for failure to comply with the subpoena, or should it?

Secretary SLATER. Mr. Chairman, the agency can levy a fine for failure to comply with a subpoena. We can also carry the matter to court, and we have actually done both.

Senator SHELBY. OK.

EMERGENCY RELIEF HIGHWAY PROGRAM

Over the past 7 years, the Emergency Relief Highway Program has been funded at an average of $582 million per year, $100 million of that coming from the annual ISTEA contract authority and the rest usually coming from a supplemental appropriation.

Secretary SLATER. That's correct.

Senator SHELBY. In your budget, you have only requested $100 million for fiscal year 1999. It is almost guaranteed that this will not be enough money and that the Department will be sending another supplemental request for emergency highway repairs to the Congress later this year.

Would it make more sense for you to request a realistic number for the Emergency Relief Program instead of relying on supplemental appropriations for the program each year?

Secretary SLATER. Well, let me just say, Mr. Chairman, it is true that we have a record upon which to reflect. And if you were to look at what has happened, say, annually——

Senator SHELBY. They are not the only one who does that, now, to be fair.

Secretary SLATER. That's right. I understand. But if you look at what has happened annually over the last 5 years, you can see that the needs almost always have outstripped the $100 million that we have requested.

But I will say that in all of those instances, we have been able to come to the Congress when we have clear indication of what is needed in the form of a supplemental appropriation and to get those resources. In that regard, I would want to commend this committee and also the Congress for the effort that is currently underway to respond to the President's request for a $259 million supplemental to deal with this very issue.

There are many categories where we probably would like to make a request for additional resources. But what we have tried to do is to offer a budget that is balanced, that reflects some appreciation for the history that we have—where we have provided funding for these purposes—with the knowledge that we can and have come to the Congress for supplementals once the need has become clearer.

That is the way we chose to approach this matter on this occasion as well.

USER FEES

Senator SHELBY. Mr. Secretary, the administration's budget request, as I mentioned in my opening statement, envisions over $200 million from user fee proposals that have either not been enacted by Congress or have had troubled implementation periods.

I just want to set the record straight and say that this Senator is not interested in enacting any new user fees—taxes—on the transportation community. I expect that no action will be taken this year on any of the user fee/tax proposals in the administration's budget. Accordingly, there will be substantial holes in the FAA budget, the Coast Guard budget, the Federal Railroad Administration budget, and the Surface Transportation Board's budget. And, to complicate matters, the Senate just passed an ISTEA reauthorization bill that envisions a substantially higher highway obligation limitation than the record level we appropriated for 1998, which will constrain our ability to find the resources to fill the user fee/tax budget holes.

So we foresee the very real possibility of transportation budget shortfalls given the dual constraints of higher ISTEA driven expectations for highway spending and user fee/tax holes that are built into your budget request.

Mr. Secretary, for the record, do you anticipate submitting any budget amendments that might address these shortfalls, and what potential cuts in the modal administrations can we take to offset the user fee holes? Have you thought that out?

Secretary SLATER. Clearly we have thought about it. It is our hope that, while some Members of the Congress have expressed their lack of support for user fees, as you have, Mr. Chairman, we will still have a good shot at making our case. The Congress has responded to some requests. The one example is, clearly, the FAA overflight fee issue.

Now I say that, also willing to acknowledge that the U.S. District Court here in the District did recently find that to some degree we

went a little far in implementing those fees. But they did not determine that overflight fees—user fees—are unconstitutional.

So there may be some way for us to address that issue over time.

But the big areas where we have requested user fees are clearly FAA and rail safety, and we just ask that we have the opportunity to work with you and members of the committee and Members of Congress as we work to address the question.

We, too, were dealing with constraints, the desire to have a strong transportation bill but also to do it within the context of being able to submit the first balanced budget in over 30 years.

Senator SHELBY. Thank you.

Senator Lautenberg.

Senator LAUTENBERG. Thanks, Mr. Chairman.

Mr. Secretary, so far so good, I think. I want to ask a couple of questions, some that may have a different slant than those of my friend and colleague, the chairman of the subcommittee, which is exactly where we would like to place you, right in the middle. You don't have to pick sides, but you have to come up with the right answer to satisfy both of us. It is not easy.

Secretary SLATER. It's not easy, sir, but we'll try.

Senator SHELBY. If you do that, you are going to be a great Secretary. [Laughter.]

Senator LAUTENBERG. Last August, the Federal Highway Administration released its 1997 Federal Highway Cost Allocation Study. It showed that the heaviest vehicles pay considerably less in taxes than the costs they impose on our Nation's highway system.

Now, clearly, the user fees these heavier trucks pay are not set high enough to compensate for the increased wear and tear that they cause to our roads and bridges.

Are you reevaluating the current user fee system—and again, this is the first time you have to jump in the hole—to remedy this deficiency in the amount of user fees paid by the heavier trucks?

Secretary SLATER. Let me just say, Senator, that we are looking at user fees across a broad spectrum of the transportation industry. The ones that we have made a decision on are reflected in our budget.

We continue to look at the question as it relates to other components of the industry, but no decision has been made at this time in those additional areas. The places where we have made a decision are reflected in our budget.

Senator LAUTENBERG. Yes; because the cost allocation study, for instance, suggests eliminating the $550 cap on heavy vehicle use tax that applies to all vehicles registered that are above 75,000 pounds. Is that a change that you could support?

Secretary SLATER. Well, it is clearly a change that is worthy of consideration. But, again, I think the best approach is to keep an open mind on these kinds of issues and to look at all ways for addressing these kinds of concerns. That is the approach that we are taking as a Department.

INCREASED SPEED LIMITS

Senator LAUTENBERG. The Department of Transportation report on the impact of increased speed limits on the Interstate System discloses that fatalities and injuries increased nationally on inter-

state roads in 1996 while decreasing on all other roads, even though the interstate roads are considered the safest.

This report also shows that the States that increased speed limits in 1996 experienced about 350 more interstate fatalities than otherwise would have been expected with the previous speeds.

How many lives more do we have to lose before action is warranted?

Secretary SLATER. Well, Senator, as you know, the administration worked with you and others to retain a national speed limit. We were unsuccessful in that effort in 1995 and, as a part of the National Highway System [NHS] bill, the national speed limit was removed.

We have been involved in a study and we have completed 1 year of that effort. As you have noted, these changes have been discovered.

I will say, though, that this is but 1 year, and what we want to do is to continue to assess this situation as we go forward. But that said, I want to make the clear point that this administration joins all of you who understand that safety has to be our top priority in pressing forward and aggressively on a number of fronts.

I mentioned the President's national initiative to increase seatbelt use from 68 percent to 85 percent by the year 2000, and to 90 percent by the year 2005.

We have already seen an increase in the seatbelt use rate to now approximately 70 percent, a historic level.

We have also worked with you and others to deal with the issue of drunk driving, and we do have the success in the Senate of the 0.08 initiative and will work hard in the House.

We have requested a 22-percent increase in NHTSA's budget, an 18-percent increase in the aviation budget, and an increase in the safety component of every modal budget of the Department of Transportation.

I say that to just make the point that, while we have seen the issue of speeding increase the incidence of crashes and fatalities, we are working on a broad front to be aggressive when it comes to the issue of safety and its promotion, and working with our partners to ensure stronger laws and greater implementation.

HIGHWAYS AND TRANSIT BALANCE

Senator LAUTENBERG. Mr. Secretary, with the passage of the ISTEA reauthorization bill recently in the Senate, it kind of follows in the tradition of the first ISTEA bill. They recognize the importance of mass transit as a critical link in our surface transportation network and establish a balanced approach to funding highways and transit, an approach that on many occasions you, Mr. Secretary, on behalf of the President, have applauded and highly recommended. You have heard people here talk on behalf of expanded transit funding.

But on March 3, 1998, in a letter to Congress you talk about the emphasis on investment in transit and highways in order to rebuild America. You say transit should receive an equitable share of all the increases within the aggregate budgetary framework.

Secretary SLATER. Yes, sir.

Senator LAUTENBERG. Do you agree that any increases in funding for highways and transit should maintain the historic 80/20 balanced approach and provide funding for transit as well as highways in both budget authority and outlays?

Secretary SLATER. I do, without reservation.

Senator LAUTENBERG. What can we do in the future to ensure such an intermodal and balanced approach to surface transportation? And that answer has to be short, Mr. Secretary.

Secretary SLATER. I think you can continue to do as the Senate has done. A couple of weeks ago, it dealt with the highway issue and made a lot of people happy by raising that amount by $26 billion. But then, in response to concerns raised by you and by the administration and others, it responded by raising the transit investment by $5 billion. I think that that sort of balanced approach——

Senator LAUTENBERG. Would that get us to 80/20?

Secretary SLATER. It's about 80/20 when you look at those numbers added to what was currently being provided because we have actually seen a significant increase in transit funding over the last 5 years.

Senator LAUTENBERG. I may have some questions about that ratio, Mr. Secretary.

May I have just another minute of time, with the chairman's permission?

Senator SHELBY. Go ahead.

PUBLIC INFORMATION ON HIGHWAY SAFETY

Senator LAUTENBERG. I would ask that whatever you find in that study on highway speeds and fatalities, please get that information out fully across the country. People have to realize that it is nice to be able to get there sooner and quicker and it is boring to sit at 55 miles an hour on an open highway. But the carnage that results is something that we have to understand. There is a price to pay for it.

I want the American public to make their decision based on the price that their neighbor, their own families, or that others in their community may pay.

I thank you, Mr. Chairman.

Secretary SLATER. Senator Lautenberg, we will disseminate that information.

Senator SHELBY. Senator Faircloth.

Senator FAIRCLOTH. Thank you, Mr. Chairman, and thank you, Mr. Secretary.

Secretary SLATER. Thank you, Senator.

LANDING SLOTS AT GATWICK AIRPORT

Senator FAIRCLOTH. This is a longer question and I am going to try to cut it down because you are familiar with it. It involves the Charlotte to Gatwick airports route.

Secretary SLATER. Yes, sir; that is a very important issue.

Senator FAIRCLOTH. Your Department granted authority for U.S. Air to fly the route from Charlotte to Gatwick and they have simply refused to grant a landing slot to U.S. Air. I mean, they could fly over there very nicely, but they can't land.

Secretary SLATER. Which is a problem and we have to address it.

Senator FAIRCLOTH. Yes.

Now the British Airways are trying to get, and have an application for, Denver service.

Secretary SLATER. That's correct.

Senator FAIRCLOTH. Are you going to block the Denver service until they grant landing rights for us at Gatwick?

Secretary SLATER. Let me just say, Senator, that we have made it clear to our counterpart in the United Kingdom and with the slot coordinator at Gatwick that we intend to see the agreement that we have reached pertaining to U.S. Airways honored and that we clearly are reflective on those kinds of issues as we are asked to make decisions related to the use of our airports.

Senator FAIRCLOTH. That is an absolutely elegant statement. But are you going to tell them "no Denver till Gatwick"?

Secretary SLATER. We are going to tell them that we intend to have Gatwick and that we are going to make a strong case for the benefit of our airline.

Senator FAIRCLOTH. That is good enough. Thank you.

Secretary SLATER. Yes, sir.

INSPECTION STICKERS FOR TRUCKS

Senator FAIRCLOTH. Chairman Shelby and I talked to you, rather wrote you a letter, about a very dangerous and fatal truck crash in western North Carolina. The truck was way, way beyond any inspection and had problems with brakes as well as many, many other problems.

I think every State in the Nation requires an inspection sticker on an automobile, and for most States it is clearly on the windshield, where you can see it—the date the vehicle was inspected, all of that.

Why don't we have that with the trucking industry? And I say that I am part of the trucking industry. We are still running 30 or 40 trucks and we have them inspected. But why not have it clearly visible so that any time an officer stops a truck, he can just glance at it and tell whether there is an inspection sticker on it every time the truck crosses a way station?

Secretary SLATER. Senator, let me just say that I have gotten the letter and, clearly, you have raised a very important issue here.

We should look into the issue of whether there should be a decal or something that is visible that indicates that a truck has been inspected, and we will do that.

The other thing that we have done that I think speaks to the issue is that we have requested an additional $15 million, which brings our total to $100 million, the amount of money that we will provide in grants to State governments for motor carrier enforcement and the hiring of personnel for their inspection programs.

Also, as a result of our streamlining effort, we have designed a program that will allow us to focus on troubled carriers or carriers that have a history of violating our regulations. We plan to implement that program as a result of this new initiative as well.

I do believe that those decisions and approaches speak to the concern that both you and Chairman Shelby have raised.

Senator FAIRCLOTH. It just seems to me to be such a simple solution to a major problem. Again, I make clear that the trucking industry is a great one and their motto, "If you got it, a truck brought it," is the truth.

Secretary SLATER. Yes, sir.

Senator FAIRCLOTH. I have been a part of that industry and strongly supportive of it in every way. But the very idea of allowing trucks to whip back and forth, some scab operator with no inspection, no brakes, and you would have to have a search warrant and a week to find out whether it had been inspected or not is—I mean, if he stopped at a way station, how long would it take them to find out if it had ever been inspected? They couldn't do it.

I think this is a very simple answer to a problem that needs addressing.

Secretary SLATER. It is. Let me just say that the Senate has responded to our request for stronger laws in that regard, for a stronger program, and the ability to levy stronger penalties. We appreciate that. It is a part of our ISTEA reauthorization proposal.

Senator FAIRCLOTH. All right.

Thank you, Mr. Chairman, and thank you, Mr. Secretary.

Senator SHELBY. Senator Bennett.

YEAR 2000 PROBLEMS

Senator BENNETT. Thank you, Mr. Chairman.

As my colleagues are discovering about me, I am becoming absolutely obsessed with a particular topic. It is not going to go away. It is going to get worse—that is, my obsession, at least.

The topic is the year 2000 problems. As chairman of the Subcommittee on Technology and Financial Services in the Banking Committee, I have pushed this to the limit that I can in terms of our problems facing banking. I will have some rather pointed questions for Administrator Garvey with respect to the FAA. But I would like to raise with you, Mr. Secretary, your responsibility for the entire Department.

Secretary SLATER. Yes, sir.

Senator BENNETT. The FAA obviously has the highest visibility here. There are airlines which have already announced they will not have airplanes in the air on New Year's Eve 1999. I tell people the three places you do not want to be on New Year's Eve are on an airplane, in an elevator, or in a hospital as those are the areas where the processors are most likely to cause you serious problems.

But I have visited with the President's czar on Y2K problems, Mr. Koskinen—newly appointed as assistant to the President—and assured him of my absolute support in everything he is doing, and I was heartened by having him tell me that they are not going to try to solve all the problems. Instead, they are putting the responsibility for solving the problems on the heads of each Cabinet officer and each administrative agency head.

The possibility of the Coast Guard not functioning properly because of computer breakdowns connected with Y2K, the possibility of your communications system worldwide not functioning, aside from the FAA, the possibility of the computers you have built into highways not functioning, the chaos that can come if our transpor-

tation system shuts down can be extremely severe and must be, I think, your highest priority.

So this is just a reminder of what you are going to hear and are hearing, I am sure, from the President. I understand from Mr. Koskinen that the President himself raised this issue at a Cabinet meeting.

Secretary SLATER. Yes, he did.

Senator BENNETT. I have talked to the leader about it here in the Senate, about the necessity of our beefing up our oversight activity on behalf of the Senate. Something may be moving forward on that fairly shortly.

I cannot think of anything more devastating than to have us get to a year from now or a year and a half from now, in late 1999, be faced with these kinds of breakdowns that are clearly coming, and say, "Gee, why didn't we think about this before?"

So at the risk of being the boy who cries wolf, in this case, there are real wolves and they are all computer driven. We have to be as serious as we possibly can.

So as I have said, I will reserve my questions on Y2K problems with the FAA for Administrator Garvey and I know that she is in the forefront of the most visible challenge you face in this area.

But I could not let the opportunity go by and not stress to you the obvious concern that the Senate must have of your duties over and above the FAA to see to it that the entire Department of Transportation gets on a triage approach as quickly as possible.

Now triage I had explained to me by Maj. Charles Emerson Winchester on a late night rerun of "MASH." I didn't understand what the medical term meant until one of those reruns. But it is this: You do what is necessary to see that the patient survives and then put him or her into a convalescent situation later and turn your attention to the next patient that is in danger of dying, instead of staying with this one patient all the way through. You do triage to do what is necessary for survival.

The best estimates I have seen show that at least 15 percent of the computers in America will not be Y2K-compliant by the year 2000 and at least 25 percent of the computers worldwide will not be.

As Alan Greenspan told the Banking Committee, it is not an issue of having a big problem. It is an issue of having a small problem that is interconnected to everything else and, therefore, turns into a big problem very quickly.

Fifteen percent of our computers not working is a really scary number to me. I would hope you would be prepared to respond to questions on this later on, in writing, as we do our best to work together.

This is not a partisan issue. This is not a legislative branch/executive branch issue. This, frankly, is a national/international issue which, if we don't get a handle on it in terms of setting priorities, will trigger a worldwide recession and in some parts of the world a serious depression.

It is too late to solve the problem. We have to move into the triage mode and say what are the mission-critical systems and what do we do to keep those mission-critical systems up, and we'll

worry about solving the whole problem after we have survived the turn of the millennium and do the convalescence later on.

So I appreciate your being here and just wanted to underscore that and give you an opportunity to respond.

Thank you.

Senator SHELBY. Go ahead, Mr. Secretary.

Secretary SLATER. Senator, clearly, as you have noted, you will have the opportunity to visit with Administrator Garvey about the FAA, in particular, when she comes before you. But let me say that she is in the forefront of helping us to deal with this issue in the FAA.

I would also note that the Coast Guard has done a significant job in this area as well and is working, along with others in the Department, to actually reach out to our stakeholders, those with whom we work in the private sector. This is occurring across the board.

So I use the two of them—Admiral Kramek, the Commandant, and also Administrator Garvey—because they are here and will follow me.

Let me also say that just this week we had a DOT-wide discussion on this very issue. We used our Monday morning staff meeting to talk about it in great detail.

I can assure you that everyone within the Department who understands the issue understands that we have to redouble our effort and that we have to be vigilant in dealing with this concern. It is a top priority.

The final point that I want to make is that it is interesting how we talk about transportation, and we go into the discussion that it is more than concrete, asphalt, and steel. It is more than cars, planes, and trains.

In the past, it was only that, but now it is also the communication system—technology being added to this—that we have recognized as transportation beyond the traditional sense. And that gives us an understanding of how it is evolving as a system for the future.

Your point is well taken. This Y2K issue really forces us to concentrate on how dependent our transportation system has become as it relates to technology and communications.

I can assure you that this Department will shoulder its responsibility in ensuring that we deal with the Y2K challenge and that we deal with it effectively. And we look forward to working with you and the Congress in doing that.

Senator BENNETT. Thank you.

SUBMITTED QUESTIONS

Senator SHELBY. Mr. Secretary, we all have some written questions—Senator Domenici and I do, Senator Lautenberg, and others. Does anybody else have any written questions for the record?

If not, I would like to move on to the second panel. We thank you for your appearance, we thank you for the work that you have done with us, and we look forward to working with you in the future.

Secretary SLATER. Thank you, Mr. Chairman.

Senator SHELBY. Thank you.

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

OFFICE OF THE SECRETARY

QUESTIONS SUBMITTED BY SENATOR SHELBY

GENERAL QUESTIONS

Question. The Government Performance and Results Act required executive agencies, including the Department of Transportation, to submit strategic plans outlining the goals they expect to accomplish and methods to measure to what extent they achieved those goals. I commend the Department for garnering the highest rating among all agencies for its first strategic plan submitted this past September. However, despite the high rating, the Department's plan also contained some weaknesses. For example, the General Accounting Office's critique of the strategic plan noted that it did not fully describe the operational processes, skills, technology, and resources required to meet the Department's long-term goals. This month the Department provided the Congress its first performance plan specifying how the Department will measure its performance in attaining its strategic goals. How has the Department rectified the problems identified in the strategic plan in preparing the performance plan?

Answer. The DOT Performance Plan fully addresses all of the issues identified in the GAO report on the Strategic Plan. The Performance Plan provides extensive detail on the operational processes, skills, technologies and resources—the means and strategies—for accomplishing each performance goal in the plan. These goals, in turn, are linked explicitly to the outcome goals in the Strategic Plan. And where the Strategic Plan described Corporate Management Strategies only briefly, the Performance Plan provides a full chapter on this, detailing DOT's initiatives and milestones in each area.

The Performance Plan provides a full 16-page appendix addressing management challenges that have been raised previously by GAO and the Inspector General. Strategies and milestones are provided for each of 32 areas, including specific examples cited as missing in the Strategic Plan:

—time frames for completing air traffic control modernization;
—oversight of highway and transit projects;
—meeting the long term funding needs of Amtrak; and
—adequacy of financial and other management information.

The GAO report also mentioned improvements to Amtrak's Northeast Corridor as an example of information that is missing in the Strategic Plan. The Performance Plan includes specific performance goals to:

—Complete reconfiguration of selected interlockings with New Jersey Transit, to achieve a 10 percent increase in the number of intercity and commuter trains scheduled along the most congested segments of the Washington/Boston Corridor by 2005 (to 365 trains/day).
—Reduce the Amtrak trip time between New York City and Boston from 4 hours 45 minutes in 1997 to 3-hour service in 1999 (early fiscal year 2000).
—Increase the percentage of Amtrak trains arriving on time, from 76 percent in 1995 to 87 percent in 1999.

While the Strategic Plan takes an "umbrella" approach to long term goals, the Performance Plan includes for each goal the contributions from specific modes, and modal-level performance goals that support the Department's strategic goals.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

SAFETY DEFECTS INVESTIGATION

Question. It is my understanding that when NHTSA investigates complaints from consumers, it sends a request for information to the automaker. Then, NHTSA will determine from the automaker's response whether a defect is what led to the complaints and, if so, whether that defect is related to motor vehicle safety. How dependent is this whole undertaking on reliability of the information that is provided by the automaker?

Answer. The National Highway Traffic Safety Administration conducts defects investigations in two phases: the Preliminary Evaluation (PE) and the Engineering Analysis (EA). During the PE phase, the Office of Defects Investigation (ODI) sends an information request (IR) to the manufacturer, asking for certain limited information, including data on complaints, crashes, and injuries, as well as other general

information. This information, along with the information obtained from consumers, is analyzed to determine if further investigation is warranted. If ODI determines that additional investigation is necessary, it upgrades the investigation to an EA. During the EA phase, ODI conducts a more detailed and complete analysis of the character and scope of the alleged defect. The EA builds on the information collected during the PE and supplements it with appropriate inspections, tests, and surveys conducted by ODI, as well as additional information obtained from the manufacturer and suppliers. It is critical that the information received from the manufacturer at all stages of an investigation be accurate and complete.

Question. How does NHTSA determine whether a defect is safety-related?

Answer. Some defects are inherently related to motor vehicle safety, such as steering wheel separations, brake failures, and vehicle fires. With respect to other defects, NHTSA weighs the safety risk in terms of the frequency and severity of the consequences of the defect. It compares the defect under investigation with past investigations, recalls, and court decisions. NHTSA also examines any intervening factors which may have contributed to the consequences, such as unexpected driver behavior or owner misconduct.

Question. When NHTSA determines the existence of a safety-related defect, what action can it take against the manufacturer that is under investigation?

Answer. When the NHTSA Administrator makes a Final Decision that a safety-related defect exists, an order is issued directing the manufacturer to notify all owners, purchasers and dealers of the defect and to provide a cost-free remedy. If the manufacturer does not comply with the recall order, the government (through the Justice Department) will go to court to compel the recall.

Question. Could a recall order cost a manufacturer millions of dollars?

Answer. A recall could cost a manufacturer millions of dollars if the remedy is expensive or a large number of vehicles are involved. Manufacturers do not routinely provide information to NHTSA on the costs of their recalls, so NHTSA cannot speculate on how much is spent on recalls.

Question. Does this cost give the automakers a financial incentive to avoid a recall notice?

Answer. Whenever the cost of a recall becomes substantial, there is an incentive to avoid a recall. However, NHTSA actively monitors the industry to assure that manufacturers do not allow this incentive to interfere with their statutory duty to conduct recalls when a safety defect or noncompliance exists.

Question. Is NHTSA's authority to order a recall limited to eight years from the first purchase?

Answer. A recall encompasses both notification and remedy. There is no time limit on a manufacturer's obligation to notify NHTSA, owners, purchasers, and dealers of a safety-related defect or a noncompliance with a Federal motor vehicle safety standard. However, by statute (49 U.S.C. § 30120(g)), the requirement that a remedy be provided without charge does not apply if the vehicle (or equipment) was bought by the first purchaser more than eight years before the defect or noncompliance is determined to exist (three years for tires). If a vehicle is less than eight years old at the time a recall is commenced, the manufacturer must provide a cost-free remedy even if the vehicle is not brought to the dealer within the eight-year period.

Question. After that period of time, is NHTSA's only option to order automakers to notify their customers about the safety defect?

Answer. NHTSA can order a manufacturer to provide a remedy for vehicles older than eight years at the time of a recall order; however, it cannot require that the remedy be cost-free.

AUTOMAKERS RESPONSE TO REQUESTS FOR INFORMATION

Question. How heavily must NHTSA rely on the candor of the automaker under investigation to respond fully to NHTSA's requests for information?

Answer. NHTSA does rely on manufacturers to provide accurate and complete information in response to information requests, particularly at the early stage of an investigation. In addition, NHTSA has the authority to seek civil penalties if it discovers that a manufacturer has failed to provide all requested information.

Question. If NHTSA discovered that a manufacturer withheld requested documents, what would NHTSA's recourse be against the manufacturer?

Answer. NHTSA could issue an administrative order to the manufacturer to provide the documents. Additionally, NHTSA could notify the manufacturer that it is liable for civil penalties and attempt to reach an administrative resolution of penalties under 49 U.S.C. § 30165 for the prior withholding of information which had been required by an information request issued under 49 U.S.C. § 30166. If a manufacturer did not comply with an order or settle the potential penalties administra-

tively, NHTSA could refer the matter to the Department of Justice for injunctive relief or penalties, respectively. Moreover, depending on the circumstances, NHTSA could refer the matter to the Department of Justice for consideration of a possible criminal action.

Question. What if NHTSA didn't discover that the documents had been withheld until several years after its investigation had closed?

Answer. NHTSA could order the manufacturer to provide the documents. If NHTSA felt that there was still a safety concern, NHTSA could reopen the defect investigation or other proceeding in support of which the documents had been requested.

Question. How often has NHTSA used its subpoena power to assist the Agency in getting the information it needs?

Answer. NHTSA records indicate that it has issued administrative subpoenas in five enforcement investigations, out of a total of more than 2,000 investigations. NHTSA has generally found that informal information requests and special orders have been adequate to obtain the information it needs.

Question. What is the largest fine NHTSA has ever issued for withholding information, and how large was the company fined, in terms of annual profits?

Answer. NHTSA does not issue fines. The only significant case that appears to relate to your inquiry involved Toyota Motor Corporation of Japan, where the penalty sought for withholding information was part of a larger civil penalty claim. The case was settled without apportionment of the settlement payment among the various civil penalty claims. The Toyota Motor Corporation is a multi-billion dollar corporation.

Specifically, NHTSA collected a civil penalty of $250,000 from Toyota Motor Corporation on April 25, 1994, to settle a lawsuit filed in the United States District Court for the District of Columbia. In the complaint that it filed in the lawsuit, NHTSA alleged that Toyota had failed to conduct a timely recall to remedy a fuel leakage problem in 1981–1989 Land Cruiser vehicles. The complaint also alleged that Toyota had failed to provide NHTSA with accurate and complete responses to investigative requests. The complaint sought maximum civil penalties of $808,000. Of this figure, $800,000 was for the company's failure to conduct a timely recall. The remaining $8,000 was for eight instances in which the company failed to provide NHTSA with accurate and complete information in response to investigative requests. That represented the statutory maximum of $1,000 per violation, which has since been adjusted for inflation to $1,100.

Question. Are these fines intended to have a deterrent effect on the automaker?

Answer. These civil penalties should have a deterrent effect.

Question. Does NHTSA need more authority in this area than Congress has given it?

Answer. Under current law, a manufacturer's failure to provide accurate and complete information in response to NHTSA's information requests results in a potential penalty of $1,100 for each instance. However, even a few failures of this nature have the potential to seriously compromise an investigation. Raising the penalty level for such failures could enhance the agency's enforcement capacity.

QUESTION SUBMITTED BY SENATOR DOMENICI

COMMERCIAL ZONE FOR LUNA AND DONA ANA COUNTIES

Question. I want to thank you for your support of my recent amendment to ISTEA to create a commercial zone in southern New Mexico. I also appreciated your staff's work to provide technical assistance and help in drafting the amendment in a way which was acceptable to the manager of the bill.

As I am sure you are aware, because these two border counties have been designated as a commercial zone, trucks carrying products from Mexico now will be able to travel directly to their destinations in New Mexico without having to engage in the costly and inefficient task of offloading their cargo onto American trucks just inside the border.

I believe that we need to have an open border with Mexico to facilitate trade and promote investment in the southern part of New Mexico and throughout all of the southwest. I also believe that this commercial zone puts New Mexico on the same level playing field with other southwestern states which have border commercial zones.

Can I count on your support for the New Mexico commercial zone as the ISTEA bill moves through the House and in conference?

Answer. Given the unique situation in Luna and Dona Ana Counties, the administration does not object to your amendment as currently written.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

HIGHWAY ISSUES

SPEED LIMITS

Question. The Department of Transportation report on the impact of increased speed limits on the Interstate system discloses that fatalities and injuries increased nationally on Interstate roads in 1996 while decreasing on all other roads even though Interstate roads are considered safest. This report also shows that States that increased speed limits in 1996 experienced about 350 more Interstate fatalities than would have been expected before the speed limit change. The report also states that "close monitoring of crash trends on roads with increased speed limits should continue and, if warranted, countermanding actions taken."

Besides restoring the national speed limit to 55 MPH, what kinds of countermanding actions can you in good conscience support as being truly effective?

Answer. In the absence of restoring the National Maximum Speed Limit (NMSL) to 55 MPH, the Department believes it will be important to continue to focus, at the national and state levels, on key program areas of traffic safety, e.g., increasing restraint use, strict enforcement of existing traffic laws, informing and educating the public regarding specific traffic safety issues, implementing roadway and traffic safety improvements, and ameliorating the effects of alcohol-involved driving to compensate for possible increases in fatalities and injured persons that may be related to higher speed limits.

LIGHT TRUCK SAFETY

Question. Over the past decade, the popularity of light trucks has increased enormously. Light truck sales accounted for almost half of the passenger vehicles sold last year, and they now represent about ⅓ of all registered passenger vehicles. More Americans die each year in light truck-to-car crashes than in crashes between two cars. This is true even though car-to-car crashes remain more common and there are twice as many cars in use as light trucks.

I know that the National Highway Traffic Safety Administration (NHTSA) is studying the dangers posed by light trucks to other vehicles. After completing this study, what concrete actions will the Department take to improve the compatibility of light trucks with other passenger vehicles?

Answer. Compatibility between light trucks and cars is one aspect of a larger study at NHTSA on improving crash compatibility between all categories of light passenger vehicles. Improvements in crash compatibility, in general, and between light trucks and cars, specifically, will likely require design modifications both to the struck vehicle—to improve its crashworthiness—as well as to the striking vehicle to reduce its aggressivity. In the case of LTV's, NHTSA is currently conducting a series of crash tests to better understand the nature of the incompatibility between LTV's and cars. These crash test results will be coupled with the results of detailed finite element simulations to suggest design enhancements necessary to improve compatibility. The results of this study will serve as the foundation for the directions for any potential rulemaking in this area the Department might pursue.

Question. Occupants of sport utilities are as likely to die in crashes as car occupants, because sport utilities are four times as likely as cars to roll over in an accident. NHTSA has done some research recently on the tendency of even the larger sport utilities to roll over. Do you plan to conduct further research on the safety risks sport utilities pose to their own passengers?

Answer. Yes. NHTSA is currently performing research to identify driving maneuvers that could trigger rollovers in vehicles that are prone to on-road-untripped rollover crashes. This research has proven to be very complex, since any single requirement that may prevent rollovers might cause manufacturers to incorporate designs that may degrade other aspects of vehicle performance. NHTSA plans to continue this rollover prevention research in fiscal year 1999. Additionally, NHTSA will use the Variable Dynamics Test Vehicle to study the effectiveness of yaw stability augmentation systems that are currently available in some vehicles in preventing rollovers. Besides the rollover prevention research, NHTSA also has an active rollover crash mitigation research program which will continue in fiscal year 1999.

Question. Does the research done to date indicate that new design standards for sport utilities aimed at increasing their stability should be developed?

Answer. NHTSA's current rollover prevention research is attempting to develop the basis for either a Federal Motor Vehicle Safety Standard to reduce the number of on-road, untripped rollovers or a consumer information program to identify vehicles that show unusual rollover tendencies toward untripped rollovers. An announcement as to how NHTSA will proceed is planned for early 1999.

TRUCK SAFETY AT U.S./MEXICO BORDER

Question. Two successive GAO reports have shown no improvement in the safety of trucks and drivers from Mexico coming across our southern border, and no improvement in the quality and frequency of inspections conducted on both sides of the border. (*a*) What is the Department's plan to systematically upgrade the number of inspections and to use Level 1, the best kind, to ensure that commercial drivers from Mexico use only safety equipment on our roads? How can you ensure that these drivers have proper licensing and issuance? (*b*) How are you going to ensure that long-haul truck drivers from Mexico are not entering the U.S. already fatigued and sleep-deprived when they operate on our roads, given the fact that Mexico has no truck driver hours of service limits? (*c*) How can you ensure that Mexican government really does its job of ensuring that trucks and drivers from Mexico are safe before they cross our southern border?

Answer. To ensure that safety is not compromised as the NAFTA cross-border provisions are implemented, the DOT, in partnership with the States and local governments, has established a permanent enforcement presence and begun an intensive driver and vehicle inspection program along the Southwest border. In fiscal year 1997, over 19,000 Mexican drivers and 18,000 Mexican vehicles were inspected.

To continue to enhance enforcement activities, the DOT has been providing border States with special funding over and above the basic allocated Motor Carrier Safety Assistance Program (MCSAP) grant levels. This funding is intended to assist with short-term resource needs and DOT has supported reauthorization legislation that would provide States with the funding they need to build inspection facilities, hire additional law enforcement personnel, and purchase equipment needed to establish a permanent border management program.

While States are encouraged to conduct Level 1 inspections, national performance-based MCSAP criteria may also require that States identify the primary reasons for the out-of-service rates and then conduct special inspections which focus on these violations.

To operate a commercial vehicle in the U.S., Mexican drivers must possess a valid "Licencia Federal" (Mexican commercial driver's license) and proof that the carrier has insurance coverage consistent with the U.S. standards. To ensure that drivers are operating with valid licenses, DOT has developed an electronic capability with Mexico's Secretaría de Comunicaciones y Transportes to exchange information on driver status. Like all other drivers operating in the United States, Mexican drivers may be required to show evidence of compliance with these requirements upon entry into the U.S. or during roadside inspections.

Working with the Secretaría de Comunicaciones y Transportes, the FHWA and the four border States have provided a significant amount of training and technical assistance to Mexican carriers to ensure they know and understand the requirements of operating in the United States. We believe Mexican carriers seeking to do business in the U.S. are generally well aware of the rules and regulations with which they must comply.

Mexican drivers must comply with the same safety requirements, including hours of service and log book requirements, as U.S. drivers when operating commercial vehicles in the U.S. The U.S. enforces these regulations through State and Federal roadside inspections. For those drivers who are exempt by regulations from carrying a log book because they are operating within a 100-air-mile radius of their normal work reporting location, the driver's duty status (hours of service) is verified by interviewing the driver and by reviewing date, time, and location information included on related transportation documents such as shipping papers, vehicle registrations, the driver's license, and Immigration and Naturalization Service crossing permits.

Drivers who operate from the interior of Mexico beyond the 100 air-mile radius of their normal reporting location are placed out-of-service if they do not comply with the log book requirements. The United States, Mexico, and Canada have developed a strategy to assure that motor carriers are in compliance with their safety obligations prior to beginning cross-border operations.

The three countries have agreed on these critical safety areas that will be reviewed before a carrier can begin cross-border operations: (1) safety management systems, (2) driver qualifications, (3) hours of service compliance, (4) drug and alco-

hol testing, (5) condition of vehicles, (6) accident monitoring programs, and (7) compliance with regulations governing the transportation of hazardous materials. In addition, we have agreed on several elements that are essential to implementation of a successful cooperative and coordinated compliance and enforcement program, such as clear communications between governments and with motor carriers; development of electronic data bases and exchange of safety information for companies, drivers, and vehicles; and involvement of State and local officials.

We are now discussing with Mexico implementation of specific elements of a compliance and enforcement program in Mexico that will be directed at motor carriers that will be operating across the border into the United States including those that transit the United States on their way to Canada. These elements are:

(1) Deployment of roadside commercial vehicle inspectors trained in accordance with established North American procedures in Mexico's northern states and documentation of these inspections as part of an overall safety oversight process. Roadside enforcement is key to an effective and visible enforcement program.

(2) Development of a method for gathering safety information from individual motor carriers and providing that information to the United States. Adequate and accurate information on motor carrier applicants is essential to the process of assessing a carrier's safety performance during the application process.

(3) Implementation of a motor carrier safety management oversight system for those carriers with U.S. operating authority. Such a program is important to establishment of a permanent monitoring and enforcement program in Mexico; further, it is paramount to the development of an effective North American motor carrier safety program.

We believe that, taken as a whole, these initiatives will help ensure that trucks and drivers from Mexico are safe before they cross our southern border.

COMMERCIAL DRIVER HOURS OF SERVICE

Question. Why is the agency prepared to revise commercial driver hours of service limits when there has been no systematic demonstration of how appropriate monitoring and enforcement of current hours of service limits could improve driver alertness and avoid the safety hazards of fatigue and sleep deprivation?

Answer. The FHWA is not prepared to revise the commercial driver hours of service limits at this time. The FHWA, however, has learned a great deal about human performance and circadian effects in relation to sleep deprivation. These types of effects were unknown, or not well known, when the ICC developed the original rules more than 60 years ago. The FHWA now has the opportunity to analyze whether such effects may contribute to safer operations.

The FHWA continues to analyze the research and comments to the November 5, 1996 ANPRM. The FHWA will not be prepared to do anything until it completes thorough analyses of all the research, statutory and executive order requirements for regulatory analyses (including benefit-cost analyses), and consultation with appropriate DOT staff.

NATIONAL MOTOR CARRIER ADVISORY COMMITTEE

Question. The Department supports the National Motor Carrier Advisory Committee which deals with commercial motor vehicle safety issues. In fiscal year 1996, the Committee held no meetings but cost taxpayers $22,900, according to the General Services Administration's (GSA's) 25th Annual Report on Advisory Committees. The Committee also held no meetings in fiscal year 1997, even though GSA estimated a cost of $85,300 for the Committee. (*a*) Can you explain why this Committee has not met in over two years? (*b*) Is this advisory committee fairly balanced and is a cross-section of highway safety organizations represented on the Committee? (*c*) Has the Department decided whether it will renew the charter of this Committee?

Answer. The National Motor Carrier Advisory Committee (NMCAC) has not met in over two years because the FHWA no longer needs to use this Committee for the purposes originally envisioned. The GSA estimate assumed continuation of the NMCAC. The membership of the NMCAC was balanced and reflected a cross-section of highway safety interests, including former Congressman William Lehman, Judith Stone of the Advocates for Highway and Auto Safety, and the Honorable Anthony Montelione, Presiding Judge in Cook County, among others.

The Department is not renewing the charter of the NMCAC.

ROOF CRUSH STANDARD/ROLLOVER

Question. The current roof crush standard requires a test which does not really show how well a passenger car vehicle would resist deformation or intrusion in a full rollover crash. Over the last several years NHTSA has periodically reported on

its research to revise the existing roof crush standard and establish a dynamic standard to protect occupants in rollovers. When do you expect to begin rulemaking to set this badly needed safety standard?

Answer. Federal Motor Vehicle Safety Standard (FMVSS) 216, Roof Crush Resistance, specifies the minimal requirements for roof structure integrity for vehicles under 2,722 kg (6,000 pounds) GVWR. It requires that these vehicles resist 1½ the vehicle's unloaded weight without sustaining more than 125 mm (5 inches) of roof crush when a rectangular load plate is applied to the vehicle's roof structure over the front occupant compartment.

NHTSA has been and is continuing research to examine the relevance of this standard to actual real world rollover crashes. From this research, NHTSA has shown some relationship between the risk of head injuries for belted occupants (in rollover crashes) and the reduction of headroom due to roof intrusion. These findings were documented in a Society of Automotive Engineering publication titled, "Determination of the Significance of Roof Crush on Head and Neck Injury to Passenger Vehicle Occupants in Rollover Crashes."

Recently, NHTSA completed testing using the FMVSS 216 test procedures and dynamic drop test procedures. The results of these tests are now being analyzed to determine which test approach may provide the better correlation to real world injury producing rollover events. It is anticipated that NHTSA will make a regulatory decision on future efforts to improve rollover occupant protection by the end of 1998. This summer NHTSA will make available to the public the results and reports on all testing on its rollover related research.

Question. You indicated more than a year ago that you would be willing to revisit a rollover standard for some kinds of rollover crashes. When will rulemaking start on such a proposal?

Answer. NHTSA has initiated a short-term research effort to explore what might be done to address single vehicle on-the-road rollovers. Last summer, NHTSA began Phase I of its testing by selecting some maneuvers that are currently used by vehicle manufacturers, consumer publications, or voluntary standards organizations to assess the rollover resistance of vehicles. Three sport utility vehicles were run through each of these maneuvers. This testing will continue in the spring of 1998. The most promising maneuvers from Phase I will then be used in Phase II testing. In the summer of 1998, Phase II will run 12 vehicles (3 cars, 3 pickups, 3 vans, and 3 sport utility vehicles) through the maneuvers chosen from Phase I. The results will then be analyzed and NHTSA expects to make a decision by the end of 1998 on future research and/or rulemaking actions for addressing rollover safety.

Question. Given the intense and continually growing interest and knowledge of the public about car safety design and performance, such as air bags, for example, how soon are you going to decide on a really informative standard to warn potential buyers about passenger vehicles that have poor resistance to rollover? Would you consider doing the same thing for a new roof crush standard, to provide ratings for consumers on vehicle resistance to roof crush in rollover crashes?

Answer. The Phase I and II rollover propensity testing is scheduled to be completed this fall. Results from this research will be used to make a decision on a rollover propensity standard and/or consumer information. The Department plans to make this decision by the end of 1998. More immediately, NHTSA has proposed a change to the rollover warning label for sport utility vehicles (SUV's) to make it more effective by using graphics and brighter colors to replace the current 15 year old text-only design. Focus group research has shown that consumers are much more likely to notice and heed labels with this type of design. Determination of approaches for informing consumers about roof crush resistance will follow decisions on future actions regarding the current roof crush standard.

AMTRAK

DIFFERING FUNDING LEVELS IN ORIGINAL REQUEST TO OMB AND FINAL BUDGET REQUEST

Question. In its original submission to OMB, the Department requested $705 million for Amtrak. This number reflected the annual amount absolutely necessary to achieve the balance of Amtrak's capital needs and cover operating expenses, as approved by Amtrak's Board of Directors last September. However, in its final budget request, the Administration included only $621 million of capital funding, and directed Amtrak to use funds provided in the TRA for its annual operating expenses. This request is $84 million less than the amount Amtrak must have in order to continue operations over the next year without taking out commercial loans. If $705 million is the absolute minimum needed in order for Amtrak to balance its books for fiscal year 1999, how do you justify requesting only $621 million?

Answer. Both the Department and OMB agreed that the optimum long-term strategy for Amtrak was to fund the Corporation's September 1997 strategic plan which envisioned a total Federal funding commitment of approximately $5 billion between fiscal year 1998 and fiscal year 2002. The Administration's request, when taken with the funding available under the TRA, would provide that level of funding. The President's fiscal year 1999 budget includes $621 million in capital appropriations to be spent according to the same capital project investment criteria used by the Federal Transit Administration (FTA). With this expanded definition of Amtrak capital, the Amtrak Board of Directors has supported the workability of the President's budget.

USE OF TAXPAYER RELIEF ACT FUNDS

Question. Funds provided in the Taxpayer Relief Act (TRA) were intended to be used solely on capital improvements, not operating expenses. In its resolution, the Amtrak Board opposed, in the strongest possible terms, using the TRA funds for operating expenses. The Board emphasized that those funds should be reserved for high rate-of-return projects that will decrease Amtrak's reliance on Federal operating support. If Amtrak were to borrow funds provided in the TRA for capital expenses, would it not then be dependent on future Federal appropriations in order to repay that amount?

Answer. Amtrak's September 1997 strategic plan estimated that Amtrak would require approximately $5 billion in total Federal financial assistance between fiscal year 1998 and fiscal year 2002. Whether or not Amtrak were to borrow funds provided in the TRA, the recapitalization of Amtrak would be dependent on future Federal appropriations. Under the President's fiscal year 1999 budget, Amtrak funding will equal the amount under the TRA—$1.1 billion plus the proposed appropriation of $621 million. Significant capital appropriations are also proposed for the outyears ($571 million in 2000 and $521 million annually through 2002). For appropriated funds, the President's budget assumes an expanded definition of capital that would give Amtrak the flexibility to spend capital according to the same definition of capital used by the transit industry. This proposal will ensure that TRA funds are spent on high-yield capital investments that will reduce Amtrak's operating costs.

TRANSIT

BALANCED APPROACH TO HIGHWAY/TRANSIT FUNDING

Question. What will you do in the future to ensure such a truly intermodal and balanced approach to surface transportation?

Answer. We will continue to work with the Congress to ensure that funding levels are balanced and equitable and will continue to make our position clear in communicating views to Congress on the reauthorization legislation as it moves forward.

ACCESS TO JOBS AND TRAINING

Question. The Federal Transit Administration's budget request includes $100 million for the Access to Jobs and Training initiative. I support that initiative. However, I am concerned that, by including it as part of your flat-funded transit budget, you are suggesting that instead of supplementing existing transit programs, funding for this program should be subtracted from funding available for transit formula grants. Would you support funding this program as a supplement outside the transit program, so that transit formula funds would not be diverted?

Answer. Yes, within the overall transit funding levels proposed by the Administration. While we are proposing that Access to Jobs be within the Formula Programs account, we are not proposing to reduce formula funding now available to transit agencies. By moving to Formula Programs the funding that currently goes into discretionary bus grants, we are increasing the amount of Federal transit funding distributed across the nation.

QUESTIONS SUBMITTED BY SENATOR KOHL

COMPENSATION FOR DAMAGE TO ASSISTIVE DEVICES

Question. Over the past few months, my office has been in contact with the Department regarding the case of Mr. Jeff LaDow, a resident of West Allis, Wisconsin, who suffers from a disability and whose $16,000 wheelchair was irreparably damaged during the course of a flight on one of the major airlines.

As you know, DOT regulations limit the maximum liability for claims with respect to assistive devices at $2,500. Clearly, the $13,500 difference between the cost of Mr.

LaDow's equipment and the maximum compensation available to him proves that in some instances this cap may need to be updated.

What can be done to address this discrepancy and to ensure that this compensation cap is not impeding both legitimate claims as well as compliance with the Americans with Disabilities Act? Is legislative action necessary to address the problem?

Answer. Currently, DOT regulations prohibit air carriers from setting liability limitations for claims for assistive devices at an amount less than twice the liability limit for lost or damaged baggage, which is currently $1,250 for domestic travel. (There is a pending proposed rule to increase the minimum baggage liability limit to as much as $2,000.) U.S. carriers have chosen to limit their liability, both for baggage and for assistive devices, to the minimum limitation set by the Department, thus all carriers of which we are aware currently limit their liability for assistive devices to $2,500. The Department expects to issue a Notice of Proposed Rulemaking (NPRM) that would require airlines to reimburse passengers for the full value of assistive devices which are lost or damaged by the air carrier. No legislative action is necessary to address this issue.

LORAN–C RADIONAVIGATION

Question. Earlier this year, I contacted the Department with regard to the Loran-C radionavigation system. Marine, aviation, land—even telecommunications users—in Wisconsin have all told me of the value of this technology from a transportation safety and cost-benefit perspective.

As you know, in the past two fiscal years Congress has agreed with them and provided about $8 million for the revitalization of the Loran infrastructure. Under the 1996 Coast Guard Reauthorization legislation, the DOT was required to formulate a plan for future funding and upgrade of the Loran infrastructure. I understand you have consulted with the firm of Booz-Allen & Hamilton for data collection and cost-benefit analysis. Are the preliminary results of the Booz-Allen study available? Does the data support Loran retention, and what is the status of the Department's funding plan?

Answer. The Booz-Allen report on Loran-C will be delivered to DOT in May 1998. Once we receive and review the plan, we will be able to respond to the requirements of the Coast Guard reauthorization.

COMMUNICATIONS SYSTEM PILOT PROJECT

Question. Safety has been one of the U.S. Department of Transportation's top priorities. With the cooperation of the Commerce and Defense Departments, the Wisconsin Department of Transportation recently began an innovative safety initiative—a share communications system pilot project. This system will provide important voice dispatch and centralized communciations for all emergency responders and government agencies in SouthCentral Wisconsin, aiding the day-to-day communications of state troopers, municipal police officers, firefighters and guard members, to name a few, and helping them respond to problems faster and more effectively. The concept has also been endorsed by Vice President Gore's "reinventing government" initiative. Hopefully the system will eventually be expanded to cover the entire state.

Is the Department aware of this project? If this turns out to be an effective safety-enhancing program that could be of benefit to other parts of the country, what role could the Department or the National Highway Traffic Safety Administration play in terms of promotion, outreach or funding?

Answer. The Department is aware of this emergency communications program in Wisconsin. The National Highway Traffic Safety Administration (NHTSA) has promoted development of innovative solutions to communications problems as part of its "EMS Agenda for the Future." The EMS Agenda acknowledges the challenge of limited band width availability for emergency communications and recommends development of shared systems that can serve the joint needs of EMS, fire, law enforcement and other emergency providers. The Wisconsin system will pilot test an innovative partnership of several public safety and military agencies to deploy a joint system which promises to provide greater efficiency and service for all. If this initiative is successful, the concept could be promoted for consideration by other states. NHTSA would promote it as part of our ongoing promotion of successful examples of local or state programs realizing the visions of the EMS Agenda for the Future. As a follow up to the EMS Agenda, NHTSA is recognizing and promoting

successful examples of local system upgrades that are consistent with the recommendations in the Agenda. An EMS Agenda Implementation Guide will be released this spring and a national conference will be conducted during EMS Week in May to recognize innovative local programs.

FEDERAL AVIATION ADMINISTRATION

STATEMENT OF HON. JANE F. GARVEY, ADMINISTRATOR

U.S. COAST GUARD

STATEMENT OF ADM. ROBERT E. KRAMEK, COMMANDANT

INTRODUCTION OF WITNESSES

Senator SHELBY. Our second panel will be Ms. Jane Garvey, FAA Administrator, and Admiral Kramek, Commandant of the Coast Guard.

If you would both come to the witness table, we would appreciate it.

Your written testimony, that of both of you, Ms. Garvey and Admiral Kramek, will be made part of the record in its entirety. We appreciate your appearance and we appreciate your patience.

Ms. Garvey, you may proceed as you wish.

STATEMENT OF JANE F. GARVEY

Ms. GARVEY. Thank you very much, Mr. Chairman. Let me say that I will keep my remarks very brief and submit my longer statement for the record.

It is a pleasure to appear before you and before this committee to discuss the FAA's budget request for 1999. What I would like to do is to speak of the budget in the context of three areas—safety, security, and system efficiency. These are the areas where I have directed the agency to focus their attention. These are the areas that I believe the American people will judge us by.

SAFETY

First of all, as the Secretary said, safety is really the Department's top priority. It is the heart and soul of what we do. When I came to the agency in August, I asked colleagues at the FAA how many safety recommendations do we have in front of us. I was told that we have about 1,000 and, even when you eliminate the duplication, we have about 450. That is a very large number for any agency to focus on effectively.

Over the last several months, I have worked closely with our stakeholders. I have worked closely with our partners, and with industry to focus that agenda. To focus it in a way that is actually doable; focus it in a way that it is based on operation-quantifiable safety data.

It is very clear that, in order to lower the accident rate, it is imperative that we identify and implement the accident prevention measures that have the greatest potential benefits. That really is what we are doing. I believe that the President's budget will allow us to implement that agenda in a way that is effective.

SECURITY

A second priority for us is improving aviation security. The White House Commission gave us a comprehensive plan for enhancing security. Many improvements have already been made. They include the installation of significantly improved security equipment in a number of our airports around this country. We have, I believe, a very aggressive implementation schedule and we are moving forward in partnership both with the airports and with the industry. By September 1, 1998, the FAA will have more than 500 pieces of explosive detection equipment at U.S. airports. The President's budget includes $100 million to continue to deploy the critical equipment at our Nation's airports.

SYSTEM EFFICIENCY

Another priority is system efficiency. A significant amount of work has already been done to modernize the air traffic control system. In 1997, thanks to strong financial support from this committee, the FAA installed more than 1,500 pieces of new equipment, ranging from the very simple, basic equipment, such as radios, to much more complex and new equipment like Voice Switching and long-range en route radar.

We are in the midst of major acquisitions to replace our computer systems at all the en route and airport terminal facilities. In addition to operating the systems, which are so critical and so important, these computers will really provide the platform for future enhancements, where we will achieve the greater productivity gains and greater user benefits.

NATIONAL AIRSPACE MODERNIZATION

As Senator Faircloth mentioned a little bit earlier, the whole issue of modernization is really one of our greatest challenges. I know that a significant amount of work has already been done in the area of modernization. We call the creation of the National Airspace System, the work that we are looking at, the architecture, if you will. It is really a significant piece of work, the result of work done by people within the FAA, as well as industry.

Last fall, what I did was to convene a modernization task force. I asked for representatives from the industry. I asked for members of the union as well as FAA executives to be at the table. I want to stress that it was important to us to have the unions there. They operate the system. They really need to understand it and raise the questions, just as we have. I asked the task force to focus on two areas. One is to take a look at the architecture, the ''what'' the system will look like; second is to reexamine the ''when'' and the ''how'' of implementing the system improvements. I am very pleased to say that we are really seeing a growing consensus. One of the points the task force has made, which I think is extraordinarily helpful, is that we need to put in place some building blocks now. We need to look at modernization, look at those results and those impacts that we can make now in the system. That, really, is what we are moving out to do. Again, I would say that the President's budget really allows us to move forward with modernization and to

move forward in an incremental fashion, a fashion that I really think makes some sense.

YEAR 2000 [Y2K]

Let me also touch on the Y2K problem. I know that members of the committee and Senator Bennett will have many more questions, and I am happy to answer them. But, very briefly, the critical question for us, as it is for you, is will the FAA meet the challenges as the countdown to January 1, 2000, continues. My answer is, yes.

I have to say that this is something that is extraordinarily important to me, personally, and to the agency as well.

Last month, I appointed a new FAA manager. He reports directly to me. His name is Ray Long. We have opened a command center at Tyson's Corner. We have people from around the country who are detailed here and are working solely on this issue.

We have a wonderful business partner in Coopers & Lybrand. They are working side by side with us—a good, public/private cooperative effort. We have developed timelines, we have developed benchmarks to ensure that our computer systems are Y2K compliant before the turn of the century. We are working very closely with the inspector general. We have moved our dates forward and, at the Secretary's request, are constantly looking to see if we can move those dates, if we can pull them ahead even more forward. I know that it is going to take vigilance. I know it is going to take real effort on all of our parts. I do believe we are on the right track and I believe we have brought the right resources to bear on what is a really critical issue for all of us.

PRESIDENT'S BUDGET

In closing, Mr. Chairman, I believe this President's budget request allows us to move ahead on each one of these priorities. It gives us an increase in operations which recognizes the need to hire more controllers, maintenance technicians, safety inspectors, as well as certification personnel.

It includes a request, as Senator Faircloth mentioned, for airports at $1.7 billion, a very important program for us. It includes an increase in the facilities and equipment appropriation, allowing us to move ahead on modernization.

We think it is a good, strong, solid budget, and I think it is going to serve us well. To end on a personal note, I want to reiterate what the Secretary said earlier, and that is to thank all of you for the support that you have given to us, as an agency, and to me personally. Each one of you has been extraordinarily generous in both your personal time and your commitment of support. I appreciate that and look forward to working with you and with members of this committee.

Thank you very much.

PREPARED STATEMENT

Senator SHELBY. Thank you, Ms. Garvey. We will insert your prepared statement in the hearing record.

[The statement follows:]

PREPARED STATEMENT OF JANE F. GARVEY

Mr. Chairman and Members of the Subcommittee: I am pleased to appear before you today, and I want to thank all the members of this Subcommittee for your support of the FAA programs. I would like to discuss the FAA's fiscal year 1999 budget request in the context of three areas where I have directed the agency to focus its attention: safety, security, and system efficiency.

SAFETY

Safety is the agency's top priority. I am pleased to report that we have a three-pronged program to enhance aviation safety. One, we are in the final process of developing our focused safety agenda, which we will announce shortly. In order to lower the accident rate, it is absolutely imperative that we identify and implement the accident prevention measures that have the greatest potential benefits.

Two, we are making significant strides in developing a new safety model where government can be both a partner and an enforcer. No one entity, whether public or private sector, can lower the accident rate alone. This is not to say that we will give up our regulatory responsibility. Not at all. It's just that there is a great deal to gain from collaboration.

Three, while working together we must recognize and adhere to our own responsibilities. On the public sector side, the FAA needs to acknowledge that paperwork does not equal safety. This is why I am so pleased with what we are doing to improve and streamline our oversight and rulemaking processes.

In terms of air transportation oversight, we know the current system cannot produce the changes necessary to significantly lower the accident rate. We have focused too much on symptoms and not enough on cures. By the end of this year, we will implement a new oversight model based on a system safety approach.

As for rulemaking, we shortened the time to develop rules by re-engineering the rulemaking process. Rules will be developed more quickly than before. More important than shortening the process, is building on quality early in the process—before, rather than after, the fact.

SECURITY

My second priority is improving aviation security. We have a comprehensive plan for enhancing security. In fact, several improvements already have been made. These include the installation of significantly improved security equipment, as well as enhanced procedures and methods for implementing this equipment throughout the system. As many of you know, we are operating on an aggressive implementation timetable, and we are moving forward in partnership with industry and airports. By September 1, 1998, the FAA will have more than 500 pieces of explosives detection equipment at U.S. airports.

SYSTEM EFFICIENCY

My third priority is system efficiency. A significant amount of work already has been done to modernize the air traffic control system. In fiscal year 1997, for example, the FAA installed more than 1,500 pieces of new equipment—ranging from basic equipment such as radios and distance-measuring equipment to systems as new and complex as the Voice Switching and Control System and the long-range en route radar. We are in the midst of major acquisitions to replace computer systems at all en route and airport terminal facilities. In addition to upgrading existing systems, these computers will provide platforms for future enhancements where we will achieve the greatest productivity gains and user benefits.

You and I know that the issue of modernization is one of our greatest challenges. A significant amount of work has already been done, including the development of the FAA's modernization plan, which we refer to as the national airspace system "architecture."

To build on this work, last fall I convened a modernization task force with representatives from all sectors of aviation. I asked the experts to focus on two areas—one, take a good look at the architecture, and, two, reexamine the "when" and the "how" of implementing system improvements.

With the architecture, we know we have the "what" for the aviation system for the next century. As for the "when" and the "how" I am very pleased with the growing consensus among the entire aviation community.

What is key to this consensus is the acknowledgment that the new system is more than acquiring new technology. It must be human-centered and we are working closely with our labor partners and involving them early in the process as we develop and install the tools they will be using. We know the modern ATC system

must include new procedures and training, focus on human factors issues, and fully consider private sector avionics and certification.

YEAR 2000

With respect to the Y2K issue, the question on everyone's mind is: Will the FAA meet the challenges as the countdown to the January 1, 2000, continues? My answer is an unequivocal "Yes." Last month, I appointed a new FAA Y2K manager. With the help of our business partner, Coopers and Lybrand, we are developing stringent and disciplined agency-wide plan to ensure that all our computer systems are Y2K compliant before the turn of the century. And, I can assure the subcommittee that air traffic safety will not be compromised in the slightest.

There is one last point I would like to make before addressing our budget request. Since joining the FAA last August, I have been addressing various personnel issues at the agency. We are making progress and we are taking the difficult and necessary steps to achieve a culture change at the agency.

OPERATIONS

For fiscal year 1999, the President's Budget requests $5,631 million for FAA Operations, $295 million more than appropriated for fiscal year 1998. This increase recognizes the urgent need to hire more controllers, maintenance technicians, safety inspectors, and certification personnel.

I also want to bring to the subcommittee's attention that the recent decision by the U.S. Court of Appeals vacating our overflight user fees has, in effect, reduced the fiscal year 1998 program level in Operations by $84 million. Currently, we are assessing the impact of this reduction and our options with the Department of Transportation and the Office of Management and Budget.

GRANTS-IN-AID FOR AIRPORTS

The fiscal year 1999 request for the Grants-in-Aid for Airports program is $1.7 billion. As part of the Administration's reauthorization package, we are examining the current AIP formula and distributions. FAA must have the necessary flexibility to direct investments to high priority projects such as safety, security, and capacity projects. Mitigating the impacts of aircraft noise also will continue to be a major focus.

FACILITIES AND EQUIPMENT

For fiscal year 1999, $2,130 million, a 14 percent increase ($255 million) from the enacted level in fiscal year 1998, is requested in the Facilities and Equipment appropriation.

RESEARCH, ENGINEERING AND DEVELOPMENT

For fiscal year 1999, $290 million is requested to support the Research, Engineering and Development program. This request represents a 46 percent increase from the fiscal year 1998 enacted level of $199.2 million. The $90 million for the Flight 2000 program accounts for most of this increase. Flight 2000 is a planned operational evaluation of the technologies, procedures, and human factors involved in free flight, using Alaska and Hawaii airspace. I see Flight 2000 as a critical component of NAS architecture and key to deploying major communications, navigation, and surveillance systems on a broader scale.

CONCLUSION

In closing, Mr. Chairman, I would like to thank you and the Members of this Subcommittee for the support you have provided to, and for, the FAA, and to assure you of our willingness to work closely with you. This completes my prepared statement. I would be pleased to respond to any questions you have at this time.

STATEMENT OF ADMIRAL KRAMEK

Senator SHELBY. Admiral Kramek.

Admiral KRAMEK. Good morning, Mr. Chairman. It is a pleasure to appear before you and this distinguished committee this morning.

Senator SHELBY. Will this be your last appearance?

Admiral KRAMEK. Yes, sir; this will be my last appearance before this committee.

As you know and as I know Senator Lautenberg of New Jersey and Senator Faircloth from North Carolina know, the Coast Guard is one of the great assets of the American people and has been for the over 207 years of our history. We are a unique agency in that we are both an armed force, a law enforcement agency, and also a very important link in transportation in our maritime mode, which we have not really addressed too much this morning.

We also return $4 in benefit for every $1 in budget given to the Coast Guard.

From a trade standpoint, Mr. Chairman, America is still an island nation. Ninety-five percent of our exports and imports come by sea. That amount of trade is expected to triple in the next 15 years, and if we are worried about triple trailers now, things are going to get worse.

I have just visited the great ports of Long Beach and New York, amongst others. Containers are stacked up as far as the eye can see and so are the other modes of transportation trying to get in there to remove them.

We are worried about the mega ships of the future that will come to our ports and the people who, in conjunction with that, want to use our seashores and keep them free from pollution.

These ships are just about beyond belief. We are familiar with some. We know about the 6,000-container container ship, where the containers, stacked end to end, would reach 20 miles. Those are in common practice now coming into our ports. The new ones on the drawing board are for 8,000 containers.

As for passenger vessels, I think we are all amazed when we see cruise ships or other passenger vessels that have 2,000 or 3,000 passengers. I can tell you new ones being designed now and getting ready to be constructed will have 8,000 passengers.

In fact, there is one on the drawing board here this morning that they hope to build at the turn of the century that might be 4,000 feet long, have 20,000 apartments on it, an airport, a hospital, and would carry 40,000 passengers.

Our Coast Guard has to be ready to deal with all of these things in the 21st century. At the same time, we streamlined and we feel we are a model of Government downsizing. We have reduced over 4,000 people in the last few years and have saved over $400 million a year in our budget.

We are now the smallest we have been since 1965. In fact, your Coast Guard is smaller than the New York City police department, to put it in perspective.

Yet we have more work than ever to serve the American people. But we have had some great advances in technology and quality management in order to maintain our services. We have not reduced our operations at all.

This budget allows me to maintain those current services. It also allows me to order the minimum quantities I need on current contracts for ships, rescue boats, and buoy tenders.

It also positions us for the future because in this budget is a very, very important investment project for our deepwater acquisition. This budget asks for sufficient funds to conduct an analysis

of our capabilities in the deepwater environment that will lead to a replacement of the system of cutters, aircraft, and command and control systems that we need to manage our maritime area both at our coasts and worldwide at the turn of the 21st century.

Most importantly, this budget provides sufficient money for me to bring on the people I need to do the job, to pay their salaries, and to provide for parity with the other members of the Armed Forces.

Mr. Chairman, thank you very much for inviting me here today. My written statement may be made part of the record and I am ready to answer any questions you may have.

PREPARED STATEMENT

Senator SHELBY. Thank you, Admiral. We will insert your written statement in the hearing record.

[The statement follows:]

PREPARED STATEMENT OF ADM. ROBERT E. KRAMEK

Good morning, Mr. Chairman. It is a pleasure to appear before this distinguished subcommittee today to discuss the Coast Guard's fiscal year 1999 budget request and its impact on the service, the nation, and those we serve.

During the past four years, the dedicated men and women of the Coast Guard have continued to do what they have done for the past 208 years. Through their outstanding efforts we have:

—Saved more than 19,500 lives and nearly $9.3 billion in property.
—Prevented more than 370,000 pounds of cocaine, marijuana, and other illegal drugs from reaching America's streets and school yards.
—Responded to more than 64,000 reports of water pollution or hazardous material releases.
—Boarded more than 59,000 fishing vessels to check for compliance with safety and preservation laws.
—Interdicted or assisted more than 75,000 migrant aliens attempting to illegally enter the United States.

The Coast Guard has also accepted the challenge to operate and manage more effectively. The result is a lean Coast Guard which stands proudly as a model of better government at less cost.

OPERATING THE COAST GUARD

To provide our unique services to the public, in fiscal year 1999 the Coast Guard requests $2,772 million in Operating Expenses (OE) and $67 million in Reserve Training Funds. Included in this request are the necessary funds to restore the Coast Guard work force, currently under strength, and funds to provide adequate quality of life for Coast Guard personnel and their families. To continue delivering current services at the requested level, I have had to identify nearly $58 million in internal savings. The Reserve Training Request funds a Selected Reserve strength of 7,600 personnel that are part of Team Coast Guard and are integral to all of our operations. I request your full support for both the Operating Expenses and Reserve Training requests, as any reductions will directly impact the Coast Guard's ability to complete the many missions that the American people have come to depend on. Our fiscal year 1999 Operating Expense request reflects the Coast Guard's priorities across four strategic goals—safety, protection of vital marine resources, maritime security, national defense and maritime mobility.

Safety

We are known as lifesavers and guardians of the sea. Search and Rescue is, and always will be, our first priority. The Coast Guard's goal is to reduce deaths, injuries, and property damage associated with maritime transportation, fishing, and recreational boating. Through our marine safety program, we also prevent maritime accidents while remaining ready to react whenever disaster strikes. Each year, we respond to approximately 50,000 search and rescue calls—from recreational boaters in distress to freighters sinking in gale-force winds. The Coast Guard saves approximately 5,000 lives and approximately $2.5 billion dollars in property during search and rescue missions every year. In terms of the value of lives and property saved

alone, we provide the American public with a benefit of approximately four times the cost of all Coast Guard services combined.

Protection of Marine Resources

We strive to eliminate environmental damage and natural resource degradation on the high seas, within the 200-mile Exclusive Economic Zone (EEZ), and in our territorial seas. We protect the nation's immensely valuable fisheries resources from the dangers of overfishing and foreign poaching. Every day, the Coast Guard patrols the fishing grounds off New England, Alaska, the Gulf Coast, and throughout our EEZ. Preservation of these resources is and will remain a Coast Guard priority. Our fiscal year 1999 budget includes $488 million for protection of living marine resources. This is my largest law enforcement mission.

We are also pioneers in the fight against pollution of our nation's waters. Since 1990, the average amount of oil spilled in the United States has dropped from 6.25 million gallons to 1.5 million gallons annually. However, we are not resting on our laurels. We are working with industry and maritime safety organizations in the U.S. and around the world to prevent environmental damage of all types. Our Prevention Through People program recognizes we can not simply focus on corporations and their leaders, we must also focus on the individual mariner—the human element. With this as our operating premise, we have been very aggressive in fostering increased prevention and response capabilities; conducting more enforcement; completing spill response contingency plans; and recovering costs from responsible parties. Our fiscal year 1999 budget request supports our goal of reducing environmental damage to U.S. waterways through these aggressive prevention, enforcement, and response programs.

Maritime Security

The Coast Guard shields our nation by halting the flow of illegal drugs and aliens through maritime routes, as well as enforcing all Federal laws and regulations at sea. Our boarding teams interdict overcrowded boats carrying illegal immigrants into the United States, foil sophisticated attempts to smuggle drugs into our waters, enforce complex international fisheries agreements and domestic fisheries regulations, as well as enforce safety regulations on commercial and recreational vessels. In 1997, the Coast Guard seized a record 103,000 pounds of cocaine and more than 102,000 pounds of marijuana and other illegal drugs being smuggled into the United States. Arrests of cocaine traffickers were up 1,000 percent, while cocaine seizures were triple the previous year. To strengthen our Caribbean neighbors' abilities to stop these problems before reaching our shores, the fiscal year 1999 budget request includes $2.7 million to operate a Coast Guard cutter as a training and support ship for the President's Caribbean Initiative. This cutter will heighten our partnering efforts with our Caribbean neighbors and train their coast guards in interdicting drugs and protecting their economic zones. We have finalized bilateral maritime agreements with 18 nations in the Caribbean to enhance our ability to counter the drug threat and support U.S. security goals in this region.

National Defense

As one of the five Armed Forces, the Coast Guard enhances regional stability in support of the National Security Strategy, using our unique maritime capabilities. We perform a range of defense duties for the Department of Defense, such as port security, search and rescue, salvage, surveillance and interdiction, and embargo enforcement. A Coast Guard cutter is currently patrolling the Persian Gulf, conducting maritime interception operations in support of the embargo against Iraq, and one of our Port Security Units stands ready for possible deployment in support of Operation Desert Thunder. The Coast Guard also works with foreign naval and maritime forces through training and joint operations, which improve international cooperation and support U.S. national security goals.

Mobility

Nearly 95 percent of all U.S. trade involves maritime transportation. Developing a safe and efficient maritime transportation infrastructure is essential to the nation's economy and is key to our ability to compete successfully in the expanding global economy. The Coast Guard facilitates maritime commerce and eliminates impediments to the movement of goods and people. Like crowded highways, crowded waterways demand careful policing to ensure safe, equal access for all mariners. Coast Guard waterways management services promote the safe and efficient movement of commercial vessels in congested harbors. Our fleet of buoy tenders maintain some 50,000 Federal aids to navigation. We are also completing full implementation of the Differential Global Positioning System to provide mariners with the most accurate navigation information available. Our icebreakers keep shipping lanes open

for commercial traffic in winter as well as conduct national interest missions in the Arctic and Antarctic. Our vessel traffic services help ensure safe and expeditious movement of vessels within the transportation network.

Our strategic goals, and this budget request, support the Department of Transportation's strategic goals of safety, protection of the human and natural environment, mobility, economic growth and trade, and national security, as well as the President's national security goals.

INVESTING IN THE FUTURE

The Coast Guard today is not only concerned about maintaining our current level of services, but meeting America's future needs. Our fiscal year 1999 Acquisition, Construction, and Improvements (AC&I) request is structured to provide for the future. The "Deepwater" project is the cornerstone of the Coast Guard's future recapitalization efforts. This project represents the systematic replacement of aging Coast Guard cutters and aircraft and related command and control systems. This new system is essential to the Coast Guard and our nation.

It is also important that we continue and complete current recapitalization projects such as the Seagoing and Coastal Buoy Tenders, the Coastal Patrol Boats, Motor Lifeboats, and Buoy Boats; continue safety and efficiency improvements on our aircraft; and invest in information and decision support systems that will result in future efficiencies. Full funding of our fiscal year 1999 request will allow us to do just that.

To offset some of the Coast Guard's capital investment, user fees are proposed to recover a portion of the Coast Guard's costs for navigational services. We are working hard to develop this proposal. To maintain current services and provide for recapitalization of aging assets, I need the full program level of our fiscal year 1999 AC&I request.

TODAY'S COAST GUARD . . . STREAMLINED, EFFICIENT

Our efforts to streamline the Coast Guard during the past four years have been tough but successful. We have reduced our work force by nearly 4,000, we have reduced overhead, administrative, and support costs, and have placed resources in the right place at the right time. Today, the Coast Guard is more active and affects more American lives on a daily basis than at any time in its 208-year history.

I can say with confidence that our Service is on course and more responsive than ever to both enduring and emerging national priorities. It is only because of our most valuable resource—our people—that we have been able to undertake such significant change while continuing to deliver the highest level of quality and excellence in services to the public. I need your support for our fiscal year 1999 request to restore the funding to our personnel account in order to recruit, retain, and pay the skilled work force necessary to perform the Coast Guard's missions.

CONCLUSION

Mr. Chairman, the President's fiscal year 1999 budget request for the Coast Guard allows the Coast Guard to carry out its missions. I believe this request is responsive to the challenges we face, yet recognizes the fiscal challenges we face as a nation. Your strong support of this request is critical to ensuring the Coast Guard remains Semper Paratus—Always Ready.

EMERGENCY SUPPLEMENTAL APPROPRIATIONS BILL

Senator SHELBY. Administrator Garvey, the emergency supplemental appropriation bill that was marked up earlier this week includes a significant appropriation for the year 2000 related work. I know that both you and the Secretary have indicated that you are confident that the year 2000 deficiencies will be corrected by July 1, 1999, or earlier.

Given the FAA's inability in the past to manage software programs on schedule, I am not willing to take a chance on it when the stakes may be as high as a complete shutdown of the ATC system on September 9, 1999, or on January 1, 2000.

Will the supplemental appropriation included in the emergency supplemental appropriations bill provide you the necessary resources to solve the host computer and year 2000 deficiencies?

Ms. GARVEY. Mr. Chairman, the supplemental would be extraordinarily helpful in allowing us to keep on schedule. It would also allow us to aggressively replace the host equipment.

Senator SHELBY. Will it be sufficient? Will it be enough?

Ms. GARVEY. It will be, Mr. Chairman. Thank you for asking that question.

COAST GUARD FACILITIES AT DAUPHIN ISLAND

Senator SHELBY. Admiral, this is parochial, I guess, but not totally so.

There is a small Coast Guard station in Mobile, AL. I understand that there was an anticipated relocation and construction of new facilities for that station on some Coast Guard owned property situated on Dauphin Island for a search and rescue detachment.

Resources for that relocation and construction were not put in the President's budget request. I further understand that one of the benefits of combining facilities at Dauphin Island is a reduction in operating and maintenance costs. In other words, it would be cost effective.

Is my understanding of this issue accurate? Was that money in your request to the Office of the Secretary and in the Department's request to the Office of Management and Budget?

Admiral KRAMEK. Yes, sir, it was.

Senator SHELBY. Is that approximately $3.25 million?

Admiral KRAMEK. It was about that amount, a little bit over $3 million.

Senator SHELBY. So if we get you the money, that would be OK, wouldn't it?

Admiral KRAMEK. We could start construction.

I had to defer that project because of our budget caps, but we are ready to move on that, which moves the rescue forces 2 hours closer to where the work is.

Senator SHELBY. It makes sense, does it not?

Admiral KRAMEK. Yes.

Senator SHELBY. So if we get you the money, you will proceed immediately, won't you?

Admiral KRAMEK. We will.

STANDARD TERMINAL AUTOMATION REPLACEMENT SYSTEM [STARS]

Senator SHELBY. Thank you.

Administrator Garvey, although the STARS Program has been the subject of a number of reprogramming concerns over key and slight slippages in the software development schedule, the reports I am getting and the committee is getting on the STARS Program are that this very aggressive hardware and software program is progressing well.

Do you share that assessment?

Ms. GARVEY. We do, Mr. Chairman.

Senator SHELBY. Is the budget request for the 1999 year sufficient to meet your obligations for this program and to manage the program in the manner you would expect from the FAA?

Ms. GARVEY. It is at this point. I will say that the next 3 weeks are going to be very critical for us with the Standard Terminal Automation Replacement System [STARS]. We are working closely

with the controllers and with members of the Professional Airway System Specialists [PASS] Union, our maintenance union, to take a look at some of the human factor issues. In the next 2 or 3 weeks, we are going to understand even more clearly what those human factor impacts will be.

We are all working very hard on the issue and the controllers are working side by side with us as well as the members of PASS.

WIDE AREA AUGMENTATION SYSTEM [WAAS]

Senator SHELBY. Let me get your impression on the status of the WAAS procurement.

In your testimony before the House Transportation Appropriations Subcommittee, you suggested that for large procurements, it might be useful to identify a cost range with risk factors that would either increase or decrease the final cost of the procurement.

Given the cost escalation that we have seen in the estimated costs of the WAAS system just in the last year and the critical question of whether this is a sole or a primary system and my growing concerns that this procurement is not even close to being cost effective, is this a candidate for the type of range and risk analysis that you suggested at the House hearing?

Ms. GARVEY. It is, Mr. Chairman. In fact, the General Accounting Office [GAO] made the suggestion to us. We are working closely with them on ways that we might approach it. We are approaching the Wide Area Augmentation System [WAAS] in that way right now.

Senator SHELBY. I understand how a range and risk analysis might be useful at program inception. But I worry about the slippery slope of a rolling range and risk estimate that could lead Congress to throw good money after bad. I am sure you share that. We don't have to look very far to see the dangers of throwing good money after bad.

The inspector general report on AAS that we mandated last year is likely to show that we wasted over $1.5 billion. I would rather cut WAAS now and get the program's architecture and management straightened out before we move forward than have an AAS situation occur on our watch.

Do you share that view?

Ms. GARVEY. We do, Mr. Chairman. We are going to be working on that very closely in the next several months. The issue of WAAS providing primary means of navigation versus sole means capability and the other questions that are associated with WAAS are at the top of our agenda.

Senator SHELBY. It is a lot of money, isn't it?

Ms. GARVEY. It is a lot of money, Mr. Chairman.

DEEPWATER PROJECT

Senator SHELBY. Admiral, there is $28 million in the AC&I budget for the deepwater project. Last year, we appropriated more than was requested for the AC&I budget in an effort to reduce the demands on that account as the deepwater project elements became bigger factors in the AC&I account.

What will be done with that $28 million in fiscal year 1999?

Admiral KRAMEK. Mr. Chairman, this week we issued a request for proposals to various contractors. We have a tremendous amount of interests from all the major shipyard contractors in the United States—major and minor—and from the aviation industry and the electronics industry for this system.

In the next 3 or 4 months, these different consortiums that have formed—there are five or six of them, or so—will answer our proposals. This summer we will select at least three of these consortiums which then will be paid from this $28 million to go into an 18-month design competition.

At the end of that, they will propose to us what the deepwater system should be like—the types of ships, aircraft, and the C^{4}I systems.

The phase II part of that project, which is also covered by this $28 million, is perhaps all three of them or perhaps just one winner, as we down select, will then go into a detailed design and cost analysis. Then we will select a winner from that to proceed to construct the deepwater project.

Senator SHELBY. Thank you, Admiral.

Senator Lautenberg.

Senator LAUTENBERG. Thank you. Mr. Chairman, we, unfortunately, have two very important witnesses here and, as a consequence, I have questions that I would like to try to get in. I hope our colleagues will perhaps indulge me if I run over a minute or two. We will try to wrap it up quickly.

Admiral Kramek, you have noted that your proposal for a 33-percent funding cut for a container inspection program in fiscal 1999 will not result in a reduced level of effectiveness and will not compromise the safety of our ports and waterways.

As you know, I initiated this program in 1994, in response to the *Santa Clara I* casualty in which several containers filled with toxic materials were lost overboard off the New Jersey coast.

Despite assurances, I am concerned that this reduction has the potential to substantially limit both the number and quality of container inspections the Coast Guard can perform. It is of particular concern because of, as you noted, the substantial increase in the number and size of the ships that are going to be plying our waters.

If you come to New Jersey, you will see it. You know that container movement is growing in popularity all the time. The size of these things is amazing. Did you mention a vessel with 8,000 containers aboard? Is that correct?

Admiral KRAMEK. That's correct. They have 6,000 already.

Senator LAUTENBERG. It is almost beyond comprehension.

What assurances can we have here at the subcommittee that these cuts, the cuts that you are proposing, will not impair the program and result in an increased exposure to problems in our ports and waterways?

Admiral KRAMEK. The assurances are that the goal that I set was to maintain our service to the public, taking into account the increase in trade. As you know, when we established this program, you were very generous and very concerned when we set this program up several years ago. We did it without any real experience in having started it.

Now that we have 3 years of experience in this program, I am able to reduce the headquarters staff. I don't find that that is necessary anymore for oversight of the program. I am going to maintain all my inspectors in the ports where they should be. I have increased the number of containers that I have inspected each year and forecast to do that in the future. And I have learned, in a quality way, how to do this job better.

If, for a moment, we fall behind, I will ask to have some of these resources restored. But I have taken all of the savings—33 percent—from what I consider expenses in excess of overhead costs. I think we can do the same job and the process we have to do with less money.

Senator LAUTENBERG. Don't be afraid, Admiral Kramek or Admiral Loy, to send out an SOS when needed because we continually give your service more and more tasks, and life becomes ever more complicated. The ships that are being built show an amazing growth in interest, whether it is passenger, container, or otherwise. I have seen a proposal where they are looking for investments in condominiums aboard ship so that you can own it and use it or rent it out on a kind of casual basis.

There is one ship that is being proposed to have two towers—perhaps you have seen that—where some gaming might take place off the coast, with thousands of passengers boarding, and perhaps going broke in the process. But the fact of the matter is the Coast Guard's responsibility is considerably enlarged.

I noted in your statement the successes we have had in capturing those attempting to run drugs into our country. Also, there is the number of buoys that have to be tended to.

I am an amateur sailor by everybody's standard and I need every one of those buoys out there. That is how I spend all of my time, looking for the next mark. And I have GPS, radar, and you name it, and my vision is pretty good. [Laughter.]

That is how we built this incredible marine recreation industry and commercial industry in our society. It is because the Coast Guard was there to make sure the waterways were clear and understood and to make the preparations for tomorrow.

When I get reports for deeper drafts—not your direct responsibility—for vessels that are expected in the future, I don't know how we are going to get them in and out of these fairly narrow waterways that we use so effectively. But we are going to do it.

The Senator from Utah can take some comfort in that he does not have to worry about that. His problems are on the high and ours are on the sea. He has the mountains and we have the sea to worry about.

But you do a terrific job.

If I can, Mr. Chairman, I would like to get on with a couple of questions.

Senator SHELBY. Go ahead.

OCEANIC SYSTEMS

Senator LAUTENBERG. Ambassador Garvey—I mean Administrator. Boy, I am changing titles all day.

Ms. GARVEY. Thank you.

Senator SHELBY. You know, that might come down the road.

Senator LAUTENBERG. I called Senator Byrd "Admiral." I'm having a bad day. It's these late nights in the Budget Committee.

Administrator Garvey, you recently submitted a reprogramming request for $75 million to replace 3 IBM 1970's vintage air traffic control computer systems. They are used for primary and oceanic systems, offshore flight data processing systems. You describe it as an imperative.

We, in my region, the New York/New Jersey region, know all too well the problems FAA's aging infrastructure imposes on the air traffic controllers, the carriers, the airline passengers. It is tough out there.

Now it is apparent that you have been facing this problem for some time now. Why has it suddenly become a critical issue and how many more aging computer systems are there out there awaiting attention?

Ms. GARVEY. Senator, replacing the Host System is something, as you have indicated, that we have known about. Originally, the FAA was looking at the year 2002 or 2003 to replace the Host. But with the Y2K issue, we took another look at that last fall and said should we perhaps undertake a much more aggressive schedule. That is really the result of the reprogramming.

Ken Mead likes to describe it as a "belt-and-suspenders approach" that we are taking, which is trying aggressively to replace the Host at the same time that we are renovating the existing system. In case we just cannot get the Host into every one of the terminals, we want to have a backup as well.

So, while we have always planned to replace the Host, we have moved it forward in a more aggressive timetable. That is the result of the reprogramming.

Senator LAUTENBERG. I am sure that the Senator from Utah, with his, as he describes it, obsession about Y2K matters, is going to ask some questions there. I just want to register the fact that I am concerned about the passage of the supplemental to get you the funds that we need.

I say the same to you. Do not be ashamed or reluctant to describe your needs in the most effective terms necessary because this is a critical issue. Again, I will defer to the Senator, who has spent so much time on this and has so much knowledge about it.

I would put in a plug for my old company and say ADP has solved the year 2000 problem. But I would not do that in this austere position that I now hold. [Laughter.]

CONTROLLER PAY

The question of controller pay and the regional differences are enormous. I am concerned that you have not requested any funding for controller pay increases in your 1999 budget.

Should we expect a request for a supplemental appropriation at the conclusion of the current negotiations with the Air Traffic Controllers Association?

Ms. GARVEY. Senator, as you have indicated, we are in negotiations right now with the union, which, by the way, I think are going very well. People are working very hard at it.

In talking with them last week, they had gone through about 50 articles, which was very good progress.

We have not requested additional funds for pay. We are looking at it as budget neutral and looking at offsets within the bargaining unit. But we really have all ideas on the table, and the controllers have brought forward some interesting ideas on productivity and savings that could be gained in other areas.

So we are really looking hard at that.

I hope very much that we can conclude the negotiations fairly quickly. I know that some of the more contentious issues are still on the table. But we are making good progress.

AIRPORT DELAYS

Senator LAUTENBERG. The delays in our area with the number of busy airports, including even general aviation, with Teterboro and Morristown airports nearby, or Westchester—these are peripheral airports in the scheme of things—are notable. La Guardia, Newark, and Kennedy airports are suffering, as are their passengers, from the number of air traffic delays, especially under severe weather conditions.

I can tell you, as a frequent flyer to that area from here, even when the weather is crystal clear, when the weather is perfect, the delays are there. At times we spend more time circling to get a landing slot than we do in actual transit from Washington to there.

What can we do? What are you planning to do to reduce these delays and improve the safety?

We have had a few of what I might describe as close calls. I do want to amend that for one system to say the system is safe. What we want to do is make it even safer than it has been. The statistics do not please us when there are persons involved if there is an accident.

What can we do to reduce delays and improve safety.

Mr. Chairman, that will be my last question.

Ms. GARVEY. Senator, let me answer that in three ways. I will do this very briefly.

There are really three efforts underway. One is the modernization effort. The work the task force, the work that RTCA has done in laying out some of the automation tools that we can put in place fairly quickly, before 2005, is noteworthy. The White House Commission talks about the year 2005. But incremental building blocks can be put in place now. We can deal both with safety issues and efficiency issues, as you have suggested. That is one effort, modernization.

Second, there is the whole issue of reconfiguring the national airspace. A point that you have made to me, and that your staff has made as well, is that when you take on something like reconfiguring the national airspace, that is a big proposition, an enormous proposition. We, in the last few weeks, have been looking at taking the Northeast corridor, where some of the problems, as you have suggested, are the most significant; rather than taking on the whole thing, let's at least look at that piece of it first so that we can take on those challenges and not wait for the whole national airspace to be reconfigured.

We are doing that and are working very closely with the airports in the corridor, including Newark.

The third is more immediate. In talking during a visit I had a couple of months ago in Newark with both the airport and Continental people, they made some wonderful suggestions about operational improvements that we could make now that will have a direct effect on efficiency and delays.

We are doing that. We have a task force made up of representatives of the airport, FAA, as well as the airlines. We are putting it in place and looking at the operational improvements now.

So those three efforts—operational improvements, which are quite immediate, modernization, and the reconfiguration of the air traffic control, which is a couple of years away but still in the short term will give us some good answers to deal with the issues that you have raised.

We are looking forward to a visit in April, I understand, to do that.

Senator LAUTENBERG. Yes, indeed.

Thank you, Mr. Chairman. I think Administrator Garvey points out something and that is that we have to have balance in our transportation system. I have heard echoes of support here for rail service.

Senator SHELBY. Absolutely.

Senator LAUTENBERG. If we did not have it between New York, Boston, and Washington, if we did not have Amtrak serving those areas, we would need 10,000 new flights a year. There is no room.

People looking up at the sky do not see it, but they see it when they get to the airport and they have to wait an hour for their flight, or they arrive too late for their connection.

I hope that we will continue to invest in rail service so that we can reduce the need to continually expand air service when, in fact, air service can be improved by redirecting some of the routes, instead of some of these short legs that we have.

Thanks very much, and I thank my colleagues for indulging me.

AIRPORT IMPROVEMENT PROGRAM

Senator SHELBY. Senator Faircloth.

Senator FAIRCLOTH. Thank you.

Have you given any thought to closing Newark? [Laughter.]

Ms. GARVEY. None at all, Senator.

Senator LAUTENBERG. And we have not thought about taking our old operations out of North Carolina, either, my old company. [Laughter.]

Senator SHELBY. I'll tell you what. I know that Senator Lautenberg has been a big sponsor, advocate of rail transportation, mainly in the Northeast, where he is from and where a lot of it works. But some of us in the South are concerned about rail transportation. There is not enough there. There is not enough coming through my hometown or through Senator Lott's State. That is something we are going to have to address and Senator Lautenberg knows that well.

Senator LAUTENBERG. We will look at the Shelby express, I promise you.

Senator SHELBY. Absolutely—the Lautenberg-Shelby express. [Laughter.]

Senator Faircloth.

Senator FAIRCLOTH. Thank you, Mr. Chairman.

Ms. Garvey, I just want to run through a few things. I am not even asking questions on these first four. I just want to mention and thank you for these. If you or some of your staff would take note to make sure they are on line, and, if you don't mind, if you would, let someone get back to me on the projects I am going to mention.

Ms. GARVEY. Certainly, Senator.

Senator FAIRCLOTH. First is the Global Transpark and the Sanford-Lee County Airport and the funding for this so that we can get the schedule on line. Second is the Lexington Airport and the Moore County Airport.

If you would, have someone contact me and let me talk to them on these projects and where they stand. Also, this one is very important because, if I am not mistaken, maybe you are planning to be there. The Charlotte air traffic control tower will receive the rapid deployment voice switching system in July of this year. I would very, very much want to make sure that that is on schedule and moving as it should be.

To be very brief, I understand exactly what Senator Byrd was saying earlier. Certainly 110 people a day killed on highways is a condition we cannot allow to continue. But I still go back to the helplessness we feel when any of us in this room gets into an airline. We have no control.

I have been through automobile wrecks and I have been through airplane crashes. I can tell you that the airplane crash is much more frightening.

I still look back—and I am not trying to identify some individual whom we can label a scapegoat—but the fiasco that the FAA allowed to go on and on and on in the purchasing of new control tower control equipment for the entire aviation network in this Nation is just a travesty that I hope we are correcting rapidly and that is not allowed to continue. The waste of money was bad enough. But the waste of time, as time moved on and we became more obsolete and more obsolete, was terrible because lives are at stake.

Would you tell me, are we catching up? Are we doing just fill-in, make-believe catchup? Are we expending the system for more air traffic? Or are we just kind of running down to Radio Shack and getting something to replace a 1974 computer with?

Ms. GARVEY. Senator, thank you.

I think we have made some real improvements. I thought your comments in the opening statement zeroed in on some of the problems we have had in the past. That is sometimes the interest in getting an enormous project that may be just too big. Sometimes Government does that. We focus on long-term implementation of a project that sometimes may be very difficult to achieve.

I think that is why the work that RTCA and the task force has done has been so important, because they have really said let's look at some building blocks, let's look at something we can put in place now. And that is going to give us and will give us the kind of auto-

mation tools that we really need to deal with the issues that you and other members have raised.

I think some of the reform that Congress gave the FAA, the acquisition reform, for example, has been extraordinarily helpful.

One thing that is very different in the way that we monitor contracts now and that is really significant is this. There are ways that the contracts are set up so that we can catch any problems early-on in the process, rather than hearing about them from contractors. We have been able to monitor projects in a way and have caught some things, for example, in the WAAS contract, also in the STARS contract, that we might not have caught 5 or 6 years ago. So I think Congress has been extraordinarily helpful in giving us some of the reforms.

But I think the issue is an important one, and one we have to constantly look at. Are we putting the right pieces of equipment in place? Are we thinking both what can we get in the short-term for benefits and what also will lead to something that will serve the next century as well? I think we are making some good progress.

AIR TRAFFIC MODERNIZATION

Senator FAIRCLOTH. Just very briefly—am I running out of time?

Senator SHELBY. You go on ahead, Senator Faircloth.

Senator FAIRCLOTH. Just in a word, are we trying to cover the mistakes of the past or are we expanding for the future? Are we getting ready for more air traffic?

Ms. GARVEY. Senator, I believe we are preparing for the future. We are ready for the future—we will be.

FEDERAL EXPRESS MID-ATLANTIC HUB

Senator FAIRCLOTH. Ms. Garvey, we, in North Carolina, are excited about the possibility that Federal Express is looking at the possibility of locating their Mid-Atlantic hub there.

Senator SHELBY. Senator Faircloth, could you get them to share that with Alabama, too? [Laughter.]

Senator FAIRCLOTH. There is no room in Alabama. [Laughter.]

If this happens, we will need some support and financing from FAA of a considerable amount, depending on which airport it goes to. I just want to say that we will be back.

Ms. GARVEY. We will look forward to that, Senator, and we will be happy to work with you.

DRUG INTERDICTION FUNDING

Senator FAIRCLOTH. Thank you.

Admiral Kramek, does the budget request permit the Coast Guard to accomplish the drug interdiction objectives that you have? I want you to know that I think it is one of the most dangerous things facing the country and if your current budget request does not do it, I can assure you that you will have my support and probably that of a lot of other Senators for more.

Does it give you an adequate amount of money?

Admiral KRAMEK. This budget request allows us to maintain the same level of drug law enforcement that we maintained last year—at the same level as last year.

Senator FAIRCLOTH. Should it be expanded?

Admiral KRAMEK. Well, I think if one were to follow the National Drug Control Strategy that has been laid out to reduce supplies in this country by 50 percent over the next 10 years, that would beg for a program with some growth. So we are studying that. We are going to have to, in the future, ask for more resources in order to meet the requirements of that strategy.

But this year we had a bit of a dilemma, and the dilemma was the Congress and the administration agreeing on balancing the budget. We had budget caps to live within. And so, this budget allows me just to maintain the current services we had at last year's level.

Senator FAIRCLOTH. Thank you, Admiral.

Just out of total curiosity, why would anybody want to be on a ship with 40,000 other people?

Admiral KRAMEK. I have no idea. [Laughter.]

When Senator Lautenberg mentioned the ship with the condominiums, every condo is already sold on that vessel. Those people live on it. They say they travel around the world and follow the sun. That is where they live, and it is totally sold out.

Senator FAIRCLOTH. I will stick to North Carolina.

Thank you.

Senator SHELBY. Senator Bennett.

MANAGEMENT RESPONSIBILITY FOR Y2K

Senator BENNETT. Thank you, Mr. Chairman.

Ms. Garvey, I appreciate your comments about the year 2000 problem. I will not beat a dead horse.

Now that is the wrong analogy. This horse is not dead. This is a horse that is going to kick down the barn if we don't get something under control.

But I would simply share with you my own experience. The agencies over which I have a degree of responsibility and control all gave me the same answers when I raised the year 2000 problem. The immediate was yes, we have a plan in place and yes, we will be ready.

As I have pursued it, I have found that in almost every case, the answer is no. They cannot be ready and the plan they have is more wishful thinking than anything else.

I am delighted to hear your description of the meeting that just took place. It should have taken place based on where we are—you were not there, so you do not bear any of the responsibility—well over a year ago, and probably for an agency as big as yours 2 or 3 years ago.

I am scared to death to find out that this meeting took place a month or so ago to start pulling this together. I will be working with you in whatever capacity the leader gives me on this issue to give you as much support as we possibly can get out of Congress.

Do not believe the techies who tell you immediately oh, yes, we have this problem under control. This is a management problem. The responsibility is yours. The responsibility is Secretary Slater's. It is not something you turn over to your Chief Information Officer and then turn your attention to other issues. It is something you, yourself, must be on top of virtually on a daily basis.

If I can put it in this analogy, your Chief Information Officer is General Marshall. You are President Roosevelt, and the free world is at stake here on how well you do your job.

If that is enough to scare you, I have accomplished what I want to accomplish.

Ms. GARVEY. You have succeeded, Senator. [Laughter.]

SECOND AIRPORT SURVEILLANCE RADAR FOR SALT LAKE CITY

Senator BENNETT. Good.

Let me be parochial now. Everybody else has been and it is time for me to be parochial, too.

With respect to an ASR–9 system in Utah Valley, which is just south of Salt Lake Valley, we have a letter from you saying that it does not meet the cost benefit analysis.

My question, which you can answer for the record, is whether or not your analysis focused primarily on the Provo Municipal Airport because the real problem, frankly, is not Provo. The problem is Salt Lake International Airport.

Of all of the major hubs in the United States, Salt Lake International Airport is the most physically constrained; 10,000- to 12,000-foot peaks virtually surround the airport.

It is the Salt Lake radar problem that we are worried about, not the Provo radar problem.

Now the mayor of Provo was in to see me yesterday and he has big plans for the Provo Airport. But there is a circumstance now where coming from the south, airplanes literally go off radar.

A week or so ago, when the President came to Salt Lake to accompany his daughter when she went skiing, Air Force One went off radar for 26 seconds. There was considerable panic over that. Regular airliners can go off radar for minutes.

We are concerned about that and hope you will take a second look at it.

Your letter tells us that there is going to be additional radar coverage during the Olympic games, so that during the Olympic games, temporary facilities will be put there to take care of this and nobody will go off radar coming from the south during the Olympics.

Obviously, the question gets raised: If it is good enough for the Olympics, why is it not good enough for regular traffic? While we will have additional traffic during the Olympics, Salt Lake is a major hub. Delta operates a tremendous number of flights out of there, as they do with their other hubs in Cincinnati and Atlanta. This is one we hope you take a careful look at.

We are a little bit afraid that the analysis that was done was just on Provo, saying well, the additional radar is not necessary for Provo which is 45 miles, roughly, south of Salt Lake. Given the maneuvers that airliners have to go through to get around the mountains, get into the landing pattern, and get into Salt Lake, this is a Salt Lake problem, not a Provo problem.

I would appreciate it if you would look into that and get back to me on it.

Ms. GARVEY. We will do that, Senator.

I remember very well last year, even before I was sworn in, you urged me to visit the airport and see the uniqueness of the layout.

I did. So I do have some appreciation for the issues that you have raised.

Let me go back and take another look at that.

[The information follows:]

Currently, there is not a validated operational need to install a second airport surveillance radar (ASR) for Salt Lake City International Airport. This airport experiences a delay rate below national average. Most of the delays that do occur would not have been prevented with improved terminal radar coverage. High altitude aircraft inbound from the south are controlled by the Salt Lake City Air Route Traffic Control Center (ARTCC) and remain within the ARTCC's radar coverage until established in the radar coverage and airspace of the Salt Lake City Radar Approach Control (TRACON). Positive radar contact and control is always maintained throughout the aircraft descent by either the ARTCC or TRACON. The FAA will continue to ensure the safe and efficient flow of traffic at Salt Lake City International Airport.

The proposed need for a second ASR in the Salt Lake City area is a separate issue from the short term temporary radar surveillance need for the 2002 Winter Olympics. Provo Airport has been identified as a potential relieve airport during the Winter Olympics. The temporary ASR–9 is intended to provide radar coverage into and around Provo Airport during the increased traffic period the Olympics Games will generate.

The radar coverage issue involving Air Force One, occurred on Tuesday, March 10, 1998 at 8:34 a.m. EST. Air Force One was enroute from Andrews Air Force Base, MD to Windsor Locks, CT. Although the beacon radar data provided by the Gibbsboro air route surveillance radar was interrupted partially, basic radar data was provided continuously.

Senator BENNETT. Thank you very much. I appreciate your consideration.

Mr. Chairman, I appreciate your courtesy.

COAST GUARD RECRUITING

Senator SHELBY. Thank you.

I have just one final question for Admiral Kramek.

I know that the current low unemployment rate, while good for the Nation, creates some difficulty for the Coast Guard in your recruiting efforts. Does the current budget provide the resources to maintain your end strength numbers considering the difficulty of recruiting in a low unemployment economy?

Admiral KRAMEK. Yes; this 1999 request from the President asks for sufficient funds to do just that.

We have to contact approximately 120 qualified high school graduates to get one of them to join the Armed Forces nowadays. It is about the same for all the services, though a little better for the Coast Guard. But sufficient funds are requested in this budget to do that, Mr. Chairman.

SUBMITTED QUESTIONS

Senator SHELBY. We appreciate both of you appearing here, your patience, and your hard work. We will submit additional questions in writing to be answered for the record.

[The following questions were not asked at the hearing, but were submitted to the agencies for response subsequent to the hearing:]

FEDERAL AVIATION ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR SHELBY

CONTROLLER PAY

Question. The budget request does not request any funding for any cost increase due to a new contract with the air traffic controllers. Your agency is currently in discussions with the air traffic controllers with regard to the terms and conditions of such a new contract. Do you anticipate a new contract this year, and will the Administration submit a budget amendment to pay for any increased costs due to such a contract?

Answer. While the negotiation process is progressing well, whether it will be concluded this year is unknown. If any cost increases result from the contract, we will pursue funding them through cost savings offsets. It is the agency's intention that the new contract will be budget neutral.

LIGHTER THAN AIR VEHICLES

Question. Last year's Transportation Appropriations conference report contained language directing the FAA to examine the feasibility of exempting hot air balloons from the minimum safe altitude requirements of 14 CFR 91.119. The FAA currently exempts helicopters from this requirement and often exempts hot air balloons from the requirements during balloon rallies. What steps has the FAA taken to examine the feasibility of a permanent exemption for Lighter Than Air vehicles from the requirements of this FAA rule? Can you assure the Committee that the FAA will undertake a thorough study to determine whether such an exemption would be feasible, and report back to Congress as soon as possible?

Answer. In recognition of the increasing popularity of hot air ballooning as a sport aviation function, the Federal Aviation Administration has, from time to time, provided guidance to field elements regarding the operation of these lighter-than-air (LTV) vehicles with regard to minimum operational altitudes in accordance with the provisions of 14 CFR part 91.119, Minimum Safe Altitudes.

The regulation provides for the establishment of a minimum safe altitude for all aircraft. By regulation, aircraft must operate at an altitude that permits an emergency landing, in the event of a power unit failure, without undue hazard to persons or property on the surface.

Minimum safe operating altitudes and distances are addressed for operations conducted over "congested areas," "other than congested areas," and "sparsely populated areas". The rule establishes an exception for helicopters, in recognition of their distinct operational characteristics which permit them to operate vertically and horizontally (including side and rearward operations) with equanimity. No other type of aircraft can safely duplicate these operational characteristics.

As maneuverability and controllability of an aircraft type decreases, safety considerations become more significant. Where the FAA may permit a small single-engine, power line patrol airplane to operate under the conditions of a waiver to the minimum altitude rule over other than congested areas (e.g. no less than 200 feet from persons or property), it would not authorize the same operation by a large multi-engine transport airplane.

Minimum safe operating altitude and distance waivers are generally granted upon request for those operators participating in airshows or competitive events. Such waivers are issued under strict terms and conditions involving pre-determined pilot actions and crowd control to preclude injury to persons or damage to property on the surface. During these events, FAA personnel are on hand to monitor the safety aspects of the event, and to terminate events or activities if conditions warrant it.

Balloons appear to be graceful and slow-moving, however, the amount of control an operator has over a lighter-than-air aircraft is minimal, and the aircraft is immediately subject to any variation in the atmosphere, such as gusty winds or thermal activity. An immediate correction to an in-flight abnormality of a hot air balloon only results in a response over a relatively long period of time.

At this time, the Federal Aviation Administration has no plans to initiate rulemaking to provide an exception to the minimum safe operating rules (14 CFR part 91.119) for lighter-than-air aircraft. The absence of total effective control of such aircraft would not provide for an equivalent level of safety that the general public has come to expect.

Should an operator or an organization request an exemption to the current rule, the Agency will examine the merits of the request on a case by case basis to determine the feasibility of granting such an exemption.

FAA REPROGRAMMING REQUEST FOR REPLACEMENT OF COMPUTER SYSTEMS

Question. The FAA recently submitted a reprogramming request for $75.3 million to replace three IBM 1970's vintage air traffic control computer systems—the primary and oceanic air traffic control systems, and the off-shore flight data processing system. The FAA has also disclosed that these critical systems need to be replaced immediately because they are no longer supported by IBM.

Why was this problem not identified earlier and how many more of these air traffic control computer systems are on the verge of obsolescence?

Answer. The Host Computer System (HCS) was originally identified for replacement by the Advanced Automation System (AAS), which was canceled in 1994. Only the Peripheral Adapter Module Replacement Item (PAMRI) segment of AAS was successfully deployed and commissioned. We have continued work on the HCS and critical system replacement programs.

The Host and Oceanic reprogramming request was sent to the Appropriations Subcommittees on March 6, 1998. This reprogramming would allow FAA to accelerate the replacement of Host and oceanic systems. This request came about after Lockheed Martin (LM) informed the FAA level in a report dated July 23, 1997, that it could not provide the current maintenance. LM is the prime contractor for the HCS with IBM being the hardware maintenance supplier. In this report, IBM stated that it could only provide the current maintenance level for one year ending 09/98 and "best effort" thereafter. End-of-Service issues for various components were also identified in this report.

Upon receipt of this information, the FAA analyzed the risks and alternatives for the HCS replacement. During this time, the FAA also vigorously pursued the HCS mainframe Year 2000 compliance issue with IBM but IBM declined to certify the system as Y2K compliant. Thirteen alternatives for the HCS replacement were studied in an Investment Analysis in February 1998. The reprogramming request was submitted.

Other systems that are either obsolete or on the verge of obsolescence include:

Current system	Replaced by or decommission
Automated Radar Terminal System (ARTS) IIIA, IIIE; ARTS IIA, IIE.	Standard Terminal Automation Replacement System (STARS).
En Route Automated Radar Tracking System (EARTS)	Micro-EARTS.
Common Digitizer (CD)–1	CD–2.
Air Route Surveillance Radar (ARSR)–1, 2	Being decommissioned and replaced selectively with ARSR–3, 4.
Direct Access Radar Channel (DARC)	Supportable till 2001; Investment Analysis is examining alternatives for a replacement system.
Peripheral Adapter Module (PAM)	Supportable till 2001. Investment Analysis is to be determined.
Replacement Item (PAMRI)	
Flight Service Automation System (FSAS)	Logistically not supportable by year 2000 and is being replaced under the OASIS program.
Tandem portion Voice Switching and Control System (VSCS).	Replacement planned.

NAS MODERNIZATION APPROACH

Question. The FAA Administrator has begun an outreach effort with the aviation community to build consensus on and seek commitment to the future direction of the agency's NAS modernization program. A review of this program by the NAS Modernization Task Force (which includes FAA and DOD officials and representatives of external stakeholder groups) concluded last month that the architecture under development builds on the concept of operations for the NAS and identifies the programs needed to meet the needs of the user community. However, the task force found that the architecture is not realistic because of (1) an insufficient budget; (2) the preponderance of risks associated primarily with certifying and deploying new equipment and with users' cost to acquire equipment; and (3) unresolved institutional issues and a lack of user commitment.

The task force recommended a revised approach that would be less costly and would be focused more on providing near-term user benefits. Under this revised approach, FAA would (1) implement a set of core technologies to provide immediate user benefits; (2) modify the Flight 2000 initiative to address critical risk areas associated with key communication, navigation, and surveillance programs, and (3) proceed with implementing critical time-driven activities related to the Host computer and the year 2000 computer date problems and with implementing such systems as

STARS, surveillance radars, and en route displays to replace aging infrastructure. What are the costs for implementing the revised approach, including the Flight 2000 Initiative? What are the benefits?

Answer. The Administrator's Modernization Task Force provided guidance to the FAA for establishing priorities for and reducing risks in modernization. The Free Flight Phase 1 (FFP1) initiative represents aviation community consensus on the first phase of modernization. It will cost approximately $600 million for the core program out of a total modernization program of $11.9 billion in Facilities and Equipment (F&E) for fiscal years 1998–2002. Flight 2000 will cost approximately $400 million in Research, Engineering and Development (R,E&D) for fiscal years 1999–2003. The re-worked National Airspace System (NAS) Architecture is consistent with budget planning targets and incorporates the recommendations of the Task Force. The key differences from the Version 3.0 draft architecture is the changed priorities and ensuring that the pace of modernization is supported by proposed funding levels. This approach affects when certain capabilities will be operational. This will influence both the initial operational capability date, and the deployment rate for some systems consistent with the needs to balance both sustainment and modernization of the NAS.

Benefits will be achieved through the risk mitigation strategies of the Flight 2000 program on major communication, navigation, and surveillance acquisitions, as well as evolutionary development for key air traffic management decision support systems in the FFP1 initiative. All six elements of FFP1 will be providing quantifiable benefits to the FAA and the aviation community by the end of year 2002. Flight 2000 is essential to dealing with transition, system performance, procedural development, and defining benefits that could occur with voluntary user equipage. The most immediate benefit is demonstrating the safety improvements that can be realized by improved pilot and controller situational awareness.

Question. What activities has the agency decided to scale back, delay, or eliminate from its modernization efforts? What are the implications for the cost, direction, and pace of NAS modernization?

Answer. Although the preliminary scheduling changes show that modernization is feasible within existing budget, the full analysis will not be completed until approximately July of this year and will become the technical, schedule and cost component of the Architecture. Most decision support systems (automation/controller tools) will reach initial operational capability as planned, but the NAS-wide full operational capability of these tools will occur later. The communication, navigation, and surveillance related improvements could be deferred from one to three years, and the infrastructure replacement programs (especially facility modernization) could be deferred to allow acceleration of automation tools that will provide more benefits to NAS users.

Question. What steps does the FAA plan to take to mitigate the risks associated with certifying and deploying new technologies associated with NAS modernization?

Answer. Flight 2000 will demonstrate NAS modernization on a manageable scale before deployment to the remaining NAS. One of the chief benefits of such a demonstration is the ability to identify and mitigate technical, operational, and institutional risks associated with modernization. Achieving low cost avionics is an example of Flight 2000 risk mitigation. The FAA will work jointly with the aviation community to define, select, acquire, certify, and install new communication, navigation, and surveillance (CNS) capable avionics. Performance requirements for multiple aircraft avionics suites and integration with corresponding ground systems present a number of operational and technical risks that will be addressed by the government and industry partnership. FAA and industry will use government and other test facilities to insure interoperability of the avionics and ground infrastructure.

Similarly, FFP1 technologies will be deployed with necessary procedures and training to reduce the operational risks associated with each technology. The responsible deploying organization will work closely within the FAA, including unions, and the airspace users to ensure that the decision support tools are operationally suitable and enable early benefits. Risk reduction achieved by early deployment at FFP1 sites will help identify and validate the appropriate transition path to full scale national deployment.

Question. What steps does the agency plan to take to make technologies more affordable to the user community? To demonstrate that new technologies will provide early and immediate benefits to users?

Answer. The Flight 2000 initiative includes steps to minimize avionics development, procurement, implementation, and after market costs. The FAA will engage industry early in the program to ensure standards are developed to streamline and complement the manufacturing and certification process. To promote competition and speed the procurement process, the FAA will identify multiple avionics suites

that minimize development, implementation and certification costs for a wide variety of aircraft. This shared government/industry development approach will insure maximum use of scarce resources to take advantage of commercial off-the-shelf (COTS) technology. The software and hardware certification process will be streamlined to make certification less time consuming and therefore less costly.

The Flight 2000 initiative will not only demonstrate and refine the Free Flight technologies but will also provide early benefits to a significant number of users particularly in Alaska where immediate safety benefits will be realized. A CONUS site, yet to be selected, will allow the benefits of communication, navigation, and surveillance air traffic management (ATM) operational improvements to be demonstrated in high-density traffic areas.

Flight 2000 will help accelerate the development and certification cycle for avionics thereby reducing the cost to the user. Free Flight Phase 1 will also provide early airspace user benefits in a number of key ATM areas including increased efficiencies in traffic flow management, system capacity and the granting of user clearance requests (with associated fuel and time savings).

FLIGHT 2000 RISK MITIGATION

Question. How does the FAA plan to modify the Flight 2000 initiative to address critical risks associated with communication, navigation, and surveillance programs?

Answer. Flight 2000 was conceived to achieve advanced CNS capability, by streamlining certification of new avionics, validating new controller and pilot operational procedures, and driving down the cost of aircraft avionics equipage. Flight 2000 planning builds upon unaddressed but required operational improvements, set forth by the aviation community in the Radio Technical Communications for Aeronautics (RTCA) Free-Flight Implementation Plan of October 26, 1995. Although previously not a stated objective, optimizing the risks associated with Free-Flight has been an integral part of Flight 2000 from the outset.

Many of the technical risks associated with new CNS systems are addressed by industry or other FAA programs as part of technical development. All too often in the past, operational and institutional risks have been overlooked, preventing realization of operational capability and actual benefits to users. Through RTCA, the FAA and the aviation community have begun a joint planning process that more accurately identifies risks associated with CNS modernization. The Flight 2000 initiative will be refined from this work to address risk areas not covered in other programs or by industry, especially operational and institutional risks.

FLIGHT 2000 FUNDING

Question. Are the funds requested in fiscal year 1999 for Flight 2000 based on the new risk mitigation approach?

Answer. Risk mitigation was a primary consideration in developing the Flight 2000 program. The new initiatives addressed by the NAS Modernization Task Force have not been fully incorporated into the program plan, but any additional funding requirements resulting from the new risk mitigation approach are not expected to significantly impact the requested fiscal year 1999 level. As the joint FAA and industry risk mitigation planing proceeds and subsequent funding requirements are known, they will be included in Flight 2000 out-year budget requests.

NAS MODERNIZATION APPROACH

Question. What actions has the agency taken to address shortcomings identified by GAO that impact FAA's ability to effectively modernize the NAS? These included problems in the areas of systems architecture, cost estimating and accounting, software acquisition, and organizational culture? What additional actions are planned?

Answer. FAA action is ongoing to address the GAO's recommendations regarding systems architecture, cost estimating and cost accounting, software acquisition, and organizational culture:

Systems Architecture.—FAA has ongoing efforts to develop both a logical and technical architecture to guide NAS modernization. We are focusing on new programs through investment analysis and system engineering teams to define the architecture we are developing. The "logical" NAS Architecture, currently Version 3.0, is derived from operational concepts and requirements. The "technical" architecture, which is a detailed subset of Version 3.0, will include applicable standards that apply across programs, software, communications, data management, information security, physical security, performance, and other operational and performance related factors. Both the logical and technical architectures are under configuration management. The logical architecture changes are also coordinated with users.

When the architecture is approved, the FAA will have a technical baseline that the users and the Congress can measure performance against.

Cost Estimating and Accounting:

Cost Estimating.—This effort includes four key elements that will be partially implemented starting in October 1998:

—Standard Work Breakdown Structure (WBS) to provide consistent, comparable, and complete cost estimates and to track actual experience for NAS modernization programs;

—Corporate history for estimated and actual costs and schedules to provide data for cost estimating and to serve as an audit trail for NAS modernization efforts;

—Cost estimating tools that will provide estimates consistent with the standard WBS and will be continuously updated with actual experience from the corporate history; and

—A definitive agency-level life cycle cost estimating process, which defines the roles and responsibilities of contributing organizations and integrates life cycle cost estimating with other FAA business processes.

Cost Accounting.—In response to GAO as well as National Civil Aviation Review Commission, Government Performance and Results Act, and other legislation, FAA is installing a cost accounting system. A significant effort is underway to implement the system by fiscal year 1999. The Associate Administrator for Research and Acquisitions (ARA) organization is serving as a pilot and is developing and evaluating initial capabilities during fiscal year 1998. This system will allow the agency to monitor the costs associated with various projects within the FAA.

Software Acquisition.—FAA is undertaking a multiyear program to improve software engineering practices for both the FAA and its major suppliers. The FAA with support from the Software Engineering Institute Carnegie Mellon University has established an Integrated Capability Maturity Model (FAA-iCMM) to guide process improvement activities. The ARA organization has established a specific process improvement goal that is reflected in the fiscal year 1998 ARA Business Plan. This goal is to have at least 75 percent of 14 major ARA programs reach FAA-iCMM Level 2 by December 1999 and Level 3 by December 2001. In addition to improving software engineering and acquisition processes, the FAA's Chief Scientist for Software Engineering is leading specific improvement efforts in the areas of metrics, architecture, streamlining software certification processes for both airborne and non-airborne systems, and improving FAA's software and systems engineering competencies.

Organizational Culture.—The FAA's organizational culture change initiatives have included an internal focus on improving ways to achieve common goals across lines of business, as well as strengthening public and private collaboration in our NAS modernization activities.

An example of the internal focus would be the establishment of an Integrated Product Leadership Team of senior FAA executives tasked with making recommendations and implementing changes which strengthen the effectiveness of our integrated product teams as the preferred organizational structure of our acquisition work force. This organizational structure includes seeking to develop common or complementary performance standards across lines of business that place an emphasis on teamwork and collaboration versus the traditional stovepipe approach. It also is designed to streamline the decision-making process in fielding new systems.

To improve our collaboration with the external aviation community, the FAA continues to identify ways to include the users in our decision-making process. For example, we established a NAS Modernization Task Force, consisting of FAA, DOD, unions, and aviation user organizations. This task force successfully fostered a public-private collaboration in developing a NAS modernization plan that has the acceptance and commitment of both the FAA and of the users we serve. In addition, we work hard to reach consensus for major NAS modernization decisions, using RTCA to bring the community together to provide advice and recommendations to the agency in such areas as operational concepts, NAS architecture, and free flight.

Beyond our initial response to GAO, we are preparing to establish a pilot program, which would have many of the research and acquisitions work force participate in a prototype of a new compensation system. Under this system, salary increases will be primarily based on two factors: (1) Meeting quantified goals defined for the entire ARA organization; and (2) for significant individual achievements. This system will abolish pay increased based on length of service.

Question. FAA canceled the tower segment of its automation program in 1997. What are FAA's plans for replacing the workstations and bringing new functionality to tower facilities?

Answer. Mission needs analysis is underway to determine the global automation needs of the tower domain.

FREE FLIGHT

Question. One of the key technologies identified by FAA for free flight-the agency's new concept of air traffic management-is the Initial Conflict Probe (ICP). ICP is based upon the User Request Evaluation Tool (URET) developed by Mitre. It is a decision support tool that allows en route controllers to identify potential conflicts between aircraft trajectories and aid controllers in resolving them. FAA indicated that it plans to spend about $245 million for full scale development of this capability and to award the ICP contract in March 1998. A recent GAO review of URET found that quantitative performance evaluations were limited in that these evaluations were based on actual traffic data in only two centers, and they were not independently validated.

FAA's en route product team, responsible for developing and implementing ICP, acknowledges that the limited amount of information on URET constitutes a technical risk and they have outlined plans to mitigate this risk. GAO's work cautioned that awarding the ICP contract before independently validating URET performance and developing firm requirements for ICP is unwise. GAO has previously reported that emphasizing concern for schedule at the expense of disciplined system development and careful, thorough testing has proven to be imprudent. How does the Task Force recommendation to begin limited deployment of ICP impact current plans for full scale development? Please provide (for the record) a list of high level milestones for ICP development and deployment.

Answer. The ICP program will be redirected to accomplish FFP1 objectives. An ICP full scale national deployment decision will be deferred until 2002 or beyond (when measured user benefits from FFP1 are available).

Question. We understand FAA is planning to deploy URET to four additional locations. Is this accurate? How will this affect the ICP deployment.

Answer. Consistent with the RTCA Select Committee recommendation, the deployment of the URET will be expanded to an additional five sites: Atlanta, Chicago, Washington, Cleveland, and Kansas City, for a total of seven. The scope of ICP, including a decision regarding deployment of probe capability at the remaining ARTCC's, will be determined after the confirmation of benefits realized during the limited deployment.

Question. Does FAA plan to continue with efforts to independently verify URET's performance capabilities? If yes, what are the time frames for the independent verification?

Answer. The FAA has recently completed a simulation study of the URET system performance. This study was performed by the William J. Hughes Technical Center and completed April 1998. The results are documented in "User Request Evaluation Tool (URET) Conflict Prediction Accuracy Report," Document number DOT/FAA/CT–TN98/8. Continued quantitative and qualitative analysis of URET performance will be part of the evolutionary deployment effort.

Question. What additional testing is needed to demonstrate that the ICP will work effectively across center boundaries when deployed nationally?

Answer. Testing of URET interfacility capability is on-going and will enter daily use at Indianapolis and Memphis. Deployment at the seven RTCA recommended sites will demonstrate the concept for a multi-center application.

WIDE AREA AUGMENTATION SYSTEM (WAAS)

Question. The FAA is planning a transition to satellite-based navigation, using signals generated by the Department of Defense's Global Positioning System (GPS). However, GPS does not satisfy all civil aviation requirements and FAA is developing a Wide Area Augmentation System (WAAS) to enhance GPS, which will require additional communication satellites. FAA is planning to lease these additional communication satellites and plans to begin paying on this lease beginning in fiscal year 2002, using its Operations appropriation. FAA's plan was to complete WAAS development by the end of 2001. However, the Task Force on ATC modernization is recommending a slower pace for WAAS development after the completion of phase 1 in 1999.

The WAAS project is seeking an advanced appropriation to pay for satellite leases, which would provide FAA multi-year authority to obligate funds in future years beyond fiscal year 1999. However, FAA plans to enter into some form of lease agreement with a vendor before fiscal year 1999. What guarantees and incentives is FAA proposing to prospective vendors that would not obligate the government but still encourage them to invest their capital?

Answer. The FAA is currently working with the Department of Defense's GPS Joint Program Office to define the requirements for a request for proposal for satellite services. While specific details have not yet been determined, there are some basic considerations that will be communicated to interested industry participants:

—There is a strong potential for a world-wide market of related services due to increased international interest in satellite-based navigation. This market place affords the possibility for industry to pursue potential cost sharing arrangements with a large return on their investment.

—The potential for satellite services extends well beyond the FAA's near term requirements for WAAS. The FAA has other navigation, communication, surveillance, and air traffic initiatives that lend themselves to increased business opportunities and ultimately increased profit.

Question. Why doesn't FAA request authority to obligate funds to purchase or lease satellites beginning with the fiscal year 1999 appropriations?

Answer. The FAA has requested statutory authority that would allow it to obligate funds as early as fiscal year 1999 to lease satellite services over any number of years. The FAA's request to form a Performance Based Organization asks for multi-year contracting authority to acquire leases for Air Traffic facilities and equipment, research and test sites and facilities, and other real estate and personal property or any interest therein. The FAA currently has multi-year authority in 49 U.S.C. 40111 and 40112 but this authority is limited to a base period of five years with three option years. This period of time is not long enough to take advantage of lower costs associated with amortization over a longer lease term. Satellite providers typically provide the lowest lease costs for satellites when costs are spread over the life of the satellite which is customarily designated as ten years.

In addition to multi-year authority issues, the FAA is currently refining its satellite acquisition strategy. There are short-term alternatives currently being considered such as broadening FAA and NASA interagency agreements to add a civil aviation navigation package to NASA's Tracking and Data Relay Satellite contract. The Geostationary Operational Environmental Satellite contract directed by NOAA is also being considered.

Alternatively, the FAA, like other agencies, could procure its telecommunications services through GSA which is the statutorily authorized executive agent for satellite services which can be leased on a ten year, multi-year basis.

Question. Has FAA done an affordability analysis to determine that the Operations Appropriation can pay the expected lease costs?

Answer. As part of the investment analysis activities conducted by the FAA for the WAAS acquisition program baseline in January 1998, an affordability analysis was prepared. This analysis concluded that the satellite lease costs were affordable so long as the FAA stayed on track to begin decommissioning the existing ground-based navigation infrastructure in favor of satellite navigation. In addition, the analysis concluded that lease costs could go down in the event these costs could be shared by other FAA or non-FAA users.

Additional affordability analyses will be required in the event the FAA decides to retain some of the ground-based equipment as part of an independent back-up system. This analysis will occur over the next few months with the results reported to the Administrator in late 1998.

Question. Why is the Administrator's Task Force recommending a slower pace for WAAS development?

Answer. The Administrator's NAS Modernization Task Force does not intend to slow up implementation of WAAS, and it does not believe that its' plan to mitigate the risks of GPS/WAAS early on will cause a delay in the program. The RTCA Free Flight Steering Committee, composed of industry and government representatives, endorsed the approach, recognizing that full-scale development of new operational capabilities requiring both ground and cockpit enhancements pose a number of substantial barriers to successful implementation. Not the least of these is the lack of consensus and commitment on the part of the aviation community. In the past, failure to gain consensus and commitment from the aviation community has been one of the major factors in schedule delays and cost overruns. The NAS Modernization Task Force, and the RTCA Free Flight Steering Committee, believe that mitigating this and other risks at the front end of the process would help eliminate delays and additional costs later on. To that end, the steering committee recommends that FAA move forward on schedule with the development and deployment of an initial WAAS capability that will provide precision approach capability at limited sites with limited availability. Simultaneously, the FAA will continue to address the risks involved in the remaining phases of the WAAS program. One of these risk-mitigation measures is to conduct an independent assessment of the risks to the GPS/WAAS signal from intentional (jamming) and unintentional interference (mostly atmos-

pheric). This assessment will help determine whether we can achieve a GPS/WAAS sole means operational capability in end-state WAAS.

Question. How will this slower-paced development impact on the current 2001 completion date for WAAS?

Answer. The evolutionary, building-block approach recommended by the NAS Modernization Task Force, which was endorsed and refined by the RTCA Free Flight Steering Committee, is not intended to delay the 2001 completion date for wide area augmentation system (WAAS). With global positioning system (GPS)/WAAS, as with other more complex NAS modernization programs, the whole idea is to implement operational capabilities that are ready to be brought on line now while eliminating the risks that might cause schedule delays later on.

Question. How has FAA addressed the continuity problems inherent in the WAAS system?

Answer. The FAA is addressing the continuity issue by incorporating various technical solutions into the system's design to avoid unnecessary burdens on any one element and thereby minimizing the risks for failure. For example, as stated in the February 1998 Report to Congress (Wide Area Augmentation System Report on Program Status, Management, and Satellite Communications), "The FAA and Raytheon conducted intensive studies as to the existing terrestrial communications network redundancy. As a result, the network was doubled as to communication linkages to preclude a single system mode failure." In addition, the FAA is pursuing additional satellite services to increase the system's availability. These improvements are being addressed using pre-planned product improvements (P^3I) as the system matures from an initial (Phase I) to a final (Phase 3) operational capability.

WAAS AND LAAS DELAYS AND COST OVERRUNS

Question. Due to the delays and cost over-runs being experienced with WAAS and LAAS we believe, as we have told the FAA in the past, that there needs to be an interim plan to support en-route navigation and terminal precision approach requirements. Is the FAA developing such a plan? If so, please provide details. If not, please explain how the FAA plans to handle interim needs, such as new precision approaches and technology refresh of outdated equipment.

Answer. With initial operational capability, that is, en route and CAT I precision approaches expected for WAAS in July 1999, and existing ground based systems providing this capability well past that date, there is no reason to develop an interim plan to support en-route navigation and terminal precision approach requirements. There will be an adequate overlap between the existing ground based systems and the upcoming WAAS system. The current WAAS implementation plan does not consider decommissioning existing ground based systems until 2005 at the earliest. Current instrument landing system (ILS) and distance measuring (DME) equipment will remain in service until at least 2010 with ongoing sustainment programs. Under the ILS service life extension program, approximately 120 of the oldest systems have already been replaced or upgraded. For the DME program, fiscal year 1999 is the initial year to begin replacing the oldest DME equipment. Because of the expected July 1999 WAAS initial operational capability date, any new CAT I precision approaches will be handled as GPS/WAAS approaches.

NEXT GENERATION LANDING SYSTEMS

Question. When was the last time the FAA did a survey of airports with ILS/DME requirements? Please provide a copy of the most recent FAA list of unmet ILS/DME requirements including the benefit/cost ratio for each site. What are FAA's plans to update this listing?

Answer. The last year a survey was conducted on ILS requirements was 1992. Although the results of that survey, appearing only on working papers, contained approximately 180 CAT I, II, and III sites, we do not have a current list of specific sites. The decision to invest in satellite based technology significantly reduced the FAA's ILS establishment program, with fiscal year 1995 being the last year for new category I requirements. Since that time only limited CAT II and III ILS projects were supported based on planned implementation of Local Area Augmentation System. The information follows:

[CLERK'S NOTE.—The information referred to does not appear in the hearing record but is available for review in the subcommittee's files.]

Question. We understand that a significant number of navigation and landing aids in the NAS are nearing the end of their useful lives and won't be able to last through a 12 year (or longer) transition to GPS based systems. Please provide a system by system assessment of the condition of each type of navigational and landing aid in the FAA inventory.

Answer. Overall, our sustainment and technology replacement program efforts have made possible relatively stable trends for navigational and landing systems. Greater efforts are in place to improve and sustain navigation/landing systems such as VHF Omnidirectional Range (VOR)/Distance Measuring Equipment (DME) and Localizer/Glide Slope (LOC/GS). The number of facilities in each group has remained relatively stable over the past ten years due to a generally one-for-one upgrade program.

The Mean Time Between Outages for the past ten years remains stable or shows improvement. The Unscheduled Mean Time to Restore shows some variance primarily due to national, regional, and local restoration policy.

The number of unscheduled outages has remained relatively stable—the LOC and GS numbers have increased somewhat, but programs are in progress to sustain the facilities.

A service life extension program for Mark-1B and Mark-1C Category I Localizer and Glide Slope systems has been in operation for the past five years to provide supportable and maintainable equipment.

The Mark-20 program, an on-going program to replace existing older ILS, is now nearly complete and is expected to improve the performance of the ILS.

The installation of the third-generation VOR is expected to improve its performance. The third-generation system uses state-of-the-art technology, and is more readily reset via Remote Maintenance Monitoring (RMM). The facility can be installed either as an upgrade of the second-generation facility, or as a completely new facility.

We expect to experience better performance in these areas as a result of the Service Life Extension Programs, the Mark-20 program, and the Third Generation VOR programs.

We are composing a workgroup of specialists from NAS operations, operational support, logistics, requirements, research and acquisitions, and other organizations necessary to answer the system-by-system assessment.

KOREAN AIRLINES ACCIDENT IN GUAM

Question. Could the accident in Guam be contributed to an ILS glide slope which was out of service? Is it possible that this type of incident could re-occur in the continental U.S. if the current infrastructure is not kept up?

Answer. Although it is the National Transportation Safety Board's responsibility to determine the cause or causes of the accident, and the NTSB has not made a final determination in this case, the FAA believes that the ILS glide slope was not a factor.

A Notice to Airman (NOTAM) stating that the glide slope was unusable had been issued on July 7, 1997 (the accident occurred on August 5) and the crew was told by the approach controller that the glide slope was unusable.

This accident was not related to a failure in the infrastructure. The "unusable" status of the glide slope was due to a planned replacement of the building housing the glide slope equipment following storm damage to the old building. The published instrument approach procedure contained provisions for safely conducting the approach without the glide slope, and a re-occurrence of this type of accident in the continental United States (U.S.) is highly unlikely.

WAAS AND LAAS AVIONICS

Question. How are you planning to handle the opposition of the major airlines to installing WASS and LAAS avionics in their aircraft?

Answer. The Air Transport Association (ATA) confirmed that the airlines fully support the installation of WAAS and LAAS, provided they can ultimately enable sole means navigational operations. No resistance is anticipated by ATA member airlines since the use of augmented GPS will be beneficial to all member airlines.

Question. How long will it take for 90 percent of U.S. aircraft to become equipped with LAAS and WAAS avionics? What about international air carriers?

Answer. The FAA Investment Analysis Report on Satellite Navigation, dated January 1998, assumed air carrier equipage with WAAS to reach 90 percent in 2006 and air carrier equipage with LAAS to reach 90 percent by the end of 2007. These estimates were based on WAAS full operational capability in late 2001 and LAAS full operational capability in 2006. In the economic analysis, it was assumed that only Category I equipped air carriers (20 percent of the air carrier population) would equip early with WAAS avionics and the rest (80 percent of the air carrier population) would wait for avionics with both WAAS and LAAS capabilities. International air carriers were assumed to equip at the same rate as domestic air carriers.

Regarding general aviation, we estimated that currently only 72 percent of aircraft are equipped for instrument flight, and that 90 percent of these would equip with WAAS by 2006. Since we do not expect the rate of equipage for instrument flights to significantly increase, we do not expect general aviation aircraft as a whole to ever reach 90 percent equipage for WAAS. We assumed further that by 2009 only 34 percent of general aviation flights would be on LAAS equipped aircraft, and this would represent an even smaller percentage of total general aviation aircraft. Thus, we do not expect that general aviation equipage of LAAS to ever reach 90 percent.

Estimates of equipage rates were made after consultation with representative air carrier, general aviation, and avionics manufacturers, as well as personnel within the FAA. The estimates are considered to be conservative; there is a low risk that equipage will be slower than expected.

GLOBAL POSITIONING SYSTEM OUTAGE

Question. What will happen if there is a GPS outage in the U.S. due to problems such as signal jamming, interference from other terrestrial sources or a solar storm? What type of back-up plan does the FAA envision for a WAAS/LAAS-based system in terms of en route navigation? More importantly, what type of back up plan will be used for Category I, II and III approaches?

Answer. The current FAA policy in event of the above is to provide a NOTAM highlighting the unavailability of service, similar to what is done today in the event of severe snow storms or hurricanes. Aircraft in the air under Instrument Flight Rules will then have to rely on such things as radar vectors from air traffic control (ATC) and/or high quality inertial navigation systems, if available, to provide them en route navigation. General aviation aircraft under Visual Flight Rules will revert to pilotage or dead reckoning to provide them en route navigation.

For Category I/II/III approaches, a similar strategy applies if GPS is unavailable. ATC then would be expected to direct aircraft to airports that can facilitate a safe landing.

Based on the concerns raised by the President's Commission on Critical Infrastructure Protection and the Congress, the FAA is reviewing the above policy for the possible inclusion of a backup to Global Positioning System/Wide Area Augmentation System/Local Area Augmentation System. An analysis is currently underway to assess the threat, establish backup requirements, and evaluate the various alternatives for backup.

NEXT GENERATION LANDING SYSTEMS

Question. Is it true that there are FAA-certified Commercial-off-the-Shelf (COTS) ILS available which are half the price of the FAA's Mark 20 Military Spec version? What ILS cost basis did the FAA use when doing the cost benefit analysis for WAAS and LAAS?

Answer. It is true that COTS ILS's are available that meet category 1 requirements at approximately half the price of the MK–20 ILS. However, for category 2 and 3 requirements only the MK–20 is currently available. If additional ILS procurement is required the acquisition strategy would consider quantity, urgency, supportability, and the LS category. COTS would be considered as a viable option. The MK–20 system pricing was utilized when doing the cost benefit analysis for Wide Area Augmentation System.

Question. As a result of delays in the GPS/WAAS program our Committee has continually supported steps to assure that the FAA will make necessary investment in acquiring Instrument Landing System equipment because this technology provides a very cost-effective airport safety enhancement. In fact, in recent years, the FAA has purchased nearly 200 new systems through its existing ILS contract. We understand that the contractor has performed well on this contract and this is one of the procurement success stories for the FAA in recent years. Would you agree? How many options remain on the existing contract and when does it expire?

Answer. The contract for the MK–20 ILS is with Wilcox Electric, Inc., now known as Airsys ATM. Under this contract, the required 186 systems have been delivered with 41 more available through December 1998 through options. This was a very successful development and production effort with the category 3 capable MK–20 delivered on schedule and at contract cost. The contractor's performance was superior.

Question. We have seen an ILS equipment requirements list based on information provided by airports and some FAA input that indicates there is a backlog of more than 200 airport locations that have identified needs for Instrument Landing Systems. What steps are being taken by the FAA to exercise remaining contract options for this equipment to meet existing needs?

Answer. In 1992 an analysis identified approximately 180 runways that could qualify for ILS equipment based on FAA criteria. With the decision to invest in satellite based technology, and the planned implementation of WAAS starting in fiscal year 1998, fiscal year 1995 was the last funding year for category I sponsored ILS projects. Since that time only limited category II/III ILS projects were supported based on the planned implementation of LAAS. The current contract does have options available to acquire additional ILS equipment, however no plans exist nor are funds available for the procurement and installation of additional ILS equipment or the required runway visual range and approach lighting systems that constitutes a complete ILS project.

STANDARD TERMINAL AUTOMATION REPLACEMENT SYSTEM (STARS)

Question. FAA's STARS project is expected to replace 15- to 25-year-old computers and related equipment used at FAA facilities that track aircraft in the airspace surrounding airports. Because the project experiencing software development problems, first site operational readiness, scheduled for December 1998 at Boston, may slip by four to five months. STARS human factor issues will cause further delay. FAA is seeking an additional $29 million in fiscal year 1998 funds for the STARS project. This money is needed for software development changes, additional resources to maintain the program schedule, changes to address human factors issues, and the early deployment of STARS equipment at Reagan Washington National Airport and possibly the TRACON's at New York and Dallas/Fort Worth.

In its March 1997 report on the status of the project, GAO pointed out that the project's life-cycle cost estimate could possibly increase due to expected higher costs for operating and maintaining STARS equipment. FAA officials disagreed, but agency officials could not provide GAO with any data to support their claim. How much has the size of STARS software grown since its original estimate?

Answer. The current estimate for the STARS Full System Capability (FSC) software (the software that will provide full operational capability) is 188,100 newly-developed and/or modified source lines of code (SLOC). This represents an increase of 48,100 SLOC over the 1997 estimate of 140,000 SLOC.

This estimate does not include the code that will be developed to address human factors issues resolution. Initial System Capability (ISC) human factors continue to be addressed by the controllers and technicians unions. Once an approved implementation strategy for these ISC human factors issues resolution is agreed upon, the estimate for software code will be revised.

Question. How confident are you that the existing software development problems will only lead to a four to five month slip at Boston? How many months will the STARS schedule slip due to human factors issues?

Answer. The FAA has identified a four to five month schedule risk to the December 1998 Boston operational date. The exact magnitude of this delay will be determined after the ISC human factors evaluation activity is completed.

Activities associated with identifying and prototyping solutions for ISC human factors issues is on-going. However, activities associated with software development to resolve the ISC human factors issues (some of which are already known) are not funded, and are contingent on the approval of the formal fiscal year 1998 reprogramming request.

Question. Will the Facilities and Equipment baseline for STARS be revised upward as a result of the fiscal year 1998 reprogramming request?

Answer. The Facilities and Equipment baseline for STARS will remain at $940.2 million and not be increased as a result of the fiscal year 1998 reprogramming.

Question. Can FAA, at this time, provide an updated operation and maintenance cost estimate for the STARS project?

Answer. In July 1997, our estimate for operation and maintenance costs remained under our acquisition program baseline objective of $1.5 billion. We are currently performing human factor assessments to improve the STARS system supportability. Once these activities are completed, we plan to reassess our support costs.

YEAR 2000

Question. FAA has renamed its Interim Host Replacement project the "Host and Oceanic Computer Systems Replacement project." The project is urgent because FAA cannot provide assurance that the current Host system at its 20 en route centers will be able to operate safely and avoid groundings or delays on January 1, 2000. FAA plans to request about $160 million in Facilities and Equipment funds during fiscal years 1998 and 1999 through reprogramming and new budget authority-to acquire, test and install the new equipment. However, this amount does not include the Facilities and Equipment cost of technical refreshment, nor does it in-

clude the cost of operating and maintaining the equipment over its service life. Is the Host and Oceanic Computer Systems Replacement project focused solely on replacing the Host hardware? Will FAA need to replace the rest of its Host system in the near future?

Answer. The Host and Oceanic Computer System Replacement (HOCSR) program is a four-phased program. Phase 1 of the HOCSR program consists mainly of hardware replacement activities focused on processor replacement and connection to existing peripherals and failure/recovery switching equipment at both domestic and oceanic Air Route Traffic Control Centers. Phase 2 is focused on software changes only for the upgrade of the National Airspace System monitor to the IBM 390 instruction set. Phase 3 will involve the replacement of "user" interface devices (Keyboard Video Display Terminals, printers, communication controllers,) and their connections to the Host and Oceanic replacement processors. In Phase 4, the current disk and tape drives will be replaced as determined by operational and technical studies. This four-phased approach provides replacement of hardware and equipment in accordance with end-of-service dates.

Question. What is the life cycle cost estimate broken down by year and appropriations account for the Host Replacement?

Answer. The total life cycle cost for HOCSR is $607.2 million.[1] The table below provides a breakdown of cost by year and appropriation account. This estimate includes technical refresh and programmed upgrades.

HOCSR LIFE CYCLE COST SUMMARY

[In millions of dollars]

Fiscal year	F&E	O&M
1998	79.5	0.6
1999	87.5	5.0
2000	90.1	6.6
2001	62.8	13.1
2002	23.1	13.2
2003	40.0	21.6
2004	20.7	22.0
2005	9.9	19.9
2006	8.3	20.7
2007	3.9	21.1
2008	16.8	20.8
Total	442.6	164.6

Question. What are the life cycle costs associated with FAA's plans to address Y2K compliance issues? Do these estimates include costs associated with making the Host computer year 2000 date compliant?

Answer. Repair cost estimates for the FAA Year 2000 (Y2K) currently are $161.5 million. This figure includes the cost estimate for renovation and certification of the Host as Y2K compliant.

Question. What is FAA's schedule for installing this new equipment? How will the deployment of new Host hardware to 20 en route centers affect FAA's plans for deploying DSR to the centers?

Answer. The initial HOCSR hardware deliveries to the William J. Hughes Technical Center occurred in April 1998. The HOCSR deliveries to the operational sites will commence in August 1998, with the first Initial Operational Capability (IOC) to occur December 1998 and the first Operational Readiness Date (ORD) planned for February 1999. The IOC for the last site will occur September 1999 with a planned ORD in October 1999. While we are working to minimize impacts to the DSR schedule, there will be some adjustments. The HOCSR waterfall schedule was developed with the sites and regions to mitigate program risks and to minimize the number of schedule overlaps with the DSR program.

[1] Cost estimate includes program travel and backfill overtime.

AVIATION WEATHER

Question. Please provide a table that presents the detailed composition of the aviation weather R&D budgets for fiscal year 1997, fiscal year 1998 and fiscal year 1999 on a comparable basis. The detail should show Socrates, Juneau, national laboratory funding, program emphasis areas, program support, cost-benefit analysis support, in-house civil service costs, and similar levels of detail.

Answer. The information follows:

FISCAL YEAR 1999

[Dollars in millions]

	Fiscal year—		
	1997 enacted	1998 enacted	1999 President's budget request
F&E Appropriation	.....	$3.500	.....
R,E&D Appropriation	$13.000	5.300	$12.248
Total Available	13.000	8.800	12.248
In-House Personnel	0.360	0.800	0.848
Project SOCRATES	1.589	3.000	.....
Juneau Wind Shear	.400	3.500	.....
Center for Wind, Ice and Fog	.....	.500	.....
Aeronautical Hazards	.157	.....	.....
National Laboratory	.947	8.367	9.118
Research Operations	1.275	1.466	1.600
Technical Center Support	.470	.400	.475
Cost Benefit Analysis	.400	.200	.200

Question. What was the program office's original request for aviation weather R&D at the outset of the fiscal year 1999 budget formulation process? Which program areas have suffered as a result of reductions during the budget process?

Answer. The program office's original request for aviation weather research and development at the outset of the fiscal year 1999 budget formulation process was $22.4 million. As a result of the reductions in program funding for fiscal year 1999, the following lower-priority work will be deferred:

—Transition of growth and decay algorithm to the NEXRAD Operational Support Facility for national implementation.

—Onboard based turbulence detection product evaluation.

—Incorporation of boundary layer conditions into the growth and decay algorithm to produce a highly reliable one hour forecast of convective weather.

—Implementation of enhanced cloud analysis into the Rapid Update Cycle and Eta models.

—Demonstration of an initial automated ceiling forecast capability at San Francisco.

—Project SOCRATES demonstration of the full system concept and the design and build of a full multibeam system will be postponed.

—Flight Information System (FIS) will not provide an impact assessment of incorporating en route FIS products in the cockpit, which is necessary for the definition of standards and guidance for implementation.

In addition to the above work reductions, the following lower-priority programs will be deferred in their entirety in fiscal year 1999 at the proposed budget level:

—National Ceiling & Visibility—develop the capability to forecast this phenomena to enhance aircraft safety, especially for General Aviation.

—Space Weather Coordination—develop the capability to determine the effects of space weather on satellite systems used for navigation and communication, such as the Global Positioning System.

—Oceanic Convective Nowcasting—develop the capability to provide better definition of the location, timing, and severity of convective weather hazards for oceanic routes.

—Wake Vortex Detection and Dissipation—develop the capability to generate high resolution data to detect wake vortex and predict its dissipation to increase traffic flow.

—Terminal Operations Analysis—develop the capability to determine the benefits of improvements to terminal operations.
—Gravity Wave Detection—develop the capability to characterize and automate its detection and prediction in real-time to enhance safety.
—National Mesonet Data Consolidation—develop the capability to access existing weather sensors to enhance collaborative decision making.
—Terrain-Induced Atmospheric Turbulence—develop the capability to detect and eventually forecast hazardous turbulence at or around airports including Reno, El Paso, Colorado Springs, and others to enhance safety.
—Volcanic Ash Forecasting—develop the capability to address the unique aspects of ash movement and dissipation relative to aircraft safety and traffic flow.
—High Glance Value Displays—develop the capability for enhanced user access to weather hazard information, increasing collaborative decision making.
—Emerging Weather Product Technologies—develop the capability to apply results of basic research to aviation requirements.

Question. Provide a list of weather R&D program accomplishments in fiscal year 1997 and the accomplishments planned for fiscal year 1998 and fiscal year 1999.

Answer. The following are weather research and development program accomplishments for fiscal year 1997 and accomplishments planned for fiscal year 1998 and fiscal year 1999.

Fiscal year 1997:

—Achieved Aviation Gridded Forecast System (AGFS) initial operating capability via aviation digital data service at the Aviation Weather Center (AWC) to improve aviation advisories & forecast capability.
—Implemented NEXRAD algorithm upgrades for storm cell identification and tracking and hail detection nationwide.
—Began flight tests of water vapor sensor system on commercial air carrier aircraft.
—Weather Support to Deicing Decision Making (WSDDM) collaboration with users at LaGuardia and O'Hare airports.
—Implementation of in-flight turbulence algorithm on United Airlines aircraft condition monitoring system.
—Evaluation of convective weather Growth and Decay algorithm at Memphis testbed.
—Provided forecasts of freezing precipitation aloft via the AWC, while providing improved algorithms.
—Began formal field test of 40 km Rapid Update Cycle (RUC) model by National Weather Service.
—Performed SOCRATES infrasound detection technique studies, and started development of an infrasound atmospheric model.

Fiscal year 1998:

—Complete installation of original purchase lot of airborne water vapor sensors on commercial aircraft.
—Complete WSDDM technology transfer to Cooperative Research and Development Agreement partners.
—Commence in-flight turbulence algorithm evaluation at the Aviation Weather Center.
—Conduct demonstration of 30-minute Growth and Decay algorithm with air traffic control and airline users at Dallas.
—Implement RUC–2 at the National Weather Service.
—Conduct San Francisco Operations Demonstration.
—Build and test a two-beam concept demonstration system under Project SOCRATES; operate system at the JFK vortex test site and collect vortex signature data; collect wind sheer/microburst data from other sites; correlate measurements with modeling efforts; conduct peer review.
—In the Aeronautical Data Link program: define FIS Policy base products; start work on standards and guidance material; and establish FIS server at the W.J. Hughes Technical Center for future evaluation of FIS products.

Fiscal year 1999:

—Incorporate satellite data into an automated icing guidance product.
—Enhance the capabilities of the web-based Aviation Digital Data Service and develop tools for interactive data assimilation and distribution.
—Facilitate broader industry usage of snowfall rate detections capabilities.
—Evaluate turbulence in-situ data in models to improve turbulence forecasting.
—Integrate satellite data into storm growth and decay algorithm.

—Improve model physics and cloud initialization in both the RUC and the Eta model.
—Complete enhancement of the detection accuracy of the mesocyclone NEXRAD algorithm.
—Begin installation of supplemental purchase lot water vapor sensing systems on commercial air carriers.

Question. What additional accomplishments could be achieved in fiscal year 1999 if the program were funded at the program office's original request.

Answer. The following additional accomplishments could be achieved if the program were funded at the program office's original request:

—Complete transition of growth and decay algorithm to the NEXRAD Operational Support Facility for national implementation.
—Complete in-situ based turbulence detection product evaluation.
—Incorporate boundary layer conditions into the growth and decay algorithm to produce a highly reliable one-hour forecast of convective weather.
—Implement enhanced cloud analysis into the Rapid Update Cycle and Eta models.
—Demonstrate an initial automated ceiling forecast capability at San Francisco.
—Initiate previously unfunded aviation weather research projects, including:
  —Space Weather Coordination;
  —Oceanic Convective Nowcasting;
  —Wake Vortex Detection and Dissipation;
  —Terminal Operations Analysis;
  —Gravity Wave Detection;
  —National Mesonet Data Collection;
  —Terrain Induced Atmospheric Turbulence;
  —Volcanic Ash Forecasting;
  —National Ceiling and Visibility;
  —High Glance Value User Displays; and
  —Emerging Weather Product Technologies

TURBULENCE ACCIDENT AND INJURY DATA

Question. The Air Transport Association (ATA) apparently maintains a report on accidents and injuries that is more comprehensive than the data maintained by the FAA. Please discuss the differences between the FAA's practices and ATA's with respect to passenger and cabin attendant injuries, especially those resulting from turbulence.

Answer. ATA recently developed a survey instrument with which to obtain confidential data on turbulence events and injuries from its member air carriers. The result was a one-time effort to produce a three year "snapshot" of past experience of responding members for the period 1994 through 1996. Not all ATA members responded and the data collection effort will not be an on-going activity.

As an advocacy group with voluntary members, ATA has a very different relationship with the air carriers than does the FAA. Consequently, ATA can obtain confidential data that is not provided to the FAA, and ATA has the option of protecting that information or presenting only summary information with which no member is explicitly associated.

In contrast, the FAA relies on two principal sources for data on passenger and cabin attendant injuries from turbulence or other types of event. If an event qualifies as an accident, the FAA relies on data from the National Transportation Safety Board (NTSB) to define the number of serious and minor injuries involved. In addition, the FAA relies on its own Accident and Incident Data System to record all minor injuries associated with turbulence incidents that are reported to the FAA, either by the air carriers or by FAA safety inspectors. The FAA and NTSB data bases may not be as comprehensive as the singular snapshot that ATA has developed, but the NTSB and FAA data bases are ongoing and available to the public.

ATOMSPHERIC TURBULENCE

Question. With specific respect to the turbulence incident that a United Airlines 747 encountered between Japan and Hawaii in late 1997, what actions is FAA taking in its RE&D program and operational programs so that in the future the NAS will be better able to detect and forecast such turbulence and to convey that information to the affected air traffic controllers, airline dispatchers, and pilots?

Answer. The FAA has conducted a long-standing aviation weather research program that includes atmospheric and orographic turbulence research. This research, sponsored and funded by the FAA, has been done primarily by the National Center for Atmospheric Research in conjunction with the National Oceanographic and At-

mospheric Administration (NOAA) labs which are co-located in Boulder, Colorado. Research projects include in-flight turbulence algorithm evaluation, implementation of an on aircraft turbulence algorithm on approximately 200 aircraft for operational evaluation, testing of ground-based sensors to detect and warn of orographic turbulence, as well as an extensive effort to coordinate international turbulence research.

FAA is also supporting investigation and development of an airborne detection system that would provide warnings of a variety of atmospheric anomalies, including clear air turbulence, wind shear, thunderstorms and possibly aircraft generated wake turbulence. This program (SOCRATES) is being conducted under the direction of the Volpe Transportation Center in Cambridge, Massachusetts. In regards to the detection and forecasting for the airspace system of the future, both FAA and NOAA are working to achieve technology transfers into the operational environment. The National Center for Environmental Prediction (NCEP) and its associated centers, Aviation Weather Center and the Environmental Modeling Center, are involved in the development and distribution of refined turbulence products that will be used by Integrated Terminal Weather System (ITWS), Weather and Radar Processor (WARP), National Weather Service (NWS), Automated Weather Information Processing System (AWIPS), and the future weather switches and communication links to support system safety and efficiency. These products will also be available to commercial weather companies.

In the operational area, in 1995 and 1996 the FAA produced and distributed a Wake Vortex Training Aid (textual and graphic) with a supporting video tape and a stand-alone CD–ROM encompassing the training aid. In October 1997, a refined and updated Advisory Circular on Atmospheric Turbulence Avoidance, which included a recommended model for a turbulence tracking and avoidance system for air operators, was issued. As a part of the "Turbulence Happens" program, the FAA has issued informational pamphlets and handouts to raise the flying public's awareness of the need to "keep your seat belt fastened when you are seated." Seat belt usage was the subject of a Flight Standards Air Transport Bulletin distributed to all air carriers through their respective operations inspectors to encourage Captains to reiterate during passenger briefings and announcements to the passengers the importance of staying "belted' when seated.

Question. What progress has been made in the last year to better detect and disseminate turbulence information?

Answer. In the past year, efforts of a Turbulence Product Development Team (PDT), under the direction of the FAA's Aviation Weather Research program, have resulted in the integration of an on-board (in-situ) turbulence detection algorithm into the software of the aircraft condition monitoring system (ACMS) on board several United Airlines aircraft. This algorithm has been installed on five United Airlines 737 and 757 aircraft and is currently undergoing evaluation. The in-situ algorithm provides the only source of near real-time quantifiable turbulence detection data, which will be utilized to validate turbulence forecast models and be made available to operational forecasters at the Aviation Weather Center (AWC) in Kansas City. Additionally, PDT efforts have also been directed towards the development of an integrated turbulence forecasting algorithm which is currently undergoing evaluation by forecasters at the AWC and the development of improved NEXRAD/TDWR enroute and terminal turbulence detection algorithms to leverage off these existing sensor networks.

In addition, the FAA's Aircraft, Avionics, and Navigation IPT is investigating a new technology under the SOCRATES program for the detection, location, and tracking of air turbulence. In this effort, two sets of field tests have been conducted. The first tests in the Fall of 1997 examined the acoustic characteristics of wake vortices, and the second tests in the Spring of 1998 at the John F. Kennedy International Airport provided quantitative measurements for lidar-acoustic characteristics of wake vortices. The results to date are promising.

AVIATION WEATHER

Question. What have been the recommendations of the Air Traffic Management Subcommittee of the Research, Engineering, and Development (RE&D) Advisory Committee regarding aviation weather R&D? What is the current status of that subcommittee's report? Please provide a copy of that report to the subcommittee along with the FAA's planned actions to deal with the reports recommendations.

Answer. The subcommittee's report was approved by the R,E&D Advisory Committee at its meeting on January 29–30, 1998. The subcommittee report follows.

In recommendation number 3, paragraph 5.2.2.1, the subcommittee made the following recommendation: "The Associate Administrator for Research and Acquisitions, ARA–1, should establish a separate weather IPT within the AND organiza-

tion, to focus the leadership and responsibility for all research, engineering, development, and implementation of weather projects." FAA has formed, within its Office of Air Traffic Systems Development, an IPT for Weather/Flight Service Systems. This office is the single point of responsibility for planning and executing FAA's weather research program described in chapter 4 of the R,E&D budget. Additionally, this office has responsibility for development and deployment of FAA systems for distributing current weather reports and weather forecasts. These systems include the integrated terminal weather system (ITWS), weather and radar processor (WARP), and operational and supportability implementation system (OASIS) as described in the F&E budget.

FINAL REPORT OF THE AVIATION WEATHER SUBCOMMITTEE, FEDERAL AVIATION ADMINISTRATION, RESEARCH, ENGINEERING AND DEVELOPMENT SUBCOMMITTEE, OCTOBER 31, 1995

1. INTRODUCTION

At the August 31, 1994 meeting of the Federal Aviation Administration (FAA) Research, Engineering and Development (R,E&D) Advisory Committee, Mr. Najeeb E. Halaby agreed to chair a subcommittee effort to study the FAA's aviation weather programs. Mr. Carl P. McCullough was appointed Designated Federal Official.

The Aviation Weather Subcommittee was asked to identify and prioritize aviation weather research and development efforts and operational procedures and programs that should be pursued by the FAA, based on their potential payoff for the spectrum of users. (See Appendix A for the complete Task Statement). The focus of the subcommittee was to attempt to answer questions related to the need, adequacy, depth, and the pace of the weather research and operational problems and opportunities. To do so, the subcommittee needed to understand user needs and the roles and responsibilities of various entities, public and private, in the development and provisioning of aviation weather products and services to respond to user needs. For the purposes of this report, "user" refers to pilots, controllers, dispatchers, traffic managers, supervisors and others who require aviation weather products in the performance of their jobs.

To accomplish the above task FAA officials and Mr. Halaby proposed members for the subcommittee, who in turn helped in the selection of other working group members. The aviation committee volunteers representing different organizations participated in this study. A complete listing is given in Appendix B.

The initial meeting of the Aviation Weather Subcommittee took place on January 25, 1995. During that meeting the charter/task statement was reviewed and redefined and subcommittee/working groups membership was expanded and approved. Many meetings, reviews and site visits were conducted by the Subcommittee over the next several months. This report presents the resulting findings, issues and recommendations.

It should also be noted that there have been many recent studies of this general subject, and the Subcommittee recognizes that a comprehensive study by the National Research Council was published in March 1994 as "Weather For Those Who Fly," and another study will be completed prior to publication of this report (October 1995). Sponsored by the FAA, National Weather Service, and Department of Defense, the latter study attempts to define organizational roles and responsibilities, and to offer recommended changes where appropriate. To the extent possible, the Subcommittee will draw upon the findings of these and other previous studies in sharpening its recommendations.

2. GENERAL FINDINGS

Fulfilling the FAA's mission of the "safe and efficient utilization of the airspace" urgently requires a much improved delivery of aviation weather services to pilots, controllers, traffic managers, supervisors and dispatchers. Recent weather related accidents in both air carrier and general aviation operations as well as insistent demands of users of the Air Traffic Control system for reduced delays which are primarily due to weather, pose the greatest challenge to the Administrator. The policy and priority for weather services and products must now be restated so as to meet this challenge.

Aviation weather is and will continue to be most important to the air transportation system. It is a principal cause of aviation accidents and the major cause of flight delays. Improved, delivered forecasts offer an important opportunity for increasing system capacity. Better short-term forecasts and current information on hazardous weather conditions are critical to ensuring safe flight. Timely and accurate weather information is critical to planning fuel and time-efficient flight plans.

Weather information directly affects pilot/air traffic user decision making and is essential as an enabling technology for other key aviation Research and Development (R&D) thrusts, such as air traffic automation and flight management. A significant part of weather-related delays and accidents can be avoided in the future by providing all users of the system a common understanding of the weather phenomena. This common understanding must have two characteristics: the products viewed should be operationally useful (i.e., understood by non-meteorologists) and must provide timely information for effective real-time decision making.

The FAA has understood the needs for improving the quality, integrity and cost of providing aviation weather to all classes of users. In the past decade, the FAA has launched several major R&D and Facilities and Equipment (F&E) programs to study, develop and produce a better weather detection and prediction capability. These programs are addressing a wide range of atmospheric conditions from thunderstorms and turbulence, to icing, visibility and wind shear. This effort is about to produce a vast amount of data. Transferring this data into operationally useful information and the timely dissemination of this information to all users who need it, when and where they need it, remains one of the greatest of challenges. In other words, the development of data communications mechanisms, namely cockpit data links, have not kept up with the other aspects of aviation weather system (e.g., sensor systems). Air traffic controllers are required to provide only significant weather data which is available, and to disseminate, time permitting, other weather advisories. On the other hand, pilots cannot see the same information presently available from ground sensors.

Upon review, several general and major findings became apparent, which allowed the subcommittee to establish the critical issues. These findings include:

1. There appears to be an abundance of weather data available today which is not being fully utilized because in part:
   —It is not provided to the users in an actionable form;
   —Timely and efficient delivery mechanisms to users do not now exist;
   —There are managerial and organizational problems and impediments to cost/effectiveness; and
   —There is a lack of focused priority and emphasis on the delivery of data from sensors all the way to users.
2. Weather programs have, over the years, suffered from a lack of consistent policy determination by various Administrators, as to the agency's role and priorities. The much higher priority programs are those which help the controller separate and dispatch aircraft. This has often resulted in weather-related programs that are inconsistently funded, causing less than acceptable performance.
3. It is not clear what the FAA weather requirements are and how they are established and prioritized. Lack of organization focus and process in this area is a major contributor to this problem. For example, the FAA agreed in 1977 that its means of compliance with the Federal Aviation Act of 1958 would be a comprehensive list of weather requirements, submitted annually by the Secretary of Transportation to the Secretary of Commerce. While informal and less visible communications have occurred, no such list has ever been provided.
4. The R&D focus and activity have been on the weather data gathering (sensing, processing, integrating, etc.) rather than on data distribution and presentation. The controllers and pilots need a simple, but representative, presentation of weather hazards, locations, trends and forecasts. This is particularly important because of more reliance among commercial and military pilots on sophisticated onboard computers and navigational systems, and a gradual migration to concepts of "free flight." A companion shift in aviation weather presentation is needed: more reliance on graphical products rather than current textual products to complement the above—particularly in general and local service aviation.
5. A clear need exists for prudently selected research and development in the following areas to provide operationally useful products, determined by the users to be of high priority:
   —Thunderstorm movement, growth and decay;
   —Accuracy of winds aloft;
   —Ceiling and visibility prediction;
   —Icing prediction and reporting;
   —Lightning detection, tracking and reporting;
   —Clear air turbulence detection and forecasting; and
   —Wake vortices detection and tracking.
6. While cost/benefit analyses are being performed at the macro (NAS) and micro (individual acquisition program) levels, none that we have seen is being done as an input to focus and prioritize the FAA's aviation weather research activities.

7. The FAA's current mission is to provide aircraft separation assurance and traffic management directives (i.e., "separate metal from metal"). This mission does not extend into the separation of aircraft from hazardous weather. As a result, the role of controllers in aviation weather has been of a limited advisory nature, partly because weather observations and forecasts have not been adequate. Some pilots have information from onboard radar or direct visual observation that is temporally and/or spatially more accurate than information available to the controller. Furthermore, with the exception of wind shear at sites with Terminal Doppler Weather Radar (TDWR) and advanced Low Level Wind Shear Alert System (LLWAS), the superbly equipped pilot will retain the advantage in accuracy for the foreseeable future. Even at those sites with TDWR and advanced LLWAS, the FAA believes it is better to provide the pilot with the wind shear information and train him/her to interpret the data than for the controller to initiate vectors to enhance safety or reduce delay. The first critical step toward changing this pattern is to significantly enhance the Information available to both controllers and pilots, so the cooperative system can be quickly improved.

3. RECOMMENDATIONS

System Development

The FAA should develop a weather system architecture to provide the proper aviation weather information to all users in a timely manner. It should include an end-to-end (sensor to user) subsystem that provides a mechanism to get the same aviation weather information to all users.. This system approach is absolutely essential in meeting the user needs and in maximizing the impact of the R&D efforts. The implementation of such a system must have high priority within the aviation weather program to reap the benefits of past investments in weather sensors and research products.

Organizational

The subcommittee recognizes that, since its inception, steps have been taken by the FAA to improve many of the organizational and managerial measures that have plagued the aviation weather services for years. The creation of the Surveillance and Weather Integrated Product Team (IPT) and most recently the Aviation Weather Division within the Air Traffic Requirements organization has consolidated many of the disparate organizational entities and stakeholders into more cohesive units with somewhat clearer lines of responsibility. While this is a positive step, additional actions must be undertaken to focus decision-making responsibility and authority for fulfilling approved aviation weather requirements. These include continued development of the IPT to involve all stakeholders, from requirements setters to the flying public.

R&D

The FAA must also continue with a rational, consistent level of long-term R&D funding to avoid losing the impetus of the research continuum through major Finding fluctuations. The FAA should direct the focus of R&D activities toward operationally useful products so that the fruits of R&D can be provided to the users on a continual basis. This requires prioritizing R&D activities within the limited FAA budgets with an emphasis on generating products that provide benefits to both internal and external users. Furthermore, all research projects should be carefully chosen and, as a pan of the research activity, develop a comprehensive, defensible cost-benefit story and a planned-implementation path that ensures timely operational delivery of its products to users.

In view of an overall deficiency in R&D funding, the FAA should effectively coordinate weather-related R&D efforts of NASA, DOD and DOC with the FAA program. In any event, the FAA should comply with the agreement with DOC to provide an annual statement of weather requirements.

Aviation Weather Entrepreneurship

The combination of danger, delay and demand by pilots, controllers and FAA leadership has fortunately developed a market for aviation weather products that is being exploited by non-government organizations and private industry. This enterprise must be encouraged through expedited acquisition, certification and in all available ways in order to expedite the introduction of services to the various classes of users, commercial air transport, commuters, general aviation and the military. This will require education and training, particularly of pilots, controllers and dispatchers. It must also involve agencies other than the FAA, particularly the National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, and Department of Defense. This creative pressure from industry

and the non-profit institutions who have contributed so much to the advancement of improved services can accelerate crucial decisions such as the adoption of digital data link so essential to success of translating technology into reality.

Policy

The FAA Administrator should provide a clear and cohesive policy statement regarding the agency's important role in the provision of aviation weather services. The policy statement should reflect the need for further definition of the capability and responsibility of controllers and pilots in the issue of separating aircraft from hazardous weather Better understanding of organizational and individual responsibilities is critical to determining future priorities. This involves clearly delineating the authority and accountability as between the FAA's operations and acquisition organizations (ATS and ARA), so that the Administration, the Congress and the public can identify the official in charge of weather services in the new FAA structure. This will require unified and disciplined organization and management when such a policy is clearly established.

Culturally, a higher level of decisiveness and discipline must be enforced through a stabilized line of command empowered to make and execute decisions. Without this, the IPT cannot realize its promise, and the convict and irresolution of the past will reappear in another shape. Hopefully, new legislation to grant the Administrator greater freedom in personnel and procurement matters will enable better management of available resources. In the interim, however, FAA management must improve risk calculation and its assumption and get on the proactive decision-making track.

In the end, we recognize the indispensable judgment of pilots and controllers regarding the weather data presented to them. The Administrator should set policies for their training and certification that will lead to enhanced understanding and decision-making regarding weather, taking into account the many significant forthcoming changes in the National Airspace System.

Finally, the FAA Administrator can and should provide leadership in the implementation of the above recommendations with emphasis on getting short-term and long-term products in the field to best meet user needs. This becomes even more crucial, as the availability of total federal dollars become limited and the FAA is forced to make some difficult choices with the cooperation of private industry resources.

The members of the Aviation Weather Subcommittee are available to support the FAA in its critical mission of aviation weather service dealing with the safety and efficiency of all flights in the air transportation system.

[APPENDIX A]

TASK STATEMENT, AVIATION WEATHER SUBCOMMITTEE

The Aviation Weather Subcommittee, under the Federal Aviation Administration Research, Engineering and Development Advisory Committee, is tasked to identify prioritize aviation weather research and development (R&D) efforts and operational procedures and programs that should be pursued by the FAA, based on their potential payoff for the spectrum of users. The subcommittee should also recommend the direction to be taken by the FAA to expedite the conversion of R&D programs into usable capabilities.

In establishing the recommendations and priorities, the subcommittee should consider such factors as operating requirements and capabilities for the safe and efficient utilization of the airspace in light of available resources, as well as:

a. Expressed needs and priorities of the users, both internal and external to the FAA, principally controllers, pilots, and dispatchers.

b. The anticipated cost and complexity of a given project or product.

c. The relative difficulty in time and cost required to make a product or system operational.

d. The expected benefits and costs of a proposed product or system.

e. The risks associated with the program.

f. A vision of the probable system of 2005 and the research and development to be conducted in the next ten years.

The subcommittee may engage working group experts to explore the elements of this tasking. Findings and recommendations are to be included in a report submitted to the full Research, Engineering and Development Advisory Committee no later than September, 1995. The full committee's endorsement is required prior to the final report being forwarded to the Administrator.

The 1995 report will complete the subcommittee's work unless extended by the committee chair.

[APPENDIX B]

SUBCOMMITTEE MEMBERSHIP

Hon. Najeeb E. Halaby, Chairman
Mr. Albert P. Albrecht
Mr. Steven J. Brown
Captain Robert Buley
Mr. Frank J. Colson
Vice Admiral Donald D. Engen, USN (ret)
Dr. Dolores Etter
Dr. James E. Evans
Dr. Brant Foote
Brigadier General John J. Kelly, Jr., USAF (ret)
Dr. Alexander E. MacDonald
Mr. Joseph L. McCormick
Hon. John L. McLucas
Captain Dennis Newton
Dr. Ralph Petersen
Dr. Agam Sinha
Mr. Paul Smith
Captain Robert Smith
Mr. David Taylor
Mr. James Washington
Mr. John F. Zugschwert

[APPENDIX C]

METHODOLOGY

A final report with specific program recommendations was requested by September 1995 and in order to complete deliberations in the short time available and recognizing the unavailability of cost/benefit analyses, the depth of the reviews was limited.

Two initial meetings were held in January and February to refine and articulate the exact problem and need, and to agree on a plan of attack. Three Working Groups were established to consider separate and distinct areas of the weather arena, corresponding to the three areas outlined above. To expedite the deliberation of the working groups, it was decided to have all subcommittee members meet together at each of the subsequent briefings.

The first set of reviews and briefings was held in Boulder, Colorado. Subcommittee members were made aware of the weather activities at the National Center for Atmospheric Research, Forecast Systems Laboratory, and United Airlines Center at Chicago O'Hare Airport The next series of reviews were held at the FAA headquarters, where members of the Integrated Product Team for Surveillance and Weather (AND–400) briefed members of the subcommittee on several major weather programs. These included: Integrated Terminal Weather System, ASR–9 weather system processor, TDWR, Next Generation Weather Radar (NEXRAD), and Weather and Radar Processor (WARP). The last set of formal briefings was held in the Boston area. WSI, Inc., Phillips Labs/Hanscom AFB and MIT/Lincoln Labs were visited on July 13 and 14, 1995.

RESEARCH, ENGINEERING AND DEVELOPMENT BUDGET TABLE

Question. Please provide a table that shows how much the FAA requested for the various components of the fiscal year 1999 RE&D budget in its submissions to the Office of the Secretary and to the Office of Management and Budget. Include the fiscal year 1998 RE&D request in the President's budget on the same table for comparison.

Answer. The information follows:

RESEARCH, ENGINEERING AND DEVELOPMENT OST, OMB AND PRESIDENT'S BUDGET SUBMISSIONS
BUDGET AUTHORITY

[Dollars in thousands]

Mode/program area/program	Fiscal year—		
	1998 President	1999 OST	1999 OMB
1. System Development and Infrastructure	$75,550	$78,171	$72,227
a. System Planning and Resource Management	1,164	1,630	1,369
b. Technical Laboratory Facility	3,341	3,341	3,268
c. Center for Advanced Aviation System Development	5,444	5,000	4,890
d. Personnel and Related Expenses	65,601	68,200	62,700

RESEARCH, ENGINEERING AND DEVELOPMENT OST, OMB AND PRESIDENT'S BUDGET SUBMISSIONS
BUDGET AUTHORITY—Continued

[Dollars in thousands]

Mode/program area/program	Fiscal year—		
	1998 President	1999 OST	1999 OMB
2. Capacity and Air Traffic Mgmt Technology	9,108	185,515	132,163
a. Traffic Flow Management	2,986	5,184	2,332
c. Runway Incursion Reduction	2,990	5,679	1,369
d. System Capacity, Planning and Improvements	1,367	2,335	1,272
e. Cockpit Technology	1,765	357	349
f. General Aviation & Vertical Flight Tech Program	.....	2,468	1,462
g. Flight 2000	.....	151,289	120,000
h. Future Airways Facilities Technology	.....	897	.....
i. Operations Concept Validation	.....	8,109	3,912
j. ATM System Analysis	.....	2,800	.....
k. Software Engineering R&D	.....	6,397	1,467
Oceanic Automation Program	.....	.....	.....
Modeling, Analysis and Simulation	.....	.....	.....
3. Communication, Navigation and Surveillance	15,132	23,061	11,398
a. Communication	4,706	6,709	1,174
b. Navigation	10,426	12,768	6,718
c. Surveillance	.....	3,584	3,506
4. Weather: a. Weather Program	3,982	13,692	11,436
5. Airport Technology: a. Airport Technology	5,458	6,081	5,086
6. Aircraft Safety Technology	26,625	27,936	24,991
a. Fire Research and Safety	2,049	2,098	2,098
b. Advanced Materials/Structural Safety	1,700	1,351	809
c. Propulsion and Fuel System	1,691	1,761	1,761
d. Flight Safety/Atmospheric Hazards Research	1,660	2,100	1,494
e. Aging Aircraft	12,966	13,742	11,945
f. Aircraft Catastrophic Failure Prevention Research	1,270	1,329	1,329
g. Aviation Safety Risk Analysis	5,289	5,555	5,555
7. System Security Technology	49,895	50,178	47,927
a. Explosives and Weapons Detection	36,200	37,206	35,541
b. Airport Security Technology Integration	4,000	4,723	4,520
c. Airport Security Human Factors	4,695	3,968	4,078
d. Aircraft Hardening	5,000	4,281	3,788
8. Human Factors & Aviation Medicine	10,737	12,678	11,685
a. Flight Deck/Maintenance/System Integration HF	7,272	8,296	7,400
b. A T Control/A F Human Factors	3,078	4,098	4,008
c. Aeromedical Research	387	284	277
9. Environment & Energy: a. Environment & Energy	2,891	4,832	2,739
10. Innovative/Cooperative Research	622	356	348

RESEARCH, ENGINEERING AND DEVELOPMENT OST, OMB AND PRESIDENT'S BUDGET SUBMISSIONS
BUDGET AUTHORITY—Continued

[Dollars in thousands]

Mode/program area/program	Fiscal year—		
	1998 President	1999 OST	1999 OMB
Total	200,000	402,500	320,000

Question. Within the $12.2 million requested for weather R&D in fiscal year 1999, how much of this amount is to continue the funding to be coordinated through the National Center for Atmospheric Research?

Answer. The FAA's Aviation Weather Research (AWR) Program, as part of its overall strategy, has formulated Meteorological Product Development Teams (PDT's), to address each current research area. These PDT's are comprised of researchers from the National Center for Atmospheric Research, the NOAA's Forecast System Laboratory and the National Severe Storms Laboratory, the National Weather Service's Aviation Weather Center and National Centers for Environmental Prediction, the Massachusetts Institute of Technology Lincoln Laboratory and several universities. The PDT approach is fostering strong collaboration and leveraging between the "laboratories." Of the $12.2 million requested for weather R&D in fiscal year 1999, $9.1 million is to continue the research being conducted by the PDT's, while $1.0 million is for research operations, $.85 million is funding FAA in-house activities, and $1.25 million will be utilized for William J. Hughes Technical Center support, cost benefits analysis, and support to the AWR program office.

Question. What specific benefits will this produce for aviation safety?

Answer. Major specific benefits include:

1. Improved accuracy of current and forecasted areas of inflight icing, including severity and type.
2. Improved accuracy of current and forecast snowfall type and rate to provide aircraft deicing decision making information to airline station control centers and runway plowing authorities to increase safety on takeoffs.
3. Short term prediction of storm growth, initiation, and decay to enhance safety.
4. In-situ and remote detection and forecast of en route turbulence especially clear-air turbulence to enhance flight safety.
5. Location, timing, and severity of convective weather hazards to improve flight safety.
6. High resolution and timely gridded aviation data, including winds, temperature, icing, and turbulence, coupled with interactive data assimilation, editing, and forecast tools to improve aviation advisories and forecast capability.
7. Short term predictions of ceiling and visibility in the terminal area to enhance safety especially for general aviation.

Question. What is the total amount that has been provided by the Congress for this National Center for Atmospheric Research (NCAR) R&D from fiscal year 1993 through fiscal year 1998? Please detail on a year by year schedule, and report what specific products have resulted.

Answer. The total amount that has been provided to the Aviation Weather Research Product Development Teams for NCAR R&D is as follows:

Fiscal year	F&E	RE&D	Total
1993	$13,000,000	$2,600,000	$15,600,000
1994	8,800,000	100,000	8,900,000
1995	11,600,000	.....	11,600,000
1996	5,200,000	4,000,000	9,200,000
1997 [1]	400,000	8,400,000	8,800,000
1998 [2]	3,200,000	8,900,000	12,100,000

[1] Includes Juneau project.
[2] Includes Juneau project and Center for Wind, Ice and Fog.

Specific research products that have resulted include:

1. Developed and implemented at the National Weather Service a Rapid Update Cycle (RUC) (60 kilometer resolution) followed by a RUC II analysis and forecast

(40 kilometer resolution) capability providing more accurate and higher resolution upper winds, temperature, and precipitation data (leveraged with the National Weather Service (NWS). Use of this information has resulted in reduced flight times and/or flight delays due to more accurate data on hazardous weather and jet streams.

2. Issuance of first-ever forecast of freezing precipitation aloft at the Aviation Weather Center in Kansas City (in response to regulatory activities, re: turboprop commuter aircraft). These forecasts have increased airspace efficiency, aircraft utilization, and safety especially for commuter aircraft.

3. Commenced flight test of humidity sensor on UPS aircraft (leveraged with NOAA). The availability of detailed atmospheric moisture data in real time will be utilized to make more accurate inflight icing and ceiling and visibility forecasts.

4. Completed upgrades to NEXRAD Algorithms: Storm Cell Identification and Tracking, Hail Detection, Mesocyclone Detection, and Tornado Detection (leveraged with NWS). These upgrades have enabled better definition of the location, timing, and severity of convective weather hazards resulting in enhanced flight safety and capacity.

5. Developed a Weather Support to Deicing Decision Making System providing important deicing and snow removal decision making information to airlines, port authorities and cities. Testbeds have been operated at Denver, Chicago O'Hare, and New York LaGuardia resulting in increased safety (takeoffs), savings in use of deicing fluids, associated equipment and personnel costs, efficiencies in runway and off airport plowing and efficiencies in departures and arrivals. These efforts resulted in the successful technology transfer to industry and it is anticipated that implementation by industry will occur in the future.

6. Achieved Aviation Gridded Forecast System AGFS initial operating capability via the "turn-on" of the Aviation Digital Data Service (ADDS) at the Aviation Weather Center in Kansas City to provide user access to gridded data including winds, temperature, and icing as well as AIRMET's and SIGMET's.

7. Implemented inflight turbulence algorithm on five United 757's and 727's to provide objective turbulence measurements which will be downlinked for use by forecasters at the Aviation Weather Center in Kansas City and as inputs to turbulence forecast models.

AVIATION WEATHER

Question. Please provide a listing of all recipients, including academic institutions, of the total funding fiscal year 1993 through fiscal year 1998 and please detail amounts by each recipient and what each recipient has accomplished.

Answer. Funding for fiscal year 1993 through fiscal year 1998 by recipient and their accomplishments are as follows (dollars in millions):

National Science Foundation: $0.3 F&E; $0.3 RE&D;
—Research, interagency, and academia coordination.

National Center for Atmospheric Research: $19.9 F&E; $10.1 RE&D;
—Development of inflight icing algorithms resulting in first-ever forecast of freezing precipitation aloft at the Aviation Weather Center in Kansas City,
—Development of a Weather Support to Deicing Decision Making System,
—Development of an inflight turbulence detection algorithm,
—Development of algorithms to predict storm growth, initiation, and decay.

NOAA Forecast Systems Laboratory: $17.5 F&E; $7.0 RE&D;
—Development of RUC and RUC II analysis and forecast capability providing more accurate and higher resolution upper winds, temperature, and precipitation data,
—Development of Aviation Gridded Forecast System and its initial operating capability known as the Aviation Digital Data Service (ADDS) to provide user access to gridded data including winds, temperature, and icing.

NOAA National Severe Storms Laboratory: $1.2 F&E; $1.6 RE&D;
—Development of upgrades to NEXRAD Algorithms: Storm Cell Identification and Tracking, Hail Detection, Mesocyclone Detection and Tornado Detection to enable the better definition of the location timing and severity of convective weather hazards.

Massachusetts Institute of Technology Lincoln Laboratory: $2.6 RE&D;
—Development of algorithms to predict storm growth, initiation, and decay;
—Development of preliminary algorithms to predict the burnoff of stratus at the San Francisco International Airport.

National Weather Service National Centers for Environmental Prediction: $1.7 F&E; $1.3 RE&D;
—Implementation and operation of the Rapid Update Cycle (RUC) and RUC II.

National Weather Service Aviation Weather Center: $1.2 F&E; $0.7 RE&D;
—Implementation and evaluation of inflight icing, turbulence and convective weather algorithms.
Pennsylvania State University: $0.8 F&E; $0.4 RE&D;
—Ceiling and visibility basic research contributing to development of algorithms.
Oklahoma State University: $0.8 F&E; $0.3 RE&D;
—Convective weather research contributing to the development of storm growth and decay algorithms.
Colorado State University: $0.5 F&E; $0.3 RE&D;
—Development of models to analyze and forecast winds, temperature, and precipitation data.
Purdue University: $0.03 RE&D;
—Inflight icing basic research.
Desert Research Institute: $0.04 RE&D;
—Development of preliminary algorithms to predict the burnoff of stratus at the San Francisco International Airport.
ARINC: $0.6 F&E; $0.5 RE&D;
—Operation of the Meteorological Data Collection and Reporting System to downlink winds and temperature data from aboard aircraft.
Center for Wind, Ice, and Fog: $0.3 RE&D;
—Icing and freezing rain research coordination.
University of New Hampshire: $0.1 RE&D;
—Development of icing algorithms.
University of Maine: $0.1 RE&D;
—Development of icing algorithms.

Question. If this research is deemed to be focused and important, why is it not supported by the National Weather Service, National Science Foundation, and others who support basic research at institutions of higher learning?

Answer. AWR program activities are closely coordinated and leveraged with academia and other government agencies including the NOAA, directly through university grants, interagency agreements, and memoranda of agreements as well as through the National Science Foundation. Several of the AWR program research activities collaborate with and achieve significant leveraging with the National Weather Service, through the collaborative use of hardware, personnel, and computing resources, and the National Science Foundation (NSF) through the use of their research aircraft for data collection. NSF and NOAA employees and contractors are participants in the FAA's Aviation Weather Research PDT's and Leadership Team. The AWR program has focused its research dollars on applied research and has formulated a sound approach to performing weather research activities targeted to solving prioritized operational problems.

AVIATION SECURITY

Question. In September 1996, the Congress appropriated $144.2 million for the purchase and deployment of advanced security equipment at airports. With a major portion of these funds, FAA planned to purchase and install 54 advanced explosives detection devices certified to screen checked luggage and 489 devices to screen carry-on bags (trace equipment) by December 31, 1997. However, as of January 1998 only 11 certified devices and 125 devices for carry-on bags had been installed. FAA now plans to complete installation by December of 1998. The President's fiscal year 1999 budget requests $100 million to further enhance airport security needs. In view of FAA's delay in meeting its 1997 plans to install security equipment, why do you need this additional money and how would it be used?

Answer. Initial delays in the deployment of explosive detection technology were due to transforming an R&D product into a full production product with all support products such as: a valid training program; test procedures for factory, site, and operational acceptance; and integration procedures for various airport configurations. Initial delays were also due to air carriers determining how and where the technology would be implemented in the lobby or integrated into the baggage handling systems. The air carriers wanted to see what the expected selectee rate would be with the implementation of the Computer Assisted Passenger Screening (CAPS) system to determine how many bags would need to be screened by the EDS technology.

With the implementation of CAPS well underway and all of the support products developed for the implementation of EDS, the deployment activity has accelerated. Currently, 23 units are installed in nine airports and all 54 units will be installed by September 30, 1998. Fiscal year 1998 reprogramming funds of $25.1 million will provide for the purchase of 16 CTX systems and four second generation EDS to be

installed by December 31, 1998. To install EDS at 79 of the major airports requires well over 400 units. The funding through fiscal year 1998 will provide for 74 of these units.

The $100 million request in the fiscal year 1999 budget will fund the purchase of the security technologies to continue the deployment of EDS for screening checked baggage and to deploy technology to enhance screening of passengers and carry-on at checkpoints. The following technologies will be procured in fiscal year 1999:

Security equipment	Quantity est.	Cost
1. Second generation EDS to screen checked bags	88	$79,200,000
2. Trace detection devices collocated with EDS	75	7,200,000
3. Trace passenger screening portals at checkpoints	10	1,500,000
4. Trace document scanners	40	3,400,000
5. Automated operator assisted carry-on X-rays	85	7,200,000
6. Hardened baggage/cargo containers	100	1,500,000
Total	.....	100,000,000

AVIATION SAFETY

Question. Shortly after you assumed office, you announced that FAA would soon issue a rule on Flight Operations Quality Assurance (FOQA) programs that would offer protection from punitive enforcement to participants in FOQA programs. This policy was first articulated by former Administrator Hinson three years ago. Could you tell us the current status of the rulemaking, and why it has taken so long to issue the rule?

Answer. In developing the proposal for a Flight Operational Quality Assurance (FOQA) rule, some unanticipated issues have come to light. These issues are being discussed within the Administration as a whole, and the FAA expects to move ahead once they have been resolved.

Question. We understand that the FAA is in the process of reorganizing its certification and inspection activities to assign individual inspectors to the surveillance of only one or a very small number of air carriers. Would you explain what considerations contributed to this change? How will you ensure that inspectors will not become "captured" by the airline they inspect, and that lessons learned from inspecting one air carrier will be shared throughout the system?

Answer. The FAA recognizes the need to improve our surveillance program of air carriers, and the utilization of our limited inspector resources. The FAA with Sandia National Laboratories developed an air carrier oversight process which represents a new approach to FAA certification and surveillance of air carriers. The Air Transportation Oversight System (ATOS) provides for surveillance oversight using systems safety principles and systematic processes to assure that air carriers have safety built into their operating systems.

ATOS provides for a Certificate Management Team (CMT) that brings principal inspectors together with geographic inspectors to work in a coordinated effort to manage air carrier certificates. These geographic inspectors will be dedicated to specific air carriers, trained in that air carrier's procedures and policies, but still report to and work out of the local district office.

The 90-day safety review recommended an increased specialization and more efficient use of geographic inspectors. Current plans provide for geographic inspectors to participate in the development of each comprehensive surveillance plan. That plan is forwarded to the geographic inspector's supervisor for review and approval. This action will create a check and balance in the oversight system. This work assignment may change during the year if analysis of the data indicates that surveillance needs to be retargeted for a specific element.

ESTABLISHING A SAFETY AGENDA

Question. You have pointed out that FAA has received hundreds of recommendations from a number of studies over the past few years, and that responding to all of them is not conducive to having a focused agenda. Would you explain how you winnow these recommendations down and decide which ones to act upon?

Answer. On April 14, 1998, we announced Safer Skies—A Focused Safety Agenda. FAA, working with other government agencies, airlines, manufacturers, and unions will identify the major types of accidents, and analyze the root causes of these acci-

dents. We will take action on the intervention strategies that address these root causes.

AVIATION SAFETY

Question. FAA has been criticized in the past for overreacting to the "accident du jour", instead of concentrating on identifying and addressing more probable sources of future accidents. Do you think this criticism is valid? If so, how will you avoid such overreaction in the future?

Answer. In any safety regulatory agency, processes for after-accident analysis and corrective measures to prevent repetition are mandatory and constitute good safety management. Characterizing these important safety functions as overreactions to the "accident du jour" trivializes them and is not a valid criticism.

Notwithstanding this fact, FAA has several initiatives underway to identify potential safety problems and correct them before accidents occur. On April 14, 1998, we announced Safer Skies—A Focused Agenda, through which we will identify root causes of major accident types. Working in partnership with industry, unions, and other government agencies, we will identify actions to address the root causes.

We recently announced a new process for certification and oversight of air carriers which goes beyond FAA's traditional process for certificating air carriers by closely examining the carrier's operations within the context of eight categories of system safety; safety culture, organizational structure, self-audit programs, training programs, potential safety problem areas, procedures, and management responsibilities.

The Air Transportation Oversight System will permit FAA to determine that an air carrier's systems of operation are well designed and are being implemented with integrity. FAA should better be able to identify accident precursors and to intervene before accidents happen.

AVIATION SECURITY

Question. The White House Commission on Aviation Safety and Security concluded that many of its proposals for improving aviation security will require additional funding, but it did not specifically recommend funding levels or how to fund them. What are your views or ideas about appropriate funding sources and levels to implement the Commissions recommendations?

Answer. The FAA concurs with the conclusion of the White House Commission that ". . . terrorist attacks on civil aviation are directed at the United States, and that there should be an ongoing Federal commitment to reducing the threats that they pose." In the spirit of partnership for enhancing security endorsed by the White House Commission, the federal government is funding air carrier security improvements by subsidizing the capital expenses of the air carriers, including some training and installation costs, through the purchase of advanced security equipment. The air carriers' role in this partnership is to use the equipment purchased effectively and pay for its operation and maintenance after one year. The President's fiscal year 1999 budget contains $100 million for continued Federal funding and deployment of all types of advanced security technologies.

The ten-year cost of the new security baseline, which includes many of the White House Commission recommendations, is estimated at $9.9 billion, excluding the costs associated with interim security measures. The FAA estimates that the ten-year cost to the Federal Government, airport authorities, and airlines for security programs at Category X airports alone would be close to $3 billion, including capital costs for new equipment as well as added personnel and their training. This averages out to $154 million per Category X airport, or slightly over $15 million annually for the next ten years. [Category X airports are defined by the Office of Civil Aviation Security as those airports that have 25 million, or more, passengers screened per year or that have other politically sensitive reasons to be categorized as such (for example, Washington, DC area and Puerto Rico)].

Funding for aviation security activities is likely to continue to be derived from a combination of public and private sources. Regarding public funds include congressional appropriation, Passenger Facility Charges and Airport Improvement Program grants.

DISPLAY SYSTEM REPLACEMENT TRAINING

Question. Can you explain why the FAA has entered into a Memorandum of Understanding with the air traffic controllers union that requires the use of Full Performance Level—or FPL—controllers to train other controllers on the use of new Display System Replacement (DSR)—known as DSR—equipment?

Answer. DSR has a substantial impact on the controller work force. The human factors associated with operating the equipment is markedly different from that of

the current radar displays because different inputs to and outputs from the peripheral equipment are required. It is important to successful DSR implementation that controllers achieve a level of comfort with this new configuration. The national training plan must be tailored to the needs of each individual facility. Consequently, FAA entered into a Memorandum of Understanding with the National Air Traffic Controllers Association so the controller work force would be involved in tailoring those facility plans and providing instruction on use of the equipment. The agreement does not prohibit FAA from utilizing other sources, such as, staff, supervisors, and/or contract support. It was the determination of both parties that this method would best prepare the work force for this significant change in the operating environment.

Question. Do you expect the FAA will pay overtime wages to FPL controllers providing DSR training, or to controllers filling in on operational positions to cover for controllers going through DSR training? If your answer is yes, could you please share with the subcommittee your best estimate on how much this overtime pay will cost?

Answer. Overtime wages will not be paid specifically to full-performance controllers as reimbursement for providing training. However, in order to accomplish DSR training, backfill overtime funds will be required for controllers filling in on operational positions to cover for controllers receiving training and those controllers conducting the training. The FAA currently estimates that over $4 million in backfill overtime will be required to support DSR training in fiscal year 1998. Supervisors and other qualified staff will be used to backfill for controllers receiving and providing DSR training in an effort to limit DSR backfill overtime costs to approximately $8.3 million in fiscal year 1999.

Question. Does the FAA have a more cost-effective method to train controllers on the use of DSR equipment? Specifically, the FAA currently has a training contract termed Air Traffic Instructional Services (ATIS). This ATIS contract has been in place at each of the affected 20 en-route FAA centers for the past 10 years. It is further my understanding that ATIS services cost less than half as much as the FAA proposal to use Full Performance Level controllers to train other controllers on how to use DSR equipment. If this is correct, how can the FAA justify not using the ATIS contract at its full capacity to meet the DSR training demand?

Answer. The ATIS contract provides training support services at each of the DSR locations as the schedule for deployment progresses. The average hourly cost of contractor-provided services is less than the cost of controller overtime.

The FAA uses the ATIS contract to its full capacity, within available resources, to meet all training needs, including developmental training, refresher training, new equipment training, and other local training. The ATIS contract is managed nationally and each DSR facility, in coordination with its region, decides how it will balance its needs with competing resources. The FAA uses a mix of contractor instructional staff and FAA personnel to accomplish its training goals.

Question. As you know I believe that safety should be the top priority of your agency. As more and more people travel through the skies each and every year, it is crucial that more well-trained and capable air traffic controllers are on-duty to handle the air traffic. Given my beliefs and the beliefs of other members of this subcommittee, I am troubled to learn that the training of developmental controllers is being halted at a time when the FAA is hiring up to 800 new controllers for this fiscal year and has hired over 1,000 others in the past two years. Can you explain your agency's justification for this policy?

Answer. Safety is the top priority of the FAA. We believe that we have the safest system staffed by the best trained air traffic control work force in the world. We are not halting developmental training; in fact, training is continuing in most facilities at a rather vigorous rate. To make the best use of our training resources, we are making tactical adjustments in some facilities to allow for training on new equipment, as well as, developmental training, refresher training, and other local training. Safety will not be compromised during this transition, nor at any time in the future.

QUESTIONS SUBMITTED BY SENATOR FAIRCLOTH

REPORTS OF CONTINUING SAFETY VIOLATIONS BY AIRTRAN/VALUJET

Question. An FAA inspection team which concluded its work in November 1997, found 106 safety violations at AirTran/ValuJet. According to a second inspection team, 60 of the original violations could not be substantiated. Next, an unprecedented third team of inspectors was brought in to arbitrate between the first and

second inspection teams, which disagreed over the number of "valid" violations. Why did the FAA implement unprecedented procedures for inspection of this particular airline? Please list the names of every other airline and the dates of all inspections in which the FAA has used this same procedure involving three inspection teams.

Answer. There is no other case in which these same procedures were used as part of a National Aviation Safety Inspection Program (NASIP) inspection. Because of disagreements between the inspection team and the Certificate Holding District Office (CHDO) a second team of experienced inspectors was assigned to review the most serious allegations, and to assist the District Office in objectively reviewing the findings of the NASIP team. With this assistance, the District Office was able to substantiate over 40 of the original findings. All 106 findings were investigated fully. These unprecedented procedures were implemented because of the unprecedented public interest in the operation of ValuJet and to ensure that any allegations were fully investigated and validated. However, many of the procedures used to follow up the AirTran/ValuJet inspection will be used on future inspections as a standard practice, and have been included in our NASIP Briefing Guide.

Question. The original 106 violations detailed in the first AirTran/ValuJet inspection included falsified documents, improper maintenance, faulty repairs, and repeated failures to supervise contractors. Is it customary FAA procedure to conduct an airline inspection resulting in a large number of safety violations and then allow the airline ample time to correct the majority of those violations before undergoing a second inspection? Please list all other airlines with which the FAA has used this procedure of a "practice" inspection and given the airline comparable time to make corrections before sending a second and then a third team of inspectors.

Answer. There was no "practice" inspection of AirTran/ValuJet. The second group of inspectors who went to AirTran/ValuJet were assigned to review the most serious allegations and to assist the District Office in objectively reviewing the findings of the NASIP team. Corrections to all safety related findings were begun immediately after the information was brought to the attention of the Certificate Holding District Office (CHDO) in Atlanta, Georgia.

Question. How many of the original 106 violations involved serious, life-threatening safety concerns and how many related to paperwork errors? Was any instruction given that the serious, life-threatening violations were to be corrected immediately in the interest of public safety?

Answer. There were 106 findings (not violations) recorded by the National Aviation Safety Inspection Program (NASIP) inspection team. A finding is an indicator requiring in-depth study by investigators from the office which oversees the airline. Due to the intense national interest in this airline's progress, a separate, handpicked, highly experienced, independent Validation Team was assigned to attempt to verify the most significant of the findings. All 106 findings were investigated by the inspectors of the Certificate Holding District Office (CHDO). During the course of this in-depth investigation, 60 of the 106 findings could not be substantiated to support regulatory violations.

The discrepancies indicated by the remaining 46 findings have been expeditiously corrected by the airline. The FAA has initiated 19 separate enforcement actions covering 25 of those 46 findings.

Any finding which indicated a significant safety-related concern was immediately addressed to assure the continued maximized safety of the traveling public. For example, an aircraft undergoing repainting at a vendor was determined not to have undergone the proper rudder balancing required after painting. The CHDO, upon learning of the discrepancy, notified the carrier, which immediately corrected the problem.

Question. Exactly how many days elapsed between the completion of the original (NASIP) inspection and the re-inspection by the second team?

Answer. The National Aviation Safety Inspection Program team was on site at the operator from October 20, 1997, to November 7, 1997. The final draft of the team report was completed and sent to the region on November 26, 1997.

The team of inspectors (Team 2) assigned to assist the Certificate Holding District Office (CHDO) was on site November 24–November 25, 1997; December 1–December 4, 1997; and December 8–December 12, 1997.

Although the usual practice would have been to allow the CHDO 120 days to investigate all findings and develop plans with the operator to address all discrepancies, this investigation and report were completed in 110 days on February 27, 1998.

Question. Was there a time-related obligation to file a detailed compliance report?

Answer. Although standard practice calls for each finding in the National Aviation Safety Inspection Program report to be closed by the Certificate Holding District Office within 120 days of the completion of the report, in this case the process was

completed in 110 days. The company is obligated to begin making corrections to any findings immediately after the information is made available to them.

Question. Did AirTran/ValuJet have the right to object and ask for a review of the inspectors' findings and decisions?

Answer. Any operator is allowed to present evidence in its behalf to show why it believes it is operating in compliance with the Federal Aviation Regulations.

Question. Did a request for review suspend the obligation to correct the violations?

Answer. No. Any operations contrary to the Federal Aviation Regulations must be corrected immediately.

Question. Why was the initial inspection report detailing the 106 violations at AirTran/ValuJet considered proprietary information and not available for public scrutiny?

Answer. Although in the past NASIP reports have sometimes been released before all the findings were fully investigated, in this case, due to the level of public interest, it was determined that all the facts and information should be released together to ensure the Government acted fairly. In the future, NASIP reports will be released after findings have been investigated fully.

Question. With regard to the initial inspection revealing 106 inspections, what was the experience level of each member of that first FAA inspection team? Please list each inspector involved in each of the three inspection teams and detail the experience and qualifications of each.

Answer. There was one inspection conducted in accordance with the National Aviation Safety Inspection Program (NASIP). The inspectors involved on the NASIP Inspection Team were:

Kenneth G. Johnson, ANE-BOS
Wayne Seer, ANE-BOS
William Daniels, AWP-LAS
John Francissen, AGL-ORD
Mark Wilson, AAL-ANC
James Fulwood, AGL-MSP
John T. Pryde, ANM-SEA
Allan Lee, AAL-ANC
Jerome Polak, ANE-BOS
Michael McPeak, ACE-DSM
Paul LeBlanc, ASW-HOU
David Villers, AEA-DCA
Allen Shelby, ANM-PDX
William Satterfield, ASW–7
Sonny Maxwell, ASW-HOU
Roger Herd, AVR–20
Les Monteiro, AVR–20

Biographic sketches and/or Aviation Safety Inspector (ASI) Information Sheets follow which detail the inspectors' experience/background. After the NASIP was completed, a team was sent to the Certificate Holding District Office (CHDO) to assist in the investigation of the most serious allegations. The inspectors involved in this group were:

Frank Maly, Acting AGL–201
Dan Allison, CSET—AGL-IND
Bill Dickinson, CSET—AWP-SAN
Jim Repucci, AEA-PIT

Biographic sketches and/or ASI Information Sheets follow which detail the inspectors' experience/background. The inspectors that assisted the CHDO in finalizing its investigation and provided peer review of the final report were:

Dick Birnbach, AFS–900
Bill Crow, ASW-AMR CMO
Dan Allison, CSET—AGL IND
Don Klos, ASW-HOU

[CLERK'S NOTE.—The information referred to does not appear in the hearing record but is available for review in the subcommittee's files.]

Question. Please explain the differences among the three inspections of AirTran/ValuJet and detail the purpose for each of the three inspections.

Answer. There was one inspection conducted of Air Tran/ValuJet in accordance with the NASIP. Following completion of the NASIP inspection a number of findings were challenged by the CHDO. A consultation team commissioned by the Flight Standards Service traveled to the CHDO to assist in the follow up of the initial findings. During this follow up several findings were determined to be without merit.

The Flight Standards Certification Program Office Manager then participated in a final resolution of the findings and assisted the CHDO in addressing all initial findings in the final report.

Question. After the first inspection, did any AirTran/ValuJet personnel contact any FAA or DOT personnel other than the inspectors involved in the inspection? If so, please provide the names of all FAA/DOT personnel and AirTran/ValuJet personnel involved in any such communications, as well as, the dates of the contacts.

Answer. After the first inspection, the certificate holding district office was not contacted by AirTran/ValuJet personnel other than routine contacts required to investigate and validate the findings.

The President of AirTran contacted the Associate Administrator for Regulation and Certification to request a copy of the NASIP report. We have no record of the date of the contact.

Question. Did any attorney, activist, or lobbyist acting on behalf of AirTran/ValuJet contact the FAA or DOT concerning the inspections? Is so, please list all dates of contacts, names of parties involved, and explicit details of the contacts.

Answer. We are unaware of any such contact with the FAA by any attorney, activist, or lobbyist acting on behalf of AirTran/ValuJet. No known contacts were made with Flight Standards personnel outside the communication between the inspection teams and the certification holding district office and the carrier.

FEBRUARY 14, 1996 AFS–300 REPORT SUPPRESSED

Question. At the November, 1996 NTSB hearings in Miami, Florida, Mr. John Tutora, Manager, Air Carrier Branch, Federal Aviation Administration, Washington, D.C., testified that his superior, Mr. Frederick Leonelli, directed him to prepare a document, an AFS–300 report, to provide a "snapshot" of the current health and condition of ValuJet.

In that report, Mr. Tutora stated, "Consideration should be given to an Immediate FAR–121 recertification of this airline," which everyone understood to mean "grounding." Despite the reports explosive findings, Mr. Tutora testified, he was told to keep the AFS–300 report "rather confidential." The FAA took no action to recertify or "ground" the airline, and ValuJet was allowed to remain in air commerce until the airline voluntarily grounded itself on June 17, 1996, following the deadly ValuJet crash in the Florida Everglades that killed 110 people.

In contrast to Mr. Tutora's testimony that he was told to keep the AFS–300 "confidential," lead NTSB investigator Gred Feith stated at the August 19, 1997 NTSB meeting in Washington, D.C., that the AFS–300 report was lost in the inbox of Mr. Bill White, a high-ranking FAA official. No explanation was ever given for how the report went from Mr. Tutora to his supervisor, Mr. Frederick Leonelli, and no explanation was provided for how the report moved from Mr. Leonelli to Mr. Bill White.

Please state conclusively, for the record, HOW and WHY the AFS–300 report of February 14, 1996 was suppressed by FAA officials and resulted in no grounding of ValuJet operations, thus setting the stage for the deadly Everglades crash that needlessly claimed the lives of 110 innocent passengers and crew.

Answer. According to testimony before the NTSB, the report was prepared by reviewing information available in various FAA data bases and did not include any on- site inspection of the operator. The two individuals with first-hand knowledge of the purpose of the AFS–300 report and the handling of the AFS–300 report, are no longer employed by the FAA. The report was produced by AFS–330, Air Carrier Maintenance Branch staff personnel and provided to the Manager of the Aircraft Maintenance Division, AFS–300. Those individuals personally involved would be the only ones able to explain why the report was prepared, and why it was not brought to senior management attention.

Question. At the time the AFS–300 report was prepared, the NTSB had two ongoing investigations involving ValuJet: (1) an uncontained engine failure and fire in Atlanta, GA; and (2) a hard landing in Nashville, TN. Nevertheless, the FAA did not notify the NTSB of their findings or release the completed report to them. Is it standard procedure for the FAA to expend time and effort (Mr. Tutora estimated that he spent five days preparing the report) on a report with significant findings of safety concerns and then fail to provide that information to the FAA chain of command or to the NTSB? Please state why the NTSB was not informed of the findings in the AFS–300 report.

Answer. Reports compiled by staff specialists within the various branches under the Flight Standards Maintenance Division, AFS–300, are commonplace. The AFS–300 internal report was a staff review compiled from automated data sources available to all FAA personnel. This information was available to personnel at the CHDO, and particularly the Principal Inspectors assigned certificate management oversight responsibilities for ValuJet. In addition to this data, CHDO personnel had access to all manuals, equipment, personnel, and other items maintained by the air carrier. If testimony given is accurate, this particular report was provided to the chain of command. The AFS–330 Air Carrier Maintenance Branch performed the review and produced the analysis in the form of a report. According to testimony, that report was given to the Manager of the Flight Standards Aircraft Maintenance Division, AFS–300.

We have been unable to establish what the Manager, AFS–300 did with the report until June 1996 when he presented a copy to the Associate Administrator for Regu-

lation and Certification. At that time the report was made publicly available immediately and was given to the NTSB.

Question. Prior to Mr. Frederick Leonelli's departure from the FAA, did the FAA investigate why he directed Mr. Tutora to specifically keep the AFS–300 report "somewhat confidential?" If so, please provide explicit details of that investigation. If FAA officials decided against conducting such an investigation, how does the FAA justify that decision?

Answer. Although a formal investigation was not initiated, Mr. Leonelli, Mr. Tutora and others were questioned about the handling of the report. It was determined that at the same time the AFS–300 report was completed, CHDO had initiated a special emphasis program at ValuJet to evaluate its compliance posture. It was determined that although the CHDO did not have the AFS–300 report, its actions addressed the concerns raised in the report.

Question. Was the AFS–300 report actually prepared for the sole benefit of Mr. Leonelli, to be kept "confidential" by him so that he could be prepared for any questions Mr. Anthony Broderick might ask him about ValuJet?

Answer. Mr. Leonelli's purpose in requesting the report is not clear.

Question. Does the FAA make a practice of preparing confidential reports concerning air carriers with perceived problems? For what purpose are such reports generated? Who receives such reports? Who retains such reports?

Answer. Reports compiled by staff specialists within the Flight Standards Service are produced for various reasons. Formal FAA reporting is governed by various FAA Orders which detail the content, form and distribution of those reports. A National Aviation Safety Inspection Program (NASIP) report is an example of a formal document which is produced as a result of a formal "Safety Inspection," and as such is provided to numerous parties. A NASIP report would include a complete review of aspects of an air carrier's operation. Examples of FAA Orders which detail procedures governing FAA Flight Standards reporting are FAA Order 2150.3, Compliance and Enforcement Program; FAA Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting; and FAA Order 8300.10, Airworthiness Inspector's Handbook, just to name a few.

Question. Who made the decision to undertake a special emphasis review rather than recertify ValuJet?

Answer. CHDO initiated a 120-day Special Emphasis Program on February 22, 1996, due to ValuJet's accelerated growth and increasing concern over the airline's operations. For this review, a significant contingent of geographic inspectors from other offices and regions was added to the Atlanta Flight Standards District Office inspector team. This inspector group performed an unprecedented number of inspections of aircraft, line stations, and operational procedures. As issues were revealed, the airline initiated prompt corrective action.

Question. Following the ValuJet crash, has the FAA implemented standardized procedures for monitoring start-up airlines, including restraining the airline's growth if the carrier's expansion cannot be sufficiently monitored by the FAA? If so, please provide documentation of all FAA procedures put in place following the ValuJet crash to assure adequate monitoring of start-up airlines.

Answer. The FAA conducted an internal evaluation of current policies and procedures to address the complex issues surrounding start-up airlines. As a result of that evaluation, a national certification team, the Certification Standardization Evaluation Team (CSET), was created to assist local offices in processing new air carrier certifications. For start-up airlines, this team is also tasked with the responsibility to ensure that adequate surveillance is conducted during the new air carrier's first five years of operation. CSET is in the process of developing this surveillance plan, and we anticipate implementation October 1, 1998.

Flight Standards understands the importance of providing guidance to field inspectors when operators make major changes to their operations. Such changes such as fleet size, new airports, and support systems usually have a significant effect on an air carrier's operations. Flight Standards is currently developing a joint Handbook Bulletin to provide information and guidance to safety inspectors on evaluating carrier growth factors, resource capacities, and plans for growth.

Question. Following the ValuJet crash, has the FAA in any way altered its standard procedure for acting upon critical internal safety information reflecting negatively on either the FAA or a particular carrier?

Answer. The FAA has developed a computer based Safety Performance Analysis System (SPAS) to evaluate both current and historical safety-related aviation data. SPAS collects data over time to show trends and to assist safety inspectors in detecting evolving problems. SPAS tracks the performance of certificate holders and summarizes that information for safety inspectors. A performance measure is used to compare the performance of a certificate holder to the performance of similar cer-

tificate holders and to preset limits. SPAS will assist safety inspectors in determining which certificate holders might need additional observation and what areas might need further attention.

Flight Standards has also established a Safety Analysis Information Center (FSAIC) that provides analytical support and review of safety information directly to district offices and other users inside and apart from the Flight Standards Service. FSAIC has the capability of examining safety data for trends, and then providing this information directly to principal inspectors who can target surveillance resources and take necessary corrective actions.

These efforts directly support recommendations of the White House Commission on Aviation Safety and Security. Those recommendations specifically require the development of standards for continuous safety improvements and then targeting regulatory resources based on performance against those standards.

Question. The AFS–300 report made mention of some 68 enforcement actions by the FAA against ValuJet. Nevertheless, the FAA never formally proceeded with recertification of ValuJet. How many enforcement actions against a single airline are required in order for the FAA to proceed with an emergency suspension of airline operations in the interest of public safety?

Answer. An enforcement action represents a violation of one or more Federal Aviation Regulations (FAR). The severity of the violation, number of times it was done, and the type of violation are part of how a carrier's compliance attitude is viewed. Of the 68 enforcements in the AFS–300 report, some were minor issues or issues that the carrier and FAA were working on to correct. ValuJet voluntarily entered into a consent order that included not flying until the FAA was assured that the problems that had been found had been corrected.

The objective of FAA's safety oversight systems is to monitor and ensure compliance. There is no set number of enforcement actions that will automatically result in an emergency suspension. Generally when it is determined that the certificate holder lacks qualifications, emergency action to revoke the certificate should be taken in the interest of safety. These determinations are based on an evaluation of all safety indicators and data, not on a general count of enforcements. The FAA does not hesitate to take strong actions where public safety is the issue.

Question. NTSB Board Member John Goglia stated that in 1994, ValuJet had 15 emergency landings. It operated only 14 planes at the time. This is equivalent to 1.07 emergency landings per plane. If a major commercial carrier had ValuJet's 1994 rate of emergency landings, Mr. Goglia said, there would be approximately 768 emergency landings each year, which would be more than two per day. Following the Valujet crash, has the FAA established a standard threshold of emergency landings which would warrant emergency suspension of an airline's operations in the interest of public safety?

Answer. FAA has not established standard thresholds of emergency landings which would warrant emergency suspension of an airline's operation.

Generally when it is determined that the certificate holder lacks qualifications, emergency action to revoke the certificate should be taken in the interest of safety.

Similarly, when there is a reasonable basis to question the certificate holder's qualifications emergency action to suspend the certificate generally should be taken in the interest of safety.

These determinations are based on an evaluation of all safety indicators and data, not on a specific count of a single type of incident.

Question. Mr. John Tutora testified in November 1996 there was a "sort of urgency" about his immediate preparation of the AFS–300 report. Why was there not that same sense of urgency in addressing the problems the AFS–300 revealed within FAA hierarchy, the Atlanta Flight Standards Director of Operations (FSDO) and the NTSB?

Answer. At the same time the AFS–300 report was being prepared there was an urgency on the part of the Certificate Holding District Office (CHDO) to enhance its oversight of ValuJet. In February 1996 the CHDO initiated a special emphasis review of carrier. This review was fully coordinated with the FAA hierarchy and was know to National Transportation Safety Board staff.

Question. Mr. John Tutora testified in November 1996 that the AFS–300 report was to be "rather confidential." Please list every other instance in the last 10 years when an FAA-generated report regarding a particular airline was ordered to be kept confidential. If there are no other such instances, why was ValuJet singled out in this manner?

Answer. There is no evidence that the AFS–300 report was ordered to be kept confidential, and we have found no other instances when an FAA generated report was ordered to be kept confidential.

Question. Did any attorney or lobbyist, acting on behalf of ValuJet, contact the FAA, or to your knowledge, the DOT, between June 8, 1995, the date of the ValuJet fire in Atlanta, and June 17, 1996, the date of the ValuJet grounding, concerning FAA oversight of ValuJet? Please provide explicit details of any such contact.

Answer. Company attorneys communicated with FAA officials concerning on going enforcement actions during that time, the special emphasis review, the inspections that occurred following the crash of Flight 592 and the negotiations that resulted in the consent agreement signed by the FAA and the company on June 19, 1996.

Question. Were FAA officials aware of any correspondence from an OMB official concerning unsatisfactory conditions he personally experienced on a ValuJet flight? Were FAA officials aware of any lobbying activities related to that letter from OMB?

Answer. A search of FAA records indicated no OMB correspondence was received regarding ValuJet.

Question. What discussions did DOT Chief of Staff Ann Bormolini, or any other representative of the Secretary's office, have with the FAA from June 8, 1995, through June 17, 1996, concerning ValuJet?

Answer. Department of Transportation (DOT) officials were provided notification of any incidents or accidents involving ValuJet during that time period in accordance with standard operating procedures for such notifications. Following the crash of Flight 592, DOT officials were regularly briefed on the results of the special inspection that was underway. DOT officials were informed of the decision to cease operations and the signing of the consent agreement.

Question. In 1993, the DOT issued a press release underscoring its commitment to low-cost carriers. Did any representative of the Executive Office of the President or OMB discuss this policy with FAA officials with regard to ValuJet prior to the crash of Flight 592?

Answer. We are unable to find any Department of Transportation press release issued in 1993 that underscored a commitment to low cost carriers.

INVESTIGATION OF INSPECTOR'S JOB QUALIFICATIONS

Question. A Department of Transportation Inspector General's report dated April 3, 1997, revealed the Principal Maintenance Inspector (PMI) for ValuJet at the time of the Flight 592 crash, was not qualified for his job, got preferential treatment when he was hired by FAA officials with whom he had served in the military reserves, and was allowed to transfer to the FAA from the Air Force on a noncompetitive basis and at a higher pay grade than other FAA inspectors in similar circumstances. The report also concluded that the ValuJet PMI falsified his civil experience as an aircraft mechanic on his FAA application. Is the individual who was the ValuJet PMI at the time of the ValuJet crash still employed by the FAA?

Answer. Yes.

Question. Since the ValuJet crash, and the calling into question of the qualifications of the ValuJet PMI, has the FAA standardized its requirements for inspector qualifications?

Answer. The minimum qualification requirements for the Aviation Safety Inspector have not changed since OPM approval in 1988. Those minimum qualification standards require:

Operations Inspector Require.—An airline transport pilot certificate or commercial pilot certificate with instrument rating. Pilot-in-command experience in large aircraft (over 12,500) pounds gross takeoff weight within the last three years.

Maintenance Inspector Require.—An FAA mechanic certificate with airframe and powerplant ratings. Three years of supervisory experience in aviation maintenance.

Avionics Inspector Require.—Aircraft avionics experience in a repair station, air carrier repair facility, or military repair station. Three years of aircraft avionics supervisory experience.

All applicants for consideration from the competitive inventory apply through an automated rating and ranking system and are screened against the standardized qualification requirement.

Inspector Training.—Length of initial training course: nine and one-half weeks for Air Carrier Ops; 14 weeks for GA Ops; 13 weeks for Airworthiness.

Question. When the Office of the Inspector General's investigation of the ValuJet PMI was presented to the U.S. Attorney's Office, was it presented with a declination letter? When was the case presented to the U.S. Attorney's Office and when was the declination issue by the U.S. Attorney's Office?

Answer. In mid-March 1997, the Office of Inspector General (OIG) presented the results of this investigation to the U.S. Attorney's Office (USAO) in Atlanta, Georgia, at which time the case was declined for prosecution. At the time of the declination, OIG asked the USAO to render a written declination. At the request of the

USAO, OIG then drafted a proposed declination letter. The USAO subsequently issued a declination letter dated March 25, 1997, citing the following reasons for declination: (1) minimal Federal interest, based upon the nature of the allegations; (2) administrative or other disciplinary alternatives were available; and (3) the statute of limitations had expired.

FAA COST/BENEFIT ANALYSIS COST/BENEFIT ANALYSIS OF NTSB RECOMMENDATIONS

Question. How many National Transportation Safety Board (NTSB) safety recommendations has the FAA rejected because of the cost/benefit analysis in the last twenty-five years? Please explain every cost/benefit analysis that FAA has produced or relied upon to reject a NTSB safety recommendation since 1973. Please describe the documentation used to arrive at each cost/benefit analysis and the documents that set out the analysis. Also, please identify who conducted each analysis and reveal any efforts the FAA made to verify the estimated compliance data.

Answer. The FAA has never rejected any NTSB safety recommendation solely on the basis of a cost/benefit analysis. Economic concerns are one factor among all the policy, operational, legal, etc., that are considered in evaluating NTSB recommendations. Nevertheless, factors like cost/benefit analyses can and do influence agency decisions. Oftentimes, rulemaking is considered as the most appropriate response to NTSB recommendations, and since about 1980 the FAA has been required to formally estimate the costs and benefits of proposed rulemaking actions. Preliminary cost/benefit assessments are often made during formulation of rules, but formal reports of regulatory evaluations are prepared and kept on file only for rules that are actually proposed. As a consequence, the FAA generally has permanent records of economic assessments to accompany agency rules proposed since the early 1980's, but not before that and not for proposals that were considered but ultimately not proposed.

In attempting to respond to the spirit of this question, records were reviewed to identify instances where economics played a strong role in an FAA decision not to comply, or not fully comply, through rulemaking with NTSB recommendations. Five such instances were identified as described below:

—NTSB Recommendation #A8–123 (Issued 10/24/88). A recommendation that the FAA require a fire extinguishment system for all Class D cargo compartments in air carrier aircraft. After carefully considering the recommendation, the FAA concluded in the early 1990's not to act upon it because of the fact that no major accidents had occurred in U.S. air carrier service that would have been prevented by fire extinguishment systems in Class D cargo compartments. Existing fire suppression systems seemed to be working satisfactorily. The FAA reevaluated the issue after the 1996 ValuJet tragedy and has now complied with the recommendation.

—NTSB Recommendation #A–88–141 (Issued 11/3/88). The recommendation was that the FAA require commercial operators to conduct substantive background checks of pilot applicants which would include verification of personal flight records and examination of training, performance, and disciplinary records of previous employers and Federal Aviation Administration safety and enforcement records. While the FAA agreed with the intent of the recommendation, the agency initially determined that potential benefits would not justify the costs of the recommendation. The issue is now being reevaluated by the FAA's Aviation Rulemaking Advisory Committee (ARAC).

—NTSB Recommendation #A90–029, #A90–031, #A90–032, #A90–033 (Issued 3/21/90). A recommendation to require the use of worn brakes capability (within allowable limits) rather than that of new brakes in calculating stopping distances for turbojet category airplanes currently in services. The FAA has not acted to impose this recommendation on in-service airplanes, primarily due to benefits falling short of costs, but has acted to impose the recommendation on future transport category airplane designs.

—NTSB Recommendation #A91–116 (Issued 12/3/91). A recommendation that the Federal Aviation Administration prohibit the use, after a specified date, of cabin materials in all transport category airplanes that do not comply with improved fire safety standards. The FAA did not fully comply with this recommendation largely because of costs, but did issue rules requiring use of interior materials meeting improved fire safety standards for newly manufactured aircraft and when in service aircraft are refurbished.

—NTSB Recommendation #A–95–051 (Issued 5/16/95). A recommendation that all infants on air carrier flights be required to be appropriately restrained during take-off, landing, and during turbulent conditions. The FAA encourages and actively promotes the use of effective child restraint systems for infants in air

transportation. The agency is currently seeking public comment through an advance notice of proposed rulemaking (ANPRM) about the technical practicality and cost feasibility of requiring infants to be restrained in aircraft. This current regulatory action stems from discussions about the child safety seat issue before the White House Commission on Aviation Safety and Security and the Commission's specific recommendation 1.5. The recommendation stated that "costs alone should not become dispositive in deciding aviation safety and security rulemaking issues". To date, the FAA has not required infant restraints because effective restraint systems are currently not available, and the cost of purchasing on aircraft seat for the child may divert many families to less safe modes of transportation resulting in a net increase in fatalities. This issue was analyzed in a report sent to Congress in 1995. The cost/benefit analysis for all of the actions described above were performed by FAA employees except that significant parts of the report sent to Congress on child restraint systems were prepared by a private consultant. Data for all the analyses were obtained through FAA, industry, and trade association sources as well as from published information. The FAA also attempts to obtain accurate data through other means, such as independently developed data bases and studies of specific cost factors. Another primary means of validating data is through the public comment process.

COST/BENEFIT OF SMOKE DETECTORS AND FIRE SUPPRESSANTS

Question. It has been reported that, according to the FAA's cost/benefit analysis, installation of smoke detectors and fire suppressants would cost the airline industry approximately $350 million. Even using the FAA's new 1997 figure of $2.7 million per human life, the loss from the ValuJet tragedy was approximately $300 million. Please produce any cost/benefit analyses the FAA conducted or relied upon before rejecting smoke detectors and fire suppressants since the NTSB first recommended the safety devices in 1980. Please also produce any cost/benefit analyses the FAA conducted or relied upon following the ValuJet crash before requiring smoke detectors and fire suppressants in Class D cargo holds. Why were the smoke detectors and fire suppressants too expensive before the ValuJet crash and not too expensive following the crash?

Answer. With respect to any cost/benefit analyses the FAA conducted or relied upon following the ValuJet crash, attached is a copy of the full regulatory evaluation associated with the agency's final rule requiring fire detection and suppression equipment on the air carrier fleet. A copy of the summary published in the Federal Register is also attached. With respect to cost/benefit analyses the FAA conducted or relied upon before rejecting NTSB recommendations regarding smoke detectors and fire suppressant equipment, no formal report was prepared because rulemaking was not undertaken. However, included is a copy of the FAA's letter to the National Transportation Safety Board explaining why its safety recommendation concerning this issue was not acted upon. Also, attached are other memos, notes, and charts from our files related to this issue.

When the FAA performed a cost/benefit analysis of this issue in 1990, undiscounted costs were estimated to be $368 million and undiscounted benefits were estimated to be less than one third of costs. Benefits were estimated on the basis that U.S. air carriers had experienced no major accidents from Class D compartment fires. On that basis, the FAA's benefits estimate assumed that a maximum of one major accident could be expected to be prevented over the next decade if the rule were implemented. A value of $1.5 million per fatality averted was used to convert benefits into dollars for comparison with costs.

When the cost/benefit analysis of the final rule was performed in 1997, several important factors had changed that had significant impacts on the results. Due mainly to Air Transport Association members volunteering to install fire detection system in Class D compartments, the FAA's estimate of the incremental cost of the regulation was reduced to $294 million undiscounted. On the benefits side, additional incidents that occurred worldwide, including the ValuJet tragedy, justified estimating a higher accident rate in the absence of a regulation. Benefits were also increased over the 1990 estimate because the value used to represent the avoidance of a fatality had increased to $2.7 million. Taken together, these factors resulted in estimated benefits exceeding estimated costs.

[CLERK'S NOTE.—The information referred to does not appear in the hearing record but is available for review in the subcommittee's files.]

COST/BENEFIT ANALYSES OF AIRLINE RULES

Question. Please list all cost/benefit analyses for the last twenty-five years in which the airlines' cost of implementation of safety improvements was a factor. Please advise who prepared or provided that implementation cost figure in each of those cost/benefit analyses-was it an FAA employee, a contractor, a university, an airline, or an airline trade association for example? Please reveal any efforts the FAA made to verify the accuracy of the data.

Answer. The FAA, through the Office of Policy and Plans, has conducted cost/benefit analyses or proposed and final rules since the early 1980's. A rapid review of our files revealed that cost/benefit analyses for the following rules identified to costs to airlines operating under either parts 121 or 135 of the Federal Aviation Regulations (FAR):

Final rules	Issue date	FAR
Final Rules Issue Date FAR Advanced Qualification Program	9/26/90	121
Air Carrier and Commercial Operator Training Programs	12/8/95	121,135
Air Tour Operators in the State of Hawaii	9/22/94	135
Air Traffic Control Radar Beacon System and Mode S Transponder Requirements in the National Airspace System	1/29/87	121,135
Airborne Low-Altitude Windshear Amendments	4/30/90	121
Airborne Low-Altitude Windshear Equipment and Training Requirements	9/22/88	121,135
Aircraft Simulator Use in Pilot Training, Testing, and Checking and at Training Centers	5/26/96	121,135
Aircraft Ground Deicing and Anti-Icing Program	9/24/92	121
Airplane Cabin Fire Protection	3/26/85	121
Airspace Reclassification	11/14/91	121
Alcohol Misuse Prevention Program for Personnel Engaged in Specified Aviation Activities	1/30/94	121,135
Anti-Drug Program for Personnel Engaged in Specified Aviation Activities	11/14/88	121,135
Anti-Drug Program for Personnel Engaged in Specified Aviation Activities	8/12/94	121,135
Carry-On Baggage Program	5/29/87	121
Cockpit Voice Recorder and Flight Recorder Equipment Requirements on U.S. Aircraft	6/30/88	121,135
Commercial Passenger-Carrying Operations in Single- Engine Aircraft under Instrument Flight Rules	5/4/98	135
Commuter Operations and General Certification and Operations Requirements	12/12/95	121,135
Design Standards for Fuel Tank Access Covers	9/25/89	121
Emergency Evacuation Demonstration Procedures, Exit Handle Illumination Requirements, and Public Address Systems	8/19/93	121
Emergency Evacuation Procedures	11/10/81	121
Emergency Locator Transmitters (ELT)	6/10/94	121,135
Emergency Medical Equipment	12/31/85	121
Exit Row Seating	2/28/90	121,135
Fire Protection Requirements for Cargo or Baggage Compartments	2/10/89	121,135
Flammability Requirements for Aircraft Seat Cushions	10/23/84	121,135
Flight Attendants' Duty Period Limitation and Rest Requirements	8/15/94	121,135
Flight Recorders and Cockpit Voice Recorders	3/26/87	121,135
Flight Time Limitations and Rest Requirements	6/3/85	121,135
Floor Proximity Emergency Escape Path Marking	10/22/84	121
Ground Proximity Warning Systems	3/17/92	135
Improved Access to Type III Exits	4/28/92	121,135
Improved Flammability Standards for Materials Used in the Interiors of Transport Cargo Airplane Cabins	7/21/86 and 8/19/88	121,135
Improved Standards for Determining Rejected Takeoff and Landing Performance	2/10/98	121,135

Final rules	Issue date	FAR
Independent Power Source for Public Address System in Transport Category Airplanes	10/20/89	121,135
Location of Passenger Emergency Exits in Transport Category Airplanes	6/16/89	121
Mandatory Reporting for Emergency Evacuation Systems and Components	3/10/88	121
Miscellaneous Operational Amendments	9/8/92	121,135
Pilot Operating and Experience Requirements	4/21/95	121
Protective Breathing Equipment	5/26/87	121
Protective Breathing Equipment Training	8/26/93	121
Revised Standards for Cargo or Baggage Compartments in Transport Category Airplanes	2/10/98	121
Revisions to Digital Flight Data Recorder Rules	7/9/97	121,135
Rotorcraft Regulatory Review Program: Final Rule No. 5	10/31/86	135
SFAR 36: Development of Major Repair Data Special Flight Rules in the Vicinity of the Grand Canyon	12/24/96	121,135
Traffic Alert and Collision Avoidance Systems	1/5/89	121,135
Training and Checking in Ground Icing Conditions	12/27/93	135
Transition to an All State 3 Fleet Operating in the 48 Contiguous United States and the District of Columbia	9/19/91	121,135

In addition to the final rules listed above, the FAA has proposed the following rules that would impose costs on airlines operating under parts 121 or 135:

Proposed rules	Issue date	FAR
Aging Airplane Safety	9/24/93	121,135
Flight Crewmember Duty Period Limitations, Flight Limitations, and Rest Requirements	12/11/95	121,135
Miscellaneous Cabin Safety Changes	7/16/96	121
Operational and Structural Difficulty Reports	8/4/95	121,135
Repair Assessment for Pressurized Fuselages	12/22/97	121
Revised Access to Type III Exits	1/20/95	121

The cost/benefit analyses of all the above amended rules and proposed rules were prepared by FAA employees. Cost information was obtained through FAA, industry, and trade association sources as well as from published information. The FAA attempts to obtain accurate data through other means also, such as independently developing data bases and conducting studies of major cost factors, such as aircraft's downtime for modification. Another primary means of validating data is through the public comment process.

Question. Please list all cost/benefit analyses for the last 25 years in which the FAA calculated the costs and benefits for the flying consumer as well as the costs and benefits for the airline industry. Please provide any findings documenting the projected financial and safety benefits the airline consumer would realize from FAA adoption of specific NTSB safety recommendations. Please advise who prepared or provided the figures documenting costs and benefits to be realized by the flying consumer as a result of safety improvements, and reveal any efforts the FAA made to verify the accuracy of the data.

Answer. Cost/benefit analyses were prepared for all the rules listed above. That list is an accurate representation of the analyses in which the FAA calculated the costs and benefits for the flying consumer as well as the costs and benefits for the airline industry. The benefits of safety improvements are always benefits to the flying consumer, and are always estimated by the FAA in cost/benefit analyses. The costs of safety improvements cannot be categorized as costs to the airlines or costs to the flying consumer. Usually such costs accrue to the airlines first, but are eventually passed on to the flying consumer.

ESTIMATING AIR CRASH COSTS

Question. To what extent does the FAA take into account the total cost of an air crash to the affected airline, the taxpayers who fund accident recovery efforts and crash investigations; and the air travel industry?

Answer. In general, the following costs or values are considered in evaluating the potential benefits of preventing airline accidents:

—Prevention of fatalities and injuries (passengers and crew);
—Aircraft destroyed or damaged (airline costs);
—Injury or damage to persons or property on the ground; and
—Accident investigation costs when significant.

On occasion, estimates have also been made of decreases in travel (loss of industry revenue) following airline crashes because of public concerns about safety.

COST/BENEFIT ANALYSIS PROCEDURE

Question. Does the FAA have any specific plans to re-examine its cost/benefit analysis procedures?

Answer. The FAA periodically reviews its cost/benefit analysis procedures. The most recent guidance is contained in the FAA publication, "Economic Analysis of Investment and Regulatory Decisions-Revised Guide," dated January 1998. Also, the FAA has implemented revised regulatory analysis procedures responding to a recommendation of the White House Commission on Aviation Safety and Security that cost alone should not be dispositive in deciding aviation safety and security rulemaking issues.

This guidance emphasizes that the FAA's regulatory decisionmaking is based on analysis and professional judgment. The agency will consider risk assessment, risk mitigation, social value, and economic consequences. Economic evaluation of regulations is only one piece of information considered in decisionmaking. Where practicable and relevant, FAA regulatory analyses will present information on:

—Risk assessment and valuation;—Potential mitigation measures;
—Sensitivity analysis;
—A complete description of assumptions;
—The magnitude, timing, and likelihood of impacts, including economic impacts and their uniqueness and reversibility; and
—The distribution and equity of the potential impacts, particularly as they apply to small entities.

Question. Airlines themselves suffer negligible monetary losses following an aviation disaster. The carrier's insurer replaces the accident aircraft. The airline may pay limited travel and lodging expenses for family members to attend mass memorial services or funerals. They may erect a monument at or near the crash site. However, the airline pays NO monetary damages to crash victims' families for lawsuit settlements or jury verdicts arising from wrongful death claims. All of these expenses are borne by the airline's insurance carrier.

Any additional monetary loss an airline suffers following a crash is limited to lost ticket sales from negative publicity and any increase in liability insurance premiums resulting from the accident. The only time an airline would be forced to pay lawsuit damages out of its own pocket would be in an unprecedented court award of punitive damages to the victims' families. As of this date, no punitive damage awards in a civil aviation disaster lawsuit have withstood judicial appeal, and no airline has ever been required to pay punitive damages.

Thus, the airlines have virtually no monetary losses arising from an aviation disaster and little economic incentive to avoid crashes.

Further, due to this lack of monetary loss from aviation disasters, there is little incentive for individual accountability by airlines, their top management, and personnel. Would it not seem prudent for the FAA to develop a practice of holding airlines, their management, and personnel accountable for aviation disasters through fines and enforcement actions? Would it not also be wise for the FAA to implement a procedure for barring airline management and personnel from future participation in the airline industry because of "unfitness" in action similar to that taken by the Department of Transportation in denying the application of Frank Lorenzo for ATX?

Answer. Fines, that is, civil penalties, and other enforcement actions are currently available in the case of aviation disasters provided that the accidents involve regulatory violations or call into question an air carrier's qualifications. Punitive suspensions for a specified period of time are also available; however, such suspensions are rare because the disruption to carrier service is usually deemed to be contrary to the public interest.

If an accident raises serious questions about a carrier's qualifications, the FAA can order the suspension of the carrier's certificate until it is able to demonstrate its qualifications. When an accident can be traced to such egregious conduct or incompetence that the FAA can prove that a carrier no longer meets the qualifications required to hold a certificate, the FAA can revoke the carrier's certificate. The FAA may deny an application for a certificate to an applicant whose certificate has been

revoked previously. Similarly, the FAA may deny an application for a certificate if an applicant is controlled by, or intends to fill or fills certain management positions with an individual who exercised control over or had a management position in a carrier whose certificate was revoked when that individual materially contributed to the circumstances causing the revocation of that certificate.

The FAA may impose civil penalties on individuals who committed a regulatory violation that may have contributed to an aviation disaster. Personnel who hold certificates issued by the FAA are also subject to suspension or revocation action.

Question. Please advise what changes in the law and regulations would be needed to accomplish this new level of accountability for airline managers and personnel?

Answer. All laws and regulations are in place to ensure accountability of airline managers and personnel.

Question. Were any FAA employees disciplined or held accountable for the failures in ValuJet supervision? What and against whom were the discipline and accountability measures taken?

Answer. No. The NTSB found no fault with inspectors at the field office level. However, the FAA did conduct a 90 Day Safety Review which, among other things, indicated that a restructuring and reorganization of the oversight of new air carriers was necessary.

Question. Were any FAA employees disciplined or held accountable for the suppression of the AFS–300 report? What and against whom were the discipline and accountability measures taken?

Answer. No employees were disciplined for the handling of the report.

Question. Were FAA officials aware of the Department of Defense review of ValuJet in 1995 in which the DOD declared ValuJet unfit to transport military personnel? Did the FAA take any action because of the DOD findings?

Answer. Yes. The DOD Air Carrier Survey was conducted August 21–25, 1995. The report from this survey indicated that ValuJet did not yet meet the DOD commercial air carrier quality and safety requirements. As a result, ValuJet was denied entry into the DOD air transportation program. However, several discrepancies noted in this survey report addressed administrative issues specific to the Department of Defense and not regulatory requirements in the Federal Aviation Regulations.

Nevertheless, all DOD concerns were investigated by the FAA. Subsequently, ValuJet took appropriate action to address and correct the DOD concerns. A following DOD Air Carrier Survey was conducted in January of 1996. As a result of this later survey, ValuJet received written notification from the Department of Defense that they were accepted into the Commercial Airlift Program on March 4, 1996.

Question. Why is the Department of Defense (DOD) standard for ferrying defense personnel higher than the FAA standard for transporting military?

Answer. The Department of Defense (DOD) standards are predicated on DOD's requirements as a customer/consumer. Their standards include items beyond what may be addressed in FAA regulatory requirements, such as cleanliness, availability, and other consumer issues.

Question. Why does the FAA not advise the public when the DOD rejects a carrier?

Answer. The department of Defense (DOD) may reject carriers for a number of reasons other than safety. It would be DOD's responsibility to report on decisions made internal to DOD.

TWA 800 TRAGEDY

Question. There have been 26 fuel-tank-related explosions since 1963. Please produce all cost/benefit analyses and industry data upon which the FAA has relied in its decision not to pursue immediate installation of inerting systems to avoid additional tank explosions and needless deaths.

Answer. The cost/benefit analysis part of a 1976 report submitted to the FAA by Boeing concerning nitrogen inerting follows. The report is a revised version of their 1974 report that was submitted to the FAA The Air Transport Association also submitted a report to the agency in 1974, but that report was based on updated 1970 data. The FAA itself has not performed any cost/benefit analyses of nitrogen inerting

It is precisely because those data are so outdated that the FAA has tasked the Aviation Rulemaking Advisory Committee (ARAC) to update the economic data associated with fuel tank inerting. This ARAC working group will evaluate methods to eliminate or significantly reduce the hazards associated with explosive vapors in transport category airplane fuel tanks. The ARAC working group, with FAA participation, will produce proposed regulatory provisions, if appropriate, and current cost/

benefit analyses for inerting fuel tanks and for other possible methods under evaluation to eliminate or reduce the explosive vapors in transport category fuel tanks.

[CLERK'S NOTE.—The information referred to does not appear in the hearing record but is available for review in the subcommittee's files.]

Question. In the aftermath of the TWA crash, has the FAA mandated either of the following three safety improvements which would help prevent a similar disaster: (*a*) mandatory partial or complete filling of the center wing tank; (*b*) storage/loading of cool fuel into the center wing tank; or (*c*) installation of fiber optic tank temperature monitoring systems, which would alert flight crews to any dangerous increases in interior tank temperatures.

If the FAA has done none of these, what action has the FAA taken since the TWA tragedy to prevent a similar disaster?

Answer. The FAA has not mandated any of the three items listed. The FAA has reviewed these proposals among the many other ideas submitted to the FAA during the investigation. The FAA's initial evaluation of these three proposals showed that none of these proposals would produce a significant improvement in the safety of the center fuel tanks on Boeing Model 747 airplanes.

Since the tragic TWA 800 accident, the FAA has reviewed the safety of fuel tanks on the Boeing Model 747 and has taken steps to review the safety of fuel tanks on all large transport category airplanes. The FAA has issued a number of fuel tank safety airworthiness directives and notices proposing additional airworthiness directives for fuel tank safety. Most recently are the telegraphic airworthiness directives issued to inspect the fuel pump power wires inside conduits in the fuel tanks of Boeing Model 737 airplanes.

Additional fuel tank safety actions taken by the FAA are:

—The formation of the ARAC working group to evaluate methods to eliminate or significantly reduce the explosive vapor in fuel tanks;

—FAA is preparing a Notice of Proposed Rulemaking (NPRM) that will propose a Special Federal Aviation Regulation (SFAR) applicable to the large transport airplane fleet, which will:

1. Require each type certificate holder to develop a fuel tank maintenance and inspection program;
2. Require each operator to have an FAA-approved fuel system maintenance program;
3. Require review of the original certification compliance findings to 14 Code of Federal Regulations (CFR), part 25.903 and 25.981, to revalidate that failures within the fuel system will not result in ignition sources; and

—The FAA is preparing a proposal to change Title 14 of the Code of Federal Regulations, part 25, to more clearly define the design requirements to eliminate ignition sources from fuel tanks on transport category airplanes. A corresponding advisory circular is being prepared by this team to provide guidance to manufacturers when performing fuel system design review required by the SFAR.

Question. When does the FAA expect a final report from the JP–5 fuel commission? What does the FAA expect the applicability will be to commercial flight?

Answer. The concept of using increased flash point fuels is one of many options being considered to achieve this goal. ARAC was given six months (due July 23, 1998) to provide the report to the FAA.

The applicability of mandating use of higher flash point fuels, such as JP–5, has not been determined at this time. The ARAC group has extensive representation from the petroleum industry. Surveys have been conducted of U.S. and European refineries to determine the impact of phasing in use of higher flash point fuels. Initial results indicate that increasing the flash point of jet fuel will impact cost of production and may limit availability of fuel. The degree of impact will be better defined as the survey results are finalized.

Question. Does the FAA have a definition of the "useful life" of an aircraft? How and when does the FAA determine—from a structural and secondary systems standpoint—that a plane has reached the end of its useful life and should be retired?

Answer. The FAA does not have a definition of "useful life". The FAA contends that if properly maintained, aircraft can be operated indefinitely. The FAA's continued airworthiness program monitors airplane's structural and secondary systems as they age and mandates corrective action as necessary. As the airplane ages it is subject to a greater degree of mandatory maintenance requirements, and therefore the "useful life" becomes an economic decision made by the operator.

SAFETY INSPECTOR REPORTS

Question. A GAO report of March 30, 1998, reveals that 96 percent of FAA inspections are not officially reported or recorded. Also, according to the report, 95 percent

of problems officially recorded are self-reported by the airlines. We are also told that the FAA is contemplating issuing a NPRM on Flight Operations Quality Assurance (FOQA), which would protect the airlines from punitive enforcement action by the FAA for certain voluntarily-submitted safety information. In a companion notice of proposed rulemaking (NPRM) presently being considered, the FAA would extend protection of certain voluntarily-submitted safety information from public disclosure.

Since, according to this GAO report, most FAA inspections do not result in any official report and carriers are allowed to self-inspect and self-report, if even this information is kept from the public by law, how will the public have any meaningful measure of airline safety?

Answer. The GAO found that inspectors record all inspections activities conducted. The GAO stated however, that in 96 percent of inspections, inspectors did not report regulatory violations. A GAO survey of inspectors found that many inspections involve on the spot corrections to minor discrepancies noted while the safety inspector is conducting a surveillance activity. Usually, these items are not violations of applicable federal regulations, but may raise questions of safe operating procedures. On-the-spot corrections are made in order to avoid or deter more serious incidents or accidents. However, as reported in the GAO survey, when safety inspectors note any substantial disregard for the regulations or safety, a formal enforcement investigative report is completed and processed.

In Public Law 104–264, Congress determined that it is in the public interest to protect safety information provided voluntarily by an operator to the FAA. The rulemakings for FOQA and voluntarily submitted safety information are consistent with the statutory mandate.

Question. A March 1998, OIG report advised the FAA traded violations for free FAA training. Who in the FAA approved this practice?

Answer. No one in the FAA approved a practice of trading violations for free FAA training. The Memorandum of Understanding (MOU's) describing a voluntary arrangement between air carrier certificate holders and the FAA once contained language viewed by some parties as unclear. In January 1997, the FAA issued a bulletin to its inspectors' Handbook including a revised sample MOU. That revised sample MOU removed the questionable language and contained explicit direction to inspectors that normal enforcement procedures "should not be altered or diminished in any way by the MOU." Further, existing MOU's were to be reissued using the revised format; new MOU's were to conform to the revised format.

When OIG issued its final report on December 9, 1997, the MOU's were already corrected in accordance with the OIG's one recommendation.

Question. It has been reported in the media that in 1989 and in 1990 the FAA adopted a practice of allowing carriers to self-report violations with assurances of no punitive action. It is reported that this practice came about after FAA inspectors in Alaska tightened enforcement on carriers, and the carriers complained to a U.S. Senator, a practice which according to the GAO report released on March 30, 1998, is widespread and has resulted in as many as 66 percent of inspectors giving up on even attempting enforcement action. Does the FAA maintain a record of congressional contacts on behalf of any airlines, from 1992–1998? (We are aware of the FAA-required reports of congressional contacts with FAA personnel, so at a minimum, please produce those reports.)

Answer. The GAO report reflects that 61 percent of inspectors say complaints to Congress are not a reason why they would pursue enforcement action. The FAA does not routinely maintain records that would indicate congressional contact on behalf of an air carrier.

AVIATION SAFETY

Question. Instead of the FAA taking an adversarial posture versus the NTSB safety recommendations, would it not be in the general interest to establish an interagency review and resolution group with executive and enforcement power, which would timely address life-threatening aviation safety problems?

Answer. The FAA has an exceptionally responsive record of addressing the issues raised by NTSB safety recommendations. Since 1967, the "closed acceptable" rate for recommendations issued to the FAA exceeds 84 percent, and the "closed acceptable" rate for urgent recommendations is 89 percent. Additionally, we meet regularly with Chairman Hall and other NTSB staff to discuss NTSB safety recommendations and other issues.

The inter-agency review and resolution group is similar in nature to Congressman Wolf's proposal for a safety task force. As the FAA responded to Congressman Wolf, we believe an ongoing group composed of NTSB, GAO, and others could be of assistance by developing an index of safety items. It is a good tool to monitor the progress

of the FAA in accomplishing safety goals, performance measures, and problem resolution. However, we do not agree that this group should have executive or enforcement power for aviation issues or the other transportation issues that are addressed by NTSB safety recommendations. This authority properly resides with the various Department of Transportation modal administrations.

Question. At present, in what specific ways do all government agencies involved in aviation safety, whether civilian or military, work together and exchange safety information?

Answer. At present there is no formal coordination between aviation safety professionals employed by the U.S. Government. Each year there are a number of government and industry meetings and conferences that are attended by representatives from various government offices during which aviation safety is discussed, but there are no specific meetings on aviation safety held where all or most government agencies are represented. Occasionally there is a specific aviation safety issue, for example wake turbulence, which is addressed by multiple government organizations.

There is more being done to share safety information. All Government agencies involved with civil aviation safety have databases, which can be accessed over the Internet by other government agencies. All military agencies can also access this safety information, although civil aviation offices generally cannot access the military databases dealing with aviation safety. There also are a number of government quarterly or yearly publications that address aviation safety statistics and the causes and prevention of accidents and incidents.

In May 1996, the FAA announced a new and innovative approach to reach the FAA Administrator's goal of "zero accidents," known as the Global Analysis and Information Network (GAIN). GAIN would be a privately owned and operated international information infrastructure for the collection, analysis, and dissemination of aviation safety information. It would involve the use of a broad variety of worldwide aviation data sources, coupled with comprehensive analytical techniques, to facilitate the identification of existing and emerging aviation safety problems. To date, two World GAIN Conferences have been held (Cambridge, Massachusetts, in October 1996 and London, England in May 1997) and a third conference will be held in Los Angeles, California, in 1998. Many U.S. government aviation safety offices have been represented at these conferences. Through the development and implementation of GAIN, it is expected that more formal collaboration between government agencies in the area of aviation safety will result.

Question. Is there a suspense system within the FAA that requires follow-up and timely responses and actions concerning safety violations?

Answer. FAA Order 2150.3A provides clear guidance on the enforcement process. When safety issues are discovered, the inspector notifies the certificate holder so that corrective action can be initiated. The inspector then determines if a violation of Federal Aviation Regulations has occurred. If a violation is determined, an enforcement action is initiated which may result in certificate action or civil penalty.

The enforcement process is tracked in the Enforcement Investigation System, an automated tracking system. The enforcement remains open until two actions occur: (1) the unsafe condition is corrected to FAA's satisfactory; and (2) the enforcement action is closed through the legal process.

CONTRACTOR SUPPORT

Question. In testimony at the NTSB Miami hearings in November 1996, it was reported that SabreTech employed three teams to renovate three MD–80's for ValuJet. The SabreTech teams worked seven days a week, 24 hours a day, but the ValuJet supervisory team worked only five days a week, eight hours a day. The SabreTech workers were unsupervised two-thirds of the time. This appears to have been in direct violation of FAA regulations. What changes have been implemented since the ValuJet crash to insure that an outside contractor performing maintenance and security functions for an airline is properly supervised by both the airline and the FAA? Please provide extensive documentation of any such changes.

Answer. Beginning July 26, 1996, inspectors are required to provide surveillance of air carrier major maintenance contracts as well as contract training programs.

Additionally a change was made to air carrier Operations Specifications, which requires operators to list those contractors that provide substantial maintenance to an air carrier.

Principal Inspectors are encouraged to maintain strict audits of air carrier contractors and vendors and to adhere to strict oversight procedures to ensure the regulatory compliance of the air carrier to its contract maintenance and training support.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

FAA REPROGRAMMING REQUEST FOR REPLACEMENT OF COMPUTER SYSTEMS

Question. The White House Commission on Aviation Safety and Security report, presented last year, offers almost 30 recommendations that together represent an ambitious plan for ensuring safety, security, and modernization. How can we move forward on these recommendations when we must divert scarce funds to replace or fix equipment that is hopelessly antiquated?

Answer. Because the Host and oceanic computer systems are primary en route air traffic control components, the Federal Aviation Administration believes that supportability and potential Year 2000 computer problems make it imperative that we begin replacement in fiscal year 1998. The identification of offsets for the $75.3 million Host reprogramming was a difficult process but we protected key components of the modernization program throughout the process. Overall, we believe our proposed list of offsets represents the least disruptive impact to the National Airspace System.

Our fiscal year 1999 budget request allows us to make significant progress towards meeting the White House Commission recommendations. For example, the Facilities and Equipment budget request allows for an achievable ramp-up of increased investment in critical modernization programs: Host replacement, Display System Replacement (DSR), STARS, datalink, and additional Air Traffic Control (ATC) functionality tools such as conflict probe and traffic metering. In addition, we have requested $100 million to continue the acquisition and deployment of advanced security equipment to the Nation's airports. The request for Research Engineering and Development includes a significant increase to support Flight 2000, a major demonstration of free flight technology.

YEAR 2000 (Y2K) PROBLEM

Question. The FAA has requested a reprogramming that includes $37.7 million for the rest of fiscal year 1998 for addressing the troublesome Year 2000 problem (Y2K). The supplemental appropriations bill marked up earlier this week by the Appropriations Committee includes $156 million for the Year 2000 problem. This amount reflects the FAA's two year needs for Y2K. However, I am concerned that the Congress will delay passage of this supplemental bill and the FAA will run out of money for Y2K. When will the FAA have exhausted all the existing authority for Y2K?

Answer. As of today, the FAA will have committed all of the appropriated fiscal year 1998 Y2K funding.

Question. The FAA has requested a reprogramming that includes $37.7 million for the rest of fiscal year 1998 for addressing the troublesome Year 2000 problem (Y2K). The supplemental appropriations bill marked up earlier this week by the Appropriations Committee includes $156 million for the Year 2000 problem. This amount reflects the FAA's two year needs for Y2K. However, I am concerned that the Congress will delay passage of this supplemental bill and the FAA will run out of money for Y2K. What will happen if you do not receive the extra funds by then for Y2K?

Answer. Without the reprogrammed funds, our ability to complete Y2K work on time will be seriously jeopardized. The FAA will continue to address Y2K activities, but we will be absorbing costs within programs where possible, and may well have to defer or eliminate additional activities to obtain sufficient funds to continue Y2K work.

Question. The FAA has requested a reprogramming that includes $37.7 million for the rest of fiscal year 1998 for addressing the troublesome Year 2000 problem (Y2K). The supplemental appropriations bill marked up earlier this week by the Appropriations Committee includes $156 million for the Year 2000 problem. This amount reflects the FAA's two year needs for Y2K. However, I am concerned that the Congress will delay passage of this supplemental bill and the FAA will run out of money for Y2K. In order to ensure that the Y2K project is not delayed, would you recommend that we approve the reprogramming request as soon as possible, but direct the FAA to reconcile the funds if and when the supplemental appropriations bill including additional Y2K funding passes?

Answer. We strongly recommend that the reprogramming request be approved as soon as possible. Should the supplemental appropriations bill be passed, we will work with Congress to reconcile any differences.

FAA CONTROLLER PAY

Question. The FAA is currently negotiating with the National Air Traffic Controllers Association regarding controller pay and compensation, among other issues. However, the FAA has not requested any funding for controller pay increases in the 1999 budget request. Should we expect a request for a supplemental appropriation at the conclusion of negotiations, or will you absorb any increases in your enacted budget?

Answer. The 1999 Budget assumes an across-the-board 3.1 percent pay increase effective January 1, 1999. If any cost increases beyond this budgeted amount result from the contract activities with the National Air Traffic Controllers Association contract, we will pursue funding them through cost savings offsets. It is the agency's intention that the new contract will be budget neutral.

NEW YORK TERMINAL AIRSPACE REDESIGN

Question. The last major airspace redesign in the New York Terminal Area took effect in 1987 and 1988. Since then, traffic has grown and traffic flows have changed. As a result, the airspace desperately needs to be revamped. We must address the problems that have arisen at New York Terminal area airports—Newark, JFK, and LaGuardia—which continue to be among the worst airports in the country for delays.

What do you plan to do in fiscal year 1999 to improve the capacity of the airspace in the New York Terminal Area?

Answer. The Federal Aviation Administration has met with a number of groups, including the Port Authority of New York and New Jersey, to scope the effort necessary to improve the New York Terminal Area. We see the need for an Eastern Triangle Airspace Redesign effort, which necessarily requires close coordination with the New York Terminal Airspace study being planned by the Port Authority. We have planned an initial kickoff meeting for a redesign effort, to include customers and stakeholders in the New York area, for May. The effort will involve FAA and industry members in joint identification of problems and solutions.

Question. What new equipment are you committed to installing at Newark to increase the airport arrival rate in both good and bad weather conditions and when is this equipment expected to be installed?

Answer. The most immediate improvement is the new Airport Surveillance Radar Model 9 (ASR–9) radar which was commissioned on April 16. This new radar provides improved radar surveillance data to New York Terminal Radar Approach Control (TRACON) for input into the Converging Runway Display Aid/Controller Automated Spacing Aid (CRDA/CASA) software which will enable the Newark controllers to simultaneously utilize the Runways 22 and Runway 11 for arrivals. CRDA/CASA and the accompanying runway 11 final vector position at New York TRACON are scheduled to be implemented on June 26.

The Airport Surface Detection Equipment III is expected to be installed in November 1998. This will provide improved capability to move aircraft safely and efficiently on the airport surface.

Although at a different airport, the new instrument landing system (ILS) for Runway 19 at Teterboro is scheduled for commissioning in mid-September of this year. This system removes a major conflict point for traffic arriving on the Runways 22 at Newark.

We are working in partnership with the Port Authority of New York and New Jersey to implement the Integrated Terminal Weather System (ITWS) at Newark and all of the New York metropolitan air traffic control (ATC) facilities. This system will enable us to do much more accurate strategic planning of arrival and departure traffic based on weather trends and conditions.

As a sub-task to the National Airspace Redesign, the Eastern Region Air Traffic Division is planning to facilitate a workgroup of Newark users and ATC staff to look at short-term and long-term solutions for optimizing arrival rates at Newark. The Eastern Region Air Traffic Division is finalizing plans to install an instrument landing system on Runway 22R for those times when a redundant system is needed or when parallel approaches to Runways 22R and 22L can be utilized. The long-range plan is to utilize offset localizers for Runways 4L and 22R for simultaneous approaches in visual conditions. We are currently reviewing a proposal from the Port Authority of New York and New Jersey on this subject.

Question. What is the status of the new air traffic control tower construction at Newark?

Answer. Our current schedule for the Newark Tower is listed below. Design engineering is on schedule and should be completed this fall.

Design Engineering—11/97 to 10/98.

Construction Contract Procurement—10/98 to 3/99.
Plant Construction—3/99 to 4/01.
FAA Installation—4/01 to 3/02.
Commissioning—3/02.

Question. Are there any side projects which should be undertaken in conjunction with the new tower construction? Are they fully funded?

Answer. The Federal Aviation Administration will commission a new Airport Surveillance Radar Model 9 (ASR–9) radar at Newark, New Jersey, in April 1998. After commissioning, the radar coverage of western New Jersey will be evaluated.

If there is insufficient radar coverage in western New Jersey, an additional radar sensor will be requested. This additional radar sensor has not been funded.

AIR TRAFFIC CONTROL DELAYS AND RISKS DURING SEVERE WEATHER IN THE NEW JERSEY/NEW YORK AREA

Question. Airports in the New York/New Jersey area suffer from an incredible number of air traffic delays, especially when operating under severe weather conditions during the summer. Under those conditions, delays have increased by as much as 50 percent. We need more updated equipment in New Jersey and New York. In fact, just last month at Newark, a near-miss occurred on the runway that could have been prevented had the FAA been on schedule for installing upgraded Airport Surface Detection Equipment III. This upgraded equipment was supposed to be in place by November 1996. In addition, installation of individual Terminal Doppler Weather Radar units for JFK and LaGuardia is long overdue. Finally, the problem of outdated equipment is aggravated by the fact that the New York Center chronically suffers from staff shortages.

What are you doing to address these problems, reduce delays, and improve safety during severe weather in the New Jersey/New York area?

Answer. The Airport Surface Detection Equipment III is scheduled to be operational at Newark in November 1998. The Terminal Doppler Weather Radar (TDWR) which will serve LaGuardia and Kennedy airports has been delayed due to community and congressional concerns and, as a result, has no scheduled installation date. The TDWR for Newark is operational and working well.

The identification and installation of appropriate weather reporting equipment has been the number one priority towards the reduction of delays and improving safety during severe weather events. The Integrated Terminal Weather System will be installed by Lincoln Labs/Massachusetts Institute of Technology and operational by August 1998. This system will be installed in all New York area facilities.

We anticipate that the implementation of the Departure Spacing Program (DSP) in the New York area facilities will enhance communications between facilities during severe weather conditions and, as a result, will contribute to improved efficiency and delay reduction. May 14 is the target date for implementing this important communication tool in the New York area facilities.

Additionally the Weather Services Inc. Weather Display system is operational in the New York Terminal Radar Approach Control (TRACON), as well as the weather and radar processor weather system in New York Center.

Staffing at all of the New York area facilities is currently stabilized at a level much higher than last year. This increased staffing level includes controllers, operational supervisors, and traffic management coordinators. The traffic management coordinators have the responsibility for strategic planning of arrival and departure traffic flows, and are especially valuable during severe weather conditions.

Staffing at the New York Center has been substantially increased and our preliminary figures indicate that we have 350 air traffic control specialist onboard as of March 31. This is 11 above the fiscal year 1998 year end goal of 339 as provided in the National Air Traffic Controller Association/FAA memorandum of understanding.

Question. In light of air traffic controller summer work and training requirements, are staffing levels and overtime funds adequate to ensure air traffic control system efficiency during the peak summer travel months?

Answer. We met or exceeded our fiscal year 1997 staffing requirements for the New York Center, New York Terminal Radar Approach Control (TRACON), Kennedy Tower, LaGuardia Tower, and Newark Tower. Our staffing plan for fiscal year 1998 projects that staffing goals will again be met or exceeded. Through assertive management of resources in the first quarter of fiscal year 1998, the Eastern Region Air Traffic Division was able to show a 14 percent reduction in overtime usage over the first quarter fiscal year 1997. This resulted in a savings of $173,619. This first quarter reduction translates to more funding for the busy summer travel season.

Therefore, we do not anticipate any problems during the peak summer travel months.

ITWS INSTALLATION

Question. When will the FAA's Integrated Terminal Weather System be installed in the New Jersey/New York area?

Answer. The FAA and New York and New Jersey Port Authority Memorandum of Agreement was finalized in March 1998. The Integrated Terminal Weather System (ITWS) prototype installation will be performed in two phases. Phase 1 will be completed by the end of April 1998 and will involve the installation and testing of radar interfaces, the computer networks, and the cabling necessary to create the infrastructure for the ITWS functional prototype. Phase 2 will involve the installation of the ITWS prototype situation displays and will be operational in August 1998.

The production ITWS is scheduled for delivery to the New Jersey/New York area by January 2001, and will become operational six months after installation.

Question. When will the New York Center "Departure Pit" be fully automated, including a two-way interface with the center host computer, which will enable the FAA to rapidly update multiple aircraft future plans?

Answer. The Departure Spacing Program (DSP) is scheduled to be operational on May 14. The contractor has advised that six months after installation of the initial DSP system, the capability for two-way interface with the center host computer will be available. The requirements for the "Pit" automation will continue to evolve toward our end goal of full automation.

DOPPLER WEATHER RADAR

Question. When will the Terminal Doppler Weather Radar be installed for JFK and LaGuardia?

Answer. The FAA is currently conducting the environmental impact statement (EIS) process for installation of the Terminal Doppler Weather Radar to serve John F. Kennedy International and LaGuardia airports. The EIS process will be completed by issuing a final EIS and a record of decision in fall 1998. The FAA anticipates commencing construction in winter 1998 and the commissioning in summer 1999.

It is important to note that if any site other than the current preferred site is selected, additional public hearings would be required.

NEW YORK/NEW JERSEY TERMINAL DOPPLER WEATHER RADAR

Question. Will there be only one system allocated for both JFK and LaGuardia?

Answer. Following congressional direction, there is only one Terminal Doppler Weather Radar system allocated to serve both John F. Kennedy International and LaGuardia Airports.

MODERNIZING THE NATION'S AIRPORTS

The FAA has developed a plan for modernizing the Nation's airports by deploying new technologies designed to increase airspace and airport capacity and to reduce air traffic control delays. This plan should target deployment of these technologies in airports and areas with the greatest number of delays.

Question. How does the schedule for deploying some of these new technologies in the New Jersey/New York area compare to the schedule for other areas of the country which suffer from fewer delays?

Answer. A draft plan is being developed by the FAA which considers the early implementation of Passive Final Approach Spacing Tool for airports in the New Jersey/New York area. This plan includes John F. Kennedy International, Newark, LaGuardia, and Philadelphia. Additionally, Surface Movement Advisor is being planned for a number of airports in the area which includes Newark, Philadelphia, and Teterboro. The Air Traffic Control Centers for Phase 1 of the Free Flight program were chosen based on the requests of aviation industry representatives who targeted areas that were best for early deployment to reduce risk and speed the process for national deployment. The area delay frequency factor was left to the industry site selectors. This limited deployment is heavily dependent upon the cooperation of the airlines and is necessary to capture and improve on the benefits of Free Flight. Other factors were also considered which included airspace location and design, current prototype deployment and facilability.

DOPPLER WEATHER

Question. What impediments are there to bringing these technologies to New Jersey and New York and what steps are being taken to overcome them?

Answer. There are no impediments to bringing these technologies, passive final approach spacing tool (pFAST) to New Jersey and New York. They will be implemented after the Free Flight Phase 1 core capability limited deployment is complete and benefits are demonstrated.

NEW TECHNOLOGIES FOR THE NEW YORK/NEW JERSEY AREA

Question. What new technologies designed to increase capacity and reduce air traffic control delays associated with Free Flight Phase 1 and the proposed NAS Architecture are programmed to be deployed in the New York/New Jersey area and when?

Answer. Before the new technology can be deployed, a basic infrastructure must be in place. This infrastructure include the Display System Replacement and the HOST replacement in the New York/New Jersey en route areas by the year 2000. This infrastructure is necessary to implement the new technologies, which include the limited Free Flight Phase 1 core capabilities, necessary to increase capacity for the expected traffic growth without incurring safety degradation or increased delays.

A draft plan for implementing these Free Flight Phase 1 core capabilities are being considered for the New York/New Jersey area starting with a limited version of the Surface Movement Advisor in Philadelphia in 1998 and an improved version at Newark and Teterboro in 2001.

NEW YORK TRACON TRAFFIC MANAGEMENT ADVISOR SOFTWARE

Question. How long will it take to modify the Traffic Management Advisor software to operate in a multi-center environment like the automation environment at the New York TRACON?

Answer. Traffic Management Advisor (TMA) software development for the New York area would require: (1) an effort to identify the specific, detailed automation requirements for the region, and (2) a subsequent effort to develop and validate algorithms which meet these requirements. TMA multi-center development is presently a joint FAA/NASA activity, with the necessary research being accomplished under the NASA Advanced Air Traffic Technology (AATT) program. The present NASA AATT program approach calls for a level of effort applied to New York area requirements definition from 1998 through 2000, with development of prototype software planned to begin in 2001. Prototype software development would require an additional 18 months. This would result in a prototype capability in the New York area during late 2002 or early 2003.

DEPLOYMENT OF NEW TECHNOLOGIES IN THE NEW JERSEY/NEW YORK AREA

Question. What would it cost and how long would it take to transfer adjacent en route airspace responsibility to New York Center so that all Free Flight Phase I core technologies could be deployed in the New York area?

Answer. Free Flight Phase I (FFPI) Core technologies are primarily single airport/terminal area specific. The current state of the technology development places constraints on site selection for implementation. A major Eastern Triangle Airspace Redesign goal, in support of FFPI, is to define a more efficient airspace architecture between multiple terminals and en route center airspace as a prelude to future Free Flight technology requirements. Analysis may justify moving airspace boundaries but modeling and analysis for best efficiency will drive recommended boundary changes. Cost, schedule, and risk will have to be an integral part of airspace redesign program management and each will be determined by the principles of redesign analysis.

QUESTIONS SUBMITTED BY SENATOR MIKULSKI

TOWER REPLACEMENT AT MARTIN STATE AIRPORT

Question. Last year, the Appropriations Committee directed the FAA to begin replacement of the control tower at Martin State Airport located in Baltimore County, Maryland. However, no action has been taken to begin replacement of a new tower. What is the status of the control tower replacement at Martin State Airport and when will Construction begin?

Answer. Senate report 105–55 directed the FAA to use fiscal year 1998 funds to replace Martin State tower and added $3.0 million. However, congressional con-

ferees subsequently eliminated the $3.0 million earmark for Martin State Airport. No action has been initiated to begin replacement of the Martin State tower, as Martin State does not meet the benefit/cost criteria for replacement.

TALL TOWER EXEMPTION

Question. As you know, the Federal Communications Commission is proposing a rule that would pre-empt state laws and local zoning and land use restrictions on the siting and construction of broadcast station transmission facilities, or so-called "tall towers."

The Wisconsin Department of Transportation, airport managers and local government groups have raised red flags, claiming that pre-empting local zoning protections could jeopardize the safe and efficient operation of airports.

I understand the FAA has expressed concerns about pre-empting existing placement restrictions. What are those concerns, and what solutions might you suggest to balance our pursuit of an improved communications network with public safety and the need to maintain an appropriate level of local input?

Answer. The FAA is concerned that the Federal Communications Commission's (FCC's) proposed rule might result in the construction of structures that would adversely affect both the safety and the efficiency of our air transportation system.

Congress has charged the FAA with the duty to provide a safe and efficient air transportation system. This mandate requires the Federal Aviation Administrator to develop plans and policy for the use of navigable airspace and assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and efficient use of airspace.

Part 77 of the Federal Aviation Regulations addresses the construction of objects that may affect the navigable airspace and sets forth the standards for determining obstructions to navigable airspace. These standards form the basis for the FAA to issue advisory determinations as to whether a proposed structure would result in a hazard to navigable airspace. Part 77 also contains notice requirements for certain proposed construction or alterations of structures. Failure to submit notice to the FAA can result in a civil penalty. However, since the FAA's determination is advisory in nature, a disregard of the determination by a proponent is not a basis for action by the FAA. The hazardous structure can therefore be legally built. Historically, state and local governments often enact laws and ordinances that prohibit the construction of structures that have been determined by the FAA to constitute a hazard to air navigation.

Without the involvement of these governments, hazardous structures might have been built with a resulting serious degradation of air safety and efficiency. State and local governments have proved to be valuable partners in the quest for a safe aviation environment. Under the FCC's proposed rule, state and local governments may be deprived of sufficient time to address a proponent's request for construction authority. The terms of the proposed rule would allow the FCC to pre-empt the state or local government that could potentially result in the construction of structures that adversely affects both the safety and efficiency of our air transportation system.

The FAA has commented on the FCC's proposal and requested an amendment to the proposed rule. The proposed amendment would require that the FCC grant state and local laws, ordinances or regulations a presumption of validity as having been passed in deference to FAA concerns. Additionally, the FAA requested that the FCC not adopt any time limitations for the decisions by state and local governments in areas that are subject to the FAA's safety jurisdiction. Most importantly, the FAA requested that the FCC continue its practice of giving continued deference to the FAA's Part 77 regulations and determinations.

The FAA believes that the adoption of these requests will allow the FCC to carry out its congressional mandate of providing for the rapid implementation of digital television while concurrently fostering continued aviation safety.

U.S. COAST GUARD

QUESTIONS SUBMITTED BY SENATOR SHELBY

DEEPWATER CAPABILITY REPLACEMENT ANALYSIS FISCAL YEAR 1999 FUNDING

Question. There is $28 million in the Acquisition, Construction, and Improvements (AC&I) budget for the Deepwater project. Last year, we appropriated more than was requested for the AC&I budget in an effort to reduce the demands on that account

as the Deepwater project elements became bigger factors in the AC&I account. What will be done with that $28 million in fiscal year 1999?

Answer. The Deepwater fiscal year 1999 funding is to continue industry studies begun in fiscal year 1998 to develop Integrated Deepwater System Concepts. Funding for the Project is as follows:

Industry Contract Options (3 @ $6,000,000)	$18,000,000
Independent Analysis Government Contract (1 @ $4,000,000)	4,000,000
Trade-off Analyses, Technology Assessments, Modeling and Simulation, RFP Preparation, Contract Quality Assurance, Independent Validation and Verification (IV&V), Additional Studies	4,500,000
Project Administration	1,500,000
Total	28,000,000

DEEPWATER CAPABILITY REPLACEMENT ANALYSIS FUNDING

Question. How much more could you spend on Deepwater in 1999 if the Committee were able to identify additional resources?

Answer. The $28 million requested is adequate to begin the Deepwater Capability Replacement Analysis. The Coast Guard is not seeking additional funding in fiscal year 1999.

STATION MOBILE REPLACEMENT

Question. There is a small Coast Guard station in Mobile, Alabama. I understand that there was an anticipated relocation and construction of new facilities for that station on some Coast Guard-owned property at Dauphin Island for a search and rescue detachment. Resources for that relocation and construction are not in the President's budget request. I further understand that one of the benefits of combining facilities at Dauphin Island is a reduction in operating and maintenance costs. Is my understanding of this issue accurate? Was that money in your request to the Office of the Secretary (OST) and in the Department's request to the Office of Management and Budget (OMB)?

Answer. Operating and maintenance costs will be reduced because the Coast Guard will operate a single Station on Dauphin Island, instead of operating a Station in Mobile and a separate detachment on Dauphin Island during the summer boating season.

Funding for this project was not included in the Coast Guard's fiscal year 1999 requests to OST and OMB.

DEEPWATER PROGRAM

Question. The Coast Guard received $5 million for the Deepwater program in fiscal year 1998, and this year's budget request includes $28 million for this program. While I support Coast Guard efforts to modernize its fleet, I am concerned that the program is not well defined. We do not know the total expected cost. We do not know what the ultimate mix of cutters and aircraft will be. We do not know the period of time over which the modernization will occur. What will $28 million dollars requested "buy" for the Coast Guard in fiscal year 1999?

Answer. The Deepwater fiscal year 1999 funding is to continue industry studies begun in fiscal year 1998 to develop Integrated Deepwater System Concepts. Funding for the project is as follows:

Industry Contract Options (3 @ $6,000,000)	$18,000,000
Independent Analysis Government Contract (1 @ $4,000,000)	4,000,000
Trade-off Analyses, Technology Assessments, Modeling and Simulation, RFP Preparation, Contract Quality Assurance, Independent Validation and Verification (IV&V), Additional Studies	4,500,000
Project Administration	1,500,000
Total	28,000,000

DEEPWATER CAPABILITY REPLACEMENT ANALYSIS FUTURE FUNDING

Question. What funding needs do you anticipate for this program in future years?

Answer. The estimated project future funding needs will be determined at the completion of the analysis phase. The Coast Guard has provided industry a notional cost and time period as an initial upper bound to develop and deliver an Integrated Deepwater System. This cost/schedule will be used for initial budget planning and to assist in evaluating industry proposals.

CONTAINER INSPECTION PROGRAM

Question. What assurances can you provide that your proposed cuts will not result in increased risk to our ports and waterways from improperly, or illegally, transported hazardous materials.

Answer. The proposed Container Inspection Program (CIP) reductions streamline Headquarters and training overhead and realign some dedicated field inspectors to focus on the areas of highest risk. While some field inspector billets were scaled back, the refocused program will still allow the Coast Guard to provide for public safety and environmental protection.

The CIP, which began in 1994, has matured sufficiently to shift from central headquarters management to field-level compliance activity, with operational tempo based on risk assessments. Dedicated field resources will be realigned to focus on the ports with the highest container throughput and on those hazardous material containers posing the greatest transportation risk. The Coast Guard will still maintain a Container Inspection Training and Assist Team to train field inspectors.

The Coast Guard recently published guidance for ensuring compliance with Cargo Securing Manual standards. A new guide for blocking and bracing packaged hazardous materials is being jointly developed with the Institute of Packaging Professionals. The Coast Guard plans to publish new field guidance for developing a risk-based maritime hazardous material container selection strategy.

USER FEE JUSTIFICATION

Question. The Coast Guard budget includes the expected collection of aids-to-navigation and icebreaking user fees on commercial cargo carriers in fiscal year 1999. The collection amount is projected to increase to $165 million each year when fully implemented.

$165 million annually in new user fees is a significant amount of money to extract from any one industry. First, at a time when our books are balanced and we are running a budget surplus, what is the justification behind these fees? Second, has the Coast Guard or the Administration examined or performed an assessment of the impact of these user fees on American exporters, especially bulk exporters, where just fractions of a cost increase can have a negative impact? If yes, what were the conclusions of that examination?

Answer. Commercial vessel operators benefit greatly from Coast Guard navigational services, which include buoy tending, vessel traffic management, and radionavigation, but pay almost nothing for them. Likewise, Coast Guard domestic icebreaking saves industry tens of millions of dollars annually in stockpiling costs by allowing them to ship commodities virtually year round.

The user pays principle is applied throughout the transportation world: to finance highways, air traffic control and airport improvements, and even Army Corps of Engineers dredging and lock operations. User fees may be a critical means in the future for ensuring that the Coast Guard has adequate resources to meet its operating and capital needs without significantly reducing other transportation programs.

Many other countries, including Canada, charge user fees for Coast Guard services.

The Coast Guard has not performed an economic impact assessment; however, such an analysis would be performed as part of the regulatory evaluation process.

GREAT LAKES ICEBREAKER STUDY

Question. In fiscal year 1998, Congress appropriated $2 million for the Coast Guard Cutter *Mackinaw* replacement study. What is the status of this study and the Coast Guard's current time frame for a new icebreaker for the Great Lakes?

Answer. The required interim status report on concept exploration was transmitted on June 25, 1988. The Administration has not requested continued funding for this project.

MACKINAW REPLACEMENT

Question. I have noted that there are no funds in the President's fiscal year 1999 request for the *Mackinaw* replacement effort. What are the consequences of not continuing the funding stream for this important Great Lakes priority in the approaching fiscal year? Would the replacement effort move more expeditiously if Congress chose to appropriate funds for the project? Would the project be advanced by one year, two years, if funding was provided, and if yes, what level of funding would be appropriate?

Answer. The Administration is currently reviewing alternatives. No decision to build has been made at this time.

IMPORTANCE OF DEEPWATER PROGRAM

Question. Just how important is the Deepwater Program to the country and the Coast Guard? Do you see any alternative to replacing the Coast Guard's deepwater assets in the early part of the next century? Lastly, I understand the Coast Guard already has substantially more work in the deepwater missions than it can handle with its current assets—is this accurate and how do you propose to deal with this level of demand? What would a delay in the Deepwater Project mean to the ability of the Coast Guard to perform its mission?

Answer. The Deepwater Program is extremely important to the country and the Coast Guard. The Coast Guard's maritime law enforcement, maritime safety, and marine environmental protection missions are all executed in the deepwater environment. The illegal drugs seized or deterred from entering our country, the lives and property saved at sea, and the preservation of U.S. fisheries stocks from illegal harvesting directly contribute to the Coast Guard's performance goals of providing the country a safe and secure maritime border. Additionally, in executing the Coast Guard's responsibilities under the President's National Security Strategy, partnerships are built with other nations' forces that will increase world stability.

The Coast Guard is exploring all alternatives. Under consideration are extension of operations of current assets, modernization of current assets, and investments in U.S. Navy retired ships, in addition to replacement of assets.

To execute the Coast Guard's responsibilities under the President's 10-year drug control strategy, more cutters and aircraft are needed. Additionally, as the world's fish stocks become more scarce, the Coast Guard will have to pay more attention to protecting the U.S. fish stocks in the central Pacific from foreign poaching. The Coast Guard's Office of National Drug Control Policy certified budget contains requests for more cutters and aircraft plus the support necessary to properly operate them. A major premise of the Deepwater Program is that a new, fully integrated systems approach would lead to ships, aircraft, sensors, and command and control links with different characteristics than today's cutters and aircraft that could accomplish the Coast Guard's missions more effectively and economically.

A delay in the Deepwater Project would result in continued increased costs for the Coast Guard in maintenance and personnel, with continued limited mission capabilities.

ANTICIPATED SAVINGS THROUGH FISCAL YEAR 2002

Question. Please indicate the anticipated annual savings through fiscal year 2002 that the Coast Guard has underway.

Answer. During the period 1994–1998, the Coast Guard saved the American taxpayer more than $400 million in gross programmatic reductions. Of this amount, nearly $78 million in net annual savings were attributable to the Coast Guard generated National Streamlining Plan, which included closing Governor's Island.

The President's fiscal year 1999 budget states "As part of a continuing effort to streamline the Coast Guard, the 1999 Budget assumes facility closures and other streamlining that will yield over $20 million in annual savings by 2001." The following fiscal year 1999 budget initiatives will contribute to this effort. Actual savings may vary due to several factors (i.e., lower than anticipated Acquisition, Construction, and Improvements Appropriation funding levels may delay project completion), but should exceed $20 million by 2001:

Fiscal year 1999 initiative	Net recurring operating expenses savings	Savings year
Termination of one time costs/annualization of prior-year efficiencies	−$8,000,000	1999
Optimize Coast Guard Training Infrastructure	−9,000,000	2002
Operational Adjustments	−7,000,000	1999
Reduce Seagoing and Coastal Buoy Tender Fleet Size from 37 to 30	−14,000,000	(1)
Finance Center Computer Savings	−900,000	1999
LORAN-C Consolidated Control	−1,500,000	1999
Fleet Logistics Savings	−1,500,000	1999
270-Foot Command and Control Savings	−500,000	1999
Restructure Aviation Workforce	−300,000	1999
HC–130 Engine Conversion Savings	−300,000	1999
Air Station Atlantic City Consolidation	−500,000	1999
Close Air Facility Long Island	−1,500,000	1999

Fiscal year 1999 initiative	Net recurring operating expenses savings	Savings year
Relocate Air Facility Glenview, IL	−300,000	1999
GSA Rent Reduction	−3,300,000	1999
Military Personnel Management Efficiencies	−6,000,000	2000
Federal Workforce Act Completion	−500,000	1999
Military to Civilian Conversion	−750,000	1999

[1] Pends AC&I funding levels.

ADDITIONAL COST CUTTING OPPORTUNITIES

Question. What additional cost-cutting opportunities (e.g., civilian/military mix, rotation policy, etc.) are available to the Coast Guard?

Answer. It is premature to discuss further Coast Guard cost-cutting options that may be included in the President's outyear budgets as they are pre-decisional and have not been fully evaluated, nor approved, by the Administration. The Coast Guard continuously strives to identify efficiencies that will keep it a model of good government and an outstanding investment for the American taxpayer. During the period 1994–1998, through various streamlining initiatives and management efficiencies, the Coast Guard saved the American taxpayer more than $400 million in gross reductions. The Coast Guard's fiscal year 1999 budget identifies initiatives that will yield more than $20 million in reductions by fiscal year 2001. Strategic investment in modern capital equipment and technology, such as the Deepwater Replacement Project, are critical to the Coast Guard's ability to continue to identify efficiencies, while delivering the services expected by the American people.

BASE CLOSURE AND REALIGNMENT COMMISSION FOR COAST GUARD

Question. Do you believe that it would be useful to establish a Base Closure and Realignment Commission to review potential closure of Coast Guard facilities?

Answer. The Coast Guard does not believe that it would be useful to establish a Base Closure and Realignment (BRAC) Commission to review potential closure of Coast Guard facilities at this time.

The Coast Guard is completing its largest streamlining effort in history. The impact of a BRAC process so soon after our own streamlining process may cause a negative effect on the men and women of our small service, including low morale and the administrative burden (increased workload) accompanying a BRAC process. The Coast Guard needs time to adjust to the larger changes of the past three years. The Coast Guard remains committed to a continual evaluation of divestitures and will continue to work at finding ways to reduce unnecessary shore facility inventory.

PROCEEDS FROM SALE OF SURPLUS PROPERTY

Question. The Coast Guard's fiscal year 1998 budget request for its Acquisition, Construction, and Improvements (AC&I) account included an expected $9 million from the sale of surplus Coast Guard properties. In developing its budget, the Coast Guard presented the Office of Management and Budget with a list of 29 properties that the Coast Guard expected to be surplus in fiscal years 1997, 1998, and 1999.

What properties were actually sold and how much did the Coast Guard raise?

Answer. To date in 1998, the Coast Guard received proceeds of $1,981,415 from the sale of four properties in Greenville, MS; Redmond, WA; Owensboro, KY; and Coinjock, NC. None of these properties were on the original list of 29 properties.

POTENTIAL TO USE SURPLUS PROPERTY SALES TO FUND AC&I

Question. What is the potential for selling more surplus property to help pay for the Coast Guard's AC&I needs?

Answer. The potential to use the sale of surplus property to help pay for the Coast Guard's Acquisition, Construction, and Improvements (AC&I) needs is limited. Whenever property is reported as excess to the General Services Administration, it must first be determined to be excess to the Coast Guard's needs. This does not necessarily mean that the property is available for sale or that the estimated value will be realized if and when a sale occurs. There are a number of factors that make it difficult to accurately predict the actual proceeds from future sale of assets. These include the speculative nature of the market value of government property, delays in the timing of the sale, the possibility of legislative transfer, historic or environmental restrictions on reuse, and no-cost transfer to another Federal agency or

homeless interest (which is Federally mandated). Most of these items relate to circumstances outside of the Coast Guard's control.

REPORT TO CONGRESS ON COAST GUARD'S HIGH VALUE PROPERTIES

Question. Please provide the list requested in the fiscal year 1998 Appropriations Act of Coast Guard high value properties.

Answer. The Coast Guard's report, as requested in Senate Report 105–55, is being reviewed within the Coast Guard. It will be forwarded for final Administration clearance and submitted to Congress by March 1998.

MILITARY/CIVILIAN MIX

Question. The Coast Guard's current policy is to maintain a work force mix which will maximize its ability to accomplish its missions in the most cost effective manner. The Coast Guard's staffing policy provides a framework for determining whether positions should be filled by military or civilian personnel. This framework presupposes all positions to be civilian unless established criteria indicate military classification is more appropriate. In fiscal year 1997, the Coast Guard had about 37,000 military personnel and about 6,000 civilian personnel. Some past studies have suggested that more Coast Guard personnel should be civilian. One advantage is cost. Overall, the Coast Guard has estimated that it costs 16.25 percent more to compensate a military member than a civilian member. A recent General Accounting Office (GAO) report estimated that the Department of Defense could save about $15,000 for every military position it reprogrammed to civilian.

The Coast Guard maintains that military personnel provide a more front-line, rapid response capability in the operational environment than do civilian personnel. They also point out that government-wide mandates currently require them to reduce, not increase, the civilian workforce. However, in 1994, the Coast Guard initiated a comprehensive review to determine what military positions agency-wide should be reprogrammed to civilian positions. The review was to be completed in 1997.

Has the study been completed?

Answer. Yes, the study has been completed. The initial study, "Report to Congress on Civilians in Personnel Management Structure," was submitted by the Coast Guard to the Congress on June 26, 1997. The review of military billets was completed in December 1997.

STUDY RESULTS

Question. If completed, what were the results of the study?

Answer. The study reviewed 35,000 military billets. Approximately 535 military billets were found to meet the definition of "non-military essential."

Due to civilian position classification and conversion concerns, a random sample of 53 non-military essential billets were classified using Office of Personnel Management guidelines and actual position descriptions. A majority of the billets would convert to civilian grades that classify higher than indicated by a 1994 General Accounting Office (GAO) report; and the resulting savings would be considerably less. On average, the savings were found to be about $3,000 per conversion.

Lastly, not every "non-military essential" conversion saves money, particularly at the junior enlisted and the junior officer paygrades. In some cases, conversion to a civilian position would actually cost the Coast Guard over $8,000 per year per position. Clearly, not every conversion is cost effective.

IMPLEMENTATION OF RECOMMENDATIONS

Question. What actions has the Coast Guard taken or planned as a result of the study?

Answer. To date, the Coast Guard has converted over 140 non-military essential billets into civilian positions, with a goal of 213 conversions during fiscal year 1999, as proposed in the fiscal year 1999 justifications. The Coast Guard remains committed to using personnel resources in the most efficient manner. The Coast Guard will continue to implement conversions that enhance mission support and make good business sense.

CONVERSION OF MILITARY BILLETS

Question. What are the anticipated dollar savings as the result of any actions taken or planned?

Answer. The Coast Guard will save $750,000 from converting military billets to civilian positions as shown in the fiscal year 1999 budget request at page OE–REQ–33.

ROTATION POLICIES

Question. The Coast Guard's current policy is to periodically rotate all but a few of its military personnel, both officer and enlisted. Officer rotations vary from 18 months to five years, enlisted rotations vary from two to four years. Annual costs to rotate staff average about $60 million; other costs are incurred for moving time and preparing over 19,000 orders annually. Some studies have questioned whether the Coast Guard should revise rotation practices by increasing the length of time between rotations and/or eliminating rotations for certain types of activities. Besides saving money, such a change could counter a problem pointed out in several studies—the undesirable effects of frequent rotation on the continuity of operations and ability to build expertise and knowledge in certain areas.

Coast Guard officials believe that the current rotation policies are adequate and that they have developed optimum tour lengths that should not be revised. They said that changing current practices would have several undesirable effects, including adverse effects on multimission capabilities, a smaller and less qualified leadership pool, and less qualified people because potential recruits may be concerned about being in undesirable locations for extended periods. The Coast Guard currently plans no formal study of this issue.

What was the actual annual cost in fiscal year 1997 to rotate Coast Guard military personnel, including moving expenses, idle time, paperwork, and training?

Answer. Relocation costs were $59,454,000, as shown on page OE–PPA–14 of the Coast Guard's fiscal year 1999 justifications. This includes moving persons, dependents, household goods, as well as dislocation allowances. There are no data systems to specifically gather the costs to rotate personnel associated with "idle time, paperwork, or training."

Nearly 10,000 annual relocation orders, or 50 percent, are non-discretionary, since they are issued to members who are retiring, separating from the service, or graduating from recruit or service training. The remaining 50 percent are actual duty station reassignments. However, approximately half of these remaining transfers are also considered non-discretionary, as they are to reassign members currently serving arduous duty (such as isolated duty and sea duty) assignments, in command positions, or that have recently been promoted. The remaining transfers provide the personnel necessary to replace those currently serving on arduous duty assignments, recently promoted, or separated from the service.

When a military member is rotating, the time is categorized in one of three ways: (1) travel time; (2) proceed time; or (3) leave time. The first two are authorized in the Joint Federal Travel Regulations. The amount of travel time is based on the distance between the two duty stations and the mode of travel. Travel time is typically between one day and seven days. Proceed time is four days by law. Leave is an entitlement under 10 U.S. Code 40, and may be taken either at a member's duty station or en route to a new duty station.

ROTATION POLICY STUDY

Question. Does the Coast Guard still believe that an in-depth study of the merits of lengthening rotations is not needed given their high costs? If so, why?

Answer. The Coast Guard formally examined its military rotation policies and associated transfer costs in 1993, 1995, and 1997. Current rotation policies have been developed in consideration of cost, mission requirements, the personal sacrifices made by Coast Guard members and their families, and the operational tempo of the various mission areas. The existing rotation and assignment framework provides flexibility to increase or decrease a member's tour length to balance cost, service need, and members' personal/professional needs and desires.

The Coast Guard has more than 1,390 units located among all 50 states in 228 congressional districts, in every territory, and in several foreign countries. The Coast Guard is founded on small, responsive units in operationally and geographically critical locations—which in turn drive transfer policies. A highly centralized organization such as seen at Navy homeports, Army depots, and Air Force bases, would require fewer geographic transfers, but also would not provide the expected service to the public.

Like the other military services, the Coast Guard is a pyramid organization with a broad base of junior members. The operational experience and military specialty skills required of senior personnel must be gained from experience obtained in earlier tours of duty—the military "grows from within." This is an essential characteris-

tic of a military organization. Through training, and the wide experience base of Coast Guard personnel, the Coast Guard maintains a multimission capability to quickly and efficiently shift from one mission to the next without degradation in overall mission effectiveness.

In addition to the 50 percent non-discretionary transfers described in response to the previous question, another 25 percent of the discretionary transfers are required, due to the remote location of the assignment, arduous nature of the assignment, or by special needs of the member or family. Remote location tours are those where the military member is unaccompanied by his or her family, such as assignment to one of three isolated LORAN stations in Alaska. Arduous tours of duty are those tours in which a member is subject to frequent immediate recall or subjected to harsh physical demands, such as assignment to one of the Coast Guard's 86 patrol boats. Lastly, special needs are created when a military member or immediate family member experiences a change in physical or emotional status requiring a move. For example, a special need arises when a spouse dies, creating a need to relocate a family closer to child care providers. Beyond these extraordinary assignments, more than 4,800 members are assigned to major cutters that deploy away from homeport more than 185 days per year. Rotational assignments provide these and other members an opportunity for greater family stability.

MILITARY PERSONNEL TRACKING AND PAYROLL FACILITY

Question. Is it true the Coast Guard is now developing new software for its military payroll function and plans to eventually transfer this function from Topeka, Kansas, to its facility in Martinsburg, West Virginia?

Answer. The Coast Guard is replacing the Military Personnel Tracking and Payroll System with a Commercial Off-The-Shelf (COTS) product as the core part of the system. Significant software development is necessary to allow the COTS product to issue proper payments under military pay rules. The Coast Guard does not have plans to move the Human Resources Service and Information Center or transfer the military payroll function to Martinsburg, WV. However, should any alternative prove less expensive and deliver an acceptable level of service, the Coast Guard will investigate any possible cost savings. The Coast Guard does plan to use the computer facilities in Martinsburg to host and operate the replacement Military Personnel Tracking and Payroll System on the computer system purchased under this replacement project.

MILITARY PERSONNEL TRACKING AND PAYROLL SAVINGS

Question. If so, what savings are anticipated and when will the change be made?

Answer. As part of this initiative, the Coast Guard plans to remove 115 military billets from Personnel Reporting Units. These reductions will begin in the last quarter of fiscal year 1999.

NOAA USE OF MILITARY PERSONNEL TRACKING AND PAYROLL SYSTEM

Question. We understand that the Coast Guard processes payroll checks for the National Oceanographic and Atmospheric Administration (NOAA) Officer Corps. Is this true? If true, what does the Coast Guard charge NOAA?

Answer. Yes. The Coast Guard has a Memorandum of Understanding (MOU) with NOAA to allow NOAA to use the Coast Guard Military Personnel Tracking and Payroll System. NOAA uses personnel tracking, military payroll, and retired payroll functions in the Coast Guard system. The MOU requires NOAA to reimburse the Coast Guard the cost of a GS–12 position at approximately $60,000 annually for use of the system.

MILITARY PAYROLL COSTS

Question. If different than the $2.81 figure provided to this Subcommittee last year, please explain why? Aren't such charges subject to the provisions of the Economy Act?

Answer. The fiscal year 1997 cost for a semimonthly payroll (two payments per month) was $3.57/month. The cost increase is primarily due to two factors. The first is a decreasing size of the active duty military workforce. The second reason is the evolution of an improved methodology with which we can more rigorously allocate overhead and other indirect costs.

Since the Coast Guard has not outsourced its military payroll functions, the provisions of the Economy Act do not apply.

VALIDATED PERFORMANCE GOAL LEVELS

Question. The Government Performance and Results Act (GRPA) requires agencies to set strategic goals, measure performance, and report on the degree to which goals were met. Under GPRA, each agency was required to develop a strategic plan, by September 30, 1997, describing its mission, long-term goals and objectives, and strategies for achieving those goals and objectives. Each agency must also develop an annual performance plan, beginning with fiscal year 1999. The annual performance plan should contain annual performance goals to gauge the agency's progress toward accomplishing its longer term strategic goals and identify the performance measures the agency will use to assess its progress. The Coast Guard is one of the pilot agencies to test the implementation of GPRA. The Coast Guard developed performance plans for fiscal years 1997 and 1998. They describe the major outcomes (goals) of Coast Guard operations instead of describing them by individual programs. The major outcome areas are: safety, protection of natural resources, mobility, maritime security, and national defense. Each outcome has several performance goals and a measure or indicator associated with it. When fully implemented, the Coast Guard will link desired outcomes to its budget needs.

How has the Coast Guard validated the performance goals as being set at the appropriate levels?

Answer. Fiscal year 1999 performance goals were validated through the analysis of outcome and activity data collected over the past several years. Program managers used this data, along with their assessments of the impacts of future effectiveness and efficiency initiatives, to validate that performance goals were set at the appropriate levels. The Coast Guard will continue to improve its ability to validate goal levels as more data is collected and the relationship between activity levels and outcome levels is better understood.

RELIABLE PERFORMANCE INFORMATION

Question. Over the years, the quality of Coast Guard management data has been questioned by GAO. How can the Coast Guard be certain that it will have reliable data to measure progress against the performance goals?

Answer. The Coast Guard is addressing the specific shortcomings in data management noted by the General Accounting Office (GAO), and to improve overall data reliability. To this end, the Coast Guard is working to obtain the most accurate and useful data to measure its performance. Field personnel are routinely trained in the correct entry of safety data into information systems, and safety data regularly undergoes computer analysis for anomalies that may indicate data errors. Additionally, the Coast Guard is partnering with the Maritime Administration and Army Corps of Engineers to improve the collection and standardization of all waterborne trade data. The Coast Guard is developing new performance information systems to better manage data. The Marine Information for Safety and Law Enforcement (MISLE) System will replace obsolete and difficult to maintain software and hardware, and improve the timeliness and reliability of safety and law enforcement data.

CHALLENGES IN PERFORMANCE MANAGEMENT

Question. What difficulties has the Coast Guard identified in developing its major outcomes, performance goals, and measures/indicators?

Answer. In developing its five strategic outcome goals, and 23 performance measures, the Coast Guard has identified several challenges in implementing performance management. Most importantly, the Coast Guard must further develop performance measures, operational databases, financial systems, and analytical methodologies that demonstrate and quantify how resources and activities are linked to outcomes. The Coast Guard must also continue developing common, interagency goals for crosscutting outcome areas such as drug supply reduction and fisheries stock improvement. Finally, the heart of the Government Performance and Results Act (GPRA) is the use of performance results for active resource management. To accomplish this, the Coast Guard must continue developing a performance evaluation system that identifies which strategies and activities are most effective, which need improvement, and which require reallocating resources.

PERFORMANCE GOALS

Question. Are the Coast Guard's performance goals based on its fiscal year 1999 budget request, or are they based on a higher resource level?

Answer. Coast Guard performance goal levels are based on the fiscal year 1999 budget request.

RESOURCE LEVELS

Question. If they are based on a higher level, please explain.

Answer. Coast Guard performance goal levels are based on the outcomes that can be achieved given the resource levels contained in the fiscal year 1999 budget request.

ACQUISITION, CONSTRUCTION, AND IMPROVEMENTS STAFFING

Question. Since fiscal year 1992, the Coast Guard's appropriations acts have identified a specific portion of its Acquisition, Construction, and Improvements (AC&I) funds to be used for related staffing costs. Generally, the AC&I fund is used to pay for the agency's major acquisitions, such as purchasing new vessels, aircraft, and facilities. Previously, GAO reported the Coast Guard was improperly using staff funded through its operating expenses (OE) for AC&I related activities. As a result, operating expenses funds for personnel were reduced by $4 million in 1994, while some funds were added to the AC&I personnel function. The Coast Guard said in an anti-deficiency act violation letter that it was developing procedures to make certain that AC&I funds are used properly. Has the Coast Guard taken actions and developed procedures to ensure that the AC&I account is properly charged for the costs of staff working on AC&I-related activities? If not, why is it taking so long?

Answer. Yes. Interim policy and procedures entitled Criteria for Use in Determining Billet/Position Funding Source established the criteria now used to determine the funding source for personnel billets/positions to execute both Operating Expenses (OE) and AC&I funds. This policy was distributed to major Coast Guard commands responsible for carrying out AC&I-related work, and will be formally incorporated in the next change of the Financial Resources Management Manual (Commandant Instruction M7100.3A).

The Coast Guard has also standardized its policy and procedures for calculating the direct salary and standard personnel support costs generated by its workforce. This ensures that the proper personnel support costs are charged to the cognizant appropriation and that no cross subsidizing of one appropriation by another can occur.

Both of these actions will prevent similar recurrences of the improper funding of AC&I-related personnel costs by the OE appropriation documented in the fiscal year 1993 General Accounting Office report Acquisition Program Staff Were Funded Improperly. Since fiscal year 1994, standardized procedures to determine AC&I full time equivalent (FTE) levels and personnel costs have been followed and the AC&I appropriation has funded all AC&I specific personnel costs.

The final solution will come when the Personnel Management Information System/Joint Uniform Military Pay System II (PMIS/JUMPS II) is implemented. PMIS/JUMPS II will allow direct charging of personnel salaries and benefits to the appropriate appropriation eliminating the need for refunds.

TIMETABLE FOR AWARD

Question. What is the timetable for award of the follow-on Seagoing Buoy Tender Replacement? How many vessels will the initial contract award be for? What is the total amount spent to date on this contract? How many vessels have been procured under the existing contract?

Answer. The follow-on contract is scheduled for award during the fourth quarter of fiscal year 1998. The initial contract award will be for two ships with options for nine additional ships totaling eleven ships. The follow-on contract has not been awarded, therefore, no funds have been spent on this contract. On the existing contract, $162.9 million has been spent to date. Five vessels have been awarded under the existing contract. Three ships have been delivered, and two are still under construction.

NATIONAL DISTRESS SYSTEM MODERNIZATION PROJECT

Question. What is the budget request for fiscal year 1999 for the National Distress System Modernization Project (NDSMP)? What does the most recent Coast Guard Capital Investment Plan include for the NDSMP?

Answer. The fiscal year 1999 budget requests $3 million for NDSMP.

The fiscal year 1998 Capital Investment Plan (CIP), signed December 12, 1996, shows the "Total Acquisition Costs" for the project at $65 million to $100 million.

RELATIONSHIP BETWEEN THE COAST GUARD CIP AND THE BUDGET

Question. What is the relationship between the Capital Investment Plan (CIP) and the Coast Guard budget request for any given fiscal year? Is there a formal

process associated with the CIP and the Coast Guard budget request? If so, describe the process.

Answer. The Coast Guard has been actively developing an approach to strengthen our capital investment planning and decision-making processes. A Coast Guard representative participated in the joint Office of Management and Budget (OMB)/Government Accounting Office (GAO) sponsored capital guide group that recently published the OMB Capital Programming Guide. Using the logic model specified in the guide, and the specific format it describes for an Agency Capital Plan (ACP), the Coast Guard has developed, and will soon publish, the fiscal year 1999 Coast Guard ACP.

The Coast Guard ACP is divided into two major sections. The first section is narrative text that describes the Service's capital planning and investment process, the mission analysis and inventory management processes, and the funding strategies we employ. It is followed by four appendices that list, by operating system (Deepwater, Coastal, Inland, C4ISR, and Shore), our current inventory of capital assets, approved and funded acquisitions and projects, acquisitions and projects for which we are seeking funding, and notional long range capital needs based on service life and Operating Expenses (OE) cost calculations.

The ACP serves as the foundation for the development of the annual Acquisition, Construction, and Improvements (AC&I) budget request. It lays out the logic behind annual funding requests; prioritizes funding needs based on asset condition, performance, and cost; explores tradeoffs between various potential investment strategies and asset options, and; compares the capability of the current inventory with present and future needs of the service. This data is then translated into a prioritized slate of AC&I projects or acquisitions across the entire inventory of assets which is manifested in project budget sheets for the current fiscal year.

Input to the ACP parallels the budget development process and the Coast Guard's business and capital planning cycle.

FISCAL YEAR 2000 BUDGET SUBMISSION

Question. When will the fiscal year 2000 Coast Guard budget be transmitted to OST and to OMB? When will the fiscal year 2000 budget be available to Congress?

Answer. The Coast Guard's fiscal year 2000 budget was submitted to the Office of the Secretary of Transportation (OST) in two phases, in June 1998 and July 1998, respectively. The Coast Guard budget is scheduled to be submitted to the Office of Management and Budget (OMB) in September 1998. The President's budget, containing the Coast Guard's request, is scheduled to be submitted to Congress in February 1999.

CONTRACT AWARD FOR NATIONAL DISTRESS SYSTEM MODERNIZATION PROJECT

Question. There are indications that the Coast Guard intends to award the NDSMP in fiscal year 1999. How is it possible for this to occur if the fiscal year 1999 budget request is sufficient only to support the Coast Guard acquisition team?

Answer. At this time it is premature to estimate a contract award date for the National Distress System Modernization Project.

C–130 FLIGHT HOUR SHORTFALLS

Question. It is the committee's understanding that the Coast Guard has a significant shortfall in HC–130 flight hours due primarily to the growing requirement for drug interdiction operations in the Caribbean and Eastern Pacific? What is needed to satisfy this shortfall?

Answer. The United States Interdiction Coordinator (USIC) recently completed work on a Five Year Transit Zone Asset Requirements document that outlines interagency assets required to meet the National Drug Control Strategy (NDCS) year 2002 goals.

In this document, seven critical mission areas are identified, one of which is "locate maritime targets." Long-range maritime patrol aircraft (MPA), equipped with sophisticated surface search radar, infrared sensors and electro-optical cameras are required to provide this function. USIC has validated the shortfall in maritime patrol aircraft resource hours to be 560 per month. This USIC study is still being reviewed within the Administration.

C–130J USE IN CARIBBEAN AND EASTERN PACIFIC OPERATIONS

Question. All services within the Department of Defense that currently operate the C–130 have committed to modernizing their existing fleets with the new C–130J because of its improved reliability and maintainability, reduced operating costs and

manpower requirements, and its enhanced performance. Would these improved capabilities make this aircraft a more effective platform in your Caribbean and Eastern Pacific operations?

Answer. To be truly effective, any long range search aircraft must be fully integrated with other deepwater assets to optimize operational effectiveness. Also, any surveillance platform must include automated sensor technology in order to fully leverage the increased capability.

With respect to the HC–130J, the possibility of reduced staffing and operating costs is unknown. The Coast Guard currently operates 26 operational "H" model HC–130 aircraft. HC–130J aircraft would require a different logistical support infrastructure than the HC–130H (additional inventory, technical support staff, supply managers, both pilot and mechanic training, and possibly air facility changes). The cost of this additional support infrastructure is unknown. The advertised HC–130J improvements in reliability and maintainability, and any potential reductions in operating costs, have not been service tested.

C–130J USE IN OTHER OPERATIONAL AREAS

Question. Is there anywhere else that the Coast Guard is currently operating C–130's that the C–130J could significantly enhance your aviation operations?

Answer. Coast Guard C–130 operations could be enhanced anywhere with the C–130J aircraft due to its advertised range, endurance, fuel consumption, and power availability. However, the increased operational capability would bring new maintenance and logistical support requirements, including a different logistical support infrastructure than the C–130H (additional inventory, technical support staff, supply managers, both pilot and mechanic training, and possibly changes to receiving air facilities). The cost of this additional support infrastructure is unknown.

DEPLOYMENTS IN SUPPORT OF DOD

Question. What was the cost of Coast Guard deployments for the past year in support of Department of Defense (DOD) missions outside of U.S. waters? Please provide the cost breakout by exercise and time period.

Answer. Coast Guard cutters conducted a limited number of out-of-U.S. deployments in support of DOD operations in fiscal year 1997 as follows:

Deployment/Dates	*Additional cost estimate*[1]
"BALTOPs" European deployment: June–Oct. 1997	$300,000
"UNITAS" South America deployment: 60 days in phases from July–Nov. 1997	50,000
"CARAT" Western Pacific deployment: May–Aug. 1997	200,000
"TRADEWINDS" Caribbean deployment: Oct. 1997	20,000

[1] Additional costs refer to expenses in excess of normal costs of cutter deployments in or adjacent to U.S. waters. Most of the added costs are accrued from international port call expenses and long distance logistics support.

Law Enforcement Detachments (LEDETS) deployed year round to the Arabian Gulf in support of CENTCOM's Iraq sanctions enforcement mission (added cost was approximately $374,000). A Port Security Unit deployed to Korea for "FOAL EAGLE 97" (October 1996, added cost was approximately $50,000). The UNITAS/WATC (West Africa Training Cruise) detachment deploys annually aboard U.S. Navy ships conducting professional exchanges with South American and West African navies/coast guards at a budgeted cost of $103,000 per year. Other exercises conducted in support of DOD occurred in U.S. waters, or waters immediately adjacent.

USE OF LORAN/EUROFIX FOR DGPS CORRECTIONS

Question. There have been numerous press reports about international utilization of Loran to transmit differential GPS corrections by implementing "Eurofix." There are reports that modifications to the Loran transmitters permitting Eurofix will cost only about $3 million. Are those cost estimates accurate? Provide us details about this concept.

Answer. Eurofix is a European developmental system for transmitting Differential Global Positioning System (DGPS) corrections on the LORAN signal. European researchers are currently testing a prototype system to determine the potential of this concept. Broadcast standards or signal specifications for this system have not been developed. Eurofix currently does not meet the performance requirements for maritime and aviation navigation, and its future potential to do so is unknown. The Coast Guard has no plans to evaluate this system as a replacement to the existing maritime DGPS service and cannot validate the cost estimate suggested above. The

Coast Guard radiobeacon-based system is nearing full operational capability in six months, meets all international requirements for maritime and navigation safety, and costs approximately $5 million per year to operate. The user community has purchased receivers and equipment compatible with the radiobeacon-based DGPS, and would have to convert to new equipment for any future system that was based on non-radiobeacon technology.

EUROFIX DEMONSTRATION

Question. We understand that the Coast Guard is now planning a Eurofix demonstration and test at Wildwood, NJ. Since there is considerable interest in this concept, are any other agencies being invited to participate in any way in that demonstration and testing? In conjunction with the demonstration and test, will the Coast Guard plan to demonstrate a receiver for the Eurofix system here in Washington?

Answer. The Coast Guard conducted limited tests of Eurofix at the LORAN Support Unit in Wildwood, NJ the week of March 30, 1998. No other agencies participated in the test, and there was no Coast Guard receiver demonstration conducted in Washington. Test results are currently being evaluated.

The primary purpose of the test was to investigate this technology's utility as a backup to conventional phone lines for the Coast Guard's remote control of some of the LORAN operating functions. As a related item, some testing was done to determine if a differential signal would interfere with the LORAN signal. Some data was also collected on navigational accuracy.

EXPANSION OF DGPS TO NDGPS

Question. A recent story in GPS World magazine indicates that the Office of Management and Budget is opposed to expansion of the Coast Guard Differential Global Positioning System (DGPS) network to a nationwide DGPS. Is it true that part of the objection is because the service would compete with existing commercially available services and what other objections were raised by the Office of Management and Budget?

Answer. The official Administration position on this issue is reflected in the fiscal year 1999 President's Budget submission. In that document, the Administration requested adequate funding for the Nationwide DGPS (NDGPS) system for fiscal year 1999. It is the Administration's position that future capital funding, if any, for NDGPS, will be provided through contributions from federal agencies whose programs will benefit from the new technology.

GWEN AS A SUPPLEMENT TO DGPS

Question. This same story indicated that there is interest in using the decommissioned Ground Wave Emergency Network (GWEN) to supplement the Coast Guard radio beacon coastal Differential Global Positioning System (DGPS) network and that the capital and operating costs for the expanded portion of the DGPS would total nearly $100 million. The plan would be to use some of the GWEN installations where they are and move others. Isn't it true that the GWEN solution really does nothing to provide a back up navigation solution in the event of GPS failures or interruptions? Since some of the GWEN installations will require 300-foot antennas, isn't it likely there will be some significant local community objections to this solution?

Answer. The capital cost to implement the Nationwide DGPS (NDGPS), using U.S. Air Force GWEN equipment and sites, is less than $30 million. Annual operation and maintenance costs are estimated at approximately $5 million. The NDGPS system is an augmentation to GPS and relies on the basic GPS signal to provide the improved accuracy. Of the 66 planned NDGPS sites, 33 sites will use existing GWEN installations and the remaining 33 sites will utilize GWEN equipment moved to other locations. The moved GWEN equipment suite includes a 300-foot antenna tower. Appropriate National Environmental Policy Act (NEPA) environmental impact assessments and documentation will be completed prior to each NDGPS installation.

LORAN VERSUS GWEN

Question. Would you agree that it might make more sense to use the existing Loran system for the same purposes that GWEN will serve since Loran is a functioning, reliable, cost-effective national asset and infrastructure in place? And, importantly, will you agree that Loran is better suited than GWEN to provide a compatible backup system for the full range of users in the event of disruption to GPS?

Answer. The Ground Wave Emergency Network (GWEN) sites being decommissioned by the U.S. Air Force will be utilized to supplement the Coast Guard's coastal radio beacon maritime Differential Global Positioning System (DGPS) service to implement the Department of Transportation's (DOT) Nationwide DGPS. The capital cost to implement DOT's Nationwide DGPS is less than $30 million with annual operating and maintenance costs estimated at approximately $5 million. By contrast, much of the LORAN-C infrastructure is old, and it will cost over $200 million to recapitalize the system to keep it running for the same 15-year life cycle. In addition, the annual operating and maintenance costs for LORAN-C is $27 million.

Nationwide DGPS, utilizing the existing GWEN sites, is an augmentation to GPS and relies on the basic GPS signal to provide the improved accuracy. An improved LORAN-C system would operate independently of GPS and therefore has the potential to provide a backup to GPS and its augmentations.

UNMET VESSEL REQUIREMENTS AND ESTIMATED COST

Question. Please provide a listing of the unmet requirements for vessels in the Coast Guard inventory. Also, please provide a cost estimate for each vessel class to complete the vessel requirement for that class above the amount requested in the current fiscal year 1999 budget request.

Answer. The Coast Guard expects to recapitalize additional vessel classes, however, the number of hulls and specific funding requirements have not been determined. Ongoing studies will finalize these requirements.

The following table includes only existing major acquisition projects. Estimate of funding requirements beyond fiscal year 1999 data is taken from the Second Quarter fiscal year 1998 U.S. Coast Guard Quarterly Acquisition Report to Congress.

[Dollars in millions]

Vessel Class	Unmet requirements beyond Fiscal year 1999 (vessels)	Estimate of funding required beyond fiscal year 1999
Seagoing Buoy Tender (WLB)	7	$342–472
Coastal Buoy Tender (WLM)	([1])	21–31
Stern Loading Buoy Boat (BUSL)	8	14–16
Motor Lifeboat (MLB)	30	14–32
Coastal Patrol Boat (CPB)	20	13–110
Polar Icebreaker (WAGB 20)	1	2–3

[1] All vessels are under contract. Funding request includes Economic Price Adjustments, Target to Ceiling payments, and Change Orders on select prior year contracted hulls.

AIRFAC RELOCATION TO MUSKEGON

Question. The U.S. Coast Guard plays a major role in saving lives and property endangered as a result of accidents and other distress situations on the Great Lakes. The agency maintains numerous year round and seasonal small boat stations and air stations and facilities on the Great Lakes from which assets are dispatched. In southern Lake Michigan, the Coast Guard's helicopters and small boats respond mainly to incidents involving recreational boats, although larger barges and cargo vessels may occasionally request assistance. Its small boats, helicopters, and rescue personnel share search and rescue responsibility with many state and local agencies that also have response capability.

In fiscal year 1997, the Coast Guard relocated its air facility on southern Lake Michigan from Glenview, Illinois, to the county airport near Muskegon, Michigan about 113 miles across the lake. This move came after community leaders in the village of Glenview asked the Coast Guard to relocate because the Naval Air Station the Coast Guard was using was closed and the village wanted to use the land for other purposes. After studying numerous locations for relocating the facility, the Coast Guard chose Muskegon. What effect has the move of the air facility had on the number of helicopter responses and on lives saved or lost?

Answer. The General Accounting Office's report GAO/RCED–98–108R: ''Relocation of Coast Guard Air Facility'' dated April 22, 1998, states: ''To determine the potential impact of this longer flying time from Muskegon on the number of lives lost or saved, we identified all moderate or severe cases (33) involving lives saved or lost from 1995 through 1997. We evaluated 30 cases in all . . . we determined that for almost all cases, either the Coast Guard's small boats or other nearby assets made

the rescue, or death occurred very quickly, making the helicopter response time unimportant. However, in two cases the helicopter response time could have made a difference. In one case, a 1997 incident, the shorter response time could have been a factor in saving four lives because Muskegon was closer to the incident. In a 1996 case, the longer response time could have been a factor in the loss of life if the air facility had been located in Muskegon."

RELOCATION TO MUSKEGON

Question. Is the Coast Guard satisfied with its decision to move to Muskegon and has it decided to permanently remain there?

Answer. Yes, the Coast Guard is satisfied with this decision. The Coast Guard made the best business decision to comply with the congressional mandate to maintain an air facility.

COST COMPARISON OF MUSKEGON WITH OTHER SITES

Question. How much difference in costs is there between Muskegon and the next least costly site studied?

Answer. The Coast Guard's internal study determined that operating from Benton Harbor, the next least costly site, would cost over $4,400,000 more in total net life cycle costs (discounted at seven percent over 25 years), than would operating from Muskegon.

RESOURCES IN SOUTHERN LAKE MICHIGAN

Question. How do the Coast Guard's and other entities search and rescue resources in southern Lake Michigan compare to other areas of the country?

Answer. Coast Guard, state, and local search and rescue resources in southern Lake Michigan (defined as the area south of a line from above Muskegon, Michigan, on the eastern shore to below Sheboygan, Wisconsin, on the western shore) are as numerous and well organized as any search and rescue region in the nation. The Coast Guard has nine boat stations, two air stations, and an air facility (open during the height of the recreational boating season) providing coverage of southern Lake Michigan.

In addition, many local rescue resources are available near the lakeshore, with 59 boats and nine helicopters operated by the Coast Guard Auxiliary, various state and local agencies and private groups in southern Lake Michigan. Southern Michigan, therefore, enjoys a level of search and rescue response not typically available in other areas of the United States.

AIRFAC NEED IN SOUTHERN LAKE MICHIGAN

Question. Does the Coast Guard believe an air facility is needed in southern Lake Michigan?

Answer. No, the Coast Guard does not believe there is an operational need for an air facility in the southern Lake Michigan area. However, because of the congressional mandate to maintain a presence, the Coast Guard conducted an extensive study to determine the best operational and cost effective location for such a facility. This study validated that both Air Station's Detroit and Traverse City can meet the Coast Guard's two hour search and rescue (SAR) response standard in the southern Lake Michigan area without the additional resources provided by an air facility.

The success of the SAR response in any region relies on the capability of the entire SAR system, rather than the response of a single unit. The southern Lake Michigan SAR system is now serviced by nine Coast Guard boat stations, two Coast Guard air stations, a Coast Guard air facility, and a host of Coast Guard Auxiliary assets. These Coast Guard resources are supplemented by many other civilian rescue facilities, including numerous police and fire department response units.

HELICOPTER VERSUS SMALL BOAT RESPONSES

Question. How many responses annually do helicopters make as compared to small boats?

Answer. On average, from 1994–97, small boats responded to about 97 percent of the total number of incidents, and helicopters the remainder (3 percent).

POTENTIAL FUTURE CONSOLIDATIONS

Question. To develop its national streamlining plan, the Coast Guard established two teams to assess potential organizational consolidations and training infrastructure modifications. The teams' objectives were to identify recurring budget savings

of $100 million without reducing services to the public. They identified a variety of options to streamline the agency. The Coast Guard selected several of the options which made up the Coast Guard's national streamlining plan. Some of the options not included in the national streamlining plan were to replace the Coast Guard's current field structure with a regional structure, eliminate the two Maintenance and Logistics Commands (centralized support commands), eliminate one of the two Maintenance and Logistics Commands by merging them together, and close one of the three training centers (Training Center Petaluma, CA) to consolidate training.

In light of the Coast Guard's tight budget, does the Coast Guard now plan to implement any of the remaining options? If so, which ones? If not, why not?

Answer. Yes. One option, consolidating training, is still under active consideration for implementation. In the fiscal year 1999 Justifications, the Coast Guard proposes to optimize Coast Guard training infrastructure, with a goal to match infrastructure to near- and long-term requirements. One option under consideration is to consolidate existing training centers.

The Coast Guard has no plans to consider any of the other major organizational or infrastructure options considered during the development of the national streamlining plan.

ANTICIPATED TIMEFRAME AND SAVINGS FOR POTENTIAL FUTURE TRAINING CONSOLIDATIONS

Question. What is the anticipated time frame and savings for any additional planned changes?

Answer. An analysis of the Coast Guard's training infrastructure is ongoing; anticipated savings pend final decision, which is expected in fiscal year 1999.

CURRENT STATUS OF ACTIVITY PROTOTYPES

Question. What is the current status of the prototype activities?

Answer. Three of the four Activity commands are currently operational. The fourth, Activity South Texas, was disestablished because the geographic distance separating the Marine Safety Office and Group/Air Station commands minimized the potential for realizing the synergistic benefits Activity commands were designed to achieve. The lessons learned from the prototype Activity South Texas are being used in the ongoing Integrated Operations Command evaluation.

ESTABLISHMENT OF OTHER ACTIVITY COMMANDS

Question. Has the Coast Guard decided to establish other Activity commands?

Answer. The Coast Guard will decide the future of Activity commands after completing the ongoing Integrated Operations Commands evaluation, which includes not only the prototype Activities, but also combined Group/Marine Safety Offices. Because each port is different in terms of size, type of maritime activities, weather, geography, customer base, and so on, it is difficult to link the performance of Activity commands, especially after a relatively short period of time, to command structure. The Integrated Operations Command evaluation will provide information to determine whether to maintain, expand, or discontinue the Activity concept. The Coast Guard expects to complete the evaluation in 1998.

ACTIVITY COMMAND ANTICIPATED SAVINGS

Question. What savings are anticipated from the implementation of these Activities?

Answer. Savings were not the primary reason behind the decision to create Activity commands. Activities were intended to enhance coordination and effectiveness between different operational commands within a specific area of operations; provide for greater local scope of control to reduce the burden on streamlined District offices; and provide "one-stop shopping" for Coast Guard customers in the port.

PORTS AND WATERWAYS SAFETY SYSTEMS (PAWSS) PROGRAM STATUS

Question. The Coast Guard currently owns and operates Vessel Traffic Service (VTS) systems in eight ports throughout the United States. The purpose of these systems is to facilitate the safe and efficient movement of marine vessels in and around ports and to protect the environment by monitoring vessel traffic, assessing the information and passing it along to mariners. In fiscal year 1998, the Coast Guard initiated an effort to implement the Ports and Waterways Safety System (PAWSS), which is a follow-on effort to the Coast Guard's VTS 2000 program that the Congress terminated in 1996. Explain the current status of the Coast Guard's

PAWSS program. When will the VTS system in New Orleans be installed and in operation?

Answer. Three contracts, instrumental in the installation of the Automatic Identification System (AIS)-based Vessel Traffic Service (VTS) system in New Orleans, have been awarded. The lease of up to 50 Digital Selective Calling/Automatic Identification System (DSC/AIS) transponders was awarded in March 1998. The contract to provide Very High Frequency (VHF) voice and VHF/AIS data communications services in the Lower Mississippi River Vessel Traffic Service Area (VTSA) was awarded in April 1998. The System Integration Contract (SIC), to install the VTS system, was awarded in April 1998.

The VTS system will be implemented and tested by the Coast Guard in two phases before becoming operational in the first quarter of fiscal year 2000. In Phase 1, a VTS baseline system will be installed at the Gretna Light Facility for limited Developmental Test and Evaluation (DT&E) testing. In Phase 2, the system will be transitioned to a Vessel Traffic Center (VTC) in downtown New Orleans for complete VTS system DT&E, followed by Coast Guard Operational Test and Evaluation (OT&E).

Although VTS New Orleans will be operational by the first quarter of fiscal year 2000, VTS New Orleans will not attain final design capability until all designated waterway users are outfitted with automatic identification system (AIS) transponders. It is difficult to predict when AIS will be installed and operating on all designated vessels in the area, because the final international and domestic carriage determinations pend U.S. and International Maritime Organization regulatory actions. However, we expect AIS carriage requirements will be in place in 2002.

CONTACT WITH LOCAL COMMUNITY STAKEHOLDERS

Question. What actions has the Coast Guard taken to contact local community stakeholders to discuss VTS options in their ports? What conclusions have been reached from any efforts taken so far?

Answer. The Coast Guard meets regularly with maritime community stakeholders in New Orleans and Tampa Bay to discuss and develop options for Vessel Traffic Services (VTS). The local Coast Guard Captains of the Port have held preliminary discussions on VTS with their constituencies in Philadelphia, Baltimore, Charleston, San Diego, San Francisco, Seattle, and Valdez. As the Ports and Waterways Safety System project progresses, the Coast Guard will formalize the waterway evaluation process and continue discussion of VTS options in depth with local community stakeholders in more port areas. The Coast Guard is also continuing to host federal advisory committee meetings in Houston-Galveston. VTS is always part of the agenda at these public meetings.

Thus far, maritime community stakeholders and the Coast Guard have jointly concluded that a VTS based on Automatic Identification System (AIS) transponders would significantly enhance maritime safety and efficiency. The Coast Guard is vigorously pursuing adoption of technical and carriage standards for AIS. Another conclusion that has been reached through these outreach efforts is that in certain ports it maybe mutually beneficial to operate future Vessel Traffic Services in partnership with local stakeholders. The Coast Guard is establishing internal policy to foster the establishment of jointly operated VTS where appropriate.

PORTS AND WATERWAYS SAFETY SYSTEM PLANS

Question. In addition to New Orleans, how many other ports is the Coast Guard considering for the PAWSS program?

Answer. The Coast Guard plans to enter into Ports and Waterways Safety System (PAWSS) discussions later this year with the user communities in approximately 20 ports. We have already begun in a few ports. However, until the process described below is complete, we cannot conclude how many ports should receive a Vessel Traffic Service acquired through the PAWSS program.

The Coast Guard's PAWSS project consists of three steps: port evaluations, requirements identification, and implementation of necessary measures to correct the deficiencies the process has identified. The first two steps, port evaluations and requirements identification, involve close contact with the local user community. Through these first two steps, safety deficiencies will be identified and solutions jointly conceived. Where a Vessel Traffic Service is necessary to ensure an adequate level of port safety, the Coast Guard will seek appropriate funding.

AGENCY CAPITAL PLAN

Question. Have you released an update of the Agency Capital Plan? If so, what is your most current estimate of your capital needs in 2002?

Answer. The Coast Guard fiscal year 1999 Agency Capital Plan (ACP) is making its way through the final internal clearance process and should be released by September 15, 1998.

STRATEGY FOR ADDRESSING FUNDING GAP

Question. What is the Coast Guard's strategy for addressing any funding gap between its probable funding level and the needs identified in the Agency Capital Plan?

Answer. Our current acquisition strategy calls for completing as many of our ongoing acquisitions as possible prior to the major recapitalization efforts that are reflected in the Agency Capital Plan (ACP). Currently, a significant portion of the outyear funding requirements in the ACP are based on an estimated costs for replacement of specific asset classes that operate in the deepwater environment—in terms of vessels, aircraft, C^4I, and sensors. These replacement costs assume a one-for-one replacement of current asset capabilities. More definitive costs in terms of magnitude and timing will be developed during the analysis phase of the Deepwater Capability Replacement Analysis.

The analysis phase will consider both capability and capacity required and the cost/benefit of options to replace assets or refurbish them. The specific balance between this major recapitalization effort and other agency projects can best be determined when this analysis phase is complete. Once the alternatives to meeting mission capability and capacity needs are defined, a firm acquisition strategy can be developed. The Coast Guard expects to work with the Administration and Congress to maintain critical mission capabilities within the dictates of public policy and funding constraints.

CONTINUING OPERATIONS WITHOUT AN AC&I INCREASE

Question. What actions would you have to take to continue operations if the Acquisition, Construction, and Improvements (AC&I) appropriation is not increased through 2002?

Answer. The Coast Guard will make every effort to carry out its congressionally mandated missions in the future within the funding appropriated by the Congress. Once the Deepwater analysis is complete, the Coast Guard will be better able to assess the mission impact for different AC&I funding levels. A delay in proceeding with the Deepwater Capability Replacement Analysis would result in increased maintenance costs and decreased availability for critical assets. In addition, the Coast Guard would continue to operate more personnel-intensive assets and experience more asset interoperability problems.

NAVIGATIONAL SERVICES USER FEE

Question. The President's fiscal year 1999 budget proposes a user fee on navigational services provided by the Coast Guard. According to the President's proposal, the Coast Guard will collect about $35 million in fiscal year 1999 and $165 million in fiscal year 2000 for navigational services that it provides. The fees will be used to fund the Coast Guard's Acquisition, Construction, and Improvements (AC&I) account. What navigational services will be subject to a user fee?

Answer. The Coast Guard is developing regulations to implement user fees for domestic ice breaking and navigational services, which include buoy tending, vessel traffic services and radionavigation.

NAVIGATIONAL SERVICES USER FEE ASSESSMENT

Question. Who will be charged?

Answer. The Administration proposes to charge commercial cargo vessels for navigation assistance services provided to them.

NAVIGATIONAL SERVICES USER FEE COLLECTION

Question. How will the fee be collected?

Answer. The Coast Guard is developing a plan for collection. Various methods are being reviewed prior to initiating rulemaking.

NAVIGATIONAL SERVICES USER FEE AND AC&I

Question. Will it be earmarked for the Acquisition, Construction, and Improvements (AC&I) account?

Answer. As part of the President's fiscal year 1999 budget request, the Administration has proposed user fees as offsetting collections to the Coast Guard's AC&I account.

IMPLEMENTATION OF USER FEES

Question. If the new fee is not implemented, what alternative solutions does the Coast Guard have for the funding shortfall that will be created?

Answer. The Coast Guard requests that Congress implement these fees and does not have any alternate solutions.

DEEPWATER PROJECT STATUS

Question. What is the status of the Deepwater Project?

Answer. The Deepwater Capability Replacement Analysis is currently in the analysis phase. A Request for Proposals (RFP) was issued in March 1998 with the intent to award contracts to three industry teams in July 1998. These contracts will be for a 16-month initial study to develop and propose concepts for an Integrated Deepwater System of surface, air, and command, control, communications, computers, intelligence, surveillance, and reconnaissance (C^4ISR) assets to effectively conduct Coast Guard missions in the Deepwater area. Industry proposals for this first phase are expected to be submitted by November 1999.

DEEPWATER FISCAL YEAR 1999 FUNDING

Question. The Coast Guard is requesting $28 million for the Project in fiscal year 1999? What will the funds be used for?

Answer. The Deepwater fiscal year 1999 funding is to continue industry studies begun in fiscal year 1998 to develop Integrated Deepwater System Concepts. Funding for the Project is as follows:

Industry Contract Options (3 @ $6,000,000)	$18,000,000
Independent Analysis Government Contract (1 @ $4,000,000)	4,000,000
Trade-off Analyses, Technology Assessments, Modeling and Simulation, RFP Preparation, Contract Quality Assurance, Independent Validation and Verification (IV&V), Additional Studies	4,500,000
Project Administration	1,500,000
Total	28,000,000

DEEPWATER NEEDS ASSESSMENT

Question. How does the Coast Guard know whether its Deepwater assets need to be replaced?

Answer. As the service approaches the 21st Century, the Coast Guard's existing Deepwater assets are nearing the end of their service lives. Loss of capability and increased operational costs greatly concern the Coast Guard, as the threats it will encounter are becoming more sophisticated and increasingly capable. The Reliance (210-foot) and Hamilton (378-foot) cutter classes, built in the 1960's, are almost obsolete. They do not incorporate modern technology, and are personnel intensive, which drives operating costs even higher. The Coast Guard is operating C–130 Hercules aircraft, some built as early as 1972, that now require extensive electrical and structural upgrades, as well as modern sensors, to ensure continued effectiveness. The Coast Guard's HU–25 aircraft are over 20 years old and have major engine supportability problems. In short, the Coast Guard's ability to remain Semper Paratus—Always Ready—to carry out its Deepwater missions and tasks is a major concern. Without replacing its aging Deepwater assets, the Coast Guard will not be ready to meet tomorrow's challenges.

Thus, because of our aging Deepwater cutters, aircraft, and electronics, the Coast Guard's ability to continue to serve as a unique instrument of national security—at home or abroad—is increasingly compromised.

While the Coast Guard is not presupposing that the preferred alternative will be acquisition of new assets, our main objective is to choose an integrated system that can best meet minimum needs at the lowest total (acquisition plus life cycle) cost. During the analysis phase of the Deepwater project, industry teams will consider various alternative systems to meet the Coast Guard's system performance specification. Along with acquisition of new assets, the teams will consider service life extension of existing assets, as well as adapting Department of Defense assets to meet Coast Guard needs. It is important to note that our current assets are personnel intensive, and personnel costs account for two-thirds of Coast Guard operating

costs. The long lead time required to acquire new assets, if that is the preferred alternative, makes it imperative to complete the analysis phase as scheduled.

CUTTER AND AIRCRAFT REPLACEMENT SCHEDULE

Question. What is the Coast Guard's schedule for replacing aircraft and cutters?

Answer. Deepwater assets (aircraft and cutters) are coming to the end of their estimated service life at various times over the next 20 years. The Coast Guard is relying on the upcoming capability analysis contract to evaluate various alternatives to meeting the system performance specification. Once the various alternatives have been evaluated and the results of the Coast Guard Roles and Missions Study are available, decisions on asset types and numbers can be made and a definite schedule for the sequencing of asset acquisitions (vessels, air, and sensors) developed. Based on the current asset timeline, the Coast Guard plans to request funding for the initial asset acquisitions in fiscal year 2001.

PRESIDENTIAL ADVISORY COUNCIL REVIEW

Question. Please provide additional details on the Presidential Advisory Council review of the Coast Guard's missions.

Answer. The council will provide advice and recommendations regarding the appropriate roles and missions for the Coast Guard. Although the council will focus on all Coast Guard missions, special attention will be given to deepwater missions. The Coast Guard has drafted a charter that is in the clearance process within the Administration. The council's review is scheduled for completion in fiscal year 1999, consistent with the Deepwater acquisition timeline.

DEEPWATER CONTRACTOR SELECTION CRITERIA

Question. Current plans for the procurement indicate that three projects will be selected this summer. The Committee is aware of six teams currently formed that have expressed an interest in this summer's selection. What criteria will the Coast Guard use to insure that maximum procurement flexibility is maintained and incentives are maintained for the selectees to compete on cost as well as proposed asset mix.

Answer. Contracts will be awarded to three industry teams for Integrated Deepwater System concepts. After receipt of these concepts, the Coast Guard will evaluate and issue a Request for Proposal (RFP) to a maximum of three of the original participating teams. This follow-on RFP will result in a best value selection of one team to further develop and deliver the Integrated Deepwater System. Primary selection criteria will be maximum effectiveness to conduct Coast Guard Deepwater missions while providing at least the minimum capabilities required at lowest total ownership cost.

DEEPWATER—NUMBER OF CONTRACT TEAMS

Question. What is the rationale behind three project teams? Why not two, four, or five?

Answer. A review of past shipbuilding and aircraft acquisitions indicates that three teams would be the best number to ensure innovative concepts and competition for the analysis phase of the project. The level of funding for the project analysis and the number of government personnel planned for and available on the project were also considerations for using three teams.

ONDCP CERTIFICATION OF COAST GUARD DRUG BUDGET

Question. Last year, the Congress withheld $34,300,000 from the Coast Guard's budget for increased drug interdiction activities until the Director, Office of National Drug Control Policy (ONDCP): (1) reviewed the specific activities and associated costs and benefits proposed by the Coast Guard; (2) compared those activities to other drug interdiction efforts government-wide; and (3) certified, in writing, to the House and Senate Committees on Appropriations that such expenditures represent the best investment relative to other options. In November 1997, the Director, ONDCP, certified that the $34.3 million for the Coast Guard's activities were the best investment relative to other options. According to the President's fiscal year 1999 budget request, the Coast Guard is requesting an increase of $36 million, or an increase of nine percent over the 1998 level, for the Coast Guard's drug interdiction activities. In addition, your fiscal year 1999 budget request is asking for $67 million for drug interdiction capital expenses. Did the Director, ONDCP, conduct any special studies to determine that the Coast Guard's use of the $34.3 million was the best use of the funds?

Answer. Each year, prior to submission of budget estimates to the Office of Management and Budget, agencies submit their Drug Control Budget to ONDCP, describe their program as it relates to the national strategy, and fully justify new funding requests. ONDCP originally certified the Coast Guard's drug-related budget, including the $34.3 million additional funding, for fiscal year 1998 on November 18, 1996.

After the fiscal year 1998 Department of Transportation Appropriations Act was enacted, discussions between the Coast Guard and ONDCP confirmed that use of additional fiscal year 1998 funds would be the most cost-effective expenditure of funds government-wide. ONDCP was very familiar with the Coast Guard's request for $34.3 million as a result of ONDCP's review culminating in the fiscal year 1998 drug budget certification. The Director of ONDCP agreed, ". . . that the Coast Guard's proposed use of these funds represents the best investment of drug interdiction funding for fiscal year 1998," and certified it as such on November 18, 1997.

DRUG INTERDICTION

Question. For fiscal year 1999, what will the additional funds be used for and what will be the anticipated results?

Answer. The Coast Guard's fiscal year 1999 budget request is an increase of $40 million over the fiscal year 1998 level. The following table reflects the comparison of fiscal year 1998 enacted levels and fiscal year 1999 requested funding for Coast Guard drug law enforcement .

[Dollars in millions]

	Fiscal year—		
	1998 enacted	1999 request	Increase 1998 to 1999
Operating Expenses (OE)	$366.128	$372.291	$6.163
Acquisition, Construction and Improvements (AC&I)	34.523	69.303	34.780
Research, Development, Test and Evaluation (RDT&E)	0.938	0.736	−0.202
Totals	401.589	442.330	40.471

The fiscal year 1999 request provides a $6.2 million increase in Operating Expenses (OE) funding; 50 percent of which is represented by the Caribbean Support Tender, the only new initiative in the fiscal year 1999 request. Increased productivity and mission effectiveness from applied technology and better use of intelligence are projected to result in a sustained level of effectiveness in drug interdiction between fiscal years 1998 and 1999.

The fiscal year 1999 Acquisition, Construction, and Improvements (AC&I) request includes an increase of $34.8 million allocated to drug law enforcement; a large percentage of this increase is for the Deepwater Capability Replacement Project which will contribute no actual improvement in law enforcement capability for at least several years. The AC&I request also includes $11 million for the HC–130 Aircraft Sensor Upgrade Project designed to enhance counterdrug mission performance. The remaining portion of the AC&I request represents the drug law enforcement proportional cost share of on-going projects that provide multimission capability. For the most part, these projects maintain current capability.

The Coast Guard's fiscal year 1999 funding request will provide a drug law enforcement effort very similar to that being provided in fiscal year 1998 and this should result in similar performance results.

DRUG INTERDICTION

Question. How many additional staff will the additional funds pay for and how many additional hours will assets be deployed with the additional funds?

Answer. The only new initiative proposed by the President is the fiscal year 1999 budget is the Caribbean Support Tender, which has 41 new staff years associated with it.

The fiscal year 1999 budget proposes reducing counterdrug aircraft hours by one percent. The Coast Guard expects to offset this reduction with increased effectiveness from applied technology and improved intelligence. For example, the installation of sensor enhancements on HC–130 aircraft will improve the ability to classify targets at night, thereby improving mission efficiency and effectiveness.

LONG TERM STRATEGY TO ACHIEVE PERFORMANCE GOALS

Question. What is the Coast Guard's long-term strategy for achieving its drug interdiction performance goals?

Answer. The Coast Guard has developed a 10-year Counterdrug Strategic Plan that is aligned with the National Drug Control Strategy. This plan, Campaign STEEL WEB, is the long term strategy for Coast Guard drug interdiction. The strategic concept is to conduct a sequence of pulse operations in high threat areas for a limited period of time to reduce drug traffic, then redeploy interdiction assets to other high threat areas, leaving sufficient forces behind to maintain route denial. Effective execution of Campaign STEEL WEB will allow the Coast Guard to:

—Effect maritime route denial between source/transit countries and the U.S.

—Protect the arrival zone.

—Provide support to regional engagement operations with partner nations.

The Coast Guard's multi-year drug budget includes resources required to carry out STEEL WEB and achieve the National Drug Control Strategy goals.

LONG TERM COSTS TO ACHIEVE DRUG GOAL

Question. What are the long term costs for achieving the goal that you have set for the Coast Guard's anti-drug program?

Answer. Campaign STEEL WEB has been designed to support the National Drug Control Strategy (NDCS). To fully implement this plan and meet the NDCS goals, the Coast Guard projects that additional resources will be required. Actual outyear funding requirements for Campaign STEEL WEB will depend upon the many variables that affect maritime interdiction operations. These variables include: the evolving threats (smuggling routes, smuggling modes, smuggling technologies); the level of Department of Defense and interagency participation in counterdrug activities; the effects of increased international cooperation; the value of on-going engagement efforts with transit and source nations; and finally, the long term success of the strategy as currently developed.

RESOURCES TO MEET COAST GUARD'S ANTIDRUG PERFORMANCE GOAL

Question. Does the Coast Guard's performance goal for its antidrug program assume a higher level of resources or is it based on the resources in your budget request?

Answer. The resources requested in the fiscal year 1999 budget are sufficient to achieve 1999 drug interdiction goals. The Coast Guard's costs to achieve the longer term National Drug Control Strategy goals are uncertain. They depend on the effectiveness of the President's comprehensive drug control program.

ANTIDRUG PERFORMANCE GOAL RESOURCES

Question. If it is based on greater resources, please explain.

Answer. As previously stated, the Coast Guard's long term strategy for achieving drug interdiction performance goals includes a series of pulse operations in high threat areas. Once drug trafficking in that area is reduced, pulse forces will be redeployed to other high threat areas while a sufficient force level will remain to maintain route denial. Execution of this strategy will require increased surface and aviation capability, improved Command, Control, Communication, Computers, and Intelligence (C^4I) capability and increased intelligence collection support.

CONTAINER INSPECTION PROGRAM INEFFICIENCIES

Question. You propose to reduce the size and funding of the Container Inspection Program by one-third in fiscal year 1999, claiming that you have identified program inefficiencies. Please provide a detailed discussion of these inefficiencies.

Answer. From a total maritime risk perspective, the Container Inspection Program streamlining eliminates lower priority billets at U.S. commercial seaports whose hazardous material container incident exposure, based upon containerized cargo throughput analysis, is relatively low.

Billets will now be distributed based upon a coastal risk and national coverage analysis. This more efficient risk-based billet distribution will cover 76 percent of the Atlantic, 88 percent of the Gulf of Mexico, and 86 percent of the Pacific coastal exposure.

CONTAINER INSPECTION PROGRAM VISION

Question. In your original 1994 budget submission to the Office of Management and Budget (OMB), you envisioned a program twice the size of the one you are now

proposing to cut. Why has your vision changed, what evidence can you provide that such a reduction is warranted, and how can you ensure that this program will still be effective?

Answer. Beginning in 1994, the Coast Guard's internal marine safety business strategies changed from detailed mission performance standards to broader discretion by local unit commanders in selecting activity levels based upon their determination of local risk. Similar to other mature Coast Guard hazardous material cargo monitoring and compliance programs, the Container Inspection Program was transformed in 1996, from its original design as a centrally managed new program with established national inspection quotas, to a decentralized discretionary activity whose operational tempo was not prescribed by law or regulation.

In addition, we found that container inspector resource hours at lower risk areas were already being used by operational commanders for a variety of other marine safety activities which were either mandated by law or other discretionary activities which managed higher local risks. We also have better data than we did in 1994. From a total maritime risk perspective, the risk to mariners, vessels, U.S. commercial seaports, and the environment from maritime hazardous materials container incidents has declined since 1994.

Beginning on December 31, 1997, the 1994 Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS) required all vessels engaged in international commerce to have on board a Cargo Securing Manual approved by the flag state administration. This new international requirement was proposed by the United States following the motor vessel SANTA CLARA I incident of January 1992. Proper use of these manuals by vessel operators will reduce the risk of containerized cargoes from being lost overboard, further reducing the overall hazardous materials container risk. Consequently, fewer container inspection resources are needed to manage current levels of risk. Also, as before, the Coast Guard will continue to monitor compliance through unit reports and multi-agency inspection operations.

INDUSTRY COMPLIANCE WITH HAZARDOUS MATERIAL STANDARDS

Question. What causes you to believe that industry compliance will stay the same or improve once this cut is imposed?

Answer. Hazardous material industry compliance has been steadily improving. The Coast Guard expects this compliance improvement trend will only continue, as other maritime governments continue to focus attention on their Hazardous Material inspection programs, and industry itself seeks to improve their own compliance.

The Coast Guard will continue to monitor national levels of compliance through after action reports submitted by local Coast Guard units and through periodic multi-agency inspection pulse operations. In addition, the Coast Guard's Container Inspection Training and Assistance Team will continue to perform valuable outreach to maritime shippers and carriers as part of their ongoing visits to local Coast Guard marine safety units.

CONTAINER INSPECTION PROGRAM BILLET DISTRIBUTION

Question. Provide the current distribution, by location, rank and rate (or grade), and the actual duties of the 75 full-time equivalents (FTE) provided by the fiscal year 1994 Department of Transportation Appropriations Act for the Container Inspection Program.

Answer. See Attachment 1 for rate, billet, and unit assignments for 65 FTE. The remaining 10 FTE were added to the Coast Guard's general detail.

Nine of the original 10 billets assigned at the Container Inspection Training and Assistance Team (CITAT) remain; the other, a Third Class Gunner's Mate (E–3), was taken as a streamlining savings in 1996. CITAT is a mobile element, fully employing its personnel to provide hazardous material compliance training, inspection standardization, and other assistance to local marine safety units.

Of the two billets assigned to Headquarters to provide program oversight, a Lieutenant Commander (O–4) billet continues to be fully dedicated to program management. In 1997, a Lieutenant (O–3) billet was reassigned to other more critical program management functions, including the Port State Control and Offshore Compliance programs. The legal support Lieutenant billet remains in Headquarters as a multimission marine safety attorney.

The instructor Lieutenant billet remains assigned at the Marine Safety School, Reserve Training Center, Yorktown, Virginia providing hazardous materials compliance training for a variety of resident marine safety courses.

The remaining 51 inspector billets assigned at marine safety units became flexible multimission resources in 1996, conducting a variety of mandated and discretionary activities.

CONTAINER INSPECTION PROGRAM PROPOSED FTE AND DISTRIBUTION

Question. What is your new proposed FTE level, and how will these new FTE's be distributed by location, rate (or grade), and duties?

Answer. The Coast Guard is proposing a new full time equivalent (FTE) level of 46 billets.

Container Inspection Training and Assistance Team. 6 billets:
(1) 1 03, 1 WO, 2 E6, and 2 E4 billets.
Atlantic Coast. 18 billets, distributed as follows:
(1) Activities New York, NY: 1 E8 MST, 1 E6 MST, 2 E5 MST's, and 2 E4 MST's.
(2) COTP San Juan, PR: 1 E6 MST, 1 E5 MST, and 1 E4 MST.
(3) COTP Hampton Roads, VA: 1 E5 MST and 2 E4 MST's.
(4) COTP Charleston, SC: 1 E4 MST and 2 E4 MST's.
(5) COTP Miami, FL: 3 E4 MST's.
Gulf of Mexico. 3 billets, distributed as follows:
(1) COTP Houston, TX: 1 E6 MST and 1 E5 MST.
(2) COTP New Orleans, LA: 1 E6 MST.
Pacific Coast. 13 billets, distributed as follows:
(1) COTP LA/LB, CA: 1 E8 MST, 1 E6 MST, 2 E5 MST's, and 2 E4 MST's.
(2) COTP San Francisco, CA: 1 E5 MST and 3 E4 MST's.
(3) COTP Puget Sound, WA: 3 E4 MST's.
Headquarters. One LCDR (O–4) billet at Commandant (G–MOC–3) to manage the Container Inspection Program.
General Detail: Six billets.

JUSTIFICATION FOR PROPOSED CONTAINER INSPECTION PROGRAM SCALE-BACK

Question. Explain your justifications for the original full time equivalent (FTE) distribution and compare to your justifications for the new proposed FTE level. In particular, discuss the projected impacts of your proposal on both the operations and administration of the Container Inspection Program.

Answer. The original distribution of billets was based upon the anticipated workload necessary to fully and rapidly implement a new compliance program. The initial startup of the highly visible program required centralized Headquarters control. As the program matured and program assessments were made, it became evident that maritime hazardous material container transportation did not represent a major risk and that resource allocations could be reduced with little impact on overall safety.

Container Inspection Program billets would be reduced from the original 75 billets to 47 billets (including General Detail). Coast Guard container inspections would be reduced from approximately 6800/year to about 3500/year, placing Coast Guard compliance efforts in line with the existing tempo of Federal Railroad Administration (FRA) and Federal Highway Administration (FHWA) operations. Associated training requirements would be reduced. Program administration would not be affected, since one FTE will remain in Coast Guard Headquarters for national program management.

CONTAINER INSPECTION PROGRAM ACTIVITIES

Question. Provide specific data on the number and locations of container inspections conducted, and the number and type of enforcement actions, including all penalties assessed by the Coast Guard since the program's May 11, 1994 inception, sorted both by year and by location.

Answer. The 1996 U.S. Coast Guard Container Inspections Program Initial Impact Assessment Report section on civil penalty assessments for calendar years 1994–1997 was delivered to the Subcommittee on September 23, 1998. The report contains a complete breakdown of container inspection activities by marine safety units and final agency civil penalty data by 49 CFR cite.

CONTAINER INSPECTION PROGRAM SUMMARY (CY94–97)

Activity	Calendar year—			
	1994	1995	1996	1997
Inspections	1,942	6,793	9,575	8,290
Completed Civil Penalty Actions	499	576	593	317
Civil Penalty Collections	$877,110	$1,000,027	$1,932,225	$1,618,925

CONTAINER INSPECTION PROGRAM EVALUATION PLAN

Question. During the fiscal year 1995 Appropriations Hearing on the Coast Guard budget, you stated that you were developing an Evaluation Plan to measure the effectiveness of the Container Inspection Program. Provide a copy of the plan and any updates. Did the plan develop a program baseline and collect the data necessary to measure effectiveness as you stated it would?

Answer. The Container Inspection Program (CIP) Evaluation Plan, dated February 10, 1995, was completed in February 1995, and delivered to the Subcommittee on September 23, 1998. The plan included a baseline analysis (Chapter 2) and measures of effectiveness (Chapter 5). The program measures of effectiveness it discussed have continued to evolve and are being incorporated into a completely revised Container Inspection Program policy chapter for publication in the Coast Guard Marine Safety Manual later this year.

The measures of effectiveness detailed in the evaluation plan have been used to measure program impacts. However, isolating and assessing the impacts of the Coast Guard's CIP is difficult, if not impossible, due to the synergistic efforts of similar compliance and assistance programs being conducted by other Department of Transportation modal administrations, state/local government programs, and by the private sector.

MARITIME INDUSTRY COMPLIANCE DATA

Question. Provide all available data on the current state of maritime industry compliance with the regulations governing containerized cargo.

Answer. Final agency actions and collection statistics for calendar year 1995 through March 1998 were delivered to the Subcommittee on September 23, 1998.

MARITIME INDUSTRY COMPLIANCE RESULTS

Question. What do you conclude from this data regarding the level of industry compliance since the establishment of the Container Inspection Program (CIP)? In particular, describe any changes, how these changes were measured, and how much change, if any, can be attributed to the efforts of the Container Inspection Program?

Answer. There has been a noticeable reduction in the percentage of total discrepancies discovered, using standardized nationwide inspections conducted by the Container Inspection Training and Assistance Team (CITAT). Results show a 46 percent decline in maritime hazardous materials transportation civil penalty cases between calendar year 1996 (593 cases) and calendar year 1998 (317 cases). This reduction, coupled with the declining number of detentions resulting from CITAT inspections, demonstrates an improving maritime industry compliance trend. While the CIP has undoubtedly contributed to this trend, there is no way to specifically quantify the contribution. Cooperative efforts conducted by other maritime nations, Department of Transportation modal administrations, state/local governments, and by the private sector have also contributed significantly toward making a positive impact on the program.

Fiscal year 1996 CITAT statistics were delivered to the Subcommittee on September 23, 1998.

CONTAINER INSPECTION PROGRAM MULTI-AGENCY STRIKE FORCE OPERATIONS

Question. When and where were the most recent targeted, multi-agency operations to determine compliance with the containerized cargo regulations? What were the results of these operations. Have you measured any change in compliance levels following such operations? If so, how have compliance levels changed?

Answer. As shown in the following table, recent Multi-Agency Strike Force Operations (MASFO) conducted in Long Beach/Los Angeles, California and Honolulu, Hawaii in 1997 indicate a decline in and severity of the deficiencies discovered. Related correspondence was delivered to the Subcommittee on September 23, 1998.

MASFO INSPECTION/DEFICIENCY SUMMARY (ALL MODES)

Unit	Total inspections		Total deficiencies		Deficiency/inspection ratio (percent)	
	Previous MASFO	1997 MASFO	Previous MASFO	1997 MASFO	Previous MASFO	1997 MASFO
MSO LA/LB, CA	562	654	209	224	37	34
MSO Honolulu, HI	149	110	177	40	119	36

MARINE CASUALTIES INVOLVING CONTAINERIZED CARGO

Question. In 1992, the *Santa Clara I* lost several containers of highly toxic arsenic trioxide off the New Jersey coast. This casualty highlighted the serious safety and environmental problems associated with improper transport of containerized hazardous materials on or near U.S. waters, and led directly to the creation of the Container Inspection Program. Provide data to date on the number and type of marine casualties involving containerized cargo since the *Santa Clara I* incident.

Answer. Excluding the *Santa Clara I*, there were 1,431 reportable marine casualties involving container ships that were investigated for cause by the Coast Guard between January 1, 1992 and April 1, 1998. Of the 1,431 casualty cases involving container ships, only nine of them involved containers and /or hazardous material. Of these nine cases, seven involved leaking containers, one resulted in the loss of 34 containers (none containing hazardous material) overboard, and one was caused by a fire in the vessel's container hold.

ASSISTANCE BY OTHER AGENCIES

Question. In your fiscal year 1999 budget justifications you state that the "Capability to carry out HAZMAT inspections has now been generated in other agencies, allowing the Coast Guard to make some reductions to its container inspection program". Please quantify these other agencies capabilities and answer the following questions:

—To which other agencies are you referring?

—What, specifically, are each of these other agencies doing with respect to container inspection?

—Are these other agencies enforcing the exact same regulations for which the Coast Guard is responsible? If not, how do these regulations differ?

—How many inspectors do each of these agencies have, where are these inspectors located, which geographic areas/port facilities do they oversee, and what are the frequency and types of their inspections?

—How long have each of these agencies been inspecting containers and how many inspections have they conducted? Provide data on the number and type of enforcement actions, including any penalties assessed, that each agency has taken.

—What types of interactions have you had with these other agencies to ensure that their inspectors are properly trained and that the container regulations are being adequately and consistently enforced?

—Please describe all joint training, inspections or enforcement actions with other agencies.

Answer. General responsibilities, field level personnel resources, and activity levels within maritime and surface hazardous material transportation compliance programs are:

—Research and Special Programs Administration (RSPA) inspects hazardous materials manufacturing and repair facilities, commercial shippers, and shipments. RSPA employs 20 full-time shipper focused inspectors. During calendar year 1995, RSPA conducted five percent (562 of 11,460) of shipper inspections conducted by DOT;

—Federal Railroad Administration (FRA), with 59 full-time inspectors (45 full time federal railroad and 14 hazardous material state inspectors), examines rail yards, hazardous material shippers, and tank and non-bulk railcar manufacturing/repair facilities. In calendar year 1995, FRA conducted 39 percent (4245 of 11,460) of shipper inspections conducted by DOT; and

—Federal Highway Administration (FHWA) examines motor carrier operations, equipment, driver qualification, commercial drivers license regulations, financial responsibility, hazardous materials, etc. to determine if the motor carrier meets the safety fitness standards. FHWA employs 28 full-time and 258 part-time

motor carrier inspectors. In calendar year 1995, FHWA conducted one percent (137 of 11,460) of shipper inspections conducted by DOT.

—All the agencies are enforcing the same Hazardous Materials regulations, Title 49, Code of Federal Regulations (CFR), Parts 171–173. However, in addition to 49 CFR 171–173, each agency has extra regulations to enforce for their specific mode of transportation. The agencies and specific regulations are as follows: the Federal Railroad Administration (FRA) also enforces 49 CFR 174; the Coast Guard also enforces 49 CFR 176; and the Federal Highway Administration (FHWA) also enforces 49 CFR 177.

—The Coast Guard Container Inspection Training and Assistance Team (CITAT) offers joint training sessions with the other the agencies. In fiscal year 1997, three sessions in three different cities were held with FRA and one session was held with FHWA.

—The Coast Guard and the other agencies are involved in joint inspections and enforcement actions. The Multi-Agency Strike Force Operation (MASFO) is a type of joint inspection/enforcement action that the Coast Guard is involved in. The MASFO's gather data to be used for enforcement purposes promote teamwork among the local, state and federal enforcement agencies and help determine trends and patterns for targeting high-risk shippers with a history of noncompliance.

—The specific information concerning where the other agency inspectors are located; which geographic areas/port facilities other agencies oversee; the frequency and type of inspections other agencies perform; how long other agencies have been inspecting containers; or the number and type of enforcement actions should be provided by those agencies.

COMMUNICATIONS TO OTHER AGENCIES

Question. Provide copies of all senior level correspondence through which the Coast Guard has alerted other agencies regarding your proposed reduction in the container inspection effort.

Answer. The Coast Guard has not alerted other agencies regarding our proposed reduction in the container inspection program. The Coast Guard is awaiting congressional approval of the reduction prior to formally notifying other agencies. However, the Coast Guard's marine safety strategic business plans are public knowledge and are available on the World Wide Web. These plans, beginning in 1996 identified the service's core inspection competencies as either legislative mandates or, as in the case of container inspections, discretionary activities based upon local risk.

ANTICIPATED SAVINGS THROUGH FISCAL YEAR 2002

Question. As part of the continuing effort to streamline the Coast Guard, the President's fiscal year 1999 budget proposes additional streamlining actions that will yield over $20 million in annual savings by 2001. Prior efforts to streamline the Coast Guard involved a plan to save about $77 million a year by fiscal year 1999. This prior cost-cutting effort included the closure of Governor's Island. Please describe the Coast Guard's plans for achieving savings that will yield over $20 million in annual savings.

Answer. During the period 1994–1998, the Coast Guard saved the American taxpayer more than $400 million in gross programmatic reductions. Of this amount, nearly $78 million in net annual savings were attributable to the Coast Guard generated National Streamlining Plan, which included closing Governor's Island.

The President's fiscal year 1999 budget states "As part of a continuing effort to streamline the Coast Guard, the 1999 Budget assumes facility closures and other streamlining that will yield over $20 million in annual savings by 2001." The following fiscal year 1999 budget initiatives will contribute to this effort. Actual savings may vary due to several factors (i.e., lower than anticipated Acquisition Construction, and Improvements Appropriation funding levels may delay project completion), but should exceed $20 million by 2001:

Fiscal year 1999 initiative	Net recurring operating expenses savings	Savings year
Termination of one time costs/annualization of prior-year efficiencies	−$8,000,000	1999
Optimize Coast Guard Training Infrastructure	TBD	2002
Operational Adjustments	−7,000,000	1999
Reduce Seagoing and Coastal Buoy Tender Fleet Size from 37 to 30	−14,000,000	(1)
Finance Center Computer Savings	−900,000	1999

Fiscal year 1999 initiative	Net recurring operating expenses savings	Savings year
LORAN-C Consolidated Control	−1,500,000	1999
Fleet Logistics Savings	−1,500,000	1999
270-Foot Command and Control Savings	−500,000	1999
Restructure Aviation Workforce	−300,000	1999
HC–130 Engine Conversion Savings	−300,000	1999
Air Station Atlantic City Consolidation	−500,000	1999
Close Air Facility Long Island	−1,500,000	1999
Relocate Air Facility Glenview, IL	−300,000	1999
GSA Rent Reduction	−3,300,000	1999
Military Personnel Management Efficiencies	−6,000,000	2000
Federal Workforce Act Completion	−500,000	1999
Military to Civilian Conversion	−750,000	1999

[1] Pends AC&I funding levels.

STATUS OF GOVERNOR'S ISLAND DISPOSAL

Question. What is the current status of removing Governors Island from the Coast Guard's real property inventory?

Answer. Governors Island was reported as excess to the General Services Administration on July 25, 1997. In accordance with Federal Real Property Management Regulations (41 CFR 101–47.402–1), Governors Island will remain in the Coast Guard's real property inventory until the property is disposed of by the General Services Administration. The Administrator, General Services Administration is prohibited from disposing of Governors Island prior to fiscal year 2002 under Section 9101 of the Balanced Budget Act of 1997 (105 Public Law 33; 111 Stat. 251).

NAVY'S REGIONAL SYNCHRONOUS OPTICAL NETWORK (SONET) RINGS

Question. What annual savings could be achieved by joining the Navy's regional Synchronous Optical Network (SONET) rings? The committee is informed that the significant increase in backbone bandwidth over conventional point-to-point telecommunications connections make these SONET rings increasingly more cost effective to operate when more client agencies make use of them. Has the Coast Guard done any assessment of potential savings from joining the Navy's SONET rings?

Answer. Telecommunications services offered by the Defense Information Systems Network (DISN), including SONET, were considered but found to be significantly more expensive than the point-to-point architecture subsequently chosen. The Coast Guard WAN, known as Coast Guard Data Network (CGDN) PLUS, will eventually provide data networking telecommunications services to over 865 units throughout the United States and abroad. The overwhelming majority of these Coast Guard units are small and not located in the same geographic area as Navy commands. The Coast Guard continues to evaluate efficiencies that may be offered by Navy, other agencies and commercial service providers.

SUBCOMMITTEE RECESS

Senator SHELBY. The Subcommittee on Transportation will next convene on Tuesday, March 24, at 10 a.m., in Dirksen 192 to discuss passenger rail in America and Amtrak's future.

We thank you for your attendance.

The hearing is now recessed.

[Whereupon, at 12:25 p.m., Thursday, March 19, the subcommittee was recessed, to reconvene at 9:04 a.m., Tuesday, March 24.]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1999

TUESDAY, MARCH 24, 1998

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 9:04 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Richard C. Shelby (chairman) presiding.

Present: Senators Shelby, Specter, Gorton, Bennett, Lautenberg, and Reid.

AMTRAK'S FUTURE AND PASSENGER RAIL ALTERNATIVES

CONGRESSIONAL WITNESSES

STATEMENT OF HON. WILLIAM V. ROTH, U.S. SENATOR FROM DELAWARE

OPENING REMARKS

Senator SHELBY. I thank you all for making this earlier starting time. We have a lot of witnesses to hear from today. We are going to hear from both of my colleagues from Delaware, Senators Roth and Biden, and later we are going to hear from Senator Baucus. I am certainly happy to accommodate all of them, as well as my colleague from New Jersey, Senator Lautenberg.

AMTRAK: NOT EFFICIENT

Through the fiscal year 1998, the Federal Government has provided a total subsidy to Amtrak of $21 billion, an annual average of $750 million a year. This is an extraordinarily high subsidy level for what is essentially a Government-sanctioned monopoly that is in the opinion of many experts not managing its assets in a manner that maximizes the taxpayers' investment.

But Congress is implicitly responsible for this situation. We have agreed to provide these funds year after year for a national passenger railroad that is not truly national, a rail system that moves fewer people in a year than the Atlanta Airport enplanes and deplanes in 3 months and, for many of the passengers that Amtrak does reach, serves them at infrequent and inconvenient times.

We have become locked into supporting, I believe, the status quo. Instead, we should be looking for ways to foster competition, elimi-

nate monopolies, and work for better, more economic rail passenger service.

Last Thursday I told Secretary Slater that the first dollar in the fiscal year 1999 appropriations bill would be a highway dollar and the last dollar in the bill would be a highway dollar, and that in between we would focus on safety programs and all the other transportation programs that are funded by this subcommittee. I pointed out then that the Senate-passed ISTEA bill envisions a substantially higher highway obligation limitation than the record level we appropriated in 1998 and that our ability to fund non-highway spending in the 1999 bill will be constrained by the ISTEA-driven expectations of a much larger national highway program.

Within this context, the administration's request for Amtrak of $621 million is a very difficult target to hit, particularly when you take into account that these appropriated funds would be in addition to the $1.1 billion that the railroad will receive in TRA funds again in 1999. That is a total of $1.7 billion. It would be quite a windfall for Amtrak. Providing appropriated funds in addition to the TRA funds may not be warranted and under the current budget constraints may be impractical.

But today I do not want the focus of this hearing to be the debate about whether or not Amtrak should be subsidized by the Federal Government or what the right level of support is. These are important and interesting questions, but today the focus of this hearing is how we can improve the intercity passenger rail in the United States. I want the Appropriations Committee here to be instrumental in helping to ensure that every mode of transportation is competitive, efficient, economical, and responds to the needs of the market.

PREPARED STATEMENT

Without objection, I will insert my complete written statement in the hearing record.

[The statement follows:]

PREPARED STATEMENT OF SENATOR SHELBY

The subcommittee will now come to order. I thank you all for arranging to make this earlier starting time—we have a lot of witnesses to hear from today. My two colleagues from Delaware, Senators Roth and Biden, asked that they be allowed to make some brief remarks at this hearing, as has Senator Baucus of Montana, and I am certainly happy to accommodate them. The subcommittee members will make their opening statements, and then we will listen as you deliver your remarks.

Through fiscal year 1998, the federal government has provided a total subsidy to Amtrak of $21 billion—an annual average of about $750 million a year. This is an extraordinarily high subsidy level for what is essentially a government-sanctioned monopoly that is, in the opinion of many experts, not managing its assets in a manner that maximizes the taxpayers' investment. But Congress is implicitly responsible for this situation. We have agreed to provide these funds year after year for a national passenger railroad that is not truly national; a rail system that moves fewer people in a year than Atlanta Airport enplanes and deplanes in three months; and, for many of the passengers Amtrak does reach, serves them at infrequent and inconvenient times. We have become locked in to supporting the status quo. Instead, we should be looking for ways to foster competition, eliminate monopolies, and work for better, more economic rail passenger service.

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and all the other transportation programs that are funded by this subcommittee. I pointed out that the Senate-passed ISTEA bill envisions a substantially higher highway obligation limitation than the record level we appropriated for fiscal year 1998, and, that our ability to fund non-highway spending in the 1999 bill will be constrained by the ISTEA-driven expectations of a much larger national highway program.

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But today, I do not want the focus of this hearing to be the debate about whether or not Amtrak should be subsidized by the federal government, or what the "right" level of support is. These are important and interesting questions, but today, the focus of this hearing is on how we can improve intercity passenger rail in the U.S. I want this Appropriations Committee to be instrumental in helping ensure that every mode of transportation is competitive, efficient, economical, and responds to the needs of the market.

I welcome the opportunity to hear from my colleagues; from the panel on the current status of Amtrak, which will include testimony from GAO and the DOT Inspector General; and, especially from the panel where we will explore some alternatives for improving passenger rail in America. This panel is made up of non-governmental witnesses from outside the beltway—New York, Chicago, Los Angeles, and Philadelphia—all of whom have expertise in passenger rail issues, and ideas about ways to improve passenger rail in the U.S. Our last panel will be concerning the administration's budget request for Amtrak in fiscal year 1999, and I think it is worth mentioning here that, for the first time, Amtrak has agreed to the administration's budget request and has included that same funding level in the railroad's own federal grant request. I want to thank OMB Deputy Director Jack Lew for presenting the administration's request for us today.

I think we should all settle in for what will probably be a fairly long hearing, and which may be interrupted by votes on the Supplemental appropriations bill. I'll now invite my subcommittee colleagues to make their opening statements, before we hear from the panel of guest Senators.

STATEMENT OF SENATOR LAUTENBERG

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Thanks, Mr. Chairman. I particularly want to thank you for being so accommodating in terms of what time we start, and also to thank our colleague the distinguished chairman of the Finance Committee for being here this early. He has to travel to get here and so he had an early start.

Mr. Chairman, every year this subcommittee holds a hearing to discuss Amtrak's budget, and this year the focus of the hearing is somewhat different. The title if this hearing—Amtrak's Future—may imply that Amtrak's future is in question. I would like to tell you what it would mean if Amtrak were no more. If Amtrak disappeared tomorrow, it is not hard to predict what would happen in my State and throughout the Northeast.

Out of all the States in the Nation, New Jersey currently has the highest density of vehicles on its roads. We do not have the space or the money or public backing to expand our existing 6- and 12-lane highways or to build all new ones. But if there were no Amtrak, at least 18,000 more cars a day would be driving on New Jersey's roads.

How can we explain to those regularly driving these roads—trucking companies, commuters, business travelers, tourists—why an additional 18,000 cars will be crowding onto these already con-

gested roads? In a region where people waste more than 2 million hours in traffic every day, this would be unbearable.

In the New York-New Jersey metropolitan region, cutting back Amtrak service would cause nothing less than a major crisis. According to the Journal of Commerce, without Amtrak there would be an immediate need for 10 tunnels under the Hudson River between North Jersey and Manhattan—you may as well pave it over—at a cost of—would you listen—of $3.5 billion each; and 20 new highway lanes in New York City. Talk about congestion. As for the broader impact, there would be an additional 27,000 cars daily on the highway between Boston and New York.

So far I have just been talking about highway congestion. Amtrak also carries one-half of the combined air-rail market between Boston and New York, and when intermediate cities are included Amtrak's share of the air-rail market rises to 70 percent. Without Amtrak, we will need to squeeze an additional 7,500 fully-booked 757's in our already congested skies every year, 7,500 new flights.

Right now there is an urgent reprogramming request that we heard, Mr. Chairman, from FAA to replace aging computers and radar equipment which often falter. Our aviation system simply cannot handle thousands of additional planes in our skies, and these thousands of additional planes would cause delays all across our country. There would be no area of significant traffic that would be spared from delays as a result of this congestion that we would be creating in the Northeast.

COMMUTER'S DEPENDENCE ON AMTRAK

We have seen extraordinary growth and success in other corridors throughout the country. The west coast region accounted for nearly 70 percent of Amtrak's systemwide ridership increases for fiscal year 1997. The California commuter system, which serves over 8 million riders a year, has demonstrated more than 25 percent growth in passenger service. The Texas Eagle, which goes from Chicago through Texas and on to Los Angeles, surpassed its prior year's performance in just one quarter. The ridership on the Empire Builder from Chicago to Seattle has shown a 65-percent increase in just 1 year.

No area of the country would be exempt from the enormous inconvenience and cost of delays. If Amtrak disappears tomorrow, we better be ready to shell out the billions of dollars that will be needed to lay the roadbed, build more airports, and fund air traffic equipment. One thing I think is going to be awfully hard to find and that is more space in the skies.

Amtrak is a national passenger rail service. It provides important service in areas of the country that are not as congested as other corridors. In many cases, Amtrak provides residents of small rural towns with their only form of intercity transportation. In fact, this subcommittee heard testimony just weeks ago from the GAO pointing out that recent trends in airline competition have meant the significant loss or elimination of quality air service at affordable prices to many small and medium-sized cities in many different regions of the country.

Each year some 22 million passengers depend on Amtrak for transportation between urban centers and rural locations. Amtrak

provides service in 44 of the 50 States. Life without Amtrak is simply not an option, not for me and not for millions of others across the country. And as the past year has shown, it is not an option favored by the majority of Congress or the administration either.

TRA AND REFORM ACT NECESSARY

Just last August, Congress passed and the President signed into law the Taxpayer Reform Act [TRA], which provides $2.3 billion in tax credits for Amtrak to invest in high-yield capital projects. This investment is essential to Amtrak's success. It will enable Amtrak to generate additional revenues from innovations such as high-speed rail.

A few short months later, in November, we enacted the Amtrak Reform and Accountability Act. In that act, Congress strongly recommitted itself to a national intercity rail passenger system and provided reforms to operate more like a business and the funding to success.

These two acts, the TRA and the Reform Act, did not diminish in any way the responsibilities that lie on this subcommittee to continue to fund Amtrak's needs. To the contrary, this legislation, that is championed by broad bipartisan majorities, calls on this subcommittee to appropriate $1.058 billion out of this subcommittee for fiscal year 1999.

Now, all we need to do now is to fulfill the commitments that Congress made when it approved Amtrak's reauthorization bill. As provided in that legislation, we must give Amtrak time to have a fighting chance. Amtrak has revised its business plan to account for developments over the past few months. It will conduct a market analysis of its route structure and its national system, making strategic decisions based on passenger needs. It will move ahead with a new board of directors charged with clear goals specified in the reauthorization bill.

As we consider Amtrak's needs, we must remember that every other mode of transportation needs and receives substantial Federal subsidies. Amtrak is no different. Spending Federal dollars on Amtrak is a critical investment in this age of traffic-clogged highways, airport congestion, and pollution controls. Train travel is one of the safest modes and rail is one of the most energy-efficient, helping to limit the country's dependence on foreign oil.

But while hundreds of billions of dollars are spent every decade on highway and airport improvements, a mere fraction is spent on the country's rail system. In fact, we spend less per year on Amtrak than even Bolivia invests in its national rail system. Germany has decided to invest nearly $70 billion on what is already an excellent rail system in a country a fraction the size of the United States.

What have we done? Over the past 15 years we have increased spending on highways by 73 percent, aviation by 170 percent, while we have cut Amtrak's funding by 62 percent.

We need Amtrak to reduce congestion on our highways and in our skies. The Congress and the President have demonstrated clear support for Amtrak as a national system and support continued Federal appropriations.

In the past we have underfunded this important system and instead we have favored the other modes. Amtrak is operating under substantial challenges to meet strict business goals, and I believe Amtrak is up to them. The least we can do is to provide them the funds that we promised and give them a fighting chance to succeed.

Mr. Chairman, I thank you very much for allowing me to make this opening remark. We now have our witnesses here.

Senator SHELBY. Senator Roth, we welcome you and Senator Biden, and also Senator Baucus, who is now coming in, to the hearing. Your written statement will be made a part of the record in its entirety. You may proceed as you wish.

STATEMENT OF SENATOR ROTH

Senator ROTH. Thank you very much, Senator Shelby and Senator Lautenberg.

Let me begin by saying that I would like to underscore what Senator Lautenberg has just said, both from the standpoint of the importance of securing the funds that have been promised in the past and, second, the critical importance of the rail system, particularly to the Northeastern area as well as the western coast, but to the entire Nation. I cannot emphasize too much how important it is that we have a viable rail system. For us to lose that in my region of the country would be, as Senator Lautenberg has said, a total disaster.

We depend upon it. It is critically important. It is not only a safe manner of traveling, but, as Senator Lautenberg has pointed out, it helps better utilization of energy, it creates a better environment. All of these are of critical importance.

But Mr. Chairman, I would just like to point out that, as you well know, one of my top priorities has been to create a dedicated source of capital funding for Amtrak. Congress has voted time and again that capital funding is critical to Amtrak's survival, and for that reason a tax provision was included in the Taxpayer Relief Act of 1997 to provide Amtrak with a tax refund of $2.3 billion for capital expenses.

The bottom line is that Amtrak desperately needs capital. According to GAO, Amtrak must have the capital funding that was provided in the TRA as well as what is provided through the normal appropriations process. Without both, Amtrak faces bankruptcy.

Last year, because of the tax refund for Amtrak, the Senate Appropriations Committee eliminated Amtrak's general capital appropriation for fiscal year 1998. I am here today to urge you not to repeat last year's action, but to provide the necessary capital funding for Amtrak. As you know, the $2.3 billion capital fund for Amtrak was intended to supplement, not supplant, annual capital appropriations.

Amtrak recently received its first installment of this refund, about $1.1 billion, and this is the first time, I would point out to the panel, in Amtrak's 27-year history that it has had a secure and reliable source of capital to allow it to do long-term planning, make high-yield investments, leverage external and private funds, and otherwise act like a business.

Amtrak will finally be allowed to focus on the future, instead of constantly worrying about bankruptcy. As GAO has testified, adequate capital funding is the most important way capital can help Amtrak achieve operating self-sufficiency.

As Mr. Ladd states in his written testimony, the more you capitalize the less you subsidize. He points out that the great majority of Metra's capital program is prioritized based on the ability of the investment to reduce operating costs. With the release of the $1.1 billion, Amtrak will for the first time be able to do that.

Amtrak has testified that the company will need $4 billion in capital funds to attain operating self-sufficiency by 2002, and my original proposal would have provided that. But last year's balanced budget agreement provided $2.3 billion, one-half of the necessary level of funding to allow Amtrak to achieve self-sufficiency by 2002.

Again, I emphasize that the $2.3 billion supplements but does not replace the needed annual capital appropriation. This capital fund was established to allow Amtrak to invest in new equipment and bring high-speed rail to the Northeast corridor. If Amtrak does not have adequate capital funding, the company will have to use the Amtrak capital fund to pay for ordinary maintenance expenses, and this is not what was intended with the $2.3 billion. It must be used to pay for high-speed rail and other capital-intensive projects to help the company improve its financial situation.

I am afraid if the additional fund is not provided we will soon be exactly where we were last year, wondering if Amtrak will survive. But again I want to emphasize the importance of providing Amtrak with the necessary funds, as this is a source or a means of transportation for which there is no adequate substitute.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Roth, we thank you for appearing.

Senator Specter has joined us.

STATEMENT OF SENATOR SPECTER

Senator SPECTER. Thank you very much, Mr. Chairman. Just a word or two.

I stopped in early to pay my respects to this very distinguished panel. I see two-thirds of the panel on the Metroliner with regularity. They have the shorter ride, from Wilmington. I am glad to see Senator Baucus join my two distinguished colleagues from Delaware, Senator Roth and Senator Biden.

The issue of funding Amtrak is a very important one, which I fully support, having seen its impact not only on the Boston to Washington run, but in Pennsylvania generally. I will have more to say.

I will be back, Mr. Chairman. I must chair a hearing on Alzheimer's on the Subcommittee on Labor, Health, Human Services, and Education. But we will have Mayor Rendell in a little later today, and I appreciate the opportunity to say these few words at this time.

Senator SHELBY. Thank you, Senator.

Senator SPECTER. Thank you.

Senator SHELBY. Senator Biden.

STATEMENT OF HON. JOSEPH R. BIDEN, U.S. SENATOR FROM DELAWARE

Senator BIDEN. Thank you, Mr. Chairman.

Mr. Chairman, this is the Tenn-Tom for us. This is a big deal, and I hope that, as Barry Goldwater used to say, in your heart I hope you know we are right. And I hope, just as some of us—I was just riding on the Tenn-Tom——

Senator SHELBY. I want to know if Amtrak was on time today.

Senator BIDEN. Amtrak was on time, on time performance. 9 o'clock it arrived. It took me 11 minutes to get here from the train. It was on time. I rode down.

I visited your beautiful State this weekend to visit where all that Delaware money went in the Tennessee River Valley project on the Tenn-Tom.

Senator SHELBY. Not enough, though.

Senator BIDEN. Not enough. And I voted—I just want to remind you, I voted for your efforts, and I hope you will see in your heart the wisdom of, just as you need—and I mean this sincerely. The needs of your State are very different than the needs of mine, and one of the great benefits, it seems to me, of this great country is we have literally, not figuratively, always supplanted the needs of one community that the other did not possess, and when we could help we did.

Just that is a little aside. But by the way, what a magnificent part of the world. What a magnificent part of the world.

Senator SHELBY. You should have stayed longer. I hope you spent some money down there.

Senator BIDEN. Well, I did spend some money there. And I want you to know, if it was any closer I would try to spend some money to buy a lot down there. It is absolutely magnificent. It is amazing what the Federal Government can do when it wants to help, is it not?

Senator SHELBY. Absolutely.

Senator BIDEN. And I mean this sincerely.

Senator SHELBY. When it has good leadership.

Senator BIDEN. It does have good leadership, and I am counting on your leadership in helping us on this one, too.

Mr. Chairman, I am pleased to be here with my colleague Bill Roth and my friend from Montana, who has always been helpful as well, and always happy to be with—up to a moment ago you were kind of surrounded by Amtrak riders here—Senator Lautenberg, who has been our leader in this effort.

AMTRAK'S IMPORTANCE

Mr. Chairman, I should say at the outset I was a little surprised, and hope it will change before it is over, that you are not going to get a chance to hear from Amtrak management here. I know the GAO and the inspector general of the Transportation Department will probably give us a fairly accurate financial description of Amtrak's condition and a pretty accurate—not a pretty inaccurate, but I suspect dry, recitation of its business plan. But I hope at some point that you are able to hear from the actual management about how it is working.

You know, this morning Amtrak is a little bit like Huckleberry Finn, who finds himself looking in on his own funeral. They were not invited and they know they are not dead, but lots of folks are acting like it is time to bury them, and bury them, Mr. Chairman, because we seem to be here to hear extreme—excuse me—to examine alternatives to Amtrak.

I am not sure why we are examining alternatives to Amtrak. But it was less than 5 months ago the U.S. Senate passed the Amtrak Reform and Accountability Act of 1997 by a unanimous vote, authorizing over $5 billion in appropriations for Amtrak over the next 5 years. The reauthorization legislation was authorized by Senator Hutchison of Texas and signed by the President of the United States in December, and it was heralded by both parties and both sides of the Hill, by folks ranging from Senator McCain, who does not like Amtrak very much, to Transportation Secretary Slater, for providing comprehensive changes and empowering Amtrak to meet its own financial goals.

They noted both the long-overdue reforms, was the quote I heard all the time, and the long-overdue capital investment that enactment of the bill would trigger.

That authorization bill provides over $1 billion for Amtrak this year and it was passed by unanimous consent. Given the support of that reform bill, one might expect that Amtrak would not have too much trouble getting close to that level of appropriations. I thought life was going to be a little bit easier this time, but for 25 years in a row it looks like it is not.

Passage of the authorization meant the release of the $2.3 billion of new capital funds from the Taxpayer Relief Act which the Senate passed last year, and some of us, Mr. Chairman, thought we might have a year or two where there would not be another struggle for funding. But here we are, the same Senate that passed the bill without a single Senator objecting, just months later considering alternatives to Amtrak before the reform bill has even had a chance to work.

Mr. Chairman, everyone knows Amtrak just finished one of the most difficult years in its history. But it is, as a consequence of that, in a more stable position commercially, operationally, and financially than it has been for a long time. It has improved its bottom line by more than $300 million over the past 3 years through aggressive revenue development and cost-cutting actions. Passenger revenues have increased by more than $100 million annually over the last 2 years and ridership is also up.

All this has been accomplished over a 3-year period when Federal operating support has declined by nearly 50 percent. Imagine what Amtrak could do if it received adequate funding.

We provided Amtrak with a new lease on life with the new capital funds, but, as Senators Hutchison and Lott have forcefully reminded us, those funds were intended to supplement, not replace, capital provided in the annual appropriations process. Amtrak has consistently said it needs $4 billion over 5 years and the new capital fund in the tax bill last year provides more than one-half of that.

Mr. Chairman, I honestly believe it would be extremely shortsighted to fail to provide the balance of that funding. If Amtrak

cannot preserve the new capital fund for capital investments with high rates of return and instead is forced to use it for its daily survival, 2 or 3 years down the road from now it will be used up.

The Amtrak reform bill aims at improving Amtrak's business practices, but we are demanding that Amtrak consume its own seed corn, Mr. Chairman, instead of following sound business practices that it would prefer to follow. And we're going to hear on the floor, we're going to hear, I guarantee you, if the committee is unable to fund it, appropriate the appropriate amounts of money, that: Look at this irresponsible board; they went out and used up all this capital; they used up their capital and they did this to supplement their operating budget, and look at the trouble they are in; and they do not know how to run a railroad.

So after they consume their seed corn, what then? The financial performance of the company will not be improved and it will be, there we go again. We will be exactly where we were last year, wondering if Amtrak is going to survive.

I do not want to be there again, Mr. Chairman. This railroad is too valuable a part of America's transportation network. And the President's budget proposal request of $621 million for capital in fiscal year 1999 is a bare minimum. It is too low in my opinion. By itself, given Amtrak's needs and its history of underfunding, this request is the absolute bare minimum.

I would add, to state the obvious, Mr. Chairman, it is clearly important to my region of the country. It is clearly important along that so-called megalopolis all the way from Boston to Richmond, and I would argue all the way down the coast, and on the west coast, and more important there than it is in other parts of the country. I understand that, I understand that. But it is also vitally important to the country.

I notice every time that we go to shut it down and anybody is going to go on strike, there is a provision in the law that says that it is a national emergency. So what happens is we invoke a national emergency, because everybody recognizes it would be an absolute blithering disaster for the American economy if Amtrak went on strike.

What happens if Amtrak shuts down? If passengers fully fund the President's—excuse me. If Congress fully funds the President's request, it will cost this committee significantly less this year to fund Amtrak than it spent last year, since capital has more than a 50-percent lower outlay rate than it did last year.

AMTRAK IS NOT FUNDED ENOUGH

Mr. Chairman, I cannot imagine why we would not fully fund it. We passed two bills last year, the authorization and the Tax Reform Act with Amtrak's new capital fund. Together they give Amtrak a few years of adequate funding, after which Amtrak faces some very serious consequences if they do not make measurable progress toward operating self-sufficiency.

But those few years of adequate funding assumed that we would provide adequate annual appropriations in addition to the new capital fund. It seems pretty clear to me, Mr. Chairman, if you really want Amtrak to reach operational self-sufficiency—not just you; I use that in an editorial sense, you; I mean everyone—and no longer

be a drain on the taxpayers' pocketbooks as we constantly hear, then we have to give them the chance that Congress approved last year: 5 years of adequate funding, subject to strenuous oversight and review.

That means, at a minimum, providing the $621 million requested in the President's budget. I want to point out, that amount is a little more than one-half of the $1.058 billion that was authorized, so we are nowhere near living up to our commitment. But Amtrak has said they can make it on that amount.

Mr. Chairman, again I do not know why Amtrak is not here at the hearing testifying on its future, but on their behalf I would like to urge the committee in the strongest possible terms to provide the requested level of capital funding. It seems to me a deal is a deal is a deal.

Russell Long used to say—I will never forget going up to him on the floor when he was chairman of the Finance Committee when I first got here and I said, Mr. Chairman, and I was trying to make a case. He put his arm around me and pulled me in to him and he said: Joe, let me tell you something; as my Uncle Earl used to say, I ain't for no deal I ain't in on.

Well, everybody is in on this deal. We are all in on the deal. We all signed on. We all made a promise. And Mr. Chairman, I do not know why we cannot follow up on it.

In conclusion, Mr. Chairman, last year the Presidential Emergency Board told us that men and women working at Amtrak deserve a raise, and it is easy to see why. An Amtrak electrician is paid $16.10 compared to $23.10 paid for the same job on the Long Island Railroad. The Amtrak lineman earns $16.93 an hour compared to $21.91 on Metro North.

If the deal that the administration, Amtrak, and the Brotherhood of Maintenance of Way Employees struck last year becomes the pattern for all Amtrak workers, it will achieve substantial savings, Mr. Chairman, savings from productivity gains, from increased efficiency, that will add up to $56 million a year over the next 5 years. Nevertheless, to bring Amtrak's pay rates up to where they can attract and keep skilled workers in the competition with other rail employees, Amtrak needs an additional $38 million a year over the next 5 years. That small amount is not only a fair deal for the men and women of Amtrak, who have gone too long without a raise, or a contract, I might add, it is also a good deal for Amtrak and the American people, that will get both the increased productivity and secure a better, more stable work force.

That is my case here, Mr. President—Mr. Chairman. Let us provide the funding Amtrak needs and live up to the new standards set by last year's reform bill. Let us not shortchange Amtrak's capital needs just at the moment when they finally get a fund for long-term high-return capital investment every railroad runs on. And let us make sure, Mr. Chairman, that Amtrak has the funds needed to meet its obligations to the men and women who maintain and run those trains.

Like Huck Finn, Mr. Chairman, Amtrak's been at the brink of trouble for years, but it is not dead yet. Reasonable steps can make it a better, healthier, more efficient part of our transportation system.

Mr. Chairman, I truly appreciate your listening to me. I understand we have a slightly different view on this, but I really and truly hope you will consider the consequences of failure to fund Amtrak for a part of the world that in the past has been there, I would argue, for your part of the world.

Thank you, Mr. Chairman.

Senator SHELBY. Senator Biden, for the record I just wanted to share with you that I did vote for the Amtrak reform bill.

Senator BIDEN. I understand you did. That is why I am counting on you now, Mr. Chairman.

Senator SHELBY. And some of my concerns, not all—but if you can just envision, since you have been to the South and been to my home State—if you can envision—the Amtrak going just from Atlanta to New Orleans. It goes to Birmingham, Atlanta, Birmingham, Tuscaloosa, my hometown, Meridian, Mississippi, Senator Lott's area, Hattiesburg, MS, and New Orleans every other day. Not very efficient.

Now, we have one of the fastest growing areas in the Nation, the South, as you well know. We do not have much intercity rail passengers there. Senator Lott and I have talked about it. I am sure you also have talked to him about it.

Senator BIDEN. I have, Mr. Chairman.

AMTRAK'S IMPORTANCE

Senator SHELBY. We have those concerns because our people do not believe for the most part that they are getting a fair shake as far as Amtrak is concerned. I know Amtrak is important from here all the way up to Boston and it works. It works there. And I am sure it works in some other areas of the country. Perhaps it could work better, perhaps not, in areas like ours.

But for us to support it politically, it is going to have to turn around some. It cannot just be a regional thing, because I think you understand where I am coming from.

Senator BIDEN. I do, Mr. Chairman. And I know Senator Baucus is here and he is the ranking member of an important committee.

Senator SHELBY. Absolutely.

Senator BIDEN. And I do not want to keep him. But with his indulgence and yours, if I could take 2 minutes to make a very brief response. Mr. Chairman, I think we have built in our own demise by insisting that Amtrak have to be self-sufficient nationwide. No passenger rail service in the world is nor is it likely to be.

What we have done, we have undercut the support for Amtrak by not adequately funding. For example, there used to be a train that went through Montana.

Senator BAUCUS. Still is.

Senator BIDEN. It still does, but not as frequently as it did. And one of the things that happens is the Governor of Montana told me that it was worth $6 million a year toward the ski and the recreational industry and it cost, what, several hundred thousand dollars to run it through there. But when Amtrak is faced with a dilemma—it is just like when I was on the county council. The one thing I learned early on as a local councilman, that when you try to deal with a rapid transit system or a mass transit system and you to make savings, if you cut one of the 20 lines you lose 10 per-

cent, not 5 percent, of the ridership. In this case we lose, not 10 percent, but we lose 25 percent of the support in this body.

I think the future should be rail service nationwide, Mr. Chairman. I think we are making serious mistakes. But I appreciate your dilemma. But like I said, Mr. Chairman, if you think it is hard to explain Amtrak, which at least goes through your State, not nearly enough——

Senator SHELBY. Through my hometown.

Senator BIDEN. Imagine, imagine explaining the Tennessee River project in Selbyville, DE. I mean, it ain't easy. Imagine doing that.

But we do it because we are one Nation. And I think you—well, never tell another man what his constituency thinks, but I hope they think it is worthwhile.

PREPARED STATEMENT

Senator SHELBY. Thank you, Senator. We will insert your prepared statement in the hearing record.

[The statement follows:]

PREPARED STATEMENT OF SENATOR BIDEN

Mr. Chairman: Thank you for the opportunity to appear today to discuss an issue you all know is near and dear to me: the future of Amtrak.

I'm here to say that Amtrak has a future, Mr. Chairman, but only if it receives the support it needs—like every other rail system in the world—to fund its long-term capital needs, and to provide the fair pay that can attract and keep the best workers.

And it's always a pleasure to appear with my good friend and fellow Amtrak rider, the distinguished chairman of the Finance Committee, Bill Roth.

I am also pleased to see my good friend, the ranking member on the Environment and Public Works Committee, Max Baucus.

When I got here this morning, I looked around for some familiar faces from Amtrak's management. I couldn't find any, Mr. Chairman.

I have to admit, I am somewhat surprised to be sitting at a hearing on "Amtrak's future" only to find that Amtrak wasn't invited to testify on their own future.

Mr. Chairman, it is certainly your decision to make, but it seems to me that we would want to hear from Amtrak representatives about where they are and where they're going.

The GAO and the inspector general at the Transportation Department can probably give us a fairly accurate description of Amtrak's financial condition, or a dry recitation of its business plan, but they can't tell us where the railroad is heading, what its future plans are, and what Amtrak's management is thinking.

So I have to say, I'm more than a little surprised, and frankly, disappointed that representatives of the men and women who work at and manage Amtrak have not been invited to testify on their own future.

This morning, Amtrak is a little like Huckleberry Finn, who finds himself looking in on his own funeral. They weren't invited, and they know they aren't dead, but a lot of folks are acting as if it's time to bury them.

Bury them, Mr. Chairman, because we seem to be here to examine "alternatives" to Amtrak.

But it was less than five months ago that the United States Senate passed the Amtrak Reform and Accountability Act of 1997 by unanimous consent, authorizing over $5 billion in appropriations for Amtrak over the next five years.

The reauthorization legislation was authored by Senator Hutchison of Texas and signed by President Clinton in December. It was heralded by both parties, on both sides of the Hill, by folks ranging from Senator McCain to Transportation Secretary Slater, for providing comprehensive changes and empowering Amtrak to meet its financial goals.

They noted both the "long overdue reforms" and the "long overdue capital investment" that enactment of the bill would trigger.

That authorization bill provides over $1 billion for Amtrak this year—and it was passed by unanimous consent. Given the support for that reform bill, one might ex-

pect that Amtrak wouldn't have too much trouble getting close to that level of appropriations.

I thought life was going to be easy for a while.

Passage of the authorization meant release of the $2.3 billion in the new capital funds, from the Taxpayer Relief Act, that Bill Roth worked so hard to secure last year.

Some of us, Mr. Chairman, thought we might have a year or two where there wouldn't be another struggle for Amtrak funding.

But here we are—the same Senate that passed that bill—without one single Senator objecting—just months later, considering "alternatives" to Amtrak before the reform bill has even had a chance to work.

Mr. Chairman, everyone knows Amtrak just finished one of the most difficult years in its history, but it is in a more stable position—commercially, operationally, and financially—than it has been in a very long time.

It has improved its bottom line by more than $300 million over the past three years, through aggressive revenue development and cost cutting actions. Passenger revenues have increased by more than $100 million annually over the past two years, and ridership is also up.

All this has been accomplished over a three year period when Federal operating support has declined by nearly fifty percent. Imagine what Amtrak could do if they received adequate funding.

We have provided Amtrak a new lease on life with the new capital funds—but as Senators Hutchison and Lott have forcefully reminded us, those funds are intended to supplement, not replace, capital provided in the annual appropriations process.

Amtrak has consistently said it needs $4 billion over 5 years. The new capital fund in Senator Roth's tax bill last year provides more than half of that.

Mr. Chairman, it would be extremely short-sighted to fail to provide the balance of that funding.

If Amtrak cannot preserve the new capital fund for capital investments with high rates of return, and instead is forced to use it for daily survival, two or three years down the road that fund will be used up.

The Amtrak reform bill aims at improving Amtrak's business practices, but we are demanding that Amtrak consume its seed corn, Mr. Chairman, instead of following the sound business practices that it would prefer.

And then what? The financial performance of the company will not be improved, and there we go again—we will be exactly where we were last year, wondering if Amtrak is going to survive.

I don't want to be there again. This railroad is too valuable a part of America's transportation network.

The President's budget proposal requests $621 million in capital for fiscal year 1999.

By itself, given the Amtrak's needs and its history of under funding, this request is the bare minimum to keep Amtrak's head above water.

If the Congress fully funds the President's request it will cost this committee significantly less this year to fund Amtrak than it spent last year, since capital has a more than 50 percent lower outlay rate.

Mr. Chairman, I can't imagine why we wouldn't fully fund it.

We passed two bills last year—the authorization and the Tax Reform Act with Amtrak's new capital fund.

Together, they give Amtrak a few years of adequate funding, after which Amtrak faces some very serious consequences if they don't make measurable progress toward operating self-sufficiency.

But those few years of adequate funding assumed that we would provide adequate annual appropriations in addition to the new capital fund.

It seems pretty clear to me, Mr. Chairman: If you really want Amtrak to reach operating self-sufficiency and no longer be "a drain" on the taxpayer's pocketbooks, then we have to give them the chance that Congress approved last year—five years of adequate funding, subject to strenuous oversight and review.

That means at a minimum providing the $621 million requested in the President's budget. I want to point out that amount is a little more than one-half of the $1.058 billion that was authorized—so we are nowhere near to living up to our commitment. But Amtrak has said they can make it on that amount.

Mr. Chairman, again, I don't know why Amtrak isn't here at a hearing testifying on their future, but on their behalf, I'd like to urge the committee in the strongest possible terms to provide the requested level of capital funding.

And I want to conclude here today, Mr. Chairman, with my first priority when it comes to Amtrak—our obligation to the men and women who work there. Failure

to fully fund Amtrak will pit that obligation against all of the other pressing needs Amtrak faces.

Last year, a Presidential Emergency Board told us that the men and women working on Amtrak deserve a raise, and it's easy to see why.

An Amtrak electrician is paid $16.10 an hour, compared to the $23.10 paid for the same job on the Long Island Railroad. An Amtrak catenary lineman earns $16.93 an hour, compared to $21.91 on Metro North. If the deal that the administration, Amtrak, and the Brotherhood of Maintenance of Way Employees struck last year becomes the pattern for all Amtrak workers, it will achieve substantial savings, Mr. Chairman—savings from productivity gains from increased efficiency that will add up to $56 million over the next five years.

Nevertheless, to bring Amtrak pay rates up to where they can attract and keep skilled workers in competition with other rail employers, Amtrak will need an additional $38 million a year over the next five years.

That small amount is not only a fair deal for the men and women of Amtrak who have gone too long without a raise—or a contract, I might add.

It is also a good deal for Amtrak, that will get both the increased productivity and secure a better, more stable work force.

That's my case here this morning Mr. President. Let's provide the funding Amtrak needs to live up to the new standards set in last year's reform bill.

Let's not shortchange Amtrak's capital needs just at the moment when they finally get a fund for the long-term, high-return, capital investments every railroad runs on.

And let's make sure Amtrak has the funds needed to meet its obligations to the men and women who maintain and run those trains.

Like Huck Finn, Mr. Chairman, Amtrak has been at the brink of trouble for years, but it is not dead yet. Reasonable steps can make it a better, healthier, more efficient part of our transportation system.

Again, thanks for the opportunity to appear here this morning, Mr. Chairman.

STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM MONTANA

Senator SHELBY. Senator Baucus.

Senator BAUCUS. Thank you, Mr. Chairman.

I am here to not only encourage the committee to fully fund Amtrak, but to explain that another part of the country in addition to the Northeast corridor passionately believes in Amtrak just as much as the northeasterners do. Let me explain why.

If you look at a map of Montana, first, the distance across Montana is the same as from Washington to Chicago. Our population density is about six people per square mile. I know the density of the State of New Jersey, my good friend Senator Lautenberg, is about 1,000 people per square mile.

We have an interstate that goes across southern Montana east-west. Northern Montana does not have an interstate, and it is quite a distance between southern Montana and northern Montana, several hundred miles. In between, basically the freemen, the militia you have read about. But across northern Montana is a highway we call the Highline. It just, it is an ordinary two-lane highway, and it is also Amtrak.

So the people who are close to—and by Montana standards that is a couple or 300 miles—that are close to the Highline or Amtrak vitally depend upon Amtrak going across northern Montana from Chicago to Seattle and back. There are 12 stops in Montana. I could tell you, Mr. Chairman, that a few years ago when Amtrak cut back from daily service to four times a week, there was an outrage. Not as many people showed up in Montana on my doorstep as might, say, on yours in Delaware or Las Vegas, but the intensity and the passion and also the size of the number of people was amazing to me. I just did not really fully appreciate just how much people depended upon Amtrak.

It is not only themselves to go across the country for one reason or another, but also it is supplies. If you are a farmer or a rancher and your combine breaks down or your tractor breaks down, you need to get parts right away. We do not have a lot of inventory in some of those Montana communities. So you have got to get it quick, and obviously during harvest you just cannot wait. You have got to get that part right away.

Add to that tourism. We have got a lot of tourism, winter and summer: winter, ski at Big Sky, Whitefish, MT; they come from both ends of the country, from Midwest, and also from the west coast; and in summer it is Glacier Park. Amtrak is a gorgeous trip through Glacier Park. It is along the Marias River and up over Marias Pass and on down toward Flathead Valley. It is just wonderful.

All I am saying is that we desperately hope that the committee does keep funding Amtrak, not only for the northeasterners and Alabamans and maybe also into the Las Vegas area, to say nothing of New Jersey, but in our part of the country as well.

I might say, seeing Senator Lautenberg here reminded me of this little story. I invited him to Montana not too many years ago to help him get a little sense of what our needs and problems are. We took off in a charter plane late one night from Great Falls, MT, over the mountains to Callesville. We had been up in the air maybe about 10 minutes or so and the distinguished Senator from New Jersey suddenly turned to me, astonished, just aghast. He said: Max, where are the lights? Where are the people?

He got a sense just that we do not have a lot of lights, we do not have a lot of people, and transportation is critical.

We are dependent upon the highways, I think, as much as any State. We have more miles per capita in Montana than any State in the Nation, more Federal highways per capita than any State in the Nation. Now, there are some parts, again in the northern, the northern tier across northern Montana, that do not have an interstate, do not have any four-lanes, and these people just desperately need Amtrak.

So I am just here to urge you to do what you can. Thank you.

Senator SHELBY. Senator Reid, do you have an opening statement?

STATEMENT OF SENATOR REID

Senator REID. Yes; very briefly, Mr. Chairman. Thank you very much.

We hear a lot about planes and automobiles, but we should include in that trains: planes, trains, and automobiles. We do a lot of subsidies for highways, we do a lot of subsidies for airports and the air traffic system in this country, but we seem to have just neglected trains. And for those who—well, the fact is for distances up to 300 miles we have got to get back to some type of rail traffic.

I would say to my two distinguished friends here at the podium today that I am glad to see that in the ISTEA bill we have about $1 billion for developing magnetic levitation. But until that comes, we have to rely on Amtrak.

I am disappointed, and I am sure that this oversight will be corrected in the future, but I would hope that in the next hearings we

have someone from Amtrak here to talk about Amtrak's future. The GAO and the inspector general can give us a fairly accurate description of the financial condition, but they cannot tell us where the railroad is heading and what its future plans are and what Amtrak's management is thinking.

These oversight agencies and proponents of privatization do not have a responsibility to keep the trains running, with some 23,000 employees, 23 million intercity riders, and another 220 million Northeast corridor passengers. Amtrak is doing that and has done that while being chronically undercapitalized for almost three decades.

Everyone knows Amtrak has just finished one of the most difficult years in its history, but it is in a more stable position commercially, operationally, and financially than it has been in a very long time. Amtrak has seen its operating support cut in half over the past 3 years. It has managed to take $300 million out of the bottom line over that same period, and passenger revenues have increased by more than $100 million.

Last week Amtrak received its first installment of the Taxpayer Relief Act, about $1.1 billion. This will be the first time in almost 30 years that it will have a secure and reliable source of capital.

Mr. Chairman, I am particularly interested in Amtrak's plan to bring a convenient and reliable daily service between southern California and southern Nevada. Over a third of Las Vegas tourism is derived from southern California. Hotel rooms in Las Vegas are expanding at a monumental rate. On one corner we have on the Strip, at the corner of Flamingo and the Strip, we have more hotel rooms on just those four corners than is in the whole city of San Francisco.

The airlines have limited capacity. They do not have enough airplanes, literally—they are being manufactured—to bring more into Las Vegas. The I–15 route is totally congested. Therefore, we badly need this new Amtrak venture.

We have in this venture, we have the resort industry, local businesses, the train manufacturer, and Amtrak all interested in participating in this trial. I am not going to go into more detail, Mr. Chairman, other than to say this is something I think we need to be concerned about, namely train passenger travel in the United States.

PREPARED STATEMENT

I would ask unanimous consent that the entire content of my statement be placed in the record as if given in its entirety.

Senator SHELBY. Without objection, it is so ordered.

[The statement follows:]

PREPARED STATEMENT OF SENATOR REID

Good Morning, Mr. Chairman. As you know, several of us are required to attend other hearings this morning and will be unable to stay for much of this morning's meetings. With your permission, I would like to make a brief statement and then submit a series of questions for the record.

WHERE'S AMTRAK?

I'm wondering, how we can have a hearing on "Amtrak's Future" and Amtrak isn't even in the room?

The GAO and IG can probably give us a fairly accurate description of Amtrak's financial condition, or a dry recitation of its business plan, but they can't tell us where the railroad is heading, what its future plans are, and what Amtrak's management is thinking.

Nothing against these two federal oversight agencies, and the individuals who have found Amtrak wanting and are proposing ''alternatives'', but they certainly haven't had the experience of trying to keep a national rail system running.

These oversight agencies and proponents of privatization don't have a responsibility to keep the trains running for 23,000 Amtrak employees, 23 million intercity riders and another 220 million Northeast Corridor passengers. Amtrak is doing that and has done that, while being chronically undercapitalized, for 27 years.

So I have to say at the outset, I'm more than a little disappointed that Amtrak has not been invited to testify at a hearing on its own future.

FINANCIAL SITUATION

Everyone knows Amtrak just finished one of the most difficult years in its history, but it is in a more stable position—commercially, operationally, and financially—than it has been in a very long time.

Amtrak has seen its operating support cut in half over the past three years, yet has managed to take $300 million out of the bottom line over that same time period. Passenger revenues have increased by more than $100 million annually over the past two years, and ridership is also up.

Last week Amtrak received its first installment of the Taxpayer Relief Act (TRA) funds—about $1.1 billion. This will be the first time in its twenty-seven year history that it will have a secure and reliable source of capital to allow it to do long-term planning, make high yield investments, leverage external and private funds, and otherwise act like a business. It will finally be allowed to focus on a future instead of constantly worrying about insolvency.

BUDGET REQUEST

Amtrak has consistently said that it requires $4 billion to attain operating self-sufficiency by 2002. The original proposal under consideration in Congress over the last two years was to provide Amtrak with one ½ cent of the gasoline fuel tax.

The TRA is providing $2.2 billion, or about one-half of the necessary level of funding. The balance needs to be provided by Congress over the next 5 years through the annual appropriations process. The TRA is intended to supplement, not supplant, capital provided in the appropriations process.

Not providing the balance of capital would be extremely short-sighted. If Amtrak cannot preserve the TRA for high rate of return capital investment, and it instead is forced to use it for daily survival, two or three years down the road the TRA is used up, the financial performance of the company has not improved, and deja vu: We will be exactly where we were last year, wondering if Amtrak is going to survive.

Amtrak and the Administration's budget proposal requests $621 million in capital for fiscal year 1999, as well as the broader definition of eligible capital expenditures than transit and many other modes enjoy. If I understand it correctly, this is a win-win for everybody. If we fully fund the President's request it will cost the Committee significantly less this year to fund Amtrak than it spent last year, since capital has a more than 50 percent lower outlay rate.

The proposal also allows Amtrak to meet its immediate cash needs while preserving the integrity of the TRA high for the rate of return investments which will enable it attain operating self-sufficiency by 2002—the goal Congress has officially mandated.

Why wouldn't we fully fund it?

Last year we reaffirmed our support for Amtrak with enactment of the TRA. That commitment should be continued. With high speed rail starting in 1999, spinning off an estimated $150 million a year in profit, many of us believe Amtrak is going to make it. And we're looking for expansions in service.

LOS ANGELES-LAS VEGAS

I'm particularly interested in Amtrak's plan to bring convenient and reliable daily service to the 340 miles Los Angeles to Las Vegas Corridor. Over ⅓ of Las Vegas' tourism is derived from the Southern California basin. Hotel rooms in Las Vegas are expanding at a monumental rate: 14,000 new rooms are planned to be completed by 1998.

The airlines have a limited capacity that just can't expand quickly enough to fill the growing hotel space. I–15 is totally congested and traffic an be reduced to a

crawl, with several hour delays. There are more attractions, more places to stay, and an overall increase in tourists, yet people are arriving later and leaving earlier to avoid the rush.

So a great deal of demand has grown for this service, particularly from the gaming community. Over the past 18 months I have been working with Amtrak and the gaming community on this unique and innovative project, that is projected to carry about 350,000 people annually.

Gaming properties are purchasing blocks of seats for their clientele, at about $100 a seat, in blocks of 10,000. It will have to be at about 80 percent capacity to cover its operating costs, although additional revenue will be generated by things like on-board advertisement. TALGO, builders of the high speed "tilt" train, have committed to help support the service by dedicating one TALGO train to this 1–3 year trial.

However, although most of the gaming properties are interested in supporting this trial venture, they have little interest in making long-term capital investments that will benefit other businesses. However, if Amtrak makes the $9 million capital investment in fiscal year 1998, it will leverage more than $30 million in operate support from the private gaming properties over the life of the (3 year) demonstration.

So we have the gaming industry and local businesses and the train manufacturer and Amtrak all interested and participating in this trial. This is the type of innovative business venture Amtrak is turning to, and frankly, it's an excellent opportunity for them: 3:1 leveraging.

And its an excellent opportunity for Nevada—increasing the number of tourists while decreasing congestion on the roads. And I don't think we'd have that many Las Vegas businesses interested and participating if there wasn't quite a bit of revenue potential for this service. This is the sort of thing Amtrak should be doing, and should be able to use the TRA funds to do.

Last year the full Committee, in conference, zeroed out Amtrak's general capital request, on the basis that if it received the TRA funds—$2.2 billion—that was all that was needed. We can't allow that to happen again this year.

It is clear that Amtrak's current and future economic health is based on adequate capital investment. I strongly support Amtrak's request for $621 million in fiscal year 1999 and I will work to ensure that it is funded.

PANELS:

PRIVATIZATION (2ND PANEL) KILEY AND POOLE

We have a couple of other witnesses here to speak about privatization. Last year the Blue Ribbon Panel recommended that Amtrak be "privatized" and reborn in a fashion analogous to the British Rail model, that was "privatized" a few years ago.

But we, luckily, have the luxury of having witnessed the British experiment.

We know now that the experiment has resulted in fewer trains, poor reliability, and customer satisfaction at an all time low, while public subsidies have doubled.

A study published in Britain last year estimated that the entire cost of privatizing British Rail will be 5.6 billion British pounds ($9.4 billion dollars). I don't think we need to re-make their mistakes.

CHICAGO METRA (JEFF LADD) 2ND PANEL

I thought it interesting to contrast the privatization proposals with what Mr. Ladd said in his testimony. Mr. Ladd knows firsthand what its like to run a railroad. Chicago's METRA is clearly recognized as one of the best-run commuter operations in the nation.

He said he admired Amtrak's management and he agreed with Amtrak's business approach, and went on, "I congratulate Amtrak's managers on their dedication to better business practices that have produced both gains in ridership and passenger revenues and put Amtrak on the threshold of its first $1 billion year."

I think it should be kept in mind that these comments are coming from the only one of our witnesses who has any experience running a railroad.

Mr. Ladd mentioned in his testimony that Metra faces far fewer restriction than Amtrak—yet he also points out that Amtrak covers a much higher percentage of its operating costs. Simply, he tells us that Amtrak is doing more with less.

Again, the only gentleman here who has operated a railroad is not criticizing Amtrak—he's praising it.

Finally, Mr. Ladd's testimony echoes a refrain we have heard from Amtrak for years: The more you capitalize the less you subsidize. He points out that the great majority of METRA's capital program is prioritized based on the ability of the in-

vestment to reduce operating costs. With the release of the TRA funds, Amtrak will now, for the first time, also be able to do that.

PROBLEMS WITHOUT AMTRAK

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. I just wanted to mention while the Senator from Montana, our friend, is here that the Empire Builder, which is Chicago to Seattle, has experienced a 65-percent increase in passenger ridership in just 1 year.

Senator BAUCUS. I forgot to mention that. Thank you. It is true.

Senator LAUTENBERG. Mr. Chairman, you have heard from friends of Amtrak this morning, but the one thing that I think has to be clearly understood: Amtrak is a national resource. Discounting the fact that most of its ridership comes from the Northeast, the fact of the matter is that there is an enormous volume of business that passes through the Northeast that affects every State in the country. And if Amtrak is out of business, I can tell you, Senator Reid, that whether it is Las Vegas or Butte, MT, they are going to feel the delays that are caused in air travel.

Our air travel system, I just want to point out, something that came out of the National Civil Aviation Review Commission. They said that unless there are major investments in the aviation infrastructure in this world of ours, that by the year 2010 we can expect a major air crash every 7 to 10 days. That calls out screaming for relief someplace, and one way to give it relief, I think, is to give Amtrak the funds that it needs to get a train that can go at 180 miles an hour, get you up to New York in an hour and a half, get you down to Alabama, stop in Tuscaloosa. What other cities did you want?

Senator SHELBY. Well, that would be the main one. [Laughter.]

Senator LAUTENBERG. Tuscaloosa.

Senator BAUCUS. Mr. Chairman, if I might just very briefly. The highway bill we passed helps catapult the United States into the next century, the next millennium. It seems that we have an obligation to do the same with rail transportation, rail passenger transportation as well as freight.

I know we do not have all the funding here and the wherewithal to get all that done, but it is incumbent upon us as the elected representatives of our people, it is our responsibility, to find some way to begin to make that happen. We have no choice, and I just urge us to be thinking in those terms as well as the individual national and parochial terms.

I thank the chairman very much for his indulgence.

Senator SHELBY. Thank you, Senator Baucus.

Senator REID. Mr. Chairman.

Senator SHELBY. Yes, sir.

Senator REID. If I could just say before the ranking member of the full Committee of Environment and Public Works leaves, I appreciate your taking a leadership position on this issue. We tend in our committee, Environment and Public Works, to think of it only as highways. I think your leadership here today speaks volumes for what our committee really does.

GENERAL ACCOUNTING OFFICE

STATEMENT OF PHYLLIS F. SCHEINBERG, ASSOCIATE DIRECTOR, TRANSPORTATION ISSUES, RESOURCES, COMMUNITY AND ECONOMIC DEVELOPMENT DIVISION

DEPARTMENT OF TRANSPORTATION

OFFICE OF INSPECTOR GENERAL

STATEMENT OF KENNETH MEAD, INSPECTOR GENERAL

INTRODUCTION OF WITNESSES

Senator SHELBY. Our first panel will be Phyllis Scheinberg, Associate Director of the General Accounting Office and Ken Mead, Department of Transportation Inspector General. We welcome both of you to the committee. Your written statement will be made part of the record in its entirety and, Ms. Scheinberg, you can begin as you wish.

STATEMENT OF PHYLLIS SCHEINBERG

Ms. SCHEINBERG. Thank you, Mr. Chairman and members of the subcommittee. I appreciate the opportunity to testify today on Amtrak's financial condition.

Less than a year ago I appeared before this subcommittee and stated that Amtrak was in a very precarious financial position. Amtrak itself raised the specter of bankruptcy at that time. I am here today to report that Amtrak continues to be in a very precarious position and will remain so for the immediate future. We base this assessment on three things: First, Amtrak's financial performance over the past year; second, the challenges that Amtrak faces in improving its financial health; and third, the potential impact of recently enacted legislation on Amtrak's financial condition.

First, Amtrak's financial condition has continued to deteriorate despite its efforts over the past 4 years to reduce losses. While Amtrak reduced its net losses from fiscal year 1994 to 1997, it has not been able to close the gap between total revenues and expenses. For example, while intercity passenger service revenues grew by about 4 percent last year, related expenses grew by about 7 percent, and Amtrak predicts that its net loss for the current fiscal year will be substantially larger than in the last 2 years.

Amtrak's poor financial condition has also affected its cash flow and the need to borrow money to make ends meet. In fiscal year 1997, Amtrak had to borrow $75 million to meet its operating expenses. The prospects in this fiscal year are worse. Amtrak originally planned a cash flow deficit of $100 million in fiscal year 1998. However, in January Amtrak increased this estimate to $200 million and Amtrak began borrowing last month to pay its bills.

The second reason that Amtrak continues to be in a precarious financial position is due to the challenges it faces. For example, the railroad will incur between $3 and $5 million in increased costs this fiscal year as a result of its recent agreement with one of its labor unions. According to Amtrak, extending this type of settlement to all of its labor unions could cost between $60 and $70 million more per year than planned.

Amtrak plans to reduce its losses by growing its way to financial health, that is increasing revenues rather than cutting back on service. However, this may prove difficult, as Amtrak has had to substantially scale back its revenue projections for express business and will not see positive net income from the high-speed rail program for another 2 years.

Amtrak does not currently plan any route reductions even though its data show that only 1 of its 40 routes, the Metroliner from Washington, DC, to New York City, covers all of its operating costs. For the remaining 39 routes, Amtrak loses an average of $53 per passenger. On 14 of these routes, Amtrak loses over $100 per passenger.

Senator SHELBY. Do you have a list of those routes?

Ms. SCHEINBERG. Yes, sir.

Senator SHELBY. Would you furnish that for the record?

Ms. SCHEINBERG. Definitely.

[The information follows:]

TABLE 1.—FINANCIAL PERFORMANCE OF AMTRAK'S ROUTES, FISCAL YEAR 1997

Name/route	Operating ratio [1]	Profit or (loss) per passenger
Metroliners: New York, NY–Washington, DC	0.94	$5
San Joaquins: Oakland, CA–Bakersfield, CA	1.23	(10)
Carolinian: New York, NY–Charlotte, NC	1.45	(27)
Piedmont: Raleigh, NC–Charlotte, NC	1.48	(42)
Capitols: Roseville, CA–San Jose, CA	1.52	(15)
Auto Train: Lorton, VA–Sanford, FL	1.58	(118)
Northeast Direct: Washington, D.C.–Boston, MA or Springfield, MA	1.65	(29)
Pacific Northwest Corridor: Eugene, OR–Seattle, WA or Vancouver, Canada	1.76	(27)
Illini: Chicago, IL–Carbondale, IL	1.82	(46)
San Diegans: San Diego, CA–Los Angeles, CA or Santa Barbara, CA	1.86	(23)
Kansas City–St. Louis: Kansas City, Mo–St. Louis, MO	1.91	(45)
Southwest Chief: Chicago, IL–Los Angeles, CA	1.92	(180)
Vermonter: Washington, D.C.–St. Albans, VT	2.00	(58)
Lake Shore Limited: Chicago, IL–Boston, MA or New York, NY	2.01	(90)
Empire: New York, NY–Albany or Buffalo, NY	2.03	(38)
Adirondack: New York, NY–Montreal, Canada	2.10	(57)
Three Rivers: New York, NY–Chicago	2.18	(139)
Silver Meteor: New York, NY–Miami, FL	2.18	(120)
Empire Builder: Chicago, IL–Seattle, WA or Portland, OR	2.20	(135)
Illinois Zephyr: Chicago, IL–Quincy, IL	2.21	(61)
International: Chicago, IL–Toronto, Canada	2.23	(47)
New York–Harrisburg: New York, NY–Harrisburg, PA	2.23	(28)
California Zephyr: Chicago, IL–San Francisco, CA	2.24	(149)
Capitol Limited: Chicago, IL–Washington, D.C.	2.27	(133)
Pere Marquette: Chicago, IL–Grand Rapids, MI	2.43	(51)
Coast Starlight: Los Angeles, CA–Seattle, WA	2.43	(93)
Philadelphia–Harrisburg: Philadelphia, PA–Harrisburg, PA	2.46	(30)

TABLE 1.—FINANCIAL PERFORMANCE OF AMTRAK'S ROUTES, FISCAL YEAR 1997—Continued

Name/route	Operating ratio [1]	Profit or (loss) per passenger
Silver Star: New York, NY–Miami, FL	2.47	(143)
Silver Palm: [2] New York, NY–Miami, FL	2.48	(163)
Crescent: New York, NY–New Orleans, LA	2.56	(163)
Chicago–St. Louis: Chicago, IL–St. Louis, MO	2.58	(59)
Clockers: New York, NY–Philadelphia, PA	2.59	(12)
Pennsylvanian: New York, NY–Pittsburgh, PA	2.70	(53)
Empire–Ethan Allen Express: [3] New York, NY–Rutland, VT	2.75	(79)
City of New Orleans: Chicago, IL–New Orleans, LA	2.78	(130)
Hiawathas: Chicago, IL–Milwaukee, WI	2.92	(50)
Texas Eagle: Chicago, IL–San Antonio, TX	3.11	(189)
Sunset Limited: Los Angeles, CA–Orlando, FL	3.16	(285)
Cardinal: Chicago, IL–Washington, D.C.	3.29	(135)
Chicago–Pontiac: Chicago, IL–Pontiac, MI	3.66	(66)
Total route system	1.86	(47)

Note.—Excludes three routes that Amtrak closed during fiscal year 1997.
[1] A route's operating ratio is its expenses divided by its revenues. An operating ratio less than 1.0 means that the route was profitable, while an operating ratio greater than 1.0 means that the route lost money. A ratio greater than 2.0 means that the route lost at least two times more money than it earned during the fiscal year.
[2] Service was introduced in November 1996.
[3] Service was introduced in December 1996.

Ms. SCHEINBERG. In spite of these losses, Amtrak has encountered opposition whenever it has proposed to discontinue routes. Also, simply pruning the worst performing routes could affect ridership on connecting routes that are perhaps performing better. Amtrak has recently decided to undertake a market analysis of its route network to gain a better understanding of the issues involved in operating a national system.

Finally, Federal funding and legislative reforms will not solve Amtrak's short-term financial problems. Funding from the Taxpayer Relief Act, fiscal year 1998 capital appropriations, the President's proposed 1999 budget, and other sources would provide Amtrak with about $5 billion in capital support over the next 5 years. However, this support will fall short of Amtrak's identified capital needs by about $500 million.

In addition, in order to avoid a cash flow crisis Amtrak plans to use about two-thirds of its requested Federal grant funds over the next 5 years to pay for maintenance expenses. This use of capital funds for preventive maintenance would substantially reduce the remaining level of funds available to acquire new equipment or make the capital improvements necessary to reduce Amtrak's costs and increase revenues.

Also, while the Amtrak Reform Act has the potential to have a significant impact in the long term to help Amtrak better control and manage its costs, these reforms may have little, if any, immediate effect on Amtrak's financial performance.

Mr. Chairman, in 1995 we concluded that the Congress needed to decide on the Nation's expectations for intercity passenger rail service, including defining a national route network and determining the extent to which the Federal Government would contribute funds. Additionally, in 1997 we concluded that as presently constituted Amtrak will need substantial Federal operating and cap-

ital support well into the future. Based on our recent analysis, we believe these conclusions are still true.

Mr. Chairman, this concludes my testimony. I would be happy to respond to any questions.

PREPARED STATEMENT

Senator SHELBY. Thank you very much. We have your complete statement and it will be made part of the hearing record.

[The statement follows:]

PREPARED STATEMENT OF PHYLLIS F. SCHEINBERG

Mr. Chairman and Members of the Subcommittee: We appreciate the opportunity to testify today on Amtrak's financial condition. Less than a year ago, we appeared before this Subcommittee to discuss Amtrak's financial problems.[1] At that time, we said that Amtrak was in a very precarious financial position. Amtrak itself raised the specter of a corporate bankruptcy in 1997.[2] We are here today to report that Amtrak continues to be in a very precarious position and will remain so for the immediate future. We base this assessment on Amtrak's financial performance last year and during the first quarter of this fiscal year; challenges that Amtrak will face in improving its financial health; and the potential impact that recently enacted legislation may have on Amtrak's financial condition. In summary:

—Amtrak's financial condition continues to deteriorate. Although Amtrak has been able to reduce its net losses (total expenses less total revenues) from about $892 million in fiscal year 1994 (in 1997 dollars) to about $762 million in fiscal year 1997, the 1997 loss would have been $63 million higher were it not for one-time increases in revenue from the sales of real estate and access rights for telecommunications. Prospects for fiscal year 1998 are not bright. In March 1998, Amtrak projected that its net loss for fiscal year 1998 could be about $845 million—about $56 million more than planned.

—Amtrak will continue to face challenges in improving its financial health. Amtrak hopes to improve its financial health by increasing revenues through such actions as expanding mail and express service (delivery of higher-value, time-sensitive goods) and instituting high-speed rail service between New York City and Boston. However, Amtrak has had to substantially scale back its net revenue projections for express business, and positive net income from the high-speed rail program will not occur for another 2 years. Amtrak does not currently plan to reduce routes, even though only one of its routes—the Metroliner service between Washington, D.C., and New York City—makes money. Instead it plans to fine-tune its route network and conduct a comprehensive market analysis.

—Federal funding and recently enacted reforms will not solve Amtrak's financial problems. Although the Taxpayer Relief Act of 1997, fiscal year 1998 capital appropriations, and the President's proposed fiscal year 1999 budget, if enacted, will provide Amtrak with historic levels of capital support, this support will fall short of Amtrak's identified capital needs by about $500 million. In addition, Amtrak plans to use $1.8 billion of the $2.8 billion in requested federal capital grant funds to pay maintenance expenses between fiscal years 1999 and 2003. The use of funds for this purpose would substantially reduce the remaining level of funds available to acquire new equipment or make the capital improvements necessary to reduce Amtrak's costs and/or increase revenues. Therefore, such use will have a negative impact over the long term. Furthermore, the Amtrak Reform and Accountability Act of 1997 significantly changed Amtrak's operations; but these reforms will provide few, if any, immediate financial benefits.

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[1] Transportation Financing: Challenges in Meeting Long-Term Funding Needs for FAA, Amtrak, and the Nation's Highways (GAO/T–RCED–97–151, May 7, 1997). See also, DOT's Budget: Management and Performance Issues Facing the Department in fiscal year 1999 (GAO/T–RCED/AIMD–98–76, Feb. 12, 1998); and Intercity Passenger Rail: Amtrak's Financial Crisis Threatens Continued Viability (GAO/T–RCED–97–147, Apr. 23, 1997).

[2] See our report entitled Intercity Passenger Rail: Issues Associated With a Possible Amtrak Liquidation (GAO/RCED–98–60, Mar. 2, 1998) for a discussion of the expected financial and other effects if Amtrak were to undergo liquidation.

BACKGROUND

Amtrak was created by the Rail Passenger Service Act of 1970 to operate and revitalize intercity passenger rail service. Prior to Amtrak's creation, such service was provided by private railroads, which had lost money, especially after World War II. The act, as amended, gave Amtrak a number of goals, including providing modern, efficient intercity passenger rail service; giving Americans an alternative to automobiles and airplanes to meet their transportation needs; and minimizing federal operating subsidies. Through fiscal year 1998, the federal government has provided Amtrak with over $20 billion in operating and capital subsidies, excluding $2.2 billion from the Taxpayer Relief Act.

In December 1994, at the request of the administration, Amtrak established a goal of eliminating federal operating subsidies for Amtrak by 2002. To meet this goal and respond to continually growing losses and a widening gap between operating deficits and federal operating subsidies, Amtrak developed strategic business plans. These plans have attempted to increase revenues and control costs through such actions as expanding mail and express service and adjusting routes and service frequency. Amtrak also has restructured its organization into strategic business units.

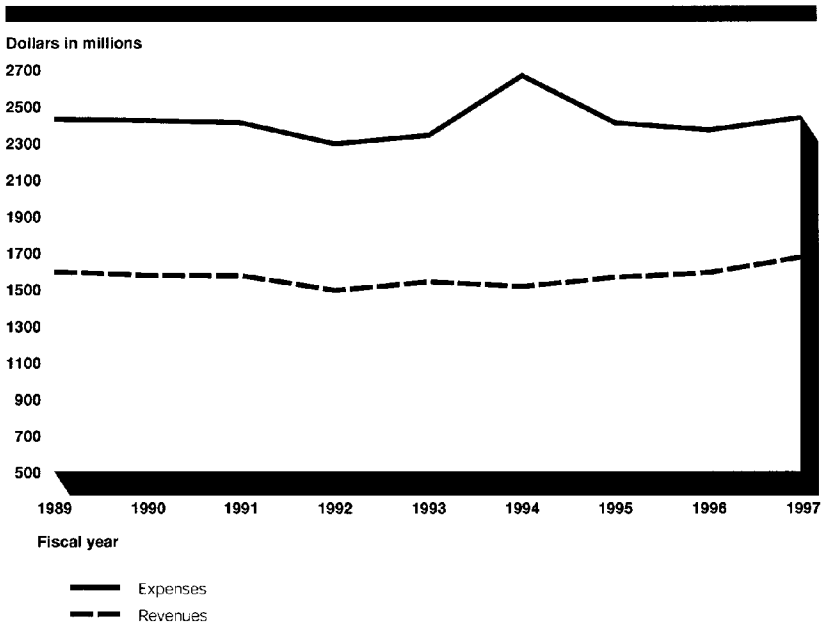
The Congress provided additional financial assistance to Amtrak in the Taxpayer Relief Act of 1997, enacted in August 1997. This act makes a total of about $2.2 billion available to Amtrak in 1998 and 1999 to acquire capital improvements, pay certain equipment maintenance expenses, and pay principal and interest on certain debt, among other things. In addition, the Amtrak Reform and Accountability Act of 1997, enacted in December 1997, makes certain reforms to Amtrak's operations. These reforms include, among other things, (1) eliminating current labor protection arrangements on May 31, 1998; (2) repealing the ban on contracting out nonfood and beverage work; and (3) placing a $200 million cap on the amount of liability claims that can be paid as the result of an Amtrak accident.

AMTRAK'S FINANCIAL CONDITION CONTINUES TO DETERIORATE

Amtrak's financial condition has continued to deteriorate despite its efforts over the past 4 years to reduce losses. While Amtrak has reduced its net losses from about $892 million in fiscal year 1994 (in 1997 dollars)[3] to $762 million in fiscal year 1997, it has not been able to close the gap between total revenues and expenses. (See fig. 1.) For example, while intercity passenger-related revenues grew by about 4 percent last year, intercity passenger-related expenses grew by about 7 percent. Notably, the net loss for fiscal year 1997 would have been much greater if Amtrak had not earned about $63 million, primarily from the one-time sales of real estate and telecommunications rights-of-way in the Northeast Corridor.

[3] Unless otherwise noted, information on financial condition and performance was provided by Amtrak and was not independently verified. The net loss for fiscal year 1994 excludes a one-time charge of $261 million (in 1997 dollars) for accounting changes, restructuring costs, and other items.

Figure 1: Revenues and Expenses, Fiscal Years 1989-97

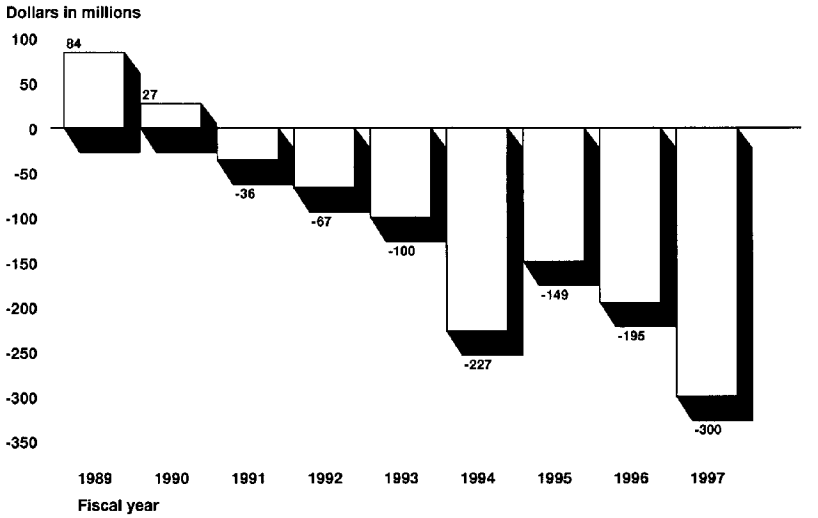


Note: Amounts are in 1997 dollars.

Source: GAO's analysis of Amtrak's data.

Amtrak's net loss for fiscal year 1998 will likely be substantially worse than in 1996 and 1997. In March 1998, Amtrak projected that the net loss for this year will be about $845 million, or $56 million more than budgeted. Amtrak's financial deterioration can be seen in other measures as well. For example, Amtrak's working capital—the difference between current assets and current liabilities—generally declined between fiscal years 1995 and 1997, from a deficit of $149 million to a deficit of $300 million. As figure 2 shows, at the end of fiscal year 1997, Amtrak's working capital was the lowest it had been over the last 9 years. Declining working capital jeopardizes a company's ability to pay its bills as they come due. The decline in working capital reflects an increase in accounts payable, short-term debt, and capital lease obligations, among other items.

Figure 2: Amtrak's Working Capital Surplus/Deficit, Fiscal Years 1989-97



Note: Amounts are in nominal dollars.

Source: GAO's analysis of Amtrak's data.

Amtrak's poor financial condition has also affected its cash flow and its need to borrow money to make ends meet. In fiscal year 1997, Amtrak had to borrow $75 million to meet its operating expenses. The prospects in fiscal year 1998 are worse. Amtrak originally planned a cash-flow deficit of $100 million in fiscal year 1998; however, in January 1998, Amtrak increased this estimate to $200 million.[4] This projected increase is primarily due to (1) reductions in expected revenues from Amtrak's pilot express program ($47 million); (2) a liability for the wage increases provided by Amtrak's recent agreement with the Brotherhood of Maintenance of Way Employees ($35 million);[5] and, (3) an increase in accounts payable that resulted from deferring fiscal year 1997 payables to fiscal year 1998 ($16 million). Amtrak began borrowing in February 1998 to make ends meet.

IMPROVING AMTRAK'S FINANCIAL HEALTH PRESENTS CHALLENGES

Amtrak will continue to face challenges to its financial health. Despite efforts to improve revenues and cut costs, the railroad continues to lose more money than it planned. This situation may get worse. Amtrak's recent agreement with the Brotherhood of Maintenance of Way Employees is expected to increase Amtrak's fiscal year 1998 labor costs by between $3 million to $5 million. According to Amtrak, extending this type of settlement to all of its labor unions could cost between $60 million and $70 million more each year than is currently planned, from fiscal years 1999 through 2002.[6] Amtrak's plans to reduce its financial losses by "growing" its way to financial health—that is, increasing revenues, rather than cutting train routes—may also encounter difficulty. These plans depend, at least in part, on expanding mail and express services. However, Amtrak's efforts to increase its express business have been frustrated and it has had to reduce anticipated revenues in its

[4] As of mid-March 1998, Amtrak had $150 million of its $170 million in short-term lines of credit available to help meet cash-flow deficits.

[5] This $35 million reflects Amtrak's estimate of the cost in fiscal year 1998 of extending the Brotherhood of Maintenance of Way Employees labor settlement to Amtrak's 12 other labor unions. Amtrak is in the process of negotiating with the other unions.

[6] This is net of any one-time payments or productivity increases or efficiency gains negotiated with the unions.

express pilot program by $47 million.[7] As a result, in January 1998 Amtrak increased its projected overall loss[8] for fiscal year 1998 from $52 million to $99 million. Another Amtrak initiative—establishing high-speed rail service between New York City and Boston—also will not provide immediate financial benefits. In establishing high-speed rail transportation between these two cities, Amtrak expects to decrease travel time from 4½ hours to 3 hours and significantly increase revenue and ridership. Amtrak's goals are for the high-speed rail program to begin providing positive net income in fiscal year 2000.

Amtrak will also continue to find it difficult to take actions to reduce costs, such as making route and service adjustments. During fiscal year 1995, Amtrak was successful in reducing and eliminating some routes and saving an estimated $54 million. In fiscal year 1997, Amtrak was less successful in taking such actions. Amtrak does not currently plan to reduce any more routes. Instead, it plans to fine-tune its route network. For example, in February 1998, Amtrak added a fourth train per week between Chicago and San Antonio on the Texas Eagle route, in part to accommodate expanded mail and express business. Amtrak is also planning to begin daily passenger rail service between Los Angeles and Las Vegas by January 1999.

In explaining the rationale for attempting to increase revenues through fine-tuning Amtrak's routes rather than through cutting back on service, Amtrak and Federal Railroad Administration (FRA) officials pointed to Amtrak's mission of maintaining a national route system. They noted that such a system will consist of routes with a range of profitability, including poorer-performing routes that provide needed linkages to better-performing routes. Furthermore, poorer-performing routes may provide public benefits, such as serving small cities and rural areas. These officials stressed that cutting the routes with the worst performance could damage the national network and cause the loss of revenue on connecting routes. Amtrak has just begun a market analysis that could result in several alternatives for a national intercity passenger rail network.

The decision to make route adjustments is a difficult one, even though Amtrak's data show that only one of the railroad's 40 routes (Metroliners between Washington, D.C., and New York City) covers all its operating costs.[9] For the remaining 39 routes, Amtrak loses an average of $53 for each passenger. Amtrak data show that it loses over $100 per passenger on 14 of these routes, and only 5 routes covered their train costs in fiscal year 1997. However, Amtrak encounters opposition when it proposes to discontinue routes because of the desire by a range of interests to see passenger train service continued in potentially affected communities. In addition, Amtrak maintains that every route that covers its variable costs (costs of running trains) makes a contribution toward its substantial fixed costs. Finally, simply pruning Amtrak's worst-performing routes could exacerbate Amtrak's financial condition because eliminating one route is likely to affect ridership on connecting routes that are perhaps performing better.

FEDERAL FUNDING AND REFORM LEGISLATION MAY NOT MEET AMTRAK'S FINANCIAL NEEDS

As a result of the Taxpayer Relief Act and funds requested through the appropriations process, record amounts of federal funds could be available to fund Amtrak's capital improvement needs. However, Amtrak projects that it will still be short of the funds it believes are necessary to meet these needs. In addition, Amtrak plans to use a substantial portion of these funds to meet maintenance needs—needs that have traditionally been considered operating expenses. Finally, recently enacted reform legislation will likely have little financial impact in the short term.

Available Funds May Fall Short of Amtrak's Capital Investment Needs and May Be Used to Pay Maintenance Expenses

Capital investments will continue to play a critical role in supporting Amtrak's business plans and ultimately in maintaining Amtrak's viability. Such investment will not only help Amtrak retain revenues by improving the quality of service but

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[7] In addition, the Surface Transportation Board has been asked to rule on whether a freight railroad must make its tracks and facilities available to Amtrak for express service. An adverse ruling could further reduce revenue opportunities. Amtrak has reduced its anticipated net revenues from express service from about $75 million annually to about $27 million annually after fiscal year 1998.

[8] Overall loss is the same as net loss, except the federal operating support received and noncash items (such as depreciation) are excluded. Amtrak refers to overall loss as its "budget result."

[9] The costs include the costs of running trains (e.g., fuel and train crew); route costs (e.g., costs to maintain stations); and allocated system costs (overhead).

will also be important in facilitating the revenue growth predicted in the business plans. Although Amtrak stands to receive historic levels of federal capital funds in the next few years, it is not likely that sufficient funds will be available to meet Amtrak's identified capital investment needs. Amtrak's September 1997 strategic business plan identified about $5.5 billion in capital investment needs from fiscal years 1998 through 2003.[10] This amount includes such items as completing the high-speed rail program between New York and Boston (about $1.7 billion), making infrastructure-related investments (about $900 million), and overhauling existing equipment (about $500 million). However, federal funding from the Taxpayer Relief Act, the fiscal year 1998 capital appropriations,[11] and the President's proposed fiscal year 1999 budget—along with about $800 million that Amtrak anticipates receiving from state, local, and private financing—would provide about $5.0 billion, or about $500 million short of the $5.5 billion that it states that it needs for capital funding.

Amtrak plans to use a substantial amount of these federal funds for maintenance expenses, such as preventative maintenance, rather than for high-yield capital investments. The use of these available federal funds for maintenance expenses could have long-term financial impacts on Amtrak. In particular, such use would reduce the amount of money available to Amtrak to acquire new equipment and/or acquire those capital improvements necessary to reduce costs and/or increase revenues.

In this regard, the President's proposed fiscal year 1999 budget would allow Amtrak to use capital grant funds for maintenance purposes, such as overhauling rail rolling stock and providing preventative maintenance. The administration believes such flexibility would allow Amtrak to manage its capital grant appropriation more efficiently and make clearer trade-offs between maintenance and capital investment costs. Amtrak's March 1998 revised strategic business plan indicates that it plans to use $511 million (82 percent) of the $621 million in capital grant funds proposed in the President's fiscal year 1999 budget for maintenance expenses. In total, Amtrak plans to use $1.8 billion (65 percent) of $2.8 billion in capital grants under the President's budget proposal to pay maintenance expenses from fiscal years 1999 through 2003.

In addition, Amtrak plans to temporarily use some of the Taxpayer Relief Act funds for the allowed maintenance of the existing equipment used in intercity passenger rail service. To help stay within its credit limits,[12] Amtrak plans to temporarily use $100 million in Taxpayer Relief Act funds for a portion of allowed maintenance expenses in fiscal year 1998, according to Amtrak's March 1998 revised strategic business plan. Amtrak's use of a portion of its federal capital grant for maintenance expenses, as is currently allowed for transit, is expected to enable it to repay this $100 million. Amtrak also plans to temporarily use $317 million and $200 million in Taxpayer Relief Act funds in 1999 and 2000, respectively, for a portion of allowed maintenance expenses. In this way, Amtrak expects to reduce its cash flow deficits to $100 million in each of those years. Amtrak officials told us that the Taxpayer Relief Act funds, including these repayments, will ultimately be used for investments that have a high rate-of-return and that are highly leveraged.

According to Amtrak, temporarily using a portion of Taxpayer Relief Act funds for allowed equipment maintenance will help the corporation avoid additional borrowing from its credit lines over the original planned amount. Amtrak believes using Taxpayer Relief Act funds for this purpose will help keep it below its maximum short-term credit limit. Amtrak officials told us that using a portion of the federally appropriated capital grant funds for maintenance will provide stability for Amtrak over the next several years, thus averting a possible bankruptcy. This stability will provide Amtrak with some breathing room to (1) determine how to address the capital shortfall and (2) complete a market analysis that would result in several alternatives for a national intercity passenger rail network.

Short-term Financial Effects of Amtrak Reform Legislation May Be Limited

The Amtrak Reform and Accountability Act was also designed to address Amtrak's poor financial condition by making certain reforms to Amtrak's operations to help Amtrak better control and manage its costs. For example, the act:

—eliminates, as of May 31, 1998, existing labor protection arrangements for employees who lose their jobs as the result of a discontinuation of service (cur-

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[10] As of mid-March 1998, the capital portion of this business plan had not been approved by Amtrak's board of directors.

[11] The fiscal year 1998 capital appropriation excludes $199 million, which was not to be made available for obligation if Amtrak's reform legislation was enacted before such capital appropriation was distributed. The Amtrak Reform and Accountability Act was enacted in December 1997. The $199 million would have been distributed in July 1998.

[12] As discussed earlier, Amtrak is currently projecting a cash-flow deficit of about $200 million by the end of fiscal year 1998, or about $100 million more than planned.

rently eligible employees may be entitled to up to 6 years of compensation) and requires Amtrak and its unions to negotiate new arrangements;

—repeals the statutory ban on contracting out work (except food and beverage service, which can already be contracted out) and makes contracting out subject to negotiations by November 1999; and

—places a $200 million cap on the amount of liability claims (including punitive damages) that can be paid as the result of an Amtrak accident.

The reforms contained in this act may have little, if any, immediate effect on Amtrak's financial performance for several reasons. First, Amtrak officials pointed out that no route closures are currently planned. Therefore, no new labor protection costs are expected to be incurred. Amtrak officials also noted that the existing labor protection arrangements for employees affected by route closures have primarily resulted in payments of wage differentials because many eligible employees were transferred to lower-paying jobs. According to Amtrak, in the past 5 years, only 5 employees have received severance pay and 11 employees are currently in arbitration over this issue. Second, the ban on contracting out work need not be negotiated until November 1, 1999.[13] Amtrak officials believe that while the repeal of the ban may provide long-term flexibility, including flexibility in union negotiations and in controlling costs, the repeal is not likely to have much effect before November 1999. Finally, Amtrak believes the $200 million limit on liability claims may have limited financial effect because this cap is significantly higher than amounts Amtrak has historically paid on liability claims. Amtrak and FRA officials believe the benefits of these reforms are unclear at this time. These reforms may not result in measurable financial savings as much as in additional flexibility in negotiating with labor unions and in addressing the freight railroads' concerns over such issues as liability payments.

The act also made other changes that have the potential for a significant impact on Amtrak's future. First, the act replaced the current board of directors with a "Reform Board."[14] Second, it established an independent commission—the Amtrak Reform Council—to evaluate Amtrak's financial performance and make recommendations for cost containment, productivity improvements, and financial reforms. If at any time after December 1999 the Council finds that Amtrak is not meeting its financial goals or that Amtrak will require operating funds after December 2002, then the Council is to submit to the Congress, within 90 days, an action plan for a restructured national intercity passenger rail system. In addition, under such circumstances, Amtrak is required to develop and submit an action plan for the complete liquidation of the railroad.

Mr. Chairman, in 1995, we concluded that the Congress needed to decide on the nation's expectations for intercity passenger rail service and the scope of Amtrak's mission in providing that service. These decisions require defining a national route network, determining the extent to which the federal government would contribute funds, and deciding on the way any remaining deficits would be covered. In 1997, we concluded that, as currently constituted, Amtrak will need substantial federal operating and capital support well into the future. Whether Amtrak will be able to improve its financial position in the near term is doubtful. If not, the Congress will be asked to continue to provide substantial sums of money each year to support Amtrak. If the Congress is not willing to provide such levels of funds, then Amtrak's future could be radically different, or Amtrak may not exist at all. We believe that this is the right time for Amtrak's new Reform Board to work with the Congress to consider and act on the issues that will chart Amtrak's future.

Mr. Chairman, this concludes my testimony.[15] I would be happy to respond to any questions that you or Members of the Subcommittee may have.

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[13] Amtrak and one or more of its trade unions may mutually agree to collectively bargain this issue sooner.

[14] The Reform Board is to assume its responsibilities by March 31, 1998, or as soon as four members have been appointed and qualified. As of mid-March 1998, the Reform Board had not been established. Unrelated to the act, Amtrak's president and chief executive officer resigned in December 1997. A successor had not been named as of mid-March 1998.

[15] The information contained in this testimony is based on our review of Amtrak's financial reports and plans; recently-enacted legislation; and discussions with Amtrak and FRA officials. We met with Amtrak officials, including Amtrak's Vice President for Government and Public Affairs, to obtain comments on a draft of our statement. Amtrak said that our presentation of the issues was fair; and they asked that we provide additional information on Amtrak's planned use of capital grant funds and Taxpayer Relief Act funds. We have included this information in our statement. We performed our work in March 1998 in accordance with generally accepted government auditing standards.

STATEMENT OF KENNETH MEAD

Senator SHELBY. Mr. Ken Mead, Department of Transportation Inspector General. Mr. Mead.

Mr. MEAD. Mr. Chairman, Senator Lautenberg: Our testimony will focus first on the independent assessment of Amtrak as required by law and its oversight by the inspector general; second, on what Amtrak self-sufficiency means; and third, on the status of high-speed rail-related improvement in the Northeast corridor.

First, assessing Amtrak's financial status. In the Amtrak reform legislation, Congress required an independent assessment of Amtrak's financial requirements through 2002. The inspector general is directed to oversee that assessment, which is scheduled to begin in April and be completed before the end of this fiscal year.

Amtrak's business plan, which you may know was most recently updated on March 10, contains core assumptions that comprise what Amtrak terms its glidepath to self-sufficiency. An essential part of the independent assessment as required by law will involve close scrutiny of those assumptions. Some highlights:

First, Amtrak is projecting that revenues will increase from $1.7 billion in 1997 to $2.3 billion by the end of 2002. Most of that will come from the introduction of high-speed rail service. Total passenger revenue is projected to be up by over 18 percent in 2000 compared to 7 percent this year. Validating that forecast and the assumptions behind it are key elements of the independent assessment.

Second, Amtrak plans to limit cost growth. Amtrak projects an average annual increase in operating costs of 3.75 percent through 2002, slightly more than the annual average increase of 3.6 percent over the last 5 years. Limiting growth will be difficult because Amtrak is about to incur significant costs as it introduces high-speed rail service.

Third, the administration is requesting $2.2 billion for capital assistance between 1999 and 2002, plus another $2.2 billion in capital as a result of the Taxpayer Relief Act, for a total of about $4.4 billion. That will not be sufficient to meet Amtrak's capital requirements. Establishing the railroad's capital requirements independently and the timing of those capital requirements is a key element of the assessment.

Finally, the current plan is predicated on Amtrak's ability to use capital funding for the maintenance of equipment, infrastructure, and facilities. That was alluded to by Ms. Scheinberg. Those types of expenditures, Mr. Chairman, historically have been considered operating expenses by Amtrak and have not been paid for with capital assistance.

Senator SHELBY. Say that again. Say that again.

Mr. MEAD. Historically, Amtrak's maintenance costs, such as repairing tracks and switches and reconditioning railcar components, have generally been considered to be operating expenses and have not been paid for with capital assistance. Things such as building track, purchasing locomotives, and constructing facilities are considered capital expenses and traditionally those have been funded with capital grants.

We are discussing with the Surface Transportation Board the definition of capital and operating expenses as they apply to freight railroads, and we will report the results of that discussion to this committee as soon as we have them.

Amtrak is assuming, though, that it will be able to apply a flexible definition of capital and use capital grants for maintenance. That proposed change clouds the issue of Amtrak's self-sufficiency from Federal operating support.

I would like to mention a few points about this self-sufficiency concept and the importance of coming to grips with exactly what it means. The legislation, as you know, contemplates that Amtrak will achieve operating self-sufficiency by 2002. Clarity is needed on what this means. From Amtrak's perspective, self-sufficiency has meant no operating subsidy, but it has never meant operating without Federal capital subsidies. If Amtrak is correct, the definition of what is operating and what is capital becomes crucial. That is because this year the administration did not request an operating subsidy. Instead, the request is for $621 million in a capital subsidy, part of which will be used for maintenance expenses, costs that were formerly considered operating expenses.

Frankly, we doubt that this change in nomenclature will mean that Amtrak has achieved operating self-sufficiency in 1999. However, for planning purposes and to avoid controversy, we think it is important that all parties have a common understanding of what the self-sufficiency goal means.

And now just a couple words on the Northeast corridor. In 2001 Amtrak projects a net contribution to revenue of at least $150 million from the Northeast Corridor, and that will be after the introduction of high-speed rail service. That compares with a net cash loss of $94 million for the Northeast corridor core operations in 1997.

High-speed rail is scheduled to start in October 1999. That schedule is tight. Electrification schedules north of New Haven, CT, have slipped several times, but Amtrak believes that the project can be met by the October date. That means final testing and startup will be occurring in the same month. That month is really crucial, Mr. Chairman, because November and December are the high yield months for Amtrak in that corridor.

I also want to point out that, in addition to electrification, there are still some other needs that need to be addressed. Last fall a Metro North train pulled down a long section of overhead catenary wire. The wire is 90 years old and the accident stranded about 40,000 travelers for 4 hours. In 1997 catenary-related delays occurred in the corridor over 39 times and there is no short-term plan to replace that catenary.

That concludes my statement, sir.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Mead. We have your complete statement and it will be made part of the hearing record.

[The statement follows:]

PREPARED STATEMENT OF KENNETH M. MEAD

Mr. Chairman and Members of the Subcommittee: We appreciate the opportunity to testify on Amtrak's financial future. Our testimony today will focus on (1) the independent assessment of Amtrak and its oversight by the Office of Inspector General, (2) the meaning of financial self-sufficiency as it relates to Amtrak, and (3) our work on the Northeast Corridor.

ASSESSING AMTRAK'S FINANCIAL STATUS

In the Amtrak Reform and Accountability Act of 1997, Congress directed the Secretary of Transportation to contract for an independent assessment of Amtrak's financial requirements through fiscal year 2002. The assessment will examine Amtrak's operations, accounting and bidding practices, and Strategic Business Plan. It will also determine whether Amtrak's plans and projections for reaching self-sufficiency are reasonable, realistic, and based on sound business practices. The Office of Inspector General is directed to, and will, oversee this assessment, which will begin in April and be completed before the end of this fiscal year.

Amtrak's revised Strategic Business Plan, which was adopted by its Board of Directors on March 10, 1998, contains a number of core assumptions that Amtrak believes must materialize in order to achieve self-sufficiency. These assumptions, which specify revenue targets, expense goals, and funding levels, comprise what Amtrak terms its "glidepath" to self-sufficiency. An essential part of the independent assessment involves a close scrutiny of these assumptions.

First, Amtrak projects annual revenues will increase from $1.7 billion in fiscal year 1997 to $2.3 billion by the end of fiscal year 2002.—Most of this revenue increase is expected in fiscal years 2000 and 2001 and will primarily reflect revenues realized from the introduction of high-speed rail service. Total passenger revenue is projected to grow by 18 percent in fiscal year 2000 and 10 percent in fiscal year 2001; this compares to about 7 percent and 5 percent growth projected for fiscal year 1998 and fiscal year 1999, respectively, and actual growth in fiscal year 1997 of 7 percent. Initiating, marketing, and operating high-speed rail service entails considerable uncertainty over its operating costs and the net revenue it will generate. Amtrak believes that its revenue projections for this new service are conservative and realistic. Validating Amtrak's forecasting methodology and the assumptions behind it are key elements of the independent assessment.

Second, Amtrak plans to limit operating cost growth.—Amtrak projects an average annual increase in operating costs of 3.75 percent through fiscal year 2002, which is only slightly more than the annual average cost growth of 3.6 percent for the last 5 years. Limiting cost growth through fiscal year 2002 will be particularly challenging as Amtrak incurs significant costs related to starting and operating high-speed rail service. Amtrak's cost growth projections, however, depend on instituting an array of productivity enhancements and cost saving measures. The independent assessment will validate the assumptions and methods used to project costs for Amtrak's various markets and services to determine whether these projections are reasonable.

Third, the Amtrak Reform and Accountability Act of 1997 authorized $5.2 billion for Amtrak, of which the Administration proposes to spend $2.2 billion for capital assistance between fiscal year 1999 and fiscal year 2002. Amtrak also received an additional $2.2 billion in capital assistance under the Taxpayer Relief Act of 1997.[1]—In light of Amtrak's capital requirements, and its plans to use the assistance provided by these two Acts, this level of capital assistance will not be sufficient to address all of Amtrak's capital requirements. Many of Amtrak's plans for operating cost savings hinge on the successful completion of capital projects. For example, Amtrak recently completed construction of a new Consolidated National Operations Center in Wilmington, Delaware. This project will centralize work formerly conducted at four sites and save Amtrak a projected $6.1 million between fiscal year 1998 and fiscal year 2003. If funds are not available for capital projects such as this, the associated cost savings reflected in Amtrak's Strategic Business Plan will not be realized. One of the major tasks of the independent assessment is to conduct an analysis of Amtrak's existing and projected capital requirements and investments throughout its system.

Finally, the current plan is predicated on Amtrak's ability to use Federal capital funding for the maintenance of equipment, infrastructure, and facilities.—Amtrak's maintenance costs, such as repairing track and switches, and reconditioning rail car

[1] The Taxpayer Relief Act of 1997 provides $2.32 billion in capital funds, of which $139 million must be set aside for the six non-Amtrak States. These are: Alaska, Hawaii, Maine, Oklahoma, South Dakota, and Wyoming.

components, have generally been considered operating expenses, and generally have not been paid with Federal capital assistance. Complete rebuilding of track, purchase of new locomotives and rail cars, and construction of new facilities are generally considered capital expenses, and have been paid with capital assistance. We are discussing with the Surface Transportation Board the definitions of capital and operating expenses as they are applied to the freight railroads; we will be sharing our findings with you shortly. Amtrak's revised Strategic Business Plan assumes that it will be able to apply a more flexible definition of capital, one that will allow it to use its capital grants to pay for some of its maintenance expenses. This proposed change has clouded the issue of Amtrak's self-sufficiency from Federal operating support.

CONCEPT OF SELF-SUFFICIENCY

Legislation contemplates that Amtrak will achieve operating self-sufficiency by fiscal year 2002. Clarity is needed on what this means. From Amtrak's perspective, self-sufficiency has meant no operating subsidy, but has never meant operating without Federal capital assistance.

If Amtrak is correct, the definition of what constitutes an "operating" expense and what constitutes a "capital" expense becomes quite significant. This is because the Administration's fiscal year 1999 budget does not request operating assistance for Amtrak. Instead, the request is for a $621 million capital grant. This is over and above the $2.2 billion in capital funds provided by the Taxpayer Relief Act. If the change in the definition of capital is approved, Amtrak has indicated that as much as $542 million of the requested $621 million grant may be used to pay for maintenance of equipment, infrastructure, and facilities—expenditures formerly considered to be in the operating expense category. In fiscal year 1997, Amtrak spent $500 million for these maintenance categories.

We doubt that this change in nomenclature means that Amtrak has already achieved "operating" self-sufficiency. However, for planning purposes, and to avoid controversy as Amtrak proceeds on its glidepath to fiscal year 2002, it is important for all parties to have an understanding of whether this expanded definition of capital can be relied upon in determining: (1) when Amtrak has achieved self-sufficiency, and (2) what type of expenses Amtrak's passenger and other revenues are expected to cover.

NORTHEAST CORRIDOR

Finally, one of Amtrak's long-standing goals has been to significantly increase revenues by the introduction of high-speed rail service in the Northeast Corridor. In fiscal year 2001, Amtrak projects a net contribution of $150 million from the Northeast Corridor after introduction of this service. This contrasts markedly with Amtrak's net cash loss of $94 million for the Northeast Corridor in fiscal year 1997.[2]

High-speed rail service is scheduled to start in October 1999. The electrification project north of New Haven, Connecticut, has fallen behind schedule several times, but Amtrak believes that with the current aggressive recovery schedule now in place, the project will finish on time for an October start-up. However, performance testing on the system that was originally scheduled to be completed in July 1999, is now not scheduled to be finished until October 10, 1999. While Amtrak plans to test and finish construction of the system concurrently, this is still a tight schedule, and Amtrak will have little time to correct problems found during testing. If the October 1999 start-up date slips, Amtrak could miss out on the significant revenues generated by high-volume, year-end holiday traffic.

Even though Amtrak has invested significantly in the infrastructure between New York City and Boston, Massachusetts, in preparation for high-speed rail service, there are still needs that must be addressed. Last fall, a Metro North commuter train pulled down a mile-long section of overhead wire from the 90-year old catenary system, stranding 40,000 travelers for over four hours. In 1997, catenary-related delays occurred no fewer than 39 times. Neither Amtrak nor Metro North Railroad, which operate along this section of track; nor the Connecticut Department of Transportation, which owns the track, have any short-term plans to replace this catenary—a project estimated to cost $200 million.

In addition, on the south end, between Washington, D.C. and New York City, Amtrak has preliminary estimates that, over the next 20 years, it will cost between $7 and $9 billion to repair and upgrade the infrastructure. Unless Amtrak addresses the infrastructure problems along the entire Corridor and improves reliability, ridership and revenue are likely to fall short of projections, even with the introduction

[2] These figures are for core operations and consist principally of passenger revenue.

of high-speed rail service, as passengers turn to other modes of transportation. A key requirement in the independent assessment will be to determine whether Amtrak's funding, plans, and schedules are adequate to address capital needs in the Northeast Corridor and systemwide.

BACKGROUND

INDEPENDENT ASSESSMENT OF AMTRAK MANDATED BY CONGRESS

The Amtrak Reform and Accountability Act of 1997, signed by the President on December 2, 1997, requires that the Secretary of Transportation contract for an independent assessment of the financial requirements of Amtrak through fiscal year 2002. The Inspector General of the Department of Transportation (DOT) is directed to oversee this assessment, which must be completed within 180 days of the contract award.

Independent Assessment Will Begin in April

We are pleased to tell the Subcommittee that a competitive bidding process is almost concluded, and a contract will be awarded in April. The contractor selected will assemble a team of experts in the fields of rail operations and finance, travel and revenue forecasting, and financial modeling. The independent assessment will include a review of Amtrak's revised Strategic Business Plan and other documents to assess Amtrak's current and future financial requirements. This assessment will establish a solid set of numbers that will provide a benchmark for assessing Amtrak's financial needs. We will provide the results of this assessment to Congress before the end of this fiscal year.

We assure you that throughout this assessment, the Office of Inspector General will be on-site and present with the contractor for all phases of the assessment. This will help us fulfill our Congressional mandate to oversee this work and to conduct our own assessments in the years ahead. We believe the results of this assessment will be invaluable to Congress, Amtrak's new Board of Directors, and the Amtrak Reform Council in making critical funding and strategic business decisions.

Independent Assessment of Amtrak's Financial Condition

One of the first tasks of the independent assessment will be an evaluation of Amtrak's current financial status. This involves reviewing Amtrak's accounting systems; its method of allocating costs and revenues; and recent trends in costs, revenues, and ridership.

The independent assessment will provide an understanding of the actual costs and revenues associated with specific routes, regional areas, and Strategic Business Units. Another task is to assess Amtrak's capital funding needs to determine whether Amtrak has planned for sufficient funds to achieve its goals. In addition, the assessment will review Amtrak's bidding procedures used in securing contracts for services other than the provision of intercity passenger rail or mail and express service. Such contracts include providing passenger rail service or maintenance for local commuter railroads, such as Amtrak's recent bid on the overhaul of rail cars for New Jersey Transit. The assessment will review Amtrak's methods for estimating its costs of providing such service to determine whether Amtrak reflects direct and indirect costs in its bids.

To the extent possible, the assessment will determine whether fluctuations in revenue or ridership result directly from Amtrak's actions, inactions, or services provided, or whether they are caused by forces outside of Amtrak's control. For instance, in fiscal year 1997, unanticipated weather-related events, such as Hurricane Fran, severe weather conditions on the West Coast, and flooding in the Midwest, resulted in $14 million in unforeseen costs. In addition, service shutdowns precluded opportunities to earn revenue that might otherwise have been realized during these events. Learning where Amtrak stands financially, and why, will assist you and Amtrak's new leadership, in making decisions about Amtrak's future.

Assessment Will Review Amtrak's Revised Strategic Business Plan

On March 10, 1998, the Amtrak Board of Directors adopted a revised Strategic Business Plan. This plan details Amtrak's efforts to reach operating self-sufficiency by the end of fiscal year 2002. The plan was revised in response to key internal and external events that have occurred in the past year. These events include:

—Enactment of the Amtrak Reform and Accountability Act of 1997, which established an Amtrak Reform Council and mandated this independent assessment;
—A proposed fiscal year 1999 DOT budget that changes the fundamental structure of Amtrak's traditional Federal support by providing only a capital grant;
—A change in Amtrak's leadership; and

—Internal and external events that affected forecasted revenues and expenses.

Amtrak's revised Strategic Business Plan identifies a series of steps to eliminate the need for Federal operating assistance by the end of fiscal year 2002. The steps are based on continued Federal capital assistance and a series of revenue-enhancing initiatives.

The Strategic Business Plan has a number of core assumptions: (1) significantly increasing revenue; (2) limiting operating cost growth; (3) receiving the fully authorized amount of Federal capital assistance; and (4) obtaining the ability to use Federal capital assistance for maintenance of equipment, infrastructure, and facilities.

Revenue Projections

One of the most critical assumptions of the revised Strategic Business Plan is Amtrak's ability to increase passenger-related and other revenues. The plan forecasts a significant growth in passenger-related revenues through fiscal year 2002. Most of the $576 million revenue increase is expected in fiscal years 2000 and 2001 and will primarily reflect revenues realized from the introduction of high-speed rail service in the Northeast Corridor. Other significant revenue increases are related to Amtrak's Express Cargo service (from $3 million in fiscal year 1997 to $71 million in fiscal year 2002) and Mail service (from $66 million in fiscal year 1997 to $86 million in fiscal year 2002).

Limiting Cost Growth

Amtrak projects an average annual increase in operating costs of 3.75 percent through fiscal year 2002. To accomplish this, Amtrak has a series of Business Plan Actions aimed at limiting cost growth. For example, productivity enhancements are projected to yield $122 million in cost savings in fiscal year 2002. We note that in 1996, Amtrak anticipated it could realize immediate savings of between $22 million and $30 million by purchasing power wholesale for its own use. Amtrak's proposed wholesale power supplier, Enron Power Marketing, has filed a petition with the Federal Energy Regulatory Commission (FERC) requesting access to a transmission network that would allow it to supply electricity to Amtrak. This matter is currently pending at FERC.

Amtrak's Plan is Dependent on Receiving Fully Authorized Federal Capital Assistance

A significant part of Amtrak's revenue-enhancing and operating cost reduction initiatives depends on whether Amtrak receives fully authorized amounts of Federal capital assistance. Although Federal capital grants increased in the early 1990's, Amtrak's capital needs are still significant. In 1995, Amtrak developed an initial plan to reach its goal of zero-operating grants. The plan was predicated on receiving an assumed level of Federal capital and operating assistance, coupled with revenue-enhancing initiatives, such as high-speed rail service in the Northeast Corridor. However, in fiscal years 1995 through 1997, Amtrak's funding fell short of what was assumed in its planning by $139 million.

Ability to Use Federal Capital Assistance for Maintenance of Equipment, Infrastructure, and Facilities

In its fiscal year 1999 budget, Amtrak has requested permission from Congress to use a more flexible definition of the term "capital." Examples of Amtrak's traditional capital expenditures include the purchase of locomotives and passenger rail cars, complete rebuilding of track, and construction of new facilities. Maintenance costs, such as the cost of repairing track and switches, and reconditioning rail car components, are generally considered operating expenses and therefore not generally paid with capital funds. If Congress approves Amtrak's request, Amtrak intends to use capital assistance to cover routine maintenance of equipment, infrastructure, and facilities. Using this expanded definition of capital spending, Amtrak's ability to function without Federal operating assistance will not mean what it did when Amtrak established this goal in 1995.

AMTRAK'S STEPS TOWARD ACHIEVING SELF-SUFFICIENCY

Amtrak's Strategic Business Plan contemplates achieving self-sufficiency by fiscal year 2002. Amtrak defines self-sufficiency as eliminating the need for Federal operating assistance but a continuation of Federal capital assistance. The Administration's fiscal year 1999 budget requests no operating assistance, but does request $621 million of capital assistance. Amtrak intends to use up to $542 million of this capital assistance for maintenance of equipment, infrastructure, and facilities—costs generally considered operating expenses. The $621 million is over and above the $2.2 billion in capital funds provided to Amtrak in the Taxpayer Relief Act of 1997.

Independent Assessment to Review Amtrak's Self-Sufficiency Goal

The independent assessment will determine whether Amtrak's financial plans provide the framework for it to operate without Federal operating assistance after fiscal year 2002, and to reach other financial goals as stated in its revised Strategic Business Plan. In addition, the assessment will determine the likelihood that Amtrak will be able to maintain its financial status beyond fiscal year 2002. For instance, if Amtrak were to borrow heavily in order to reach its goal of self-sufficiency, the assessment would determine whether Amtrak's revenues and Federal assistance would be sufficient to service the debt beyond fiscal year 2002. The assessment will also determine the likely effect of deferred maintenance and aging rolling stock on Amtrak's continued viability.

HIGH-SPEED RAIL SERVICE PLANNED FOR AMTRAK'S NORTHEAST CORRIDOR

The Northeast Corridor from Boston, Massachusetts, to Washington, D.C., is 441 miles in length and serves a population of 36 million people. Amtrak owns 362 miles of the Corridor and the rest is owned by the Metropolitan Transportation Authority of New York, the Connecticut Department of Transportation, and the Massachusetts Bay Transportation Authority. More than 1,000 trains a day use the Corridor, including those of Amtrak, eight commuter railroads,[3] and four freight railroads.[4]

In 1991, Congress and Amtrak focused on the improvements needed to implement high-speed, 3-hour service between Boston and New York City, referred to as the north end. These improvements include the purchase of new, high-speed trainsets, installation of an overhead electrical system between New Haven, Connecticut, and Boston, and other infrastructure improvements between New York City and Boston. When these components are complete, trip time on the north end is expected to decrease from 4 hours, 45 minutes, to 3 hours, 10 minutes.[5] The high-speed rail project also includes infrastructure improvements between Washington, D.C., and New York City, referred to as the south end. When the high-speed trainsets begin operating, trip time on the south end is expected to be reduced from 3 hours to 2 hours, 45 minutes.

High-Speed Service Begins in 1999

When all construction between New York and Boston is complete, Amtrak will offer high-speed service of 3 hours, 40 minutes, using current equipment. This service is scheduled to start in October 1999, the same month operational testing is scheduled to be completed. Amtrak plans to phase in 18 new, high-speed trainsets capable of achieving speeds of 150 miles per hour, further reducing the trip time to 3 hours, 10 minutes. This is a tight schedule, and if a delay occurs, the increased revenue Amtrak expects to realize from high-speed service will likely be affected, threatening Amtrak's ability to obtain self-sufficiency.

Infrastructure Upgrades Are Needed

Aging infrastructure in all parts of the Northeast Corridor continues to affect the reliability of Amtrak's service. Preliminary estimates from Amtrak indicate that over the next 20 years, between $7 and $9 billion will be required to repair and upgrade the south end infrastructure. Capital improvements are needed to address the significant increases in congestion related to commuter and freight traffic, including major rebuilding of track, construction of new facilities, installation of additional safety equipment, and other infrastructure improvements.

Commuter rail traffic along the Northeast Corridor has increased significantly since 1992. As a result, congestion has slowed service for all Corridor users—freight, commuter, and Amtrak. Ridership projections for the major commuter operators forecast significant growth by the year 2010. For example, in 1992, the Long Island Railroad projected ridership growth of 20 percent by fiscal year 2010. Their recently revised projection for the same period of time is now a 40 percent increase. To meet the Congressional mandate of 2 hours, 30 minute service between New York and Washington, D.C., Amtrak will have to make significant, capacity-related investments along the south end.

The independent assessment of Amtrak will: (1) examine these infrastructure needs to support increased use of the Corridor; (2) compare infrastructure invest-

[3] Maryland Rail Commuter Service; Southeastern Pennsylvania Transportation Authority; New Jersey Transit; Port Authority Trans-Hudson Corporation; Long Island Railroad; Metro-North Commuter Railroad; Shore Line East; and Massachusetts Bay Transportation Authority.

[4] Springfield Terminal Railroad; Providence and Worcester Railroad; Connecticut Southern Railroad; and Conrail.

[5] The Congressional mandate calls for 3-hour service, which Amtrak expects to offer in later years after significant infrastructure improvements are complete.

ments in the Northeast Corridor with investments in the rest of Amtrak's system; and (3) determine the specific relevance of these infrastructure investments, taking into consideration traffic, safety needs, infrastructure condition, and other factors that potentially could impact investment decisions.

CONCLUSION

Mr. Chairman, we believe the findings of the independent assessment will play a major role in evaluating Amtrak's long-term financial situation. It will then be up to Congress, Amtrak's Board of Directors, and the Amtrak Reform Council to consider whether Amtrak's plans are adequate and sufficient to increase revenue and ridership, reduce costs, and invest in the capital projects needed to reach operational self-sufficiency by fiscal year 2002. We thank you again for inviting us to discuss the Office of Inspector General's work in carrying out the Congressional directive for an independent assessment of Amtrak's future.

REASON FOR FINANCIAL DETERIORATION

Senator SHELBY. Ms. Scheinberg, your testimony opens by stating, as I recall, that in spite of all the funding and reforms that have recently been enacted, Amtrak's financial condition continues to deteriorate. If so, why is this so?

Ms. SCHEINBERG. Amtrak's deteriorating financial condition this year is due to reduced revenues and increased costs, which has been the problem in past years as well. The recent problems include a reduction of about $47 million in their expected revenues from their express program. Increased labor costs are projected this year to be about $35 million, and there is an increase of $16 million in accounts payable that were deferred from last fiscal year.

As a result, Amtrak is going to lose more than $83 million more this fiscal year than they lost last fiscal year. The funding that Congress provided is primarily for capital funding, which will not show benefits for several years. So, of concern is that Amtrak is planning to use some of that capital money for maintenance expenses to cover these losses.

Senator SHELBY. Can you envision, Ms. Scheinberg, any scenario for Amtrak that would get the Federal Government out of the business of providing a subsidy?

Ms. SCHEINBERG. No, Mr. Chairman; Amtrak will always need Federal capital subsidies.

Senator SHELBY. In other words, it is not going to ever be self-sufficient as you see it; is that right?

Ms. SCHEINBERG. In the sense of capital support, it would always need, at a minimum, capital support. Currently, the way Amtrak is currently constituted, we see that it will need both capital and operating support for the indefinite future. As we all know, railroads are very capital-intensive operations and require substantial amounts of money to operate. No national intercity passenger rail system in the world operates without subsidies.

The other issue is that Amtrak's revised business plan assumes that it will continue to need Federal capital and operating support throughout the life of its business plan, which goes through 2003.

Senator SHELBY. Would you go back to what you mentioned in your testimony earlier regarding per passenger subsidy, some of the routes?

Ms. SCHEINBERG. Right. This is coming from our ongoing route analysis work that we are doing at the request of this committee and the House Appropriations Committee. Using Amtrak's data, we

are finding that Amtrak loses about $2 for every $1 it earns in revenues in train service; 39 of its 40 trains operate at a loss, as I mentioned; and of the 39 trains——

Senator SHELBY. State that again? How many?

Ms. SCHEINBERG. Thirty-nine out of the forty Amtrak trains operate at a loss.

Senator SHELBY. Thirty-nine out of forty?

Ms. SCHEINBERG. Yes; and of that 39, the average loss is $53 per passenger.

Senator SHELBY. $53 per passenger subsidy average?

Ms. SCHEINBERG. That is not a subsidy, that is a loss.

Senator SHELBY. Loss.

Ms. SCHEINBERG. Every time a passenger rides that train, the railroad loses $53 on average. But some trains lose a lot more than that.

Senator SHELBY. Where do they make that up? A subsidy, because——

Ms. SCHEINBERG. That is where the Federal support comes in, to make that up. And also Amtrak has to borrow on the private market.

Senator SHELBY. In your analysis in this area, what characteristics have you found that would actually make a rail corridor be competitive with air service?

Ms. SCHEINBERG. As I mentioned, the only route that does cover its operating costs is the Metroliner. And using that as a model, which is competitive with air service——

Senator SHELBY. By the Metroliner you are speaking of the Metroliner, the Amtrak train from Washington, say, to New York to Boston?

Ms. SCHEINBERG. Just from Washington to New York City.

Senator SHELBY. OK, New York City.

Ms. SCHEINBERG. And those are only the Metroliner trains, not the Northeast direct service that goes from Washington to New York. But if we use that as a model and look at the characteristics to duplicate it or to replicate it, you would need a travel time of about 3 hours—that is very important to—match air service; a population density that could support the route—you need people all along the corridor—and then you need a market—a travel market that people would want and need to travel along that route.

Senator SHELBY. Mr. Mead, last year Amtrak's Reform and Accountability Act directed the Secretary to contract for an independent assessment of Amtrak's financial requirements through the year 2002. The Inspector General's Office has been working closely with the candidates who are bidding to perform the independent assessment. Also it has developed a statement of work that outlines the task to be performed in the assessment.

In your opinion, why is an independent assessment necessary and how is this different from the reams of GAO analysis and the annual audits of Amtrak's books?

NEED FOR ASSESSMENT

Mr. MEAD. There are three reasons an independent assessment is needed, the most important of which is that the committee and the Amtrak Reform Council need hard, verifiable numbers for the

first time. And generally, prior studies have used Amtrak figures to make various projections. There have been some wild swings in those projections.

Second, is the matter of the capital requirements of Amtrak. We hear repeatedly that we are going to need capital subsidies almost in perpetuity. The key is, if you accept that proposition, how much in capital subsidies will be needed?

Third, there are the revenue and ridership projections. These are going to be recalculated if they are judged to be incorrect. So we do not plan to just critique them.

Senator SHELBY. Mr. Mead, in your work preparing for the independent assessment, how accurate have you found Amtrak's forecasts of their ridership and their revenues?

Mr. MEAD. Not very accurate, sir.

Senator SHELBY. Not very?

Mr. MEAD. I think in general, we have seen swings from 4 percent of an understatement all the way to 25 percent of an overstatement. It averages out to about 12 percent. Then there are certain other finite categories, such as express mail or express cargo, where the swings have been $50 or $60 million in a given year.

Also, sometimes Amtrak projects revenues from non-passenger-related activities—for example, in electric power transmission. Amtrak officials thought they were going to be able to buy wholesale power and sell that power to other companies along the Northeast corridor. That did not materialize although they were counting on a lot of money from that. Instead, they ended up selling fiber optic lines.

There are things of that nature that cause wild swings in forecasts, sir. And I think GAO's work would bear that out.

Senator SHELBY. Ms. Scheinberg, does GAO have other examples of Amtrak's inability to make accurate revenue and ridership forecasts in addition?

Ms. SCHEINBERG. In addition to what Mr. Mead has just said, also Amtrak has been overly optimistic in its ridership projections. One example was in 1995 when Amtrak reduced service on several routes and did not predict the reduction that that action would cause in its ridership. As a result, the ridership in 1996 was far below Amtrak's projections. And, in 1997, the increase in ridership has brought Amtrak back up to where it was in about the late 1980's.

Senator SHELBY. Mr. Mead, why are you not planning to award the contract for the independent financial assessment until April?

Mr. MEAD. We are waiting for the Department to give us the money.

Senator SHELBY. The money?

Mr. MEAD. Yes, sir; we have been ready for a couple weeks now. In fairness, I would note that the contract was supposed to be let 15 days after the reform legislation was signed. We wanted to be certain about the legality and so we made sure the contract was competitively let. But we are ready to go and we want this assessment begun so we can provide the results to the Hill in a timely way.

AMTRAK NOT SELF-SUFFICIENT

Senator SHELBY. Mr. Mead, you have been carefully reviewing Amtrak's March 1998 Strategic Business Plan as a baseline document for the independent assessment. In your view will Amtrak's Strategic Business Plan, if followed, get the railroad to a point that they are independent from Federal subsidy by 2002?

Mr. MEAD. The direct answer to that question is no. I would like to make a related point.

Senator SHELBY. Go right ahead.

Mr. MEAD. There is a shifting sands concept at play here on what we mean by self-sufficiency. In a way, since Amtrak officials have said their goal is to operate without an operating subsidy, once we reclassify the type of subsidy we are giving them to a capital subsidy, it will appear as though they have already met their goal. Well, I think everybody in the room knows that they will not have met their goal. So it is important to clearly define self-sufficiency.

The answer, though, is no, Amtrak will not be independent of Federal subsidy by 2002. By Amtrak's own records, sir, if depreciation is excluded there will be a $77 million cash loss in fiscal year 2002.

Senator SHELBY. Senator Lautenberg.

SUBSIDIZING PROPERLY

Senator LAUTENBERG. Thanks, Mr. Chairman.

I listened with interest and with respect to each of you and I could not help but reminisce for a moment somewhat nostalgically for my days when I ran a pretty good-sized company. When I left we had 16,000 employees. It was a company that I helped build with two other partners. Today that company has 30,000 employees, a very successful company. And I learned something from my years there, that if I wanted to find out what was wrong I could bring in a consultant or have my own people review the operation and tell me what was wrong. If I wanted the facts, just the facts, I would turn to my accounting department and my external auditors as well and ask them for a review of the financial statement or prepare a financial statement.

But I never, in all due respect, I never asked either our internal operations department or our auditors what we ought to do to grow the company or to make more money. That is a decision that related to other factors. Yes; it was important to know how much was being spent here and how much was being spent there and what was wrong here and what was wrong there, and you have your respective assignments.

I hear doubts cast on projections, but I do not hear anybody talking about the fact that it takes $10 billion in 1998 to support our aviation system. I do not hear anybody saying that included in our aviation system is an airport that you have laying out there. It is like the doctor's operating room; he gets it practically for nothing, pays some operating expenses, but the infrastructure is all there.

I think, Mr. Chairman, in all due respect, that Amtrak has to be here at some point to answer some of these questions. We are asking questions, frankly, I think in the blind, asking questions about

what goes wrong with the projections. Well, something goes wrong with the projections. The weather hits or something else hits.

Go take a ride on the TGV or the Bullet Train and see what can happen. We have skinnied this thing down to the point that we will never have enough of a satisfactory operation there unless we capitalize it properly. We are talking about trains that we are hoping can hit 180 miles or 180 kilometers, 150 miles I guess, somewhere around there, miles an hour, when we are looking at we do not have the track straight enough to develop that maximum speed.

We are hoping that we are going to get a 3-hour ride when all is done with our northern leg from New Haven, New York, on up to Boston, get it down to 3 hours. It is still a lot of time for a ride that is about 250 miles long.

I came down on Amtrak yesterday. They were precisely on time. The car rattled, rolled, and shook. I think the equipment was probably 50 years old. To me that is young, but that has nothing to do with railroad terms. And you just cannot develop the kind of ridership that you want to have.

Ms. Scheinberg, I would say that, in response to your answer about whether or not there would be subsidy, you said, yes, inevitably there would have to be subsidy, and you in turn put out a proposal that said, well, in order to have it fully self-sufficient you would have to have population increases all along. But the problem is people go to work between 7 and 9 o'clock in the morning typically and they come home from 5 to 7 o'clock at night typically, and the French do the same thing we do. Maybe they take a little bit longer for lunch, but the fact is that there are hours when they travel in volume just like we do.

Thusly, you can never have the balanced load that you would like to have. So as a consequence, we have to make some allowances for things.

We talked about definitions, nomenclature, Mr. Mead, and you at least appeared to me to be somewhat shocked at the notion that maintenance fees, maintenance costs, might be construed as capital costs. I would ask you, do you know what commuter railroads do, you or Ms. Scheinberg, do you know what they do? How do they categorize maintenance costs in commuter rail lines?

Mr. MEAD. No; but we will find out. And I would say, Senator Lautenberg, that I am not opposed to funding Amtrak's maintenance expenses with capital assistance. But the issue is, if we are going to call them capital and not have an operating subsidy for Amtrak, what goal are we headed toward in terms of self-sufficiency or partial self-sufficiency? And that is really a policy judgment for the Congress of the United States to make.

Senator LAUTENBERG. It is self-delusionary.

Mr. Kiley, do you remember what happened on Metro North? How do you classify maintenance expense?

Mr. KILEY. As a rule, any investment that has the potential of extending useful life by more than 5 years is considered a capital expenditure.

Senator LAUTENBERG. Are you aware of whether that is kind of common throughout?

Mr. KILEY. It is pretty common. There are exceptions to it, but it is pretty common.

Senator LAUTENBERG. Thank you.

There are a number of questions I would like to submit, Mr. Chairman. I will submit them in writing.

Senator SHELBY. Without objection.

Senator LAUTENBERG. And I hope that we will be able to have a chance to hear Amtrak's rebuttal, or at least responses, to some of the statements made here. Thank you very much.

Senator SHELBY. Thank you.

Senator Bennett.

STATEMENT OF SENATOR BENNETT

Senator BENNETT. Thank you, Mr. Chairman.

I thank the witnesses. I think I am agreeing with Senator Lautenberg that in a way we have the wrong witnesses and we are talking about the wrong things. At least that is kind of what I heard. And this is by no means a derogation of your contribution here.

Senator LAUTENBERG. I would say, if I may, Senator Bennett, not the wrong witnesses, but the forum does not permit in my view a balanced response.

Senator SHELBY. Let me respond to that if I can. We do try to bring forth a balance. What we are looking for is the truth and the committee is going to find the truth. We appreciate both of your candor here, and that is what we are getting at. We are not interested in a stacked deck for Amtrak, we are not interested in a stacked deck against Amtrak. But we are going to find the truth, and we appreciate your candor. That is the kind of committee we are going to run.

Senator BENNETT. When I say the wrong witnesses, I think the issues plaguing Amtrak are above your pay grade. I think if you started out with a clean sheet of paper approach to the issue of transportation challenges to the United States, you would clearly say there is a role for a rail passenger system in the United States, particularly, maybe exclusively, in those heavily congested areas. The Northeast corridor is the cliche, but there may be some other areas that cry out for it just as much.

But I think 30 years of experience has taught us that running a rail passenger system along freight passenger lines does not make very much sense. The way the thing is going to work is the one place where it is working now, where you have dedicated trackage, you can run 150-mile, 180-mile, 200-mile-an-hour trains.

You do not want to run freight trains over tracks that are dedicated to go 200 miles an hour. This means a comprehensive analysis of where those corridors are, how much it is going to cost you to acquire that money, acquire that real estate, what the cost-benefit analysis is, and the tradeoffs in getting people out of their cars and keeping them off of airplanes.

The principal competitor to Amtrak is not the airplane, it is the automobile. The reason passenger service works better in Japan—I have taken the Bullet Train from Tokyo to Nagano for the Olympics just recently, a marvelous experience, wonderful train, smooth as glass, 150 miles an hour, terrific. One of the reasons so many people are on that train is that there is no way in the world they are going to get there in their automobile. The Japanese do not

have an interstate highway system that makes it attractive for you to get in your own car and drive to the ski resort.

So if you are going to go from Tokyo to Nagano, you love the Bullet Train. But in America you ride Amtrak and it is old equipment and it is a rattly experience, and the food is not wonderful, and you have to rent a car when you get there, and you say, you know, next time I am going to get on the interstate highway and cruise at 75 miles an hour and I am going to have my own car when I get there, and I can eat where I want to eat, and I can pull off and stop.

That is the main competitor, and we need to decide as a matter of national policy where are we going to put rail transport and subsidize it in a capital investment that makes sense.

We have had this conversation about Amtrak every year for 30 years, and it is time for a serious policy decision about rail passenger traffic in congested areas of this country that is above your pay grade and may be above ours. But I think we are calling for some secretarial leadership and probably some Presidential leadership, working with the leadership of Congress, to say where are we going to put passenger rail transportation as a matter of transportation policy priority, how much is it going to cost, what are the tradeoffs, and then say, having made that decision, we will put the money behind that decision, and other portions of the historic rail passenger network that have been with us for all these years will disappear because they do not fit the master plan.

We are doing this a band-aid approach, not a master plan approach, and I think we are going to continue to struggle along with band-aids and arguments until we step back and say, what do we as a Nation want to do in this area?

I am very supportive of rail passengers, but I am getting a little tired of the band-aid arguments back and forth, and I would hope we would begin to see that kind of overall leadership, hopefully out of this administration, if not this one then the next. But this business of saying, well, we can get through this year with this much money and we can patch it up next year with that much money, and we never take the hard decision of saying we are going to have to cut off this and we are going to have to fund that, is frustrating to me.

Senator SHELBY. Senator Gorton.

AMTRAK'S RIDERSHIP

Senator GORTON. You, Ms. Scheinberg, say in your written statement that there is just one route that operates, that has an operating profit, New York to Washington, DC, and that maybe Boston to New York will when the conversion is completed. In your view is there any other Amtrak route in addition to those two that can realistically be expected to run at an operating profit as we have traditionally defined that term?

Ms. SCHEINBERG. No other route presently comes close to being able to operate at a profit. The reason the Metroliner from Washington to New York can operate at a profit is because of the price, and the reason the passengers are willing to pay the price is because of the service they get. They get to New York in 3 hours. It is high speed. It is what they want. If you can duplicate that in other corridors to match the air time, in the sense that a 3-hour

train ride pretty much competes with a 1-hour plane ride when the train goes from the middle of one city to the middle of another city and the airplanes have to go to the outlying airports. In other corridors where you have sufficient passengers who are going to make that trip and the timing is really important to them, you can, I think, replicate Metroliner results outside of the New York to Washington route.

Senator GORTON. Well, is there any such corridor that has that potential?

Ms. SCHEINBERG. We have not studied this issue, but I think that there are potential corridors. A study would need to be done looking for the markets and the population along the corridors.

Amtrak itself has just announced that it is about to undertake a study that would look at its own route system, what markets exist, and what the passenger ridership wants. I think as a result of Amtrak's study we could come up with some answers for your question.

Senator GORTON. It is hard for me to think of any other such corridor with a population, with a sufficient population and a sufficiently small distance between major metropolitan areas where you would be competitive with air. Certainly Los Angeles-San Francisco would not fall into that category, would it?

Ms. SCHEINBERG. The California routes have done a lot better recently, but I am not sure if they could get to the point of self-sufficiency. They are being supported by the State as well. The Amtrak routes do get support from California.

Senator GORTON. Let me put a question to both of you. If we were to abandon Amtrak and simply pass a law that required the owners of present rail trackage in the United States to offer its use, the railroad owners, the use of their facilities to any organization that wanted to run passenger service on the same terms and conditions that they now offer it to Amtrak, how much rail passenger service would there be in the United States?

Ms. SCHEINBERG. Senator Gorton, we undertook a study recently—it just came out a couple weeks ago—that looks at the possible implications of an Amtrak liquidation. We talked to States and commuter railroads that work with Amtrak now and asked them what would happen if Amtrak no longer existed. We got mixed responses. This is similar to your question. That is why I am bringing this out.

In the Northeast corridor the States would be very interested in continuing the service. Their concerns would be on the costs to maintain the infrastructure. It goes back to the capital issues that Senator Lautenberg was alluding to.

Outside of the Northeast corridor, there was some interest in maintaining local service, but very little interest in maintaining long-distance service.

Mr. MEAD. This is the first time in Amtrak's history that Congress and the administration have departed from a kind of hand-in-glove approach to capital. Until you get a good capital infrastructure, there would be very few takers, I would think, in the private or State sector. But we are now positioned to pump a lot of capital into our train system, and I would think that at the end of the next

4 years we would be able to give a much more responsive answer to the question you just posed.

Senator GORTON. Well, it sounds to me like the answer is, even after the next 4 years, you would have Washington to New York to Boston and that would be it, even after all that capital investment has been made.

Mr. MEAD. It may be. I do not know of anyplace else in the world where train travel totally makes ends meet. If there is one, I am not aware of it, sir.

Senator GORTON. But outside the Northeast corridor, there is no other place in the United States with the population density that exists in Western Europe and Japan, is there?

Mr. MEAD. There are some markets in California.

Senator GORTON. Well, I think, Mr. Chairman, as I have felt for years, there is no financial justification for this at all. I speak as one who represents—as I told my friends on the Commerce Committee, two summers ago I took the train from Chicago to Seattle at one time when it was absolutely full. There was not a seat available in it.

Of course, it took 44 hours as against 4, 3 or 4. It cost more. It was less comfortable.

Senator SHELBY. Have you taken it since?

Senator GORTON. And I cannot imagine, I cannot imagine that they could have done anything but lose $50 a passenger or maybe more than that per passenger on it.

If we want to keep it going for sentimental reasons, that is one thing. But to think that we are ever going to make it have an operating profit in my view is a total pipedream.

Senator LAUTENBERG. Mr. Chairman, may I?

Senator SHELBY. Senator Lautenberg.

Senator LAUTENBERG. Just one comment for my friend from Washington. That is that nearly 70 percent of the increased ridership in 1997 on Amtrak came in the west coast area. Another figure that may be of interest to you is that the Empire Builder, the Chicago to Seattle train, had a 65-percent increase in just 1 year.

I think what happens is, unless the system can be inviting enough—and that means at higher speeds, especially in the heavily used areas—we are not going to attract a lot of traffic. The fare now from Newark or New York to Washington on an airplane is $200. Now, you know where you can fly for $200. If you can book it enough in advance, et cetera, you can probably cross the ocean or at least cross the United States for the same thing.

But if we had serious high-speed rail that meant we would be in New York in an hour and a half to an hour and three quarters, I would tell you that it would help clear the skies as well as the highways.

Senator GORTON. Well, in my view there is no way that the Empire Builder can ever be remotely competitive with air travel because it is too long. I think that my own analogy is that we no longer go by ship across the ocean as a method of transportation. We do it as a part of a tour group, and maybe someone can put together such luxurious railcars and such nice destinations where they stop for a while as to have land cruises in the way we have sea cruises today.

But to talk about cross-continental travel by rail as being a practical transportation alternative, it just simply is not going to happen.

Senator SHELBY. Thank you. We thank you.

Senator Bennett.

FAILURE OF ROUTES

Senator BENNETT. I cannot resist getting into this for just a minute and making this comment, because I have had some personal experience with it. I see from your testimony and submissions that they are talking about Los Angeles to Las Vegas. Los Angeles to Las Vegas has been tried over and over again. I will venture the prediction that Los Angeles to Las Vegas will fail over and over again, because once again the competition—if you are willing to spend the time, you can get there in your car just as rapidly as you can on the train. And when you get to Las Vegas, you are going to want your car, because you may want to take a break from the gaming tables long enough to go out and look at Boulder Dam or whatever.

You take your family with you or your significant other or whatever, it is a whole lot cheaper. The time is the same and the convenience at the other end is so much greater if you have your own car.

The contrast with the Northeast corridor is stark. I used to have an office in Washington and an office in New York, and you are absolutely right, the Metroliner was the preferred way to go, because I could get to my office in downtown Manhattan in the same period of time by the Metroliner that I could on the airplane. I did not have to deal with a taxi driver. I could sit on the Metroliner and read, do work, eat. When the Metroliner first started, you could get a steak on the Metroliner that was as good as you could get in many New York restaurants.

And I do not want a car in Manhattan. The last thing in the world you want in Manhattan is to be stuck with a car.

So the highway competition is not there, and the airway competition can be met. Somebody ought to be making these kinds of strategic decisions in the way the Senator from New Jersey was talking about. When he talks about growing his business, he calls in the marketing people, who ask the fundamental question, what does the customer want. And so far I am not finding anybody in Amtrak asking the question, what does the customer want.

I think if we asked that question, what does the citizen want or what does the customer want, we will say: Forget the experiment between Los Angeles and Las Vegas and buy the right of way to build us a high-speed dedicated roadway in the Northeast corridor and watch it make money over time, money in terms of the European-Japanese model that says, yes, these are subsidized, but the societal cost is more than recovered in terms of pollution and congestion and all of those kinds of things, and quit fooling around with the nostalgia that says we are a railroading nation and we must continue to be for the next 200 or 300 years.

Mr. MEAD. You know, one of the interesting things about the Las Vegas-Los Angeles run is that was under consideration some years ago as a magnetic levitation route because it was one of the few

city pairs in the United States where you could go in a straight line with few or no stops, which you need pretty much for maglev.

In fairness to Amtrak, they have in the last several years been doing a customer satisfaction and desires type survey, and they report on some aspects of that in their annual report.

Senator BENNETT. I stand by my prediction.

Senator SHELBY. Do you have another statement, Ms. Scheinberg? Do you have anything else?

Ms. SCHEINBERG. I was just going to tell Senator Bennett that Amtrak has just decided to conduct a market analysis to look at its customer base on its routes. It is just about to do that, and it will take quite a bit of time. But hopefully it will get at the issues that you are talking about, because I agree with you that those are the issues that are going to make the difference.

SUBMITTED QUESTIONS

Senator SHELBY. We thank you both for appearing. We appreciate your candor and your statements. Thank you so much. We will submit additional questions to be answered for the record.

Ms. SCHEINBERG. Thank you.

[The following questions were not asked at the hearing, but were submitted to the agencies for response subsequent to the hearing:]

GENERAL ACCOUNTING OFFICE

QUESTIONS SUBMITTED BY SENATOR SHELBY

Question. At the request of the conferees on last year's bill, the GAO is currently working on a complete analysis of Amtrak's route structure. The report is due May 15th. Please provide a list of Amtrak's routes, ranked by financial performance in fiscal year 1997, including the name of the train, the route endpoints, the operating ratio, and profit or loss on a per passenger basis.

Answer. The requested information follows:

TABLE 1.—FINANCIAL PERFORMANCE OF AMTRAK'S ROUTES, FISCAL YEAR 1997

Name/route	Operating ratio [1]	Profit or (loss) per passenger
Metroliners: New York, NY–Washington, DC	0.94	$5
San Joaquins: Oakland, CA–Bakersfield, CA	1.23	(11)
Carolinian: New York, NY–Charlotte, NC	1.45	(27)
Piedmont: Raleigh, NC-Charlotte, NC	1.48	(42)
Capitols: Roseville, CA–San Jose, CA	1.52	(15)
Auto Train: Lorton, VA–Sanford, FL	1.56	(118)
Northeast Direct: Boston, MA or Springfield, MA–Washington, DC or Richmond, VA	1.65	(29)
Pacific Northwest Corridor: Eugene, OR–Seattle, WA or Vancouver, Canada	1.76	(26)
Illini: Chicago, IL–Carbondale, IL	1.82	(47)
Kansas City–St. Louis: Kansas City, MO–St. Louis, MO	1.91	(45)
Southwest Chief: Chicago, IL–Los Angeles, CA	1.92	(180)
San Diegans: San Diego, CA–Los Angeles, CA or Santa Barbara, CA	1.96	(23)
Vermonter: Washington, DC–St. Albans, VT	2.00	(58)
Lake Shore Limited: Chicago, IL–Boston, MA or New York, NY	2.01	(90)
Empire: New York, NY–Albany or Buffalo, NY	2.03	(38)
Adirondack: New York, NY–Montreal, Canada	2.10	(57)
Three Rivers: New York, NY–Chicago	2.18	(138)
Silver Meteor: New York, NY–Miami, FL	2.18	(120)
Empire Builder: Chicago, IL–Seattle, WA or Portland, OR	2.20	(136)

TABLE 1.—FINANCIAL PERFORMANCE OF AMTRAK'S ROUTES, FISCAL YEAR 1997—Continued

Name/route	Operating ratio [1]	Profit or (loss) per passenger
Illinois Zephyr: Chicago, IL–Quincy, IL	2.21	(61)
International: Chicago, IL–Toronto, Canada	2.23	(47)
New York–Harrisburg: New York, NY–Harrisburg, PA	2.30	(37)
California Zephyr: Chicago, IL–Emeryville (San Francisco), CA	2.24	(149)
Capitol Limited: Chicago, IL–Washington, D.C.	2.27	(133)
Pere Marquette: Chicago, IL–Grand Rapids, MI	2.43	(51)
Coast Starlight: Los Angeles, CA–Seattle, WA	2.43	(92)
Philadelphia–Harrisburg: Philadelphia, PA–Harrisburg, PA	2.15	(22)
Silver Star: New York, NY–Miami, FL	2.47	(143)
Silver Palm: [2] New York, NY–Miami, FL	2.48	(163)
Crescent: New York, NY–New Orleans, LA	2.56	(163)
Chicago–St. Louis: Chicago, IL–St. Louis, MO	2.58	(59)
Clockers: New York, NY–Philadelphia, PA	2.59	(11)
Pennsylvanian: New York, NY–Pittsburgh, PA	2.70	(53)
Empire-Ethan Allen Express: [3] New York, NY–Rutland, VT	2.75	(79)
City of New Orleans: Chicago, IL–New Orleans, LA	2.78	(130)
Hiawathas: Chicago, IL–Milwaukee, WI	2.92	(50)
Texas Eagle: Chicago, IL–San Antonio, TX	3.11	(189)
Sunset Limited: Los Angeles, CA–Orlando, FL	3.16	(284)
Cardinal: Chicago, IL–Washington, DC	3.29	(136)
Chicago-Pontiac: Chicago, IL–Pontiac, MI	3.66	(66)
Total route system	[4] 1.86	(47)

Note.—The profit or loss per passenger in this table reflects Amtrak's fully allocated costs, which include all general ledger costs related to running intercity passenger trains. It does not show the cash impact on Amtrak's bottom line of operating each particular route due to costs that are shared between routes and the impact travel on one route that affects travel and revenues of other routes. Three routes that Amtrak closed during fiscal year 1997 are excluded.

[1] A route's operating ratio is its expenses divided by its revenues. An operating ratio less than 1.0 means that the route was profitable, while an operating ratio greater than 1.0 means that the route lost money. A ratio greater than 2.0 means that the route's expenses were at least two times greater than its revenues during the fiscal year.

[2] Service was introduced in November 1996.

[3] Service was introduced in December 1996.

[4] Operating ratio for Amtrak's core intercity passenger services.

Source: GAO analysis of Amtrak's data.

Question. In your route analysis work, what characteristics have you found would actually make a rail corridor be competitive with air service?

Answer. There may be a number of characteristics that could make intercity passenger rail service competitive with air service. We have identified six conditions. First, a rail corridor would need sufficient population to support travel on the route. Second, there should be reasons for prospective train riders to want to travel the route, such as business travel. Third, the duration of the trip should be relatively short, say no longer than 3–4 hours. Fourth, the frequency of service should be such to make rail travel a desirable alternative for the prospective traveler. Fifth, departure and arrival times should be convenient and fit the travelers' needs. Finally, rail service must be competitively priced.

Question. How would the liquidation of Amtrak affect commuter and freight railroads? How about splitting the operating and infrastructure activities into two separate entities—how would this affect commuter and freight railroads?

Answer. In our March 2, 1998, report entitled "Intercity Passenger Rail: Issues Associated With a Possible Amtrak Liquidation" (GAO/RCED–98–60), we found that a liquidation of Amtrak could disrupt intercity and other passenger rail service as well as freight railroad activities. In particular, for both intercity and commuter rail, issues associated with accessing track and stations—and the cost of such access—would largely determine the extent of service, if any, including service on the Northeast Corridor. For example, although officials from 3 states we contacted that were not on the Northeast Corridor and did not provide financial support for intercity passenger rail service indicated an interest in maintaining service in the absence of Amtrak, they doubted it would occur because of the potentially high cost of continuing service and possible difficulties in negotiating access to tracks with freight

railroads. They also cited a lack of an incentive in keeping such service going if Amtrak's national route network were ended. States that currently provide financial support for intercity passenger rail service may have somewhat more interest in maintaining such service. However, even these states raised questions about cost and access to tracks. Finally, commuter railroads also mentioned potential difficulties in gaining access to tracks and stations and the cost of such access. How these problems might be dealt with is unclear. Three states we talked to on the Northeast Corridor said they would have difficulty in coming up with additional money to pay for passenger rail service if Amtrak went out of business and one of the states—New York—said it would look to the federal government to pay any costs it might incur in the aftermath of an Amtrak liquidation.

Commuter rail authorities that contract their service to Amtrak and freight railroads that operate on the Northeast Corridor could also face difficulties from an Amtrak liquidation. The commuter rail authorities would have to find new operators—a task some said could be time consuming and ultimately more expensive than their current arrangement and freight railroads using the Northeast Corridor would have to find a way to continue using the Corridor to provide service or potentially face severe economic hardship from the loss of business. These railroads currently have an easement to use the Northeast Corridor to provide service. Two freight railroads we talked to said they would take whatever action was necessary to ensure they could continue to exercise their easement to provide freight service.

We have not evaluated how splitting Amtrak into separate operating and infrastructure companies might affect future intercity, commuter, or freight railroad operations and costs.

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

Question. GAO has been scrutinizing Amtrak's finances and accounting systems for at least two years. In this time, have you found Amtrak's process and methods to be sound and honest?

Answer. As we have indicated in our reports on Amtrak, data which we have obtained and analyzed has largely been provided by Amtrak. We have not independently verified this data nor made an independent assessment of its soundness. However, Amtrak employs an independent accounting firm—Price Waterhouse LLP—to annually audit its financial statements and issue an opinion about whether Amtrak's consolidated balance sheet and related financial reports are presented fairly. Such an audit includes, among other things, examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. For 1997, Amtrak received an unqualified opinion on its financial statements.

Question. Is Amtrak's updated plan, adopted this spring, incorporating more information on the level of federal support and assumptions regarding the labor agreement, considerably more conservative than the original Board-passed plan?

Answer. Amtrak believes that its revised plan is conservative and realistic. For example, Amtrak states that the revised plan ". . . reflects a much more conservative Express forecast based on a more realistic set of assumptions regarding operational, market, and legal constraints. It also includes an estimate of the cash impact of all labor unions assuming settlement in July of 1998." The plan is also predicated on full funding of the Administration's budget request (through 2003) and flexibility that would allow appropriated funds to be used for maintenance expenses.

Question. If this Committee, at a minimum, fully funds the Administration's fiscal year 1999 funding request of $621 million in capital with flexibility, can Amtrak remain solvent and preserve the Taxpayer Relief Act funds for high rate of return projects?

Answer. Amtrak's March 1998 revised Strategic Business Plan indicates that full funding of the Administration's fiscal year 1999 funding request would allow it to remain solvent through 2003 and stay within its existing lines of short-term credit. This is assuming that business plan actions are accomplished and that revenue and cost projections contained in the plan are achieved. According to the revised business plan, fully funding the Administration's budget request and providing flexibility that would allow appropriated funds to be used for maintenance expenses would also allow Amtrak to preserve Taxpayer Relief Act funds for high rate-of-return projects. However, Amtrak plans to temporarily use Taxpayer Relief Act funds—about $100 million in fiscal year 1998, $317 million in fiscal year 1999, and $200 million in fiscal year 2000—for allowed maintenance of existing equipment to help address cash flow problems in each of these years. According to Amtrak, the temporary use of Taxpayer Relief Act funds for allowed equipment maintenance will

help the corporation avoid additional borrowing from its credit lines over the original planned amount (about $100 million each year).

Question. What, in your view, will happen to Amtrak's financial situation if this Committee provides substantially less than the levels requested by the President over the next five years?

Answer. Providing Amtrak with less funding than that requested in the President's budget would likely require Amtrak to substantially increase its revenues; reduce its costs to stay within planned net loss and cash flow targets specified in its March 1998 revised Strategic Business Plan; and/or make increased use of Taxpayer Relief Act funds for allowed maintenance expenses.

Implementing these options could be difficult and/or have significant financial impacts on Amtrak. Increasing revenue or reducing costs could be particularly difficult in the short-term. As we testified, Amtrak has sharply reduced its expected revenue from the pilot express program (about $47 million in fiscal year 1998) and revenues from the new high-speed rail program will not be received for another 2 years. Amtrak is also facing wage increases from its recent agreement with the Brotherhood of Maintenance of Way Employees—about $3 million to $5 million in fiscal year 1998. According to Amtrak, if this agreement were extended to Amtrak's 12 other labor unions, Amtrak's costs could increase between $60 and $70 million per year (net of one-time payments and any productivity gains negotiated with the unions). Using Taxpayer Relief Act funds for allowed maintenance expenses will likely reduce the amount of money available for high rate-of-return investments.

Question. What is the single most important thing we can do here in Congress to ensure Amtrak's long-term financial survival?

Answer. As we concluded in 1995, the Congress needs to decide on the nation's expectations for intercity passenger rail service and the scope of Amtrak's mission in providing this service. These decisions require defining a national route network, determining the extent to which the federal government would contribute funds, and deciding on the way any remaining deficits would be covered. We believe these conclusions continue to ring true. Given the tools provided in the Amtrak Reform and Accountability Act of 1997, now is the time for the Congress and the new Amtrak Reform Board to work together to consider and act on the issues that will chart Amtrak's future.

Question. I understand you have surveyed some states regarding whether they want to take over services currently served by Amtrak. What were the states' expectations in terms of paying for the costs associated with managing the system and maintaining the infrastructure? What happens to the costs of operating a system? Did the states expect any problems with forming agreements with other potential partners along a corridor?

Answer. In our report on the possible liquidation of Amtrak ("Intercity Passenger Rail: Issues Associated With a Possible Liquidation of Amtrak" (GAO/RCED–98–60, Mar. 2, 1998)) we found that states and commuter authorities that provide passenger rail service following an Amtrak liquidation could bear the costs to operate, maintain, and rehabilitate infrastructure, such as tracks and stations, that Amtrak currently pays. How much of the cost might be assumed by these other parties is uncertain because, in part, it would depend on such factors as the extent to which these other parties needed the infrastructure, the price the new owner might charge for use of the facilities, and the level at which the infrastructure would be maintained. Some of the states we talked to indicated they would have a difficult time coming up with the additional money for passenger rail service that could be shifted to them if Amtrak were to go out of business. At least one state, New York, said it would look to the federal government to help pay these costs.

We also reported that an Amtrak liquidation could disrupt intercity and other passenger rail service as well as freight railroad activities. In particular, for both intercity and commuter rail, issues associated with accessing track and stations—and the cost of such access—would largely determine the extent of service, if any, including on the Northeast Corridor. Officials from 3 states we contacted that were not on the Northeast Corridor and did not provide financial support for intercity passenger rail service indicated an interest in maintaining service in the absence of Amtrak but doubted it would occur because of the potentially high cost of continuing service and difficulties in negotiating access to tracks with freight railroads. They also cited a lack of an incentive in keeping such service going if Amtrak's national route network were ended. States that provide financial support for intercity passenger rail service may have more of an interest in continuing such service but also raised concerns about cost and access to tracks. Finally, commuter railroads also mentioned potential difficulties in gaining access to tracks and stations and the cost of such access. Commuter rail authorities that contract their service to Amtrak and freight railroads that operate on the Northeast Corridor could also face difficul-

ties. For example, commuter rail agencies that contract their service to Amtrak would have to find a new operator—a task some said could be time consuming and ultimately be more expensive than their current arrangement. Freight railroads using the Northeast Corridor could also have to find a way to continue using the Corridor without losing business.

Use of interstate compacts between two or more states (as authorized by the Amtrak Reform and Accountability Act of 1997) may be a way of preserving service. However, implementation could be difficult. Some of the states we talked to expressed concerns about using such compacts to maintain intercity passenger rail service citing such problems as reaching agreements on the allocation of costs, establishing train schedules, and determining station stops. Two states we talked to—Illinois and Florida—had direct experience in trying to work with other states in establishing a long-distance intercity passenger rail route. In both instances the route was not established because there were too many disputes among the participating states over cost and operational matters. An official from one state—Illinois—said interstate compacts might be feasible but only on routes that are relatively short—say 3 to 4 hour trip times.

Question. The Reason Foundation and the Intercity Passenger Rail Working Group, the bipartisan advisory group convened by the House Committee on Transportation and Infrastructure last Spring, point to the privatization of British Rail, as an example of a successful passenger rail privatization effort. However, according to a January 25th article in the London Sunday Times, service has actually deteriorated and costs to British taxpayers are higher than before privatization. In fact, this article states that passenger surveys find ''public confidence in Britain's rail service is at an all-time low,'' and that the new train operating companies receive more than twice as much in subsidies as British Rail received when it was government-owned.

a. Given the problems with British Rail, would you predict that a privatized Amtrak would result in poorer service at higher taxpayer cost?

Answer. We have not studied the experience of British Rail or other countries' privatization efforts. As a result, we cannot offer an opinion on how costs and service might change, if at all, if Amtrak were privatized. In our February 6, 1995, report entitled ''Intercity Passenger Rail: Financial and Operating Conditions Threaten Amtrak's Long-Term Viability'' (GAO/RCED–95–71), we concluded that privatizing Amtrak might be complicated by a number of factors. First, it is not clear what would be privatized since Amtrak owns very little track outside the Northeast Corridor. Second, because passenger train services might be inherently unprofitable, private, for-profit firms are unlikely to be interested in such business without some government assistance. Third, different degrees of privatization are possible, so that it is necessary to define what is meant by privatization. Finally, privatizing Amtrak is not likely to result in successfully preserving a nationwide intercity passenger rail system.

b. According to a study by the Union Bank of Switzerland, Britain has the highest rail tickets in the world. What would be the effect of privatization on rail ticket prices in the U.S.?

Answer. We have not studied this issue and, therefore, cannot venture an opinion.

QUESTIONS SUBMITTED BY SENATOR REID

Question. You did provide a fairly gloomy picture of Amtrak's finances. If we do fully fund the Administration's request: $621 million in capital with the flexibility in fiscal year 1999, $571 in 2000, $521 in 2001, etc., can Amtrak remain solvent and preserve the TRA for high rate of return projects?

Answer. Amtrak's March 1998 revised Strategic Business Plan indicates that funding the corporation at the amounts requested in the Administration's fiscal year 1999 budget would allow it to remain solvent through 2003 and stay within its existing lines of short-term credit. This is assuming business plan actions are accomplished and revenue and cost projections are achieved. According to the revised business plan, fully funding the Administration's budget request and providing flexibility in how appropriated funds can be spent would also allow Amtrak to preserve Taxpayer Relief Act funds for high rate-of-return projects. Amtrak plans to temporarily use Taxpayer Relief Act funds—about $100 million in fiscal year 1998, $317 million in fiscal year 1999, and $200 million in fiscal year 2000—for allowed maintenance of existing equipment to help meet its short- term financial needs. According to Amtrak, the temporary use of Taxpayer Relief Act funds for allowed equipment maintenance will help the corporation avoid additional borrowing from its credit

lines over original planned amounts (about $100 million each year) and help the corporation avert bankruptcy.

Question. Are there alternatives to the DOT/Amtrak/OMB proposal that you know of that would work better?

Answer. Our work has focused on analyzing the likely effects of current proposals. In our February 6, 1995, report entitled "Intercity Passenger Rail: Financial and Operating Conditions Threaten Amtrak's Long-Term Viability" (GAO/RCED–95–71), we concluded that the Congress needed to decide on the nation's expectations for intercity passenger rail service and the scope of Amtrak's mission in providing that service. We believe that this is the right time for Amtrak's new Reform Board to work with the Congress to consider and act on the issues that will chart Amtrak's future.

Question. It was said by Mr. Mead and yourself that Amtrak's business forecast for this year was too "rosy," and that due to planned labor settlements and a reduction in the revenue forecast for mail and express, they will come in under their targets.

However, didn't all that come from a plan that was adopted prior to the passage of the reauthorization bill last year, prior to enactment of the appropriations last year when they still didn't know what funding they would receive for fiscal year 1998, and prior to the approval of the TRA funds? Is Amtrak's current forecast—adopted this Spring—more conservative than the original Board-passed plan?

Answer. Amtrak's September 1997 Strategic Business Plan was adopted by Amtrak's Board about one week before the start of the new fiscal year. As such, Amtrak would have been in a position to include congressional budget marks. In addition, Amtrak's September 1997 plan incorporated planned actions that included the effects of both receiving or not receiving Taxpayer Relief Act funds (recognizing that the receipt of Taxpayer Relief Act funds was preconditioned on the enactment of reform legislation that was ultimately enacted).

Amtrak believes that its revised March 10, 1998 Strategic Business Plan is conservative and realistic. For example, Amtrak states that the revised plan ". . . reflects a much more conservative Express forecast based on a more realistic set of assumptions regarding operational, market, and legal constraints. It also includes an estimate of the cash impact of all labor unions assuming settlement in July of 1998." The plan is also predicated on full funding the Administration's budget request (through 2003) and flexibility that would allow appropriated funds to be used for maintenance expenses.

OFFICE OF INSPECTOR GENERAL

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

NEW DEFINITION OF CAPITAL ASSISTANCE

Question. Your testimony states that in fiscal year 1999, under the new definition of capital assistance, Amtrak can use $542 million for operating expenses. Does $542 million represent the amount that is available for spending or the amount that will be used?

Answer. According to Amtrak's Strategic Business Plan, Amtrak intends to use up to $542 million of the $621 million proposed in the President's fiscal year 1999 budget for operating expenses, specifically for maintenance of equipment and infrastructure.

Question. If we assume the level of capital federal funding proposed by the Administration is appropriated and the Federal Transit Administration's definition of capital is used over the five years of Amtrak's revised business plan, will Amtrak decrease its reliance on federal support for operating costs over that time period?

Answer. There are no funds requested in the President's fiscal year 1999 budget for Amtrak operating assistance. However, according to Amtrak's revised Strategic Business Plan, which assumes the use of the "transit" definition of capital, Amtrak will sustain a net operating loss and need operating assistance every year through fiscal year 2002, as shown in the table below.

OPERATING LOSSES—FISCAL YEARS 1998–2002

[In thousands of dollars]

	Fiscal year—				
	1998	1999	2000	2001	2002
Net Operating Loss	544,948	758,257	641,156	589,924	592,673
Total Operating Assistance Needed	98,536	281,819	139,909	74,401	77,266

Amtrak plans to obtain the needed operating assistance through short-term borrowing. Amtrak has not calculated the financial impact that would result if it is not permitted to use the "transit" definition of capital.

Question. Will the application of the FTA's definition of capital inherently promote better business practices?

Answer. Yes. Under the current approach, Amtrak may be inclined to defer maintenance on some equipment to save scarce operating funds, knowing that although this may shorten the equipment's service life, the replacement of the equipment could be financed by capital grants. The decision on whether to repair or replace capital goods should be based on a sound economic analysis of which option is the least costly overall and not on the type of funds available.

Question. Do you support this change in definition?

Answer. We support the change in the definition of capital to include maintenance of equipment and infrastructure. It must be recognized, however, that this change will allow Amtrak to use "capital funding" to pay what were previously operating costs. Congress must clearly stipulate whether or not the requirement for self-sufficiency by 2002 allows for continued funding of maintenance of equipment and infrastructure from capital funds.

Question. Amtrak's revised business plan shows that it will need a little over $60 million in operating support in fiscal year 2002. Do you think Amtrak's planned business actions, including actions that may be taken based on a market analysis, will enable Amtrak to make improvements in the bottom line and eliminate the approximately $60 million deficit in fiscal year 2002?

Answer. No. Amtrak's Strategic Business Plan shows net operating losses each year from 1998 to 2002, even with the implementation of planned business actions.

Question. Would it cost the federal government less to provide a capital only grant to Amtrak?

Answer. Yes. If Amtrak receives a capital only grant and is permitted to use the "transit" definition of capital, federal funds could be used to pay for maintenance of equipment and infrastructure. However, operating costs, such as payroll, which historically were funded through an operating subsidy grant and averaged over 50 percent of total expenses, could no longer be paid with federal funds.

Question. Would the amounts proposed in the President's budget enable the corporation to become financially viable?

Answer. According to its revised Strategic Business Plan, Amtrak will incur an operating cash loss of approximately $77 million at the end of fiscal year 2002. The independent assessment of Amtrak, as required by the Amtrak Reform and Accountability Act of 1997, will provide Congress and Amtrak with detailed information on requirements for Amtrak to become financially viable.

NONDEPARTMENTAL WITNESSES

STATEMENT OF ROBERT KILEY, PRESIDENT, NEW YORK CITY PARTNERSHIP

INTRODUCTION OF WITNESSES

Senator SHELBY. Our second panel will be: Mr. Robert Kiley, president of New York City Partnership; Robert Poole, president of the Reason Foundation. And they are going to speak on alternatives for passenger rail in America. Gentlemen—and Mr. Jeff Ladd, excuse me, chairman of the Metra Commuter Rail. Is Mr. Ladd here? Yes; he is here.

Mr. LADD. Sorry, Mr. Chairman.

Senator SHELBY. That is OK.

Gentlemen, your written statements will be made part of the record in their entirety. You can proceed as you wish. Mr. Kiley, if you want to begin.

Mr. KILEY. Mr. Chairman, to repeat, my name is Robert Kiley. I am the president of the New York City Partnership, which is New York City's preeminent and business association.

Senator SHELBY. Do you want to bring the mike a little closer to you, sir. Thank you.

Mr. KILEY. To repeat, my name is Bob Kiley. I am the president of the New York City Partnership, which is New York City's preeminent business and civic association. Our membership consists of the major New York City corporations and the heads of our major civic and cultural institutions.

Maybe more to the point, my career has included a stint as chairman of the Metropolitan Transportation Authority in the Greater New York region. That included responsibility for the subway system, the Long Island commuter railroad, and the Metro North commuter railroad. Prior to that I served in a similar position in the Massachusetts Bay Transportation Authority, which also included a contract relationship with Amtrak to operate its commuter service to both the north and the south of Boston. Finally, I served as a member of the Amtrak board from 1993 to early 1996. So I am a veteran of the Northeast corridor and I feel as if I have grown long in the tooth along with Amtrak.

But even more to the point, I served as a member of the House of Representatives Committee on Transportation and Infrastructures Working Group which was created last year to help along the legislative process which finally resulted in the Amtrak Reform Act of last fall, and I am here in that capacity, that is explaining what the recommendations were of that working group.

But I might start out by saying that I am a little bit jet-lagged since I got off an airplane last night from Italy, where I spent 10 wonderful days visiting our son, who is a student in Rome this semester. And I have to tell you, I have to report that I was a fre-

quent user of the Fast Train in Italy. They operate six different kinds of services. You would be crazy to put yourself in the way of those wicked Italian automobile drivers and not take advantage of that wonderful train service.

I am sure we all recall that it was said of Mussolini that he made the trains run on time in the 1930's. That was a statement born of frustration and irony here in the United States——

Senator SHELBY. It is what we remember him for, among other things.

Mr. KILEY. Yes, true.

But one of the reasons why that statement resonated in the United States was that we were already having trouble running our own passenger trains, and this problem that seems to bedevil us and the one that is preoccupying us today is not just 25 or 30 years old; it is 65 or 70 years old. The problem of how to manage and direct our national passenger rail set of assets is one that seems to have escaped and eluded us and bedeviled us for at least two generations.

METHOD FOR CAPITAL INVESTMENT

It is, I think, well to remember that Amtrak itself was created during a period when our entire railroad industry was in deep trouble in the United States, and Amtrak was one of two organizations, the other being Conrail, that was created to deal with the impending and then finally the bankruptcy of at least the eastern segment of that railroad industry.

I do not think it was a deep dark secret that Amtrak, to put a somewhat cynical spin on it, was at the outset almost a dumping ground for the unprofitable segment of the rail industry, namely passenger operations. The story of Conrail you are all familiar with. After billions of dollars of taxpayers' investment in Conrail, it was finally taken private again in the mid-1980's and is now a considerable success story, whereas Amtrak unfortunately still remains a subject of great debate.

I think it is fair to say that the Working Group that met last spring was really something of a takeoff on questions that all of you are asking today, but particularly Senators Lautenberg and Bennett. What seems to have been missing since the advent of Amtrak, and this is, I think, one of the major findings of the Working Group, is that when you get right down to it there seems to be an absence of real focused public policy in this area, real strategy.

The fact that you can look at Amtrak, as the Government Accounting Organization has, and find that essentially over 30 years or almost 30 years that its organizational profile, its revenue-to-cost ratios, labor costs, and overhead rates, its route structures, its market position, have essentially remained unchanged during this entire period of time—when Amtrak started there were 400 routes; back in the 1930's there were 6,000 routes; today there are 40 routes. But the essential nature of these routes have essentially not changed.

So it is not an accident that out of these 40 routes, only one of them is in a position today to cover its own costs. This was really at the heart of the finding of the Working Group. Essentially, the Working Group reached the conclusion that until the Congress

which has really become in effect the owner of Amtrak over the past 10 to 15 years, since most would argue that the executive branch has tended to take a walk on Amtrak, until the Congress takes a hard step backward, maybe even a harder step than it took last year, to look at what its ownership has wrought, we are likely to be back here at this table every year or two having this same discussion.

The Working Group essentially concluded that a new organization which would focus on these issues—we called it Amrail—should be created, which would be the funnel, the energizing force, for Federal capital investment in our national rail system, should be created. It should focus on those densely populated corridors that both Senators Lautenberg and Bennett have discussed here today.

It ought to begin the process, which has been much delayed, of seeing which corridors ought to take priority and starting that investment process. It was the feeling of the Working Group that this task should be separated from what Amtrak ought to be doing, which is running train operations, so that we can finally have a national rail strategy that would guide the expenditure of capital dollars.

Amtrak over a period of time, over a period of several years, 2003 as a result of the Reform Act of last year, would in fact become a rail operator, but it would be one of potentially a number of rail operators. Amtrak would in effect become privatized over a period of time. There would have to be a transition here that would last as long as the operating subsidy anticipated in the Reform Act would last, that is until the year 2002 or 2003.

In the meantime, Amrail would be overseeing the investment of these capital resources in lines that Amtrak now runs perhaps, particularly in the Northeast corridor, which is the exception that proves the rule that we ought to be investing in densely populated corridors, and Amtrak would be out of the capital investment picture and would be doing operations.

Amrail would also be franchised to set standards for passenger operations across the country, most especially in these newly developed, densely populated corridors. And new operators would be welcome to operate trains in those corridors.

PASSENGER RAIL ALTERNATIVES

To answer Senator Gorton's question, there are actually companies out there right now who are anxious to run passenger rail operations, who would like to compete, and under the Reform Act they are going to get their first opportunity to compete. But they need opportunities. They need access to markets. And the current Amtrak route structure unfortunately does not penetrate into those markets where there are passengers to be found.

I notice that the red light is on, Senator. There is much—there is more that I could say about the Working Group's findings, but in essence we are arguing that there needs to be a new passenger rail, federally sponsored, public policy, it ought to be focused on densely populated corridors and it ought to happen during the life of the Reform Act. The Reform Act is a good start, but it is only a start.

Mr. Chairman, the Working Group has prepared a report entitled "A New Vision for America's Passenger Rail" which we submit for the committee's consideration.

Senator SHELBY. Thank you.

[The information follows:]

A NEW VISION FOR AMERICA'S PASSENGER RAIL

(Committee on Transportation and Infrastructure Working Group on Intercity Passenger Rail)

INTRODUCTION

For millions of Americans, passenger trains signify more than just a means of transportation; they serve as potent symbols of our nation's heritage, environmental consciousness and collective hopes for a humane future. Many passionately argue that the United States has the capacity and indeed, the obligation, to create a world-class national passenger rail system to endorse these values and to arrest the growing unintended side-effects of automobiles and airplanes in our cities and countryside.

A more tangible and immediate argument for rail service can be weighed in straight financial terms. The United States is a diverse and increasingly mobile nation with a growing (as well as graying) population and an aging transportation infrastructure. It needs a well-integrated national transportation policy that offers a range of modal choices in order to maximize mobility and to minimize transportation costs, infrastructure funding requirements and environmental damage in a variety of settings.

Under the right conditions, passenger rail service can provide an attractive, financially sustainable transportation alternative that enhances efficiency of other modes (including cars, trucks, buses, airplanes and freight rail). Unfortunately, the conditions under which Amtrak currently operates do not allow for Amtrak to function as a true and equal alternative to other modes of transportation.

Amtrak is now awash in red ink, buffeted by conflicting missions and ballooning debt, and virtually starved for capital in both political and financial terms. Not surprisingly, revenues, ridership and service have ebbed despite valiant efforts by both management and labor to reverse these trends. Neither the Congress nor the Administration seems eager to increase or even continue Amtrak's subsidy, though each institution still exerts sizable control over its organization, operations and route structure. This control is often at odds with Amtrak's ability to operate efficiently and to maximize the value of its assets. Meanwhile, competing modes of transportation fight ruthlessly for every uncommitted traveler in Amtrak's shrinking market share.

Together these conditions create an untenable outlook for passenger rail in the United States. In the short range (the next 6 to 12 months), Amtrak faces a major liquidity crisis and probable bankruptcy. Unless the Congress moves swiftly to reconfirm the value of passenger rail service and dramatically restructure the way in which it is organized and operated, the substantial asset base of the existing system will permanently disappear by default, along with many vital long-range prospects for service.

A good measure of political and financial capital will be needed to avert this course; naturally, both elements are in short supply. Nevertheless, the U.S. government can claim a long and impressive tradition of large-scale problem solving, as in the creation of the interstate highway system and the notable improvement of the nation's air and water quality.

Genuine renewal of national passenger rail service will not be resolved by political rhetoric nor by periodic last-minute infusions of cash; rather, it requires that the Congress take a long, hard step back from the status quo in order to plot a viable, market-driven course for the future. The immediate pain and risks to existing rail service and jobs that may accompany this overhaul must be gauged carefully against the larger and longer-range havoc that assuredly would follow the further decline and liquidation of Amtrak.

More importantly, if passenger rail is to become a serious part of the nation's mobility strategy in the future—rather than a mere incantation of the past—it must operate in a profoundly more growth- and customer-oriented fashion. It must have the management tools, the flexibility, the incentives and the discipline imposed by competition to vie with other modes of transportation on a level playing field.

CONTEXT

Fiscal

Amtrak has been in financial difficulty for most of its 26-year existence. In recent years, its financial condition has deteriorated to the point that Amtrak believes it may exhaust all sources of cash within the next 12 months. To reduce its continually growing losses and widening gap between operating deficits and federal subsidies, Amtrak developed its Strategic Business Plan. Although Amtrak has made some progress in implementing its business plan and cutting its losses, its financial condition is still very precarious. Amtrak's financial measures continue to deteriorate. Financial targets have been missed, and substantial capital investment is needed.

Amtrak has lost over $700 million in each of the last 9 years. Amtrak has been relying on passenger revenues to help close the gap between revenues and expenses, but passenger revenues, when adjusted for inflation, have declined over the past several years. Half way through the current fiscal year, Amtrak began borrowing against its short-term line of credit to meet basic operating expenses, such as payroll. From 1993 to 1996, Amtrak's debt and capital lease obligations nearly doubled—from about $500 million to almost $1 billion dollars. Amtrak expects to incur another $1 billion in debt within the next 2 years to finance 18 train sets and related maintenance facilities for the Northeast Corridor and the acquisition of new locomotives. To service this increased debt, Amtrak must use a substantial portion of its federal operating subsidies that would otherwise be used to cover future operating deficits. Over the past 4 years, Amtrak's interest expenses have tripled from about $20 million to about $60 million.

The costs of an Amtrak bankruptcy cannot be underestimated. These include financial, social, and political. Every constituency would lose: state, local, and federal government, employees, customers, suppliers, taxpayers. The true cost of a bankruptcy would be billions of dollars. The resolution of such a bankruptcy is far from certain, as control of the process would be taken out of the hands of the government.

Support

After investing over $19 billion in Amtrak since 1971, Congress is losing patience with Amtrak's continued dependence on federal subsidies. Congress has promised to provide legislative reforms (labor, liability) and continued capital support in return for Amtrak's pledge to eliminate its need for federal operating subsidies by 2002. Amtrak has asked for a dedicated funding source for its capital needs, and there have been several bills introduced to accomplish this, but the outcome is uncertain.

While the Administration has stated its commitment to Amtrak's future, it has proposed a level of funding below Amtrak's stated needs to be provided from the Highway Trust Fund in its NEXTEA legislative proposal. The Administration's proposal would force Amtrak to compete with other surface transportation programs for the limited funding allowed by the budget from the Trust Fund. The Administration also supports the elimination of all federal operating subsidies for Amtrak by 2002. The current Congressional budget resolution makes additional resources for a possible inter-city rail trust fund contingent upon enactment of reform legislation.

The public's support for Amtrak is segmented among the geographic areas of the country. Its greatest support is in the Northeast, where Amtrak serves a substantial portion of the business travel between New York and Washington. In contrast, Amtrak's routes in other parts of the country are sparsely traveled. Amtrak's support among select user groups (retirees, leisure travelers), is higher than its support from the general population. Yet Amtrak's load factor (the percentage of seats filled) for fiscal year 1996 was 43.3 percent on a system-wide basis, and ranged from 37.4 percent to 47.3 percent among its strategic business units. By comparison, a load factor around 60 percent is generally considered the break-even point for airlines.

Access to Freight Railroads' Facilities

Currently, Amtrak operates over the freight railroads' right-of-way for all routes except the Northeast Corridor, which Amtrak owns, and small route segments in New York State, Pennsylvania, and Michigan, also owned by Amtrak. Amtrak owned rights-of-way comprise less than 5 percent of the company's current route system. Amtrak's access rights, in combination with its own right-of-way, form the nation's current intercity rail system, and therefore, these rights must be viewed as one of the most valuable of all of Amtrak's assets.

The freight railroads view the terms and conditions that govern Amtrak's access as entirely to their detriment, while Amtrak views its access rights as part of its compensation for having relieved the freight railroads of the obligation to provide

passenger rail service. These viewpoints represent polar extremes and there needs to be satisfactory balance between the two positions.

There are three elements to the freight railroad/Amtrak relationship:

—*Access*.—Amtrak has compulsory access to the freight railroads' right-of-way by virtue of a federal statute. In addition, by federal law, Amtrak must be given priority dispatching over freight trains.

—*Compensation*.—Amtrak's payments to the freight railroads for its use of their right-of-way is specified by formula in federal statute according to incremental costs. The freight railroads claim that this formula forces them to subsidize Amtrak service.

—*Liability*.—Current law and judicial interpretation of access agreements gives the freight railroads no protection against unlimited tort liability that comes with the presence of passenger trains on their tracks.

An additional element that exacerbates the freight/Amtrak relationship is the recent increase in freight traffic, which makes each train movement more valuable as capacity becomes constrained. The freight railroads claim that the incremental cost formula, in addition to not adequately covering the costs that Amtrak itself imposes, does not even address the opportunity cost of reduced freight movements due to Amtrak's presence. The freight railroads are very sensitive to new lines of business that Amtrak has proposed to undertake, such as hauling increased mail and express freight commodities that may encroach on their own business.

The Amtrak/freight relationship can be contrasted with the current system by which commuter authorities obtain access to freight railroad rights-of-way. Commuter railroads negotiate with the freight railroads at arms' length on a case-by-case basis with no federal statute compelling mandatory access. Compensation levels are established by mutual agreement. And in most cases, state law limits tort liability that can arise from a commuter rail accident.

A major task in designing a new format for intercity passenger rail will be to determine at what point in between the two options, i.e., the current Amtrak/freight relationship, and the freight/commuter relationship, a balance can be achieved that is fair and adequately provides for continued access by Amtrak and other potential intercity passenger rail operators.

Services and Values

A renewed National Passenger Rail System (as one or more entities) should do two important things (in order of priority):

(1) Provide safe, reliable, comfortable convenient and financially-sound passenger rail service in all densely populated corridors of the United States that show declining air quality and presently or potentially intractable traffic congestion problems; and,

(2) Encourage public/private development of attractive overnight passenger rail service, on a periodic basis throughout regions of the nation with significant cultural, historical and scenic character (e.g., a kind of "rolling national park") or where such service is justified on an economic basis.

The working group believes that a renewed passenger rail system should provide the maximum benefit to its customers and achieve operational excellence and efficiency. In addition, the system should be subjected to market discipline and financial accountability. Environmental protection and improvement, as well as national historic and cultural preservation should also be goals of a new passenger rail system.

RESTRUCTURING PROPOSAL

The working group believes that Intercity Passenger Rail is a major United States asset which is, for specific roles, superior to or complementary to competing modes. It should be supported and expanded. This, however, requires a commitment to broadened, secure investment in the basic infrastructure to permit competitive speeds and reliable operation in the major corridors of the country.

This infrastructure investment for passenger rail should properly be the responsibility of the Federal Government, as it is for the highways, ports, airports, and traffic control systems of the other modes. However, Amtrak is an anomaly. Competing modes do not own their infrastructure. Bus lines and autos use public highways, airlines use public airports, cruise ships use public waterway improvements. Thus, competing modes infrastructure needs are funded through long-established entities, e.g. FAA, FTA, the Corps of Engineers, etc. No such vehicle exists for the funding of passenger rail infrastructure. The working group recognizes that currently all major publicly owned rail infrastructure is in the Northeast Corridor, but it believes that there can be efficient use of Federal capital in rail for short and medium distance trips in several areas of the country.

While the working group believes that the costs of infrastructure investment and maintenance are properly the province of the Federal Government, it also believes that the operating costs of intercity rail travel should be met by its beneficiaries, particularly users and state and local governments and authorities. Again, this generally parallels competitive modes who are generally responsible for their operating costs. The working group also notes that typically several operators compete by using common public ports, highways, and airports, and this principle should be applicable to rail. Thus, opportunities for possible access by competitive operators in intercity passenger rail should be enhanced.

The working group believes that the separation of infrastructure ownership and management from passenger transportation responsibility is fundamental, and that it should be reflected in a basic division of governance. The separation of the infrastructure function from the passenger transportation function serves several purposes:

—It provides a clear demarcation between the ultimate federal infrastructure capital responsibility and the operating responsibility funded by beneficiaries. Accountability will therefore be made much clearer.

—It provides a mechanism whereby the merits of funding new rail corridor development can be assessed separately from criticism of the performance of the operator.

—It provides a mechanism to introduce new operators competitive to or comparative to Amtrak.

—It will enable Amtrak to focus its efforts on its principal day-to-day responsibility—providing and developing superior, efficient service to its users, not seeking support for its infrastructure capital program.

Amtrak's current responsibility for infrastructure planning, construction, and maintenance should therefore be separated from the responsibility of operating passenger service. Thus, a new federally owned corporation with its own governance would take responsibility for managing the track, signals, and other fixed infrastructure of the Northeast Corridor, along with capital investment in those new corridors that are envisioned for the future, while Amtrak would continue its passenger services operating role.

Initially Amtrak would be the only operator of intercity passenger transportation, but to encourage innovation and to match service to local interests, it would further decentralize by adding strategic business units in the Midwest and elsewhere. The working group also believes that the potential of intercity passenger rail will be improved if subject to competition from other modes and from other actual or potential providers of intercity passenger rail service and furthermore from a new focus on passenger service provision, as distinct from infrastructure management. Thus, eventually, provision would be made for other operators to compete with Amtrak on particular routes or in particular regions.

Establishing this newly structured passenger rail service environment will not be an instantaneous process, and therefore attention will need to be paid during the transitional period to ensuring a reasonable balance of benefits among various stakeholders in rail passenger service and among various regions of the country. Legislation to implement this proposal would provide that the infrastructure currently owned by Amtrak would be transferred to the new infrastructure management entity.

The new infrastructure management entity would:

—Determine infrastructure capital needs;

—Request and expend Federal funding for passenger rail infrastructure;

—Oversee rail operations on and manage its infrastructure; and

—Establish standards for selection of passenger rail operators.

In the long run, after standards for new passenger service operators are established, the infrastructure entity would establish competitive procedures for selecting passenger service operators and conduct competitions for the right to provide service. These procedures would provide for reasonable protection for employees adversely affected by the competition. We want to emphasize, however, that a properly structured reform of inter-city rail passenger service and the related infrastructure responsibilities offers real potential for stable, secure employment. The proposal is assumed to increase passenger rail jobs with the expansion of rail service in appropriate markets. Most of Amtrak's employees would continue to work under existing labor contracts. Some Amtrak employees, who currently work on infrastructure maintenance, would work for the new infrastructure entity, Amrail.

FUNDING

The working group assumes that there are essentially three alternatives: (1) no funding; (2) funding (with some minimal level of conditionality attached); and (3) bridge, or conditional funding. Clearly variations are possible, but all would include principal elements of one of these three alternatives.

The group has also assumed that the national passenger rail service contemplated is one where infrastructure management and development and passenger transportation services are non-overlapping and divided into two different operating entities.

The working group is also of the belief that fixed infrastructure capital funding and operating funding requirements must be viewed as distinct from one another. Additionally, both types of funding need to be more directed toward existing and potential routes with the greatest demand and market potential, which are primarily the higher density inter-city corridors.

Fixed infrastructure capital funding amounts required would be determined by the new infrastructure manager and developer. The new entity would in turn request and expend federal funding for passenger rail infrastructure. Over the short term, the amount of such funding needs to be absolutely no less than called for in the Amtrak strategic plan. Longer term, these amounts must be increased significantly and placed in a more secure manner.

Operating funding requirements arise at the transportation service provider level, and in the group's view should be minimized through strict oversight and market discipline. Start-up operating funding requirements should be factored into the initial years of the operation, possibly for 5 years.

The group has identified two types of funding requirements: short term, or bridge funding, and longer term funding. These are discussed further below.

Alternative 1: No Funding ("Bankruptcy")

Based on statements made by both Amtrak senior management as well as several government transportation officials in the past six months, it appears irrefutable that (i) Amtrak is not financially self-sustainable, and; (ii) Amtrak has borrowings and other financial payment obligations that place it in real danger of bankruptcy if these obligations are not met.

The costs of an Amtrak bankruptcy cannot be underestimated. These include financial, social, and political. Every constituency would lose: state, local and federal government, employees, customers, suppliers, taxpayers. The true cost of a bankruptcy would cost billions of dollars. The resolution of such a bankruptcy is far from certain, as control of the process would be taken out of the hands of the government.

Although frequently used as a tool to precipitate wholesale corporate reorganization, bankruptcy for Amtrak would most likely ensue in chaos. This outcome should be seen as most undesirable.

Alternative 2: Funding (assumes encouragement of existing management to get on with their plan)

Amtrak has cost U.S. taxpayers almost $1 billion per year since its inception twenty six years ago. Funding has been irregular, and its operating plan impaired, resulting in yearly underfunding by Congress, and declining levels of corporate performance including bigger operating losses, fewer passengers, fewer routes, and poorer service. Monies marked for capital improvements have been spent on covering debt service, resulting in a chronic underinvestment for the future.

Many reforms were launched by the company in the 1993–94 period, aiming at reversing this decline. Broadly speaking, these have not paid off. Today, Amtrak finds itself once again cap in hand asking for money that it claims will support the achievement of a self-sufficiency plan that is generally acknowledged by many outside Amtrak as wholly unrealistic. Specifically, many if not most of the tenets of this plan (on which the funding request is predicated), include sources of revenue which are unproven on a broad scale (e.g. high-speed trains, express delivery, freight carriage). Management is fighting with, or staving off, creditors, freight carriers, Congress, and labor, to name a few. Credibility is beyond repair without a real fresh start.

The Clinton Administration, and many within Congress, have put proposals forward to fund a portion of Amtrak's needs, but none would come close to solving Amtrak's problems. By Amtrak's own admission, this approach will merely postpone a true crisis. A true crisis would be akin to bankruptcy, with many of the attendant costs. In fact, Amtrak management has gone on the record stating that even if all of its request for funds was met, Amtrak would still be in an extremely precarious position.

It would seem logical to conclude from this that simply funding Amtrak when it is running with a poorly articulated plan and little hope of success would seem to

be irrational, a true waste of taxpayers' money and in fact only serve to defer and potentially exacerbate the problems.

Alternative 3: Conditional Funding

The notion of conditional funding incorporates two concepts. Firstly, that bankruptcy must be avoided (i.e., funding must be made available) and secondly that such funding as is granted must be done within the context of the implementation of one or a set of mechanisms/reforms designed to improve the performance of Amtrak for its owner, users, and employees.

Such funding naturally breaks down in two parts: (i) short term funding to avert the immediate crisis and allow the reforms to be implemented; and (ii) longer term funding that allows for the flourishing of the model that is implemented. It is our belief that alternative sources of funding will become accessible as a direct result of a credible reform process being implemented. Some of these are discussed further below.

How much money, for how long and from where?

Under (i) above, short term funding should be provided in an amount that lies between the current funding request of Amtrak and the Administration's proposal. This funding should be made to be as short term as possible to encourage urgency in implementing reform. A term of 12 to 18 months is seen as realistic. In other words, fund Amtrak exactly as much as it needs to avoid bankruptcy during the implementation of reforms over a specific and defined time period. This funding must be sourced from the readiest sources of cash, i.e., the normal Amtrak appropriation.

Regarding (ii) above, the amount required on a regular basis will depend on the plan adopted. Sources will vary depending on the use of funds, but the implementation of various reforms will certainly impact the funding sources available, as discussed further below. This funding should be regular and predictable, for greatest ease for both the recipient as well as the donor. It should be subject to periodic review, or certain performance or other events should trigger such a review.

In light of current budgetary constraints, and yet the clear need to provide a regular, predictable, and stable infusion of capital investment in inter-city passenger rail infrastructure, Congress should consider creative and innovative procedures for infrastructure assistance. Merely renewing calls for "dedicated" funding sources without exploring new and more adaptable funding mechanisms is unlikely to produce constructive results. In the past, many such proposals for "dedicated" funding have foundered on the philosophical objection of states with little or no inter-city passenger rail service to making forced tax contributions to states with substantial amounts of such service.

We have not attempted to select a single funding mechanism to recommend to the Congress. We are agreed that stability is an essential element of such funding, and that greater creativity needs to be exercised in selecting potential funding mechanisms. As part of our deliberations, we did discuss two examples of innovative funding mechanisms. Although we are not recommending these specific approaches, they are offered here as purely illustrative examples of the general type of non-traditional mechanisms we recommend the Congress examine.

First, one potential technique for addressing the perennial issue of fairness among "rail" and "non-rail" states might be to authorize at the federal level a state-option portion of the federal gasoline tax. This would permit states who wished—either alone or in concert with other participants in multi-state compacts—to participate directly in passenger rail capital funding to opt for some additional increment of gasoline tax to be used for this purpose.

Another example would be to expand and modernize the guaranteed loan programs of the 1976 Railroad Revitalization and Regulatory Reform ("4R") Act. These programs are already targeted toward rail infrastructure needs. Under current law, the "subsidy component" or "risk premium" supporting such guaranteed loans may be funded only through on-budget federal appropriations. If these functional equivalents of security deposits could be provided by outside entities (such as state governments or private parties), substantial amounts of infrastructure capital might be made available with minimal budgetary impact.

CONCLUSION

A majority of the working group is of the view that a division between infrastructure management and operations affords the best chance for the preservation and renewal of passenger rail service in this country. Amtrak has operated for too long under conditions that no business could endure. The problems do not lie with Amtrak management or Amtrak labor, but rather with the basic structure that was established when Amtrak was created in 1971. Amtrak's mission is vaguely defined,

its funding has never been adequate for a true national system and it has been burdened with expensive legal mandates.

The majority believes that intercity rail should be placed on the same structural footing as other modes of transportation. This would include a stable and permanent commitment by the Federal Government to fund the infrastructure costs of intercity passenger rail. It would also mean the elimination of operating subsidies for operators of passenger rail, and the introduction of competition among these operators.

MINORITY COMMENTS

(James Florio and Carl Van Horn)

The majority of the Working Group on Intercity Rail sets the right note at the outset of their report by emphasizing the important role that intercity passenger rail plays in reducing airport and highway congestion and improving air quality, and urges the preservation and enhancement of intercity passenger rail service in order to achieve these objectives. The report also advances the admirable goal of increasing the Nation's investment in intercity passenger rail infrastructure, especially in densely travelled corridors where high-speed rail service is a realistic alternative. The report proposes to achieve these goals by separating ownership of passenger rail infrastructure from responsibility for passenger rail operations. We have examined this proposal carefully, however, and have concluded that it is unlikely to solve the existing problems of intercity passenger rail service in the United States. In fact, we believe that, if adopted, it would create difficult new problems.

The majority report establishes two goals for reforming and restructuring Amtrak:

(1) Provide safe, reliable, comfortable, convenient, and financially sound passenger rail service in all densely populated corridors of the United States that show declining air quality and presently or potentially traffic congestion problems; and

(2) Encourage public/private development of attractive overnight passenger rail service, on a periodic basis, throughout regions of the nation with significant cultural, historical, and scenic character (e.g., a kind of "rolling national park").

We believe the proposals advanced by the majority report fail to achieve either goal. We believe that, if implemented, they are likely to reduce investment in passenger rail infrastructure and reduce service on most interstate routes, whether those routes are on high-density corridors or in regions of the country with significant cultural, historical, and scenic character.

We believe that our colleagues come at their proposal largely due to an unwarranted pessimism about Amtrak's prospects. They are unduly critical of Amtrak's management, unduly critical of Amtrak's Strategic Business Plan, and unduly critical of the market potential for Amtrak's services. The majority report is also unnecessarily pessimistic about Congressional support for Amtrak. Senator Roth has recently introduced legislation to create a $2 billion reserve fund for Amtrak that has attracted broad support in the Senate. While the majority report claims that there is "very little support for the long-distance routes," that is contradicted by the fact that the Senate added a special provision in last year's Omnibus Appropriations Act adding $22.5 million to Amtrak's appropriation to save four long-distance routes. Senator Lott has become a leading supporter of Amtrak, primarily because of his support for a long-distance route passing through the State of Mississippi.

There is No Compelling Rationale for Restructuring

The proponents of restructuring Amtrak have not put forth any compelling rationale for changing the current structure. The majority report cites four purposes that are served by their restructuring proposal; on closer examination, none of the four purposes is actually achieved.

First, the majority report suggests that the proposal would enhance accountability by providing "a clear demarcation between the ultimate infrastructure capital responsibility and the operating responsibility funded by beneficiaries." Yet the way in which the infrastructure entity is established would muddy this responsibility, because the infrastructure entity would be responsible not only for managing the infrastructure, but also for establishing standards for selecting operating companies. The "infrastructure" entity would thus be setting service standards for operations and be involved both as a supplier to the operating companies (by selling them access to the infrastructure) and as a regulator of those companies (by selecting who can use the infrastructure and what service standards they must meet). In any case, separating the infrastructure and operations roles is unlikely to enhance accountability. When problems develop, the operating companies are likely to blame the infrastructure company for failing to maintain the infrastructure properly, while the infrastructure company is likely to blame the operating companies. When both infra-

structure and operations are the responsibility of the same company, accountability is clear and undivided. There is no one else to blame.

Second, our colleagues suggest that separating ownership of the rails from operations will create greater infrastructure investment from the public and private sector. They argue that having an entity whose sole responsibility is infrastructure will encourage Congress to invest more in high-speed rail infrastructure in appropriate high-density corridors around the country without being distracted by arguments about the performance of the rail service operator (Amtrak).

In our view, the impediment to high-speed rail has been constraints on the federal budget resulting in budget caps on all infrastructure investment, not structural problems with Amtrak. In 1994, the Congress declined to approve the Clinton Administration's request to finance high-speed rail development, despite the fact that these funds would have been spent independently of Amtrak. Since 1991, the Congress has declined to appropriate any of the $725 million authorized for maglev development by the Intermodal Surface Transportation Efficiency Act, none of which would have been managed by Amtrak. This year, Congress is considering a request for $300 million for development of the high-speed rail project in Florida, which would be managed independently of Amtrak; however, thus far the Florida congressional delegation has not strongly supported the request.

Third, our colleagues suggest that separating infrastructure management from operations will facilitate the introduction of new competitors to Amtrak. For virtually all of the Amtrak system, ownership of the infrastructure is already separate, in the hands of the freight railroads, so there are already opportunities for competition over the rails that Amtrak does not own. In any case, it is not clear why new competitors are needed, since there is plenty of competition already from other modes of transportation. As the majority report itself states in its Introduction, ". . . competing modes of transportation fight ruthlessly for every uncommitted traveler" who rides on Amtrak.

Fourth, the majority report also argues that separating infrastructure from operations will benefit Amtrak by eliminating the need for Amtrak to seek support for its infrastructure capital program. We believe this argument is exceedingly naive. Amtrak's success will still depend critically on the amount appropriated for the infrastructure program, so Amtrak will still need to expend resources lobbying for appropriations for it, just as trucking companies lobby for highway expenditures and airlines lobby for airport investments.

There are, perhaps, other reasons for advancing this restructuring proposal. Several members of the working group have cited, with approval, the recent British approach that separated infrastructure maintenance from operations. But the British model is not one to be emulated. Thus far, the British model has cost nearly $1 billion a year more in public funding than it did under its predecessor, BritRail. If the British model were applied to the U.S. it would in all likelihood lead either to substantially increased subsidy levels or to the elimination of all long distance trains as well as the elimination of many short-haul trains that require regional or multistate support. The best one can say at this point is that the jury is still out on the British experiment.

Another rationale for the proposal is that other modes of transportation operate privately-owned and operated vehicles on publicly-owned infrastructure. This is not uniformly true—mass transit receives federal subsidies both for its rolling stock and for its operating costs. But the proposal to separate ownership of infrastructure from operation of trains might be more appealing in an environment where the entire national rail infrastructure is owned by a single entity, and where several passenger rail operators compete on that infrastructure. Neither of those conditions obtains in the United States. Most rail infrastructure is owned by freight railroads, and the existence of competing passenger rail operators is only a distant potential. Our colleagues acknowledge those facts, but think that separation of infrastructure from operation will help to move us toward an environment where more infrastructure is publicly-owned and more operators compete on that infrastructure. For reasons which we shall discuss in more detail below, however, we think the proposal is unlikely to increase the extent of publicly owned infrastructure. We also think that the elimination of federal operating subsidy is likely to discourage most new private passenger rail operators from entering the market.

There are Serious Negative Effects of Restructuring

We believe that our colleagues's restructuring proposal not only lacks a clear rationale; it also is likely to have serious adverse effects on infrastructure investment and passenger rail service. We think it is likely both to reduce the level of infrastructure investment for passenger rail and, by reducing operating subsidies, dramatically curtail the level of interstate passenger rail service.

While the restructuring proposal is advanced with the intent of increasing infrastructure investment, the likelihood of Congress approving additional infrastructure funding under this proposal is undermined by the unequal distribution of infrastructure spending among the states. Virtually all of Amtrak's infrastructure spending is now done within the eight states of the Northeast Corridor. Other states are willing to support these expenditures because they receive a disproportionate share of the operating subsidies to keep trains running in their states. If federal operating subsidies were eliminated, as the proposal envisions, the other states would have little reason to support infrastructure investment in the Northeast Corridor, and might cease such expenditures altogether. This could lead to the collapse of the high-speed rail project in the Northeast Corridor and the gradual erosion of conventional Northeast Corridor service as the infrastructure deteriorates.

Even if a handful of high-speed rail infrastructure projects were supported outside of the Northeast Corridor, this would still not produce enough support to keep the program going. While the proposal is advanced on the assumption of an increase in passenger rail infrastructure funding, it may thus result in a decrease in infrastructure funding.

The restructuring proposal's assumptions about operating subsidies would also have a seriously negative effect on the support for interstate passenger rail service, and would probably lead to most of that service being canceled. The proposal suggests that the new operating entity would receive no federal operating subsidy, would be required to pay for its own rolling stock, and would have to depend on voluntary payments from the states for any public operating subsidy it received. We think this proposal would make most long-distance trains and many short-haul trains that require regional or multi-state support unsupportable.

Amtrak believes that it can cover its operating costs, but only if the costs of acquiring rolling stock are treated as a capital cost to be paid for by public subsidy. No one who has studied Amtrak's cost structure believes that it can break even if it has to cover the costs of its rolling stock. If Amtrak cannot cover its costs, it must either cut routes or go to the states for operating subsidy. (If Amtrak cuts routes, this further undermines national support for federal infrastructure funding.)

We think Amtrak is unlikely to be able to generate substantial operating subsidies from the states. Amtrak's inability to obtain sufficient state support thus far is instructive. While state support for Amtrak has increased, it is still only $70 million in 1997 and the states continue to struggle over providing modest amounts of money. More than half of the state support comes from a single state—California. Two-thirds comes from two states (California and Illinois). All of it comes from 14 states. The States of Louisiana, Mississippi, and Alabama could not agree on how to divide up the $2 million cost of the Gulf Coast Limited, so none of them contributed anything, and the route was terminated, even though this is the sort of short haul service (from Mobile, Ala., to New Orleans, La.) that states should find attractive. The State of Massachusetts would not contribute even $100,000 to support the Vermonter even though it serves the western part of the state. Vermont had to pay the full share (but in the absence of federal subsidies, the route would have been canceled, because Vermont only had to pay for the extension of service north from Springfield, Mass.). The proposal will likely lead to the elimination of most interstate routes outside of the Northeast Corridor; the few remaining routes are likely to be the relatively small number that fall entirely within one state, such as those in California.

Our colleagues assert that separation of infrastructure ownership from operations would enhance the efficient use of the infrastructure, but the experience of Amtrak and the freight railroads points to the opposite conclusion. Freight railroads defend their right to operate on their own privately owned rights-of-way because they believe strongly that the ownership of the right-of-way allows them to offer a more efficient and customer-oriented service than would be the case if they were tenants on a right-of-way owned by someone else. Clearly, one of Amtrak's problems over the years has been that it does not own most of its rights-of-way. Delays in Amtrak service are often due to operations of freight railroads. It is no accident that Amtrak has succeeded on the one right-of-way that it owns—the Northeast Corridor. We see no reason to endanger this success by separating ownership of the right-of-way from operation of the trains.

The restructuring proposal also suggests weakening what the report itself describes as "one of the most valuable of all of Amtrak's assets." Amtrak has guaranteed access to the Nation's freight railway system, and it is these rights of access that the "Context" section of the report describes as one of the "most valuable" assets cited above. Yet in the "Question-and-Answer" section of the report, these rights are put up for negotiation. "The panel believes that Congress should explore new alternatives that would fall between the current Amtrak arrangements [i.e., guaran-

teed access] and the present framework for commuter rail access [i.e., no guaranteed access] to freight rail infrastructure." We cannot see how giving away these critical access rights advances the cause of passenger rail transportation in the United States.

The Restructuring Proposal is Based on Erroneous Factual Statements

The analysis in the majority report is based in part on a number of unsupported factual assertions, some of which are contradicted by its own findings. The majority report alleges, without foundation, that "Amtrak's Strategic Business Plan is generally acknowledged by many outside of Amtrak as wholly unrealistic." In fact, the outside parties that count, namely the bankers that are lending Amtrak money, do believe the plan is realistic, and that is why they are lending the $1 billion that Amtrak is borrowing for its Northeast Corridor high-speed rail service.

The majority report takes note of the reforms that Amtrak has instituted in the past three years and asserts, again without offering any evidence, "Broadly speaking, these [reforms] have not paid off." This does not appear to be the view of the states who work with Amtrak. The State of Wisconsin, for example, has written to the Working Group saying that "In recent years, Amtrak has taken more aggressive actions to improve the service, increase advertising, and increase ridership. These changes are reflective of the new attitude that is manifesting itself in Amtrak. Everyone at the company recognizes that they must please their customers if they are to continue as a company. They are working hard to do so." The letter also notes that ridership has doubled since the State contracted with Amtrak for passenger service. While ridership has declined nationally because Amtrak has been forced to eliminate routes due to federal budget cuts, traffic is generally growing on those routes that have been retained. Similarly, the State of Illinois has written to the Working Group stating that "Amtrak has shown the flexibility and will to make significant and tangible strides toward self-sufficiency and good business practices. We thus have reason to be hopeful for the future."

The Majority Report Proposes Confusing Information About Rail Labor Issues

The majority report for the most part ignores the controversial issue of labor protection and accident liability, because there was little consensus on these issues among the Working Group, and information had been presented to the Group indicating that these issues had inconsequential effects on Amtrak's financial status. Indeed, the majority report states in its conclusions that "The problems do not lie with Amtrak management or Amtrak labor . . . ." Yet, the report does not address what will happen to employees under the restructured system. Freight railroads operate under essentially the same labor protection provisions as Amtrak, and they find it possible to succeed in a competitive business. The fact is that Amtrak's recent experience in eliminating routes has shown that labor protection in practice has inconsequential costs. Amtrak does not use the flexibility it has now to contract out work and has never been able to show that it would actually save money if it had more flexibility. We believe that these labor provisions have little if any effect on Amtrak's financial status and should not be part of any Amtrak reform proposals. But more importantly, we believe that any proposal to restructure Amtrak should specifically address the future status of Amtrak's employees.

There Are Better Ways to Preserve and Enhance Intercity Passenger Rail Service in the United States

Congress has repeatedly urged Amtrak to make better use of its infrastructure and to reduce costs and lessen its dependence on operating support. Instead of embarking on an the uncertain path of restructuring, we believe that Amtrak should be given the next two to three years to implement several promising revenue-enhancing activities that could significantly improve its financial situation. These initiatives include high-speed rail in the Northeast Corridor, increased mail and express, and development of electric power initiatives, among others.

We believe that Amtrak's management has done a credible job of making Amtrak more efficient and more customer-focused. We believe that Amtrak has correctly seen that it must invest in new rolling stock to replace obsolete equipment that is unreliable and expensive to maintain. We believe that the Congress should support Amtrak's effort to reduce its costs and expand its market by providing it with the capital and operating support it needs and by eliminating statutory restrictions on Amtrak's operations.

First, Amtrak needs more capital support so that it does not have to borrow money on the private market at high interest rates. Clearly it makes more sense for Amtrak's capital costs to be financed at low government interest rates than at high private interest rates. In particular, Amtrak needs capital support to pay for and promptly begin service with its new high-speed rail service on the Northeast

Corridor. While it is possible to dispute the exact estimates of the surplus that will be generated by this service, there is no doubt that this is a worthwhile investment for Amtrak and for the Nation.

Second, Amtrak needs sufficient operating subsidy so that it does not have to borrow short-term to meet its operating costs. Amtrak has reduced its operating costs by over $200 million since 1994. It is making good progress toward minimizing its need for operating subsidy. Reducing Amtrak's operating subsidy in the short run simply forces Amtrak to borrow more, thus increasing its need for operating subsidy in the long run. A predictable, realistic glidepath to lower operating subsidy is the most sensible policy.

Third, Amtrak needs some basic revisions in its statutory authorization to clarify its authority and allow it to reduce its costs and increase its revenues. Amtrak currently is authorized to carry "mail and express" in addition to passengers, but "express" is never defined in the statute. Instead, "express" is defined by a long series of Interstate Commerce Commission decisions. The definition is obscure and subject to prolonged litigation. The freight railroads have opposed Amtrak's recent attempts to expand its express business and have threatened litigation to prevent Amtrak from increasing its revenues in this way. The freight railroads say they only want Amtrak to carry what is traditionally considered express—things like United Parcel Service (UPS) packages. But the freight railroads already carry a considerable amount of UPS packages by carrying UPS trailers on their flatcars. It would not make sense for the freight railroads for Amtrak to expand its business in an area that is already being served by the freight railroads.

Amtrak has proposed carrying cargoes like refrigerated perishables and other intermodal traffic requiring very tight delivery times. The railroads have opposed letting Amtrak carry this cargo because it is "freight," not "express." But the important point is whether the railroads have any realistic likelihood of carrying the cargo in question. If the freight railroads cannot meet the delivery schedules demanded by shippers, then they are not harmed by having Amtrak carry the cargo, regardless of whether it is "freight" or "express." We therefore recommend that the definition of "express" that Amtrak is authorized to carry be defined in statute as any cargo that existing freight railroads do not carry because they cannot routinely meet the delivery schedules or other criteria demanded by shippers.

Amtrak uses prodigious amounts of electrical power on the Northeast Corridor. The commuter railroads who use Amtrak's right-of-way use even more. Electrical power costs in the northeast are among the highest in the country. If Amtrak could buy power from distant suppliers who can generate power at lower costs, it could dramatically reduce its costs of service. Amtrak should further be permitted to make more efficient use of the natural distribution system created by its Northeast Corridor electrical grid to sell power to other users along its right-of-way. If Amtrak is to make more efficient use of its infrastructure, it needs to have the authority to use its infrastructure to reduce its costs and generate revenues.

Summary

In summary, despite the unanimous belief of the Working Group that intercity passenger rail is a valuable part of the Nation's transportation system, our colleagues' proposal could create a crisis in rail transportation in the one corridor where it is most vital, and lead to the erosion or collapse of rail service in other regions of the country. We believe that further analysis of the costs and benefits is needed before reaching the conclusion that intercity rail operating and infrastructure units should be separated. In our judgment, such a strategy would result in greater costs to the taxpayer, more bureaucracy, and fewer trains.

While our worst fears may not be realized, we strongly urge the Congress to undertake a more thorough analysis of the tools necessary for lowering costs and raising revenues before adopting their recommendations.

[CLERK'S NOTE.—The appendixes to this report do not appear in the hearing record, but are available for review in the subcommittee's files.]

STATEMENT OF ROBERT W. POOLE, JR., PRESIDENT, THE REASON FOUNDATION

Senator SHELBY. Mr. Poole.

Mr. POOLE. Thank you very much, Mr. Chairman.

I am Bob Poole, president of Reason Foundation, which is a public policy think tank based in Los Angeles. We have been research-

ing privatization for 20 years now and my own expertise is in privatizing transportation and infrastructure functions. My testimony is based in part on the study that we did last fall called "Replacing Amtrak."

Troubled railroads are not unique to the United States.

Senator SHELBY. If we could, I would like to make that study part of the record.

Mr. POOLE. We will be happy to provide a copy for that, yes, sir.

[The Information follows:]

REPLACING AMTRAK: A BLUEPRINT FOR SUSTAINABLE PASSENGER RAIL SERVICE

(By Joseph Vranich)

[PART 1]

INTRODUCTION

Amtrak was created by the Rail Passenger Service Act of 1970 as a "for-profit corporation" to revitalize intercity passenger rail service. It assumed responsibility for such service on May 1, 1971, relieving the private railroad industry of much of the financial losses incurred in operating such trains. Compared with promises made then, Amtrak's costs and public subsidies are far higher and ridership far lower than projections. Amtrak generally operates routes that meet political needs but not market demand.

A view is emerging, including among Amtrak's founders, that Amtrak needs to be eliminated while maintaining passenger train service on America's few busy lines. Which lines to keep? Kenneth M. Mead of the General Accounting Office (GAO) has indicated to Congress that "Five of Amtrak's forty-four routes, the ones in the Northeast and Southern California, account for over 50 percent of all riders, 56 percent of revenues, and 40 percent of costs." [1]

Anthony Haswell, considered the "father of Amtrak," said several years ago: "Twenty-five years after I set out to save the American passenger train, I feel personally embarrassed over what I helped to create." [2] Haswell, decrying Amtrak's commitment to long-distance trains, declares "there is no longer a need or place in the United States for a year-round interconnected national network of passenger trains." [3] He urges creation of new entities to run regionalized services.[4]

Amtrak supporters argue that Amtrak is an essential service that helps reduce airport congestion. Yet, even on many short-distance routes where it's faster to take Amtrak, people continue to fly because "many travelers no more think of trains than of horses." [5] Amtrak carries an infinitesimal amount of traffic. If all Amtrak trains except those in the Northeast and Southern California stopped, not a single flight would be added to the nation's air system. Further, no amount of marketing will change the uneconomical nature of long-distance passenger trains serving an outdated common-carrier role.

Useful passenger trains can survive an Amtrak liquidation. Betsy Reveal, while serving as Amtrak's chief financial officer, said: "I think there's two questions: 'What's the future of passenger rail in America?' There is a completely separate question, which is, 'What's the future of Amtrak?' You can imagine a brilliant future with passenger rail with Amtrak gone." [6]

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[1] Amtrak's Current Situation, Hearings before the U.S. House of Representatives, Committee on Transportation and Infrastructure, Subcommittee on Railroads, February 7, 10, and 13, 1995, p. 43.

[2] Anthony Haswell letter to Carl Swanson, Passenger Train Journal, October 12, 1992.

[3] Anthony Haswell, telephone interview, April 20, 1996.

[4] Anthony Haswell, remarks prepared for the Railway & Locomotive Historical Society, Chicago, IL, January 11, 1991, and in subsequent comments.

[5] Susan Carey, "Even When It's Quicker to Travel by Train, Many Fly," Wall Street Journal, August 29, 1997, p. B1.

[6] Jackie Spinner, "Amtrak's CFO Is Well Acquainted With Fiscal Chaos," Washington Post, July 31, 1995, B9.

[PART 2]

OVERVIEW OF AMTRAK

A. AMTRAK HEADED FOR BANKRUPTCY

The GAO has warned repeatedly that Amtrak is in a "financial crisis,"[7] and Amtrak itself admits a real possibility of a bankruptcy and shutdown sometime in 1998.[8] Amtrak fails to earn enough revenues to pay operating expenses and is losing disproportionate amounts on long-distance trains. For fiscal year 1996, Amtrak's losses by business units amounted to $763.6 million, of which $151 million was attributable to its Northeast Corridor Business Unit and $342.6 million to its Chicago-based and Oakland, California-based Business Units. Another $270 million was assigned to the Corporate unit. The losses were reduced somewhat by state subsidies, but the situation is that faster trains in the Northeast enjoy better revenue-to-cost ratios than long-distance trains and slow short-distance trains on virtually every other line in the nation.[9] Amtrak also comes nowhere near contributing to capital requirements in a capital-intensive industry.

Amtrak attempted to improve performance in 1995 by reducing service frequencies—a market-destroying act as several trains began operating only three and four days per week.[10] Yet, the cost-saving process failed to reverse Amtrak's poor financial situation. By September 1995, Amtrak admitted that less than daily service doesn't work. It discontinued service entirely over several routes and increased frequency to daily on others in an attempt to "shift resources to routes with the best opportunity for revenue growth."[11] Revenues indeed increased, but at a rate insufficient to reverse Amtrak's financial standing.

Such cost-saving and revenue-building efforts have failed because the essence of what they are trying to achieve—save the long-distance train—is a lost cause. As Chicago Tribune columnist Stephen Chapman wrote, "Like the horse-drawn carriages that traverse North Michigan Avenue every evening, Amtrak serves mainly to acquaint moderns with a form of transportation that belongs almost entirely to the past. * * * Americans have abandoned trains for vehicles that are faster (airplanes), cheaper (buses) or more convenient (cars), and nothing is going to reverse the trend."[12]

Amtrak service leaves much to be desired. Thomas Downs, when becoming Amtrak's president in 1994, said, "We're selling disappointment at the same time we're selling transportation."[13] Little has improved since. A review of congressional hearing records over Amtrak's life shows inquiry into Amtrak's ballooning deficits, late and dirty trains, unsanitary food service, safety issues, unreasonable labor costs, and declining market share.

A recent GAO report reached grim conclusions:[14]

—Amtrak's financial condition is precarious and heavily dependent on federal operating and capital funds. Amtrak's condition has deteriorated steadily since 1990 and Amtrak is unlikely to overcome its financial problems without significant increases in passenger revenues or subsidies from federal, state, and local governments.

—In the past two years, passenger revenues, adjusted for inflation, have generally declined, and in fiscal year 1996, the gap between operating deficits and federal operating subsidies began to grow again to levels exceeding those of fiscal year 1994, when the continuation of Amtrak's nationwide service was threatened.

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[7] Phyllis F. Scheinberg, U.S. General Accounting Office, Testimony before House Subcommittee on Railroads, March 12, 1997; Testimony before Senate Subcommittee on Surface Transportation and Merchant Marine, March 13, 1997; and Testimony before the Senate Committee on Finance, April 23, 1997.

[8] Matt Mossman, "Amtrak close to bankruptcy, executives say," Boston Globe, May 27, 1997, p. A3.

[9] Amtrak Annual Report for 1996, Table 1: fiscal years 1995 and 1996 Operating Results by Major Business Unit, p. 34.

[10] "Amtrak Board Approves $430 Million Budget Reduction," Amtrak News Release, December 14, 1994.

[11] "Amtrak Board Approves Fiscal 97 Business Plan," PR Newswire, September 24, 1996.

[12] Stephen Chapman, "Amtrak: A Costly Monument to Nostalgia," Chicago Tribune, May 11, 1997, p. 21.

[13] Don Phillips, "Amtrak Is Way Off Track Fiscally, Its President and the GAO Say," Washington Post, March 18, 1994, p. A9.

[14] Phyllis F. Scheinberg, U.S. General Accounting Office, Intercity Passenger Rail—Amtrak's Financial Crisis Threatens Continued Viability, Testimony, Senate Committee on Finance, April 23, 1997.

—Amtrak's debt levels have increased significantly. Between fiscal years 1993 and 1996, Amtrak's debt and capital lease obligations increased from $527 million to about $987 million (in 1996 dollars).
—It is likely Amtrak will continue to require federal financial support—both operating and capital—"well into the future."

B. RECENT CONGRESSIONAL INQUIRY

The House Transportation and Infrastructure Committee in April 1997 created the Working Group on Inter-City Rail, also known as the "blue ribbon panel" on Amtrak. Rep. Bud Shuster, committee chairman, said in announcing the panel that "Congress has been faced with claims of an Amtrak 'crisis' many times in the past. This is the final crisis: the alternative is a Penn Central-style bankruptcy, with all of the chaos and unpredictability that comes with a bankruptcy and a complete shutdown."[15] The panel came to dramatic findings, summarized as follows:

—Amtrak is awash in red ink, buffeted by conflicting missions and ballooning debt, and virtually starved for capital in both political and financial terms. These conditions create an untenable outlook for passenger rail in the United States.
—Amtrak has missed its financial targets. In the next six to twelve months, Amtrak faces a major liquidity crisis and probable bankruptcy.
—Amtrak does not properly compensate freight railroads for the costs of Amtrak-caused freight train delays, and contracts with railroads should be negotiated based not on federal directive but on commuter railroad experience.
—Capital and operating funding should be directed toward routes with market potential, which are primarily the higher density inter-city corridors.
—Amtrak's monopoly should end and passenger rail service should be opened to competition.
—Long-distance trains make more sense as "rolling National Parks."
—Amtrak is requiring large subsidies from taxpayers and those subsidies are not directed to activities of maximum benefit. Funding Amtrak as it is today offers little hope of success and would be irrational—a true waste of taxpayers' money.
—Reforms launched by Amtrak have not paid off.
—Transition funding is needed to bring about restructuring.[16]

C. AMTRAK CREDIBILITY CRISIS

While the Working Group's report was quite critical, Amtrak would have the public hold more optimistic views. Amtrak claims regarding ridership, subsidies, cost recovery, projected revenues, future innovations, and prospects for express traffic deserve examination.

1. Ridership and Market Share

Amtrak has had a history of issuing incorrect projections. In 1977, for example, Amtrak estimated to Congress that 25 million passengers would ride its trains by 1982.[17] Amtrak has never achieved that figure. Today, not only are Amtrak projections still questionable but so are its claims of actual ridership.

Miscounting Commuters.—Amtrak is trying to boost its importance by inflating ridership figures. Amtrak now counts as its passengers those who also are reported as passengers by local commuter agencies. For example, a passenger aboard a Metrolink commuter train between Glendale and Los Angeles is counted by Amtrak as passenger, but is also reported as such by the local Metrolink agency. The unprecedented practice of double counting has permitted Amtrak for several years to claim it carries "55 million people each year."[18] That figure is more than double the 19.7 million passengers who rode Amtrak's own trains last year.

Amtrak justifies this practice because it serves as a contractor for the Los Angeles commuter trains, as well as local trains in Boston, San Francisco, San Diego, and Baltimore-Washington-Northern Virginia. Yet, if Amtrak were abolished the commuter trains would still run. Local agencies own their commuter equipment and obtain subsidies apart from Amtrak subsidies. In fact, Amtrak is by federal law prohibited from using federal intercity subsidies to cross-subsidize commuter trains.

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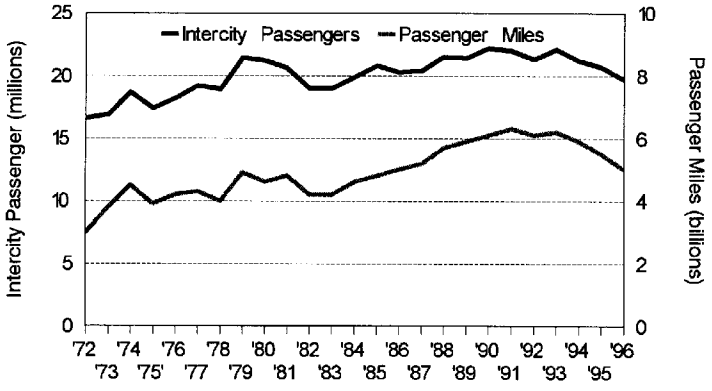
[15] News Release, House Committee on Transportation and Infrastructure, April 2, 1997.
[16] A New Vision for America's Passenger Rail, Working Group on Inter-City Passenger Rail, Washington, D.C.: House Committee on Transportation and Infrastructure, June 1997.
[17] Amtrak News Release, "Improvements to Equipment, Track, Stations in Amtrak Five-Year Plan," October 10, 1977, p. 3.
[18] Thomas Downs, "Don't Stop Those Trains," Washington Post, August 17, 1997, page C7, and Letter from the President, Amtrak 1995 Annual Report, p. 2.

Double-counting isn't found among airlines even when relationships are similar to Amtrak-commuter arrangements. Many major airlines provide passenger check-in services, baggage loading, refueling and other services for regional airlines. The major airlines—under the Amtrak standard—could count the regional airline's passengers as their own. But airlines don't because that's misrepresentation and the Securities and Exchange Commission would stop the practice.

Overall Ridership Decline.—Amtrak is ballyhooing ridership increases in fiscal year 1997 as evidence of revived fortunes. In fact, Amtrak is comparing traffic with its wretched 1996 performance when it carried only 19.7 million passengers—the lowest in 12 years (see Figure 1).[19] Further, Amtrak's 1996 traffic was barely higher than in 1977—two decades ago.

Figure 1: Amtrak Ridership



Amtrak's dismal performance is occurring during a healthy economy, when airlines and highways are registering all-time record traffic levels. Amtrak remains odd man out, as reflected in an early 1997 story on resurgent bus travel: "Nationwide travel aboard Greyhound, the No. I bus carrier, is up more than 12 percent compared with six years ago, and travel on Trailways, which has undergone a major expansion, is up 77 percent during the same period. That compares with a 10 percent decline in Amtrak train ridership nationwide and a more than 28 percent increase in airplane passengers on U.S. carriers during the same period."[20]

Declining Market Share.—Amtrak has lost market share throughout the nation. During 1972, Amtrak's first full year of operation, it was estimated that Amtrak carried about 0.8 percent of all passengers making intercity trips. Today, Amtrak's share has fallen to a microscopic 0.4 percent.[21] Amtrak's passenger miles have dropped at an alarming rate, from 6.273 million in fiscal year 1991 to 5.050 million in fiscal year 1996.

The U.S. population in 1970, the year Congress created Amtrak, was 203.3 million.[22] The Census Bureau estimates the September 1, 1997, population at 268 million.[23] In 1972, Amtrak's first full year of operation, it carried 16.6 million passengers.[24] In comparing 1997 with 1972, Amtrak carried only 3.1 million more pas-

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[19] Sources for Figure 1 are Background on Amtrak, September 1978, p. 30; Mike Schafer, "Amtrak's atlas," Trains, June 1991, p. 49; and Amtrak 1996 Annual report, pp. IV and V.

[20] Allan Lengel, "Spinning Their Wheels At the Depot. Rising Number of Bus Travelers Keeps D.C. Greyhound Terminal Busy," Washington Post, April 21, 1997, p. B1.

[21] Jean Love, Wendell Cox, and Stephen Moore, Amtrak at Twenty-Five: End of the Line for Taxpayer Subsides, Policy Analysis No. 266, Washington, D.C.: Cato Institute, December 19, 1996, p. 1.

[22] World Almanac and Book of Facts 1994 (Manwah, N.J.: World Almanac), p. 361.

[23] U.S. Census Bureau Internet site, Projection page, September 1, 1997.

[24] Background on Amtrak, Washington, D.C.: Amtrak, September, 1978, p. 30.

sengers despite a national population growth of about 60 million. This reflects the worst U.S. market penetration of any mode of passenger transport.

Travel on Amtrak-style overnight trains is declining worldwide (China is an exception). In Europe, passenger rail's market share dropped by nearly 20 percent in the 1980's, while the airline market share increased by 60 percent.[25] The decline would have been more startling except that high-speed and commuter train systems registered gains that masked long-distance declines. Railway (gazette International editorialized that most European overnight routes "face an uncertain future."[26] The London & Continental Railways recently abandoned plans to operate sleeping car trains from Scotland and England to Paris via the Channel Tunnel, with chief executive Adam Mills stating, "a night service from the regions is simply not viable."[27] The sleeping cars ordered in 1992 are being sent into long-term storage, a good example for the United States to follow. Amtrak-style conventional trains are being discontinued in countries as dissimilar as Argentina and the Czech Republic, whose 1998 timetable will show 5,889 trains, down from 6,258.[28] The Czech Railway is curtailing passenger train service despite strident objections by labor unions.[29]

Rider Demographics.—Amtrak claims to provide mobility to all social classes. It is useful to consider a Cato Institute policy analysis, which relied on data from the U.S. Department of Transportation's Nationwide Personal Transportation Survey and Amtrak itself. It concluded:

> The poor are not especially heavy users of Amtrak. Three-fourths of Amtrak passengers have incomes above the national average. Travel on Amtrak by persons with incomes above $40,000 is the highest of any mode—3.5 times higher than on buses and nearly 1.5 times higher than on airlines. Nearly one-third of Amtrak passengers have household incomes of $75,000 or more, and 20 percent have incomes of $100,000 or more. Amtrak's clientele is much more skewed toward higher incomes than the general population.[30]

2. Level of Subsidies

Amtrak's thicket of subsidies is difficult to unravel. Amtrak boosters, for example, often cite $13 billion in federal operating subsidies as the total Amtrak has received since its inception. In fact, if federal capital expenditures for Amtrak are included along with Amtrak's funding requests for fiscal year 1998, then federal subsidies to Amtrak will total $20.4 billion.[31]

But even this figure is understated since Amtrak has obfuscated its capital subsidies. In a 1997 submission to the GAO,[32] Amtrak failed to list capital funds received through a federally guaranteed loan process, a costly arrangement to the public treasury. Amtrak has never repaid $880 million in loans received between 1971 and 1975, and that obligation plus $239.6 million in interest were paid by the Federal Railroad Administration (FRA) on Amtrak's behalf. Although current reports ignore this obligation, an earlier Amtrak annual report states:

> September 30, 1983, Amtrak had borrowed under notes payable to the Federal Financing Bank up to its maximum Federal guaranteed loan authority of $880,000,000. On October 5, 1983, this obligation, plus $239,635,000 in accrued interest, was paid on Amtrak's behalf by the Federal Railroad Administration, and a new note in the amount of $1,119,635,000 was executed as of that date between Amtrak and the U.S. Government. The note matures on November 1, 2082, and will be renewed for successive 99-year terms. Interest is payable only in the event of prepayment or acceleration of the principal.[33]

Thus, if this $1.1 billion is added to the previously cited $20.4 billion figure, the federal government's expenditures and current obligations for Amtrak total at least

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[25] Jean Love et al., p. 9.

[26] "Last chance to catch the night train," Railway Gazette International, September 1997, p. 555.

[27] "Sleepers abandoned," Railway Gazette International, August 1997, p. 497.

[28] "Czech Republic," International Railway Journal, July 1997.

[29] "Czech-Strike," Associated Press, February 4, 1997.

[30] Jean Love et al., p. 4.

[31] For a year-by-year breakdown of Amtrak subsidies, see Joseph Vranich, Derailed: What Went Wrong and What to Do About America is Passenger Trains, "Amtrak's Structural Problems," Chapter Two (New York: St. Martin's Press, October 1997).

[32] Amtrak Appropriations History, Amtrak finance and Planning Department, submitted to the u.S. General Accounting Office, March 5, 1997.

[33] Amtrak Annual Report for 1983, Notes to Financial Statements, Note 4, p. 25.

$21.5 billion. Add operating and capital subsidies from states and it's possible to add at least another $1 billion in taxpayer funding for a $22.5 billion total.[34]

There's more. These calculations exclude funding for Amtrak from five federal programs that are outside Amtrak's budget—grants for grade crossings, high-speed rail studies, intermodal stations, enhancements to historic buildings, and technology development. Also, some states rely on a sixth program, grants from the Federal Transit Administration (FTA), to aid Amtrak. Vermont's use of $3.5 million in FTA funds to finance a train to Rutland,[35] and Pennsylvania's use of $18.7 million from FTA to underwrite coaches for Amtrak's Philadelphia-Harrisburg line are recent examples.[36] Also uncalculated are state and local funds for stations; the most recent example is $30 million from New York state towards the $315 million conversion of Manhattan's former central post office into an Amtrak station.[37] None of these examples are part of the $22.5 billion amount cited above, and, unfortunately, the GAO has not included in reports to Congress the extent of Amtrak's dependence on non-Amtrak public funding.

3. Misleading Cost Recovery Claims

In recent congressional statements, Amtrak claims it "covers more of its operating costs—an estimated 84 percent—than any other passenger railroad in the world."[38] Admittedly, accounting systems on railroads are complex. Yet, it appears Amtrak's claim of superiority can be made (1) only if $1.1 billion in principal and interest are ignored for Amtrak's federally guaranteed loans but counted for similar loans to foreign railroads; (2) only by classifying state subsidies to Amtrak as "revenue" (which Amtrak does in its annual report[39]) while provincial funds for overseas railroads are "subsidies." The GAO has pointed out additional discrepancies:

> Amtrak's revenue-to-expense ratio for fiscal year 1993 indicated that revenues were covering about 80 percent of operating expenses. However, the calculation of this ratio excluded certain expenses, including (1) depreciation; (2) the FRA mandatory retirement payment; (3) various taxes paid to federal or state governments; (4) user fees assessed by the FRA; (5) other miscellaneous expenses relating to accident claims; and (5) losses incurred in providing [state-subsidized] service and disbursements for labor protection, which according to an Amtrak official, are excluded at the direction of the Congress. We believe all relevant costs, both capital and operating, should be included in any performance measurement. Because it excludes certain relevant expenses, Amtrak's ratio does not reflect the ability of the corporation's revenues to cover all costs of operating Amtrak.[40]

Thus, Amtrak reduces its ratio by removing from the calculation hundreds of millions of dollars in costs. If such additional expenses for fiscal year 1993, which totaled about $370 million, had been included in the calculation, the GAO believes the ratio would have been only 66 percent, or 14 percentage points lower than reported by Amtrak.

4. Amtrak High-Speed Rail Predictions

Perhaps as early as 1999, Amtrak's New York-Washington Metroliners will be replaced by American Flyer trains, capable of 150 mph, which also will operate from New York to Boston. Amtrak projects profits for the service, yet the level of profitability is questionable. The American Flyer will travel at slower average speeds than Spain operated in the early 1990's, France in the 1980's, and Japan in the 1970's.[41] Thus, Amtrak's air-competitiveness in the future, particularly between Boston and New York, will pale in comparison to that of high-speed lines overseas in the past. A relationship exists between travel time and market penetration, and

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[34] The states are Alabama, California, Delaware, Illinois, Louisiana, Massachusetts, Michigan, Mississippi, Missouri, New York, North Carolina, Oregon, Pennsylvania, Texas, Vermont, Washington and Wisconsin.

[35] "Vermont Gets Another Train," Passenger Train Journal, November 1996, p. 8.

[36] "Federal Funds Approved To Help PennDOT Buy New Trains," PR Newswire, September 16, 1997.

[37] "State OK's Funding," Rail News, October 1997, pp. 64–65.

[38] Thomas Downs, Testimony, Senate Environment and Public Works Committee, Subcommittee on Transportation and Infrastructure, March 13,1997, p. 3.

[39] Amtrak Annual Report for 1996, Statistical Appendix, p. II, at "Revenues," which includes "403B services," a term for state subsidies.

[40] Kenneth M. Mead, Amtrak: Deteriorated Financial Condition and Costly Future Challenges, Testimony, House Committee on Energy and Commerce, Subcommittee on Transportation and Hazardous Materials, March 23, 1994, p. 5.

[41] For a review of Amtrak's record regarding Boston-Washington service since 1971, see Vranich, Derailed, "Sidetracking High Speed Trains," Chapter Four.

it's doubtful that Amtrak's American Flyer will come near meeting the ridership or profitability levels of the successful overseas systems. Furthermore, conventional Amtrak trains in the Northeast that run on slower schedules will continue to lose money. These factors will limit Amtrak's ability to use Northeast Corridor profits to cross-subsidize long-distance trains.

Amtrak has a record of issuing inaccurate projections. Reported GAO: "From 1991 to 1994, revenues were lower than projected, while expenses were higher than planned," with Amtrak overestimating passenger revenues by $600 million in that period.[42] For fiscal years 1995 and 1996, Amtrak miscalculated net losses by $127 million. For fiscal year 1997, Amtrak revised its net loss projection upward three times—first it was $726 million, then $762 million, and by April 1997 was $786 million.[43] How can projections of American Flyer profits years from now be credible when Amtrak's current-year projections contain such wide discrepancies?

Amtrak "high-speed" efforts elsewhere are neither high-speed nor likely to cover costs. For example, Amtrak claims its "high-speed" Talgo trains will "revolutionize transportation in the Northwest."[44] However, Amtrak's current Seattle-Vancouver, B.C., Talgo schedule of 3 hours and 55 minutes is identical to the running time of trains on that route run by the Great Northern Railway in 1952—45 years ago. On the Seattle-Portland route, Amtrak's fastest Talgo runs in 3 hours and 50 minutes, or 9 minutes faster than a 1952 train.[45] Amtrak plans to cut Seattle-Portland Talgo schedules to perhaps 3 hours and 15 minutes,[46] or 15 minutes faster than what Amtrak offered on its first day of business in 1971.[47]

Slow schedules on Amtrak's "emerging corridors" will limit Amtrak's ability to build the premium-fare traffic that helps to establish profits. It's reasonable to conclude that future revenues from such routes will be insufficient to subsidize the rest of Amtrak's system.

5. Amtrak's New Freight Business

Amtrak's latest miscalculation is to try to enter the freight business—an activity that is extraneous to Amtrak's passenger mission and violates Amtrak's enabling legislation. It also could prove costly should Amtrak even partially shut down.

When Congress amended the Rail Passenger Service Act to permit Amtrak to carry "express," such was understood to mean a small-package, retail-oriented service. It was expected that express would incrementally increase Amtrak revenues with few added costs, since agents already were on duty and no extra rail cars were required. Using this authority, Amtrak claims to have started an "express" business to carry specialty commodities like "computer chips" and items that need "relatively fast handling."[48] In reality, however, Amtrak has an ambitious plan to lease 600 rail cars and has begun to carry beer, coiled steel, soft drinks, truck parts, canned pineapple, cranberry juice, and other commodities.[49] This is not "express" in the traditional sense—this is freight.

This effort violates the basic tenet of why Amtrak was established—to create an organization dedicated to serving passengers, not commodities. Union Pacific's director of public affairs, John E. Bromley, said in Trains magazine: "Amtrak's original franchise authorized it to carry mail and express incidental to operation of its passenger trains, not to carry passengers incidental to operation of freight trains."[50]

Reported the Wall Street Journal: "'It's flatly unconstitutional,' says James Dolan, vice president, law, of [the] Union Pacific Railroad. 'They are using their special passenger-train franchise to steal business from the freight railroads.'"[51] His concern is legitimate. The Rail Passenger Service Act obligates freight railroads to carry Amtrak trains over their tracks and give Amtrak priority over freight trains. The prob-

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[42] Mead, Deteriorated Financial and Operating Conditions, Testimony, Senate Committee on Commerce, Science and Transportation, January 26, 1995, pp. 3–4.

[43] Scheinberg, April 23, 1997, p. 6.

[44] "Talgo Inc. Announces Washington State Train," Business Wire, March 19. 1997.

[45] Amtrak National Timetable, Effective May 11, 1997, p. 48, and The Official Guide of the Railways (New York: National Railway Publication Co., June 1952), p. 1071.

[46] J. David Ingles, "Talgo tests to yield more utilization in Northwest," Trains Online, September 11, 1997, p. 5.

[47] Amtrak Nationwide Schedules, May 1, 1971, p. 26.

[48] "Amtrak Seeks New Freight Business," Railway Age, April 1997, p. 28.

[49] Daniel Machalaba, "Amtrak Quietly Hauls Cargo on Its Trains, To the Horror of Rivals," Wall Street Journal, July 30, 1997, p. 1.

[50] John E. Bromley, "UP Responds to Amtrak Issue," Trains, September 1997, p. 10.

[51] Machalaba.

lem is Amtrak trains could delay freight trains to the detriment of the freight railroads.[52]

Carrying freight on Amtrak passenger trains imposes new demands on railroad infrastructure, raising compensation concerns. An economic analysis by Union Pacific calculated that Amtrak underpaid $56.2 million in one year alone to operate 40-plus trains on their railroad. Progressive Railroading quoted Union Pacific's Ed Trandahl: "In 1995, Amtrak paid Union Pacific $9.9 million to operate on 10,000 miles of UP track; a freight railroad would've paid more than $66 million."[53]

By carrying freight, Amtrak hopes to preserve trains politically useful to Amtrak (such as the Texas Eagle, which now hauls beer) despite being marketplace losers. The ploy is questionable because Amtrak's long-distance trains will continue to lose money. Amtrak said the Chicago-Los Angeles Southwest Chief earns about 42 percent of its revenue carrying mail. Despite that, the train lost $35.3 million in 1996 on a fully allocated cost basis.[54]

Amtrak passengers have begun to receive second-class treatment while freight receives priority. In Chicago, riders have begun to suffer extra delays while poky locomotives uncouple boxcars from Amtrak trains.[55] On August 21, 1997, when the FRA issued a safety order regarding Amtrak freight cars, the Southwest Chief was delayed in New Mexico for several hours while such cars were shunted around.[56] Amtrak plans to institutionalize freight-related delays by lengthening schedules a half-hour in Chicago for some trains and 20 minutes in Dallas and Fort Worth for the already slow Texas Eagle.[57] If a passenger backlash occurs because interminable train trips become even longer, and passenger revenue declines, what will have been achieved?

With Amtrak liquidation possible, it's unwise for Amtrak to assign more employees to freight. Under the Railway Labor Act, Amtrak must provide employees with a costly labor protection plan. A worker whose job is lost because of a route discontinuance is eligible for a ridiculously generous severance of up to six years of salary. Any time Amtrak shifts workers from a short-distance service (the type that might survive a shutdown) to a long-distance service (the kind that should be discontinued), Amtrak is making more employees eligible for severance. It's also unwise to be purchasing or leasing hundreds of new freight cars. The costs to divest these cars, disband Amtrak's new freight department, and provide labor protection will put taxpayers in the outrageous position of subsidizing Amtrak's entry into the freight business today and subsidizing its exit tomorrow. America will pay twice for a service Amtrak should not have launched in the first place.

6. Amtrak's "Privatized" Status

Amtrak has exhibited shades of privatization in its procurement of American Flyer trains. The builders, Bombardier and GEC Alsthom, will finance much of the transaction by borrowing from banks, although at preferential rates because the loans are guaranteed by the Export-Import Bank.[58] Amtrak also required the bidders to sign long-term maintenance and management contracts, a form of outsourcing.

Generally, however, Amtrak has sought to undermine the concept of privatizing Amtrak. Amtrak President Thomas Downs has said, "We are probably the most privatized passenger railroad in the world."[59] His assertion fails many tests.

Amtrak is a quasi-public corporation and its stock ownership is unique. Amtrak's preferred shares are owned by the U.S. government and its common stock is considered worthless by railroad owners; in privatized rail companies, shares usually are traded on stock exchanges. Amtrak has never paid a dividend; privatized companies generally do. The Amtrak Board of Directors is appointed by the President and includes elected officials; these practices are unheard of in private companies. Also, the Supreme Court in a free-speech case has ruled that Amtrak is a government entity, not a private corporation, and could be sued on that basis.[60]

Amtrak, which can perish simply by federal edict, is a nationalized service.

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[52] Don Phillips, "Ailing Amtrak Adds Freight-Hauling to Its Line," Washington Post, March 12, 1997, p. C10.

[53] Pat Foran, "For Amtrak, freight can't wait, Progressive Railroading, April 1997, p. 11.

[54] Amtrak, fiscal year 1996 Fourth Quarter and Year End Business and Financial Performance Report, October 1996, Appendix II. p. 5.

[55] Machalaba.

[56] J. David Ingles, "To the Front, March," Trains Online, August 27, 1997, p. 5.

[57] J. David Ingles, "Express First, People Second," Trains Online, September 4, 1997.

[58] Matthew L. Wald, "Builder Is Chosen for Speedy Trains on Northeast Run," New York Times, March 16, 1996, p. 1.

[59] Amtrak's Current Situation, p. 57.

[60] "Can Amtrak Be a Censor?" Editorial, Washington Post, February 23, 1995.

[PART 3]

THE CHOICES FACING AMERICA TODAY

A. THE CALL FOR ALTERNATIVES TO AMTRAK

Support for Amtrak is weakening. In September 1997, the Arizona Rail Passenger Association called for Amtrak's breakup—a striking departure from its 19-year record of support for Amtrak. It urged a return of long-distance passenger trains to railroads, a shift in responsibility for short-distance trains to states, and transfer of the Boston-Washington line to a new regional agency.

Michael R. Carey, the organization's president, said there is no reasonable prospect that Amtrak will bring about truly modern passenger service. He wrote: "Outside of the Northeast Corridor and a few other places, Amtrak trains operate on slower schedules than trains over the same routes of 50 to 60 years ago. On top of that, their on-time performance on these slower schedules is terrible. . . . Public subsidization of that kind of rail service makes no more sense today than would subsidization of stage coach lines in competition with the railroads between 1870 and 1900 have been justifiable at that time." [61]

There are three key elements in replacing Amtrak: privatization, regionalization, and liquidation. All three have been used in rail reorganization worldwide.

B. PRIVATIZATION

The United States has already privatized a railroad, Conrail, the large freight line in the East and Midwest. With about $7 billion in federal aid, Conrail revitalized the lines of six bankrupt railroads including Penn Central's. The federal government owned 85 percent of Conrail, prior to privatizing it under the 1981 Northeast Rail Services Act. When Conrail was sold for $1.6 billion on March 26, 1987, it became the largest initial public stock offering in the nation's history.[62] Conrail's value increased over the years and by 1997 CSX and Norfolk Southern made competing $10.3 billion merger offers to Conrail shareholders.

Today, privatization of railroads, including freight and passenger operations, is underway in 40 nations (see Table 1). Public-sector railroads overseas have suffered from excessive control by the government, slow reaction to marketplace changes, archaic labor practices, insensitivity to local needs, and excessive need for subsidies. Those also are Amtrak's problems.

TABLE 1.—SUMMARY OF RAIL PRIVATIZATION WORLDWIDE

Country	Franchise to private rail operators	Public to private fixed asset transfer	Private funds in new rail facilities	Private funds raised in stock offering	Devolve service to States or regions	Privatization planning underway, plans incomplete
Argentina [1]	X				X	
Australia [1]	X	X	X			
Austria					X	
Bolivia	X					
Brazil [1]	X					
Cameroon						X
Canada	X	X		X		
Chile [1]	X					
China				X		
Colombia [1]	X					
Congo	X					
Costa Rica [1]	X					
Czech Rep		X			X	
Ecuador						X
Estonia						X
France			X	X		
Gabon						X
Germany			X		X	

[61] Michael R. Garey, President, Arizona Rail Passenger Association, Letter to U.S. Senator John McCain, September 4, 1997, p. 1.

[62] A Brief History of Conrail, Philadelphia: Conrail, 1996, p. 1.

TABLE 1.—SUMMARY OF RAIL PRIVATIZATION WORLDWIDE—Continued

Country	Franchise to private rail operators	Public to private fixed asset transfer	Private funds in new rail facilities	Private funds raised in stock offering	Devolve service to States or regions	Privatization planning underway, plans incomplete
Great Britain [1]	X		X	X		
Guatemala [1]	X					
India	X		X			
Israel						X
Ivory Coast	X					
Jordan						X
Japan		X	X	X	X	
Latvia						X
Lithuania						X
Malawi						X
Malaysia	X					
Mexico [1]	X					
Mozambique [1]	X					
Netherlands						X
New Zealand [1]	X			X		
Pakistan						X
Panama [1]	X					
Paraguay						X
Peru [1]						X
Portugal						X
Russia		X	X	X	X	
Slovakia						X
South Africa						X
Taiwan	X		X			
Togo					X	X
Uruguay						X
Venezuela						X
Vietnam						X
Zambia						X
Zimbabwe			X			

[1] Privatization activity involving U.S. railroads or rail consulting firms.

"The least costly option [for Amtrak] may be the one the government so far has avoided: privatization," said Bruce Chapman, president of the Discovery Institute. "Alternative approaches include opening the service to bidders, with a built-in subsidy for a period of transition." States could help maintain routes in their territories, as many already do.[63]

The range of franchising (sometimes called concessioning) arrangements varies widely between, say, the United Kingdom and Argentina, as discussed in the Appendix. Yet, concessionaires consistently increase railroad revenues through innovative marketing practices and lower costs through improved efficiency. For unprofitable rail service that must remain for social reasons, planners are lowering subsidy requirements through franchising or spinoffs to regional or local governments.

Most nations require private-sector financing in new high-speed passenger facilities; the participants include banks, construction companies, and the public (through share offerings). Amtrak's operating losses, combined with its poor reputation, serve as a restraint to private financing of its infrastructure.

Dismantling Amtrak would improve the environment for private-sector investment in passenger rail facilities which make market sense.

The freight railroads in the United States have demonstrated they are interested in privatization opportunities. These firms have gotten involved in passenger issues as they meet franchise terms in other countries, sometimes running the passenger trains.

[63] Bruce Chapman, "Amtrak heading toward a train wreck," Seattle Post-Intelligencer, May 1, 1997.

C. REGIONALIZATION

The United States has already regionalized rail service.

The Alaska Railroad was defederalized through the Alaska Railroad Transfer Act of 1982, in which Congress agreed that "continued federal control and financial support of the line are no longer necessary to accomplish the objectives of serving Alaska and its people."[64] The railroad's performance is outstanding; it carried more than a half a million passengers in 1996, an all-time record.[65] The Alaska Railroad carries more passengers on one rural, highly seasonal route than Amtrak does on many of its more populated short-distance routes, such as Chicago-St. Louis and Chicago-Cincinnati, or long-distance routes, with the Chicago-Boston Lake Shore Limited and Los Angeles-New Orleans-Orlando Sunset Limited being just two examples of many.

State and regional authorities could retain certain Amtrak train services. California has begun a localization process that could lead to non-Amtrak operation of state-supported Amtrak trains. Florida rejected a high-speed rail franchise application from a consortium that included Amtrak. Dallas selected Burlington Northern Santa Fe and Herzog Transit Services, Inc., over Amtrak to provide contract services for commuter rail. Also, the Massachusetts Bay Transportation Authority stated it may terminate Amtrak as a contractor for Boston commuter service because of poor performance.[66]

Regionalizing Amtrak services can reduce costs as well as increase revenues. Cost savings could come about in three ways: (1) substituting a daytime coach-only train for an overnight train that carries sleeping cars, the most expensive type of car to operate; (2) avoiding payments for Amtrak overhead costs, which are considerable; and (3) using the competitive bid process in awarding franchises. According to E. S. "Steve" Savas, director of the Privatization Research Organization at New York City's Baruch College, "The most important single attribute of contracting is that when properly done, it creates and institutionalizes competition, which is the underlying factor that encourages better performance." It also "permits better management, free of most of the distracting influences that are characteristic of overtly political organizations [and] fosters good management because the cost of a service is highly visible in the price of the contract, whereas the cost of government service is usually obscured."[67]

D. LIQUIDATION

Numerous issues are involved in liquidating Amtrak, such as the sale of assets at fair cost. Locomotives and passenger cars could be sold to regional operators that will replace Amtrak, to commuter rail systems, or to private operators of seasonal land-cruise trains. Locomotives surplus to those markets could be sold to freight railroads.

A regional agency could own the Northeast Corridor line. This idea originated with Senator Claiborne Pell of Rhode Island in 1962, when he advocated creating a multi-state public body funded by bonds to acquire the Boston-Washington line.[68] The idea is being revived by passenger-rail advocate Anthony Haswell, who suggests establishing an authority through an interstate compact to own the line. The authority would charge usage fees to a variety of operators. Some would object to Northwestern states having to self-finance their passenger rail line, yet California has paid for nearly all capital improvements and much of the operating subsidies for Amtrak's Los Angeles-San Diego service. Also, the federal government has declined to assist Florida in financing a new Miami-Tampa rail line, an asset that would remain under state ownership once built. No justification exists for one federal standard to apply in the Northeast while another applies in the west and south.

It is sometimes suggested that railroad companies own or lease the Northeast Corridor because private-sector management could operate it at a profit. Whether the line is operated by a regional public agency or private interests will depend upon how the federal government structures a transfer, lease or sale of the asset.

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[64] The Alaska Railroad Historical Summary, Anchorage: Alaska Railroad, undated.

[65] The number of passengers was 518,867 according to Scott Banks, Alaska Railroad Communications Office, telephone interview, August 29, 1997.

[66] Thomas C. Palmer Jr., "MBTA chairman calls for end to Amtrak contract," Boston Globe, March 7, 1997, p. B5.

[67] Savas, Emanuel S. Privatization: The Key to Better Government, Chatham, N.J.: Chatham House Publishers, 1987, pages 109, 110 and 262.

[68] "8 States in East Urged to Create a Rail Authority" and "Pell's Statement on Northeast Rail Agency." New York Times, May 21, 1962, p. 1 and p. 36.

[PART 4]

POLICY RECOMMENDATIONS

Other nations are privatizing state-owned enterprises extensively with the approval of public officials across the political spectrum. Today, with more than 100 countries engaged in privatization, the process has become non-ideological.[69]

A. CURRENT LEGISLATION

Privatization and Route Closure Bills.—Several current measures recognize Amtrak's failings.

The Amtrak Route Closure and Realignment Act, modeled after base-closing legislation, would create a commission to identify Amtrak routes that are candidates for termination. It would not require Amtrak to remain a national, interconnected system.

Another bill, the Amtrak Privatization Act, reduces appropriations, limits judicial review of train discontinuances, reduces job protection provisions, and amends the unique and obsolete Federal Employers' Liability Act (which applies only to railroads) to exempt those who provide rail passenger transportation.

Also, the Amtrak Reform and Accountability Act establishes a Reform Council to evaluate Amtrak. If the council finds Amtrak failing to meet certain financial goals, a "Sunset Trigger" requires submission of two plans to Congress—one to slim down Amtrak and another to completely liquidate Amtrak.

Other Bills Are Excessively Generous.—Several measures would give Amtrak billions of dollars in Highway Trust Fund gas taxes, which Amtrak may use for operating expenses—unheard of in highway and aviation systems. This permissive use of fuel taxes would launch new precedents and would prove costly. Gas-tax money is still a tax, and using that fund instead of the general fund to subsidize Amtrak won't save taxpayers any money nor create an efficient rail system.

By mid-1997, with gas-tax measures failing, the Senate inserted into the Taxpayer Relief Act a tax break for Amtrak calculated on a tax-loss carry-back plan. As explained by the Washington Post, "Amtrak will be able to deduct its financial losses from the portion of taxes paid by the private railroads that operated passenger trains prior to 1971—before Amtrak existed—up to $2.3 billion over the next two years. Amtrak, itself, has never paid taxes because it has never made money, and therefore has never had anything from which to deduct its losses."[70] The measure, if utilized, will cost taxpayer dearly. Congress Daily reported that to fund it, Amtrak's Capitol Hill supporters raised $2 billion more in the tax bill than required by the budget agreement.[71]

B. AMTRAK DENATIONALIZATION ACT

With ample evidence that federal funding of Amtrak can no longer be justified on fiscal or mobility grounds, there is every justification to initiate an orderly phase-out of Amtrak. A Rail Service Denationalization Act would be similar to action taken in legislatures overseas. Such a measure would contain the following provisions:

—Substitute for the Rail Passenger Service Act, the law that created Amtrak and gave Amtrak its statutory monopoly.

—Repeal the Swift Rail Development Act and the Next Generation High-Speed Rail section of the Intermodal Surface Transportation Efficiency Act. The laws were designed to nurture high-speed rail but instead have become vehicles to finance slow-speed Amtrak projects.

—Create an Amtrak Transition Board (ATB) to manage privatization and regionalization of service and divest Amtrak assets. Protections similar to those granted to the military-base closing commission would insulate the ATB against political interference.

—Name the ATB as Amtrak's successor agency, assigning to it the legal liabilities that will remain after Amtrak is dissolved.

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[69] For a summary, see Robert W. Poole, Jr., A Federal Privatization Agenda, Testimony, Senate Budget Committee, June 29, 1995; also, Privatization 1996: A Comprehensive Report on Privatization of Government Assets, Enterprises, and Public Services, both from the Reason Foundation.

[70] Don Philips and Paul Blustein, "Perils Loom for Amtrak in Unsettled Tax Issues," Washington Post, July 31, 1997, p. A13.

[71] "Roth Unlinks Gas Tax Shift, New Funding For Amtrak," Congress Daily, July 22, 1997.

—Establish an Amtrak "sunset" date. To allow time for asset disposition and other steps to be completed, the sunset date of the ATB would follow by several years.
—Continue Northeast Corridor capital funding, but not expand or extend the program. This is Amtrak's busiest line, and completing the upgrading project will make it easier to sell the line to private interests or transfer it to the states. This represents a lesson learned in privatization—it is easier to divest an asset when it is efficient. Also, because parts of the line are deteriorating, such expenditures can help insure safety.
—Impose a moratorium on all other Amtrak capital funding and seek to cancel Amtrak orders for locomotives, freight cars, and other equipment.
—Set caps on operating subsidies. States should be given limited access to such funds, perhaps based on train-miles operated, to assist in the transition to regional service. Federal subsidies should scale downward to eventual termination.
—Pre-authorize creation of an interstate compact composed of the eight northeastern states and the District of Columbia to facilitate Northeast Corridor rail service in a post-Amtrak era. It should also authorize "any and all" future compacts that states may wish to form, without the need for further federal action.
—Establish a "post-Amtrak passenger-rail employee" category of worker who is exempt from unique, costly and unwieldy laws like the Railway Labor Act, Federal Employers' Liability Act, Railroad Retirement Act, and Railroad Unemployment Insurance Act. Putting railroad passenger employees under mainstream laws such as Social Security will induce investment, create rail jobs, and foster rail service to places that otherwise would be without such service.

[PART 5]

RAIL SERVICE IN A POST-AMTRAK WORLD

Train service based on market demand and local decision-making will demonstrate that the mass movement of people by train can succeed under certain circumstances.

A. COMMUTER SERVICE

Not one commuter train need be discontinued because of Amtrak's demise. Where Amtrak operates such local trains, mechanisms exist to permit commuter authorities to operate the trains themselves or seek new contractors. If countries as diverse as Great Britain, Japan, New Zealand, and Argentina could accomplish such a transition, so can the United States. Further, some of America's busiest commuter systems, such as the Long Island Rail Road and Chicago's Metra, already operate independently of Amtrak.

B. REGIONAL SERVICE

Over the years states like California and New York assumed significant responsibilities for funding Amtrak, and ridership increases in such states are due to state initiatives. Regional trains can remain in service as states accept more responsibility for them. Japan, Germany, and Russia have regionalized passenger trains; so can the United States.

C. LAND CRUISES

Transportation is not sentimental, and Americans rarely treat it as such when traveling by air, bus or automobile. Yet, there is a market for sentimental rail journeys. Anthony Haswell says long-distance trains should be confined to seasonal operations aimed at vacationers and tourists who are willing to pay the price for a unique travel experience.

Such a market is tapped today by private-sector rail passenger operators like the American Orient Express, Montana Daylight, Napa Valley Wine Train, First American Railways, and Grand Canyon Railway. Also, tour companies cater to the leisure market by running seasonal cars as part of the Alaska Railroad train. Companies like these—and virtually all of them are enjoying growing ridership—could transform some Amtrak long-distance services into seasonal land-cruise trains.

Private operators, even when receiving Amtrak services, can outlive Amtrak. The Orlando Sentinel reported that Florida Fun Train, owned by First American Railways, would survive: "If Amtrak folds, said Ray Monteleone, president and chief operating officer, First American would look elsewhere to lease or try to lease the locomotives from whomever took over Amtrak's assets. The company also would have

to find new maintenance crews. 'It would be an aggravation,' he said, 'but it wouldn't mean our existence.'"[72]

D. HIGH SPEED CONSORTIA

The disappearance of Amtrak will end the pretext that federal funding will bring about world-class high-speed train service in this nation. In time, privatized entities can develop short-distance routes that make market sense. Amtrak is unable to accomplish this task because of its national mandate and the political consequences that stem from that mandate.

E. TEAMING ARRANGEMENTS

Rail.—It's possible for rail-air and rail-tour partnerships to provide rail passenger service. The railroads would provide operating crews (engineers, conductors) while airlines or tour operators provide service staff (ticket agents, food service personnel). America's freight railroads already operate commuter trains—Union Pacific in Chicago and Los Angeles, Burlington Northern Santa Fe in Chicago—and cooperate with land-cruise operators like the American Orient Express.

Aviation.—Britain's Virgin Trains, a unit of Virgin Atlantic Airlines, is monitoring prospects for replacing Amtrak.[73] Airlines participate in operating passenger trains in Britain and Germany (Virgin Trains and Lufthansa), and a land-cruise train in India (East-West Airlines[74]). Airlines cooperate in establishing rail-air transfers (Swissair, KLM, Lufthansa, Air France, Alitalia), and in train technology efforts (Japan Air Lines, Lufthansa, Swissair, Qantas, Delta Air Lines, USAirways).[75] Aviation is combining efforts with the bus industry, with United Airlines and American Airlines now operating feeder buses to Chicago's O'Hare Airport.[76]

Tour Companies.—Holland America Westours and Princess Tours run special coaches on the Alaska Railroad and contribute to the railroad's record-setting performance. Elsewhere, the Florida Fun Train is promoting itself as a tour and entertainment experience. A European operator, the Venice-Simplon Orient Express Ltd., seeks privatization opportunities worldwide. It operates a rail franchise in Britain, and in 1998 will help convert an Australian passenger train into a specialized service.[77] Such developments reflect growth in the tour-train market throughout the world.

Restoring Distinctive Services.—For better or worse, customers in the pre-Amtrak era evaluated passenger trains in terms of particular attributes of service, schedules, menus, and the overall travel experience. The Pennsylvania Railroad's Broadway Limited was unlike Santa Fe's Super Chief, but those nuances were erased by Amtrak's homogeneous service. Airlines, tour companies, and bus operators, which are practiced at adapting to changes in the travel market, can add a new vitality to rail passenger service. Such private-sector operators can bring about an important intangible, and that is restoring distinctive characteristics to individual trains. That is particularly important when creating land-cruise train experiences.

CONCLUSION

Amtrak is an experiment that failed. Replacing Amtrak with other operators is a viable proposition—especially considering Amtrak's inordinate level of subsidies. Many nations are revolutionizing their rail services, and numerous models for the process are evident in diverse countries (see Appendix). With such experiences serving as a guide, the United States could phase out Amtrak yet retain services that meet legitimate travel needs. Done well, the process can eliminate a burden on federal taxpayers, create new opportunities for companies in the travel business, and diversify and improve the passenger trains that remain.

WORLDWIDE EXAMPLES OF RAILROAD PRIVATIZATION

Mr. POOLE. Troubled railroads are not unique to the United States. They are all over the world. But other countries have taken much more dramatic steps to fix their ailing rail systems, including

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[72] Jim Stratton, "Amtrak's Troubles Won't Take Any Steam Out of Central Florida Tourism," Orlando Sentinel, June 2, 1997, p. 11.
[73] "Amtrak could go bankrupt next year," Railway Gazette International, August 1997, p. 497.
[74] R.C. Acharya, "Cashing in on cultural heritage," Rail Business Report 1997, pp. 32–33.
[75] A more thorough treatment of future railroad-airline roles can be found in Vranich, Derailed, "Who Will Run Tomorrow's Trains?" Chapter Six.
[76] "It's a Plane!" Dow Jones, July 18, 1997.
[77] "Queensland Rail," Railway Gazette International, August 1997, p. 514.

passenger rail, than we have. During the past decade, as our study points out, nearly 50 countries have embarked on privatizing their national railroads, often with the help of the World Bank. These countries include Australia, Britain, Japan, New Zealand, and Sweden. There is a whole lot we can learn from these countries' experience, much of which is applicable to fixing or replacing Amtrak.

British Rail is one case in point. This system now, which was losing a lot of money, has been completely privatized, broken up into 60 different companies. The track and stations became a company called RailTrack, which was sold off last year for $2.9 billion, something that might be able to be done with the Northeast corridor. Passenger service was divided into 25 operating franchises, which were auctioned off competitively to those bidders who could provide the service with the least amount of subsidy, very much like what the Working Group recommended.

So far the results are mostly positive. They have had one or two failures, but most of these are positive experiences.

FORMS OF PRIVATIZATION

Around the world, rail privatization has taken three main forms. Some countries have sold off their entire national railroads, sometimes splitting them into several different companies, which is what Australia and Japan have done. Most European countries today are separating the track from the train operations and privatizing only the train operations, again usually through a competitive auction process. Most developing countries, on the other hand, are auctioning off long-term franchises under which the winning firm has to take over an entire line or set of lines and rebuild them, putting in major capital, sometimes up to billions of dollars, and also operate the train services.

Now, in fixing Amtrak we could adopt parts of all three methods. First of all, any serious Amtrak restructuring ought to first seek proposals from investors to buy most or all of the entire system. Now, I frankly have doubts that any viable proposal would come forward to preserve the whole network because of the unviability of long-distance trains, but we should not prejudge the creativity of the private sector. If somebody would actually make a real proposal to take that on, we should certainly be open to it.

If no buyer is willing to take over the whole thing, the most promising model would be to decentralize Amtrak's functions, focusing on commuter and regional service, where private bidders might be able to provide needed service for only modest subsidies, as is happening today in Britain. Routes much longer than 300 miles are simply not going to be viable for conventional rail service, given the low cost and convenience of our highly competitive and low-cost airline industry, which is not really the case in Europe.

Another lesson from overseas is that the billions the taxpayers have already poured into Amtrak are a sunk cost. They are never going to be recovered and will have to be written off. This includes the $3.8 billion non-interest-bearing Amtrak note to the Federal Government that comes due in the year 2975, nearly 1,000 years from now. That is just going to be written off, we might as well face it.

SUCCESSOR TO AMTRAK

Now, our study set forth a 10-point plan for replacing Amtrak with sustainable passenger rail service drawing from this global experience. I do not have time to go through the whole thing, but let me just give you the highlights of that plan.

First, we propose creating an Amtrak transition board to sell off Amtrak's assets and manage the transition to a decentralized regional passenger service.

Senator SHELBY. How would that work?

Mr. POOLE. That would be the legal successor to the Amtrak corporation. It would be a liquidation, but not with the idea of ending all service. It would be to transition to a new model in which the States and MPO's, the urban areas, take on the main responsibility.

You would establish an Amtrak sunset date, which would later on be followed by a sunset date for the transition board itself. We would also include, complete the current modernization of the Northeast corridor to make it more saleable or more viable on its own, but cancel all other currently planned Amtrak capital spending.

We would also preauthorize the creation of interstate compacts between any groups of States that may wish to operate or contract for regional rail service, including, of course, the States of the Northeast corridor. You would set declining annual caps for Federal operating subsidies for the regional services, which would decline to zero over a period of time, much like the Reform Act already does.

Finally, you would create a post-Amtrak passenger rail employee category under Federal law, so that these successor operations at the regional and State level would be exempt from the Railway Labor Act, Railroad Retirement, Railroad Unemployment, and Federal Employer's Liability Act. Those changes, the deregulation of labor relations, would allow the States and private companies to enjoy the benefits of lower cost rail services in those markets under 300 miles where rail can be viable, commuter and short haul.

Now, there is, as Senator Bennett mentioned, a small niche market for long distance, or I think maybe it was Senator Gorton, for long-distance trains, basically rail cruise operators, that is already beginning in the United States, exists in Canada and in Europe as well, even exists in Southeast Asia between Malaysia and Thailand, by the way. And there may be markets for some high-technology, high-speed rail in selected markets competing with airline service.

We should encourage the private sector to come forward with proposals for maglev and other things under long-term franchise arrangements. But just as airline service in the United States is not subsidized, this potential competitor to airlines should not. It would be wrong to use taxpayers' money to subsidize a competing industry for a viable private airline industry that is not subsidized.

Our view is that it is time to recognize that Amtrak as a national rail system has failed. But Amtrak can be replaced, we believe, with sustainable passenger rail service drawing on what has been done in 50 other countries.

That concludes my remarks. I would be happy to answer questions at the appropriate time.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Poole. We have your complete statement and it will be made part of the hearing record.

[The statement follows:]

PREPARED STATEMENT OF ROBERT W. POOLE, JR.

My name is Robert W. Poole, Jr. I am president of the Reason Foundation, a public policy think tank based in Los Angeles. For over 20 years my colleagues and I have been doing work on privatization of government functions. I authored the very first book on the subject in 1980. The Reason Foundation's Privatization Center is this country's leading source of information on privatization. We publish a monthly newsletter on privatization as well as the definitive yearbook on the subject.

Most of my own policy research over the past decade has been in the field of transportation. Worldwide, I have studied the major decade-long trend of governments privatizing airlines, railroads, highways, truck freight, airports, seaports, and air traffic control. Here at home, I have studied the impact of deregulation of airlines, railroads, and trucking, as well as the privatization of Conrail. I have proposed models for privatizing airports and air traffic control, as well as bringing public-private partnerships to bear in the highway and urban transit sectors.

Last year we decided to turn our attention to Amtrak. We were impressed by the dramatic restructuring and privatization of railroads going on all over the world—and at how little that body of experience was affecting the debate over Amtrak's future. It so happened that a long-time rail passenger advocate named Joseph Vranich was thinking along parallel lines, and was completing a book on Amtrak. We liked his approach and commissioned Vranich to develop a policy paper for us. It was published last October under the title, "Replacing Amtrak: A Blueprint for Sustainable Passenger Rail Service."[1] My testimony today is based largely on that policy paper.

GLOBAL RAIL PRIVATIZATION EXPERIENCES

One of the more recent global privatization trends is the movement to privatize troubled state-owned railroads. Virtually unthinkable a decade ago, this trend has now spread to nearly 50 countries, as summarized in Table 1. The World Bank is aggressively promoting rail privatization, as critical to improving the transportation infrastructure of developing countries. But it is drawing on detailed case-study examples not merely from such developing countries as Argentina but also from such Western countries as Japan, New Zealand, Sweden, and the United Kingdom.[2] For the fact is, as daunting as Amtrak's problems appear to be at close range, they appear more modest when contrasted with the hundreds of billions of losses accumulated by Japan National Railways or the severe deterioration of rail service experienced in much of Latin America and Africa prior to privatization.

TABLE 1.—SUMMARY OF RAIL PRIVATIZATION WORLDWIDE

Country	Franchise to private rail operators	Public to private fixed asset transfer	Private funds in new rail facilities	Private funds raised in stock offering	Devolve service to States or regions	Privatization planning underway, plans incomplete
Argentina[1]	X				X	
Australia[1]	X	X	X			
Austria					X	
Bolivia	X					
Brazil[1]	X					
Cameroon						X
Canada	X	X		X		

[1] Joseph Vranich, "Replacing Amtrak: A Blueprint for Sustainable Passenger Rail Service," Policy Study No. 235, Los Angeles: Reason Public Policy Institute, October 1997.

[2] Ron Kopicki and Louis S. Thompson, Best Methods of Railway Restructuring and Privatization, Washington, DC: The World Bank Cofinancing and Financial Advisory Services (Privatization Group), August 1995.

TABLE 1.—SUMMARY OF RAIL PRIVATIZATION WORLDWIDE—Continued

Country	Franchise to private rail operators	Public to private fixed asset transfer	Private funds in new rail facilities	Private funds raised in stock offering	Devolve service to States or regions	Privatization planning underway, plans incomplete
Chile [1]	X					
China				X		
Colombia [1]	X					
Congo	X					
Costa Rica [1]	X					
Czech Rep		X			X	
Ecuador						X
Estonia						X
France			X	X		
Gabon						X
Germany			X		X	
Great Britain [1]	X		X	X		
Guatemala [1]	X					
India	X		X			
Israel						X
Ivory Coast	X					
Jordan						X
Japan		X	X	X	X	
Latvia						X
Lithuania						X
Malawi						X
Malaysia	X					
Mexico [1]	X					
Mozambique [1]	X					
Netherlands						X
New Zealand [1]	X			X		
Pakistan						X
Panama [1]	X					
Paraguay						X
Peru [1]						X
Portugal						X
Russia		X	X	X	X	
Slovakia						X
South Africa						X
Taiwan	X		X			
Togo					X	X
Uruguay						X
Venezuela						X
Vietnam						X
Zambia						X
Zimbabwe			X			

[1] Privatization activity involving U.S. railroads or rail consulting firms.

Let me just sketch out what a few other countries have done to stanch the bleeding of their rail systems, using a variety of privatization techniques. There is a great deal we can learn, and much that we can apply to restructuring—or better, replacing—Amtrak.

One of the most dramatic cases is the privatization of British Rail, the final stage of which was completed last spring. This money-losing state monopoly system was broken up into 60 different companies. The track and stations became the infrastructure company, Railtrack, which was sold via stock offering for $2.9 billion. Passenger rail service was carved up into 25 different operating franchises, which were auctioned off to those bidders who could provide the specified level of service for the least amount of subsidy. So far, the results are largely positive: much planned new investment, better on-time performance, and innovative new kinds of service from providers such as Virgin Trains and National Express.

While British Rail had been losing money, at least it had been providing tolerable service. That was not the case in Argentina, where large fractions of the huge railroad work force showed up only to collect their paychecks, and where some rail lines were so decrepit that trains derailed at 5 mph. With assistance from the World Bank, Argentina divided the system into six long-term (30-year) franchises or concessions for freight operations, which were put out to bid. Winning bidders had to commit to a specified investment program and to the payment of concession fees. A similar process was used to franchise Buenos Aires commuter and subway service, but in this case on the basis of the least subsidy required. Except for one high-density, 325-mile route, long-distance inter-city passenger service was discontinued, because of its huge losses. The World Bank reports major improvements in both freight and passenger services thanks to privatization.[3]

A third example is New Zealand. Its greatly over-staffed and money-losing railroad was first corporatized—converted into a commercial corporation required to operate without subsidy, make a profit, and pay taxes. Over a 10-year period of drastic restructuring, NZ Rail became a productive and profitable business, which was then auctioned to a consortium of private firms. Under private ownership, it has become even more efficient, carrying both freight and passengers in open competition with auto, truck, and air service.

RAIL PRIVATIZATION MODES

The three examples cited above represent the three main modes of railroad privatization that have emerged to date. Some countries are choosing to divest an entire national railroad enterprise to the private sector, as a single integrated business. Others are separating the infrastructure (track and stations) from train operations and applying privatization either to one or both components. And still others are using long-term franchises or concessions to attract serious private-sector investment in rebuilding and modernization. Each may have applicability to our situation with Amtrak.

Divestiture

Outright sale of the entire state railway system is relatively uncommon thus far, despite some very successful cases. Besides New Zealand, other practitioners include Australia, Japan, and Canada.

—Australia last year sold off the Australian National Railroad in three pieces: Tasrail (Tasmanian freight), South Australian Rail (all other freight), and Passengers (which includes various long-distance "name" trains). None will be subsidized, except for modest per-ticket subsidies for senior citizens.

—Japan split up Japan National Railway into six integrated companies and has thus far sold off JR East, JR Central, and JR West. Those three are now profitable, while the three rural lines are still in government hands, and still receiving (lower amounts of) subsidy. However, the price of privatization was for the government to take over responsibility for JNR's accumulated debt of $350 billion, which it hoped to pay off via privatization proceeds and sale of railroad real estate. Thus far, however, much of that debt remains outstanding.

—Canada sold off Canadian National Railway in 1995 for $2.1 billion, leading to major gains in productivity for this freight railroad. Its experience appears to parallel that of Conrail, the successfully privatized U.S. freight railroad.

Separation of Track and Trains

Increasingly, European railway systems are splitting infrastructure from train operations. In the U.K., of course, the infrastructure itself has been privatized via a stock offering, but in most other countries, the government plans to retain the infrastructure but privatize train operations. This is the announced plan in Denmark, Germany, the Netherlands, Portugal, and Sweden—as well as in Chile and Israel. But there are many variations. Sweden permits new private passenger rail firms to operate on its tracks in competition with the commercialized state train-operating company. And Chile last year decided that instead of retaining the infrastructure in government ownership, it would follow Britain's lead and privatize the track as well.

Regardless of who owns the infrastructure, the major gains in this model come from competitively bidding out the train-operations contracts or franchises. In general, the more capital investment expected of the private operators (e.g., in totally new trains, or possibly even in sharing the cost of upgrading the track), the longer

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[3] Louis S. Thompson and Karim-Jacques Budin, "Global Trend to Railway Concessions Delivering Positive Results," Private Sector (World Bank), December 1997.

the term of the contract or franchise must be, to permit recovery of the company's investment.

Long-Term Franchises

The third model is being used primarily in developing countries, as typified by Argentina. A long-term franchise is typically offered on a competitive basis, for a major line or group of lines. Where the service is likely to be profitable to operate, the winning bidder is typically selected on the basis of how much it is willing to offer for the franchise (consistent with agreeing to government-specified modernization investments). For services likely to remain unprofitable (such as long-distance passenger service), governments either make a policy decision to discontinue such service or accept competitive bids based on which company requires the least amount of subsidy to provide the specified level of service.

Mexico typifies the former. Last year it auctioned off 50-year franchises for its Northeast line ($1.4 billion) and its Northwest Pacific line ($396 million), both of which are freight operations. A good example of the latter is Britain, where the largely passenger-oriented rail service has been divided into 25 different operating franchises, whose lengths vary depending on how much capital investment the winning bidder must make. In most cases, the annual subsidies are scheduled to decline each year, and for some of the more highly traveled lines the subsidies are to be replaced with payments from the operating company to the government in the latter years of its franchise.

APPLYING GLOBAL EXPERIENCE TO AMTRAK RESTRUCTURING

Which of these privatization models provides useful lessons for Amtrak? I suggest that we can learn something from each of them.

Divestiture of the entire Amtrak system to a private bidder as a single company is unlikely to be feasible, though Congress should not reject this possibility out of hand. A first step in any major restructuring or replacement of Amtrak as a loss-making government entity ought to be the solicitation of serious proposals from the private sector to take over much or all of the entire intercity system. But given the much longer distances between U.S. cities compared with Europe (and the enormous subsidies given to European rail systems), I have serious doubts that the present Amtrak system could be preserved on a for-profit basis.

The long-term franchise model is equally problematic for long-distance inter-city routes. Traffic is simply too "thin" and the cities too far apart to support a reasonable level of passenger service that is far more economically served by air, bus, and automobile. The one possible niche for long-term private franchises might be high-speed rail in selected high-density corridors of up to 300 miles—routes where 200 mph trains might prove competitive with air and road alternatives. But those would and should be individual projects serving localized niche markets; there is no reason to try to fit them into an integrated national network.

The most promising privatization model for U.S. passenger service is competitive contracting for commuter and regional (conventional) rail service. There are perhaps a dozen city-pairs in this country where the level of subsidy for such service might be relatively modest, especially under the strong cost-reducing incentives of competitive bidding—and if such service were freed from Amtrak's restrictive labor conditions and traditional railroad liability and retirement programs. But since such service would be a matter of local and/or regional interest, it is an issue for decision-making and funding at those levels of government rather than at the federal level.

One other lesson emerges from rail privatization and restructuring worldwide. Much of what governments previously "invested" in railways turns out to have been a bad investment. It is a sunk cost that will never be recovered. U.S. examples include Amtrak's $1.1 billion non-interest-bearing note that matures in 2082 and another $3.8 billion in non-interest-bearing debt that Amtrak theoretically owes the government in the year 2975—nearly 10 centuries from now. These debts will simply have to be written off as uncollectible, as have many such railroad debts in other countries.

AMTRAK REPLACEMENT PLAN

In his Reason Foundation study, Vranich set forth the outline of a plan to replace Amtrak with sustainable passenger rail service, drawing from the experience of nearly 50 other countries. The basic concept is an orderly liquidation of the current Amtrak corporate entity, to be replaced mostly by competitively contracted regional and commuter rail services overseen and subsidized by cities, states, or entities created by interstate compacts. These services would be operated in a deregulated labor environment, so as to minimize the amount of subsidy required.

More specifically, Vranich's proposed Amtrak Denationalization Act would include the following elements:

1. The Act would be the legal substitute for the Rail Passenger Service Act which created Amtrak.
2. It would repeal the Swift Rail Development Act and the Next Generation High-Speed Rail section of ISTEA, leaving high-speed rail to independent private or public-private ventures.
3. It would create an Amtrak Transition Board to divest Amtrak assets and manage the transition to regionalized service; the ATB would be insulated from political interference in a manner similar to that used for military base-closing commissions.
4. It would designate the ATB as Amtrak's successor agency, assuming Amtrak's legal liabilities.
5. It would establish an Amtrak sunset date, to be followed by an ATB sunset date several years later.
6. It would continue the capital funding to finish modernization of the Northeast Corridor, to make it more viable on a stand-alone basis.
7. It would impose a moratorium on all other Amtrak capital funding and seek to cancel existing orders for locomotives, rolling stock, and other equipment.
8. It would set declining caps on operating subsidies for the successor, regional services, declining to zero after a period of years.
9. It would pre-authorize the creation of any and all interstate compacts which states may wish to form to operate regional passenger rail service, including one composed of the eight northeastern states and the District of Columbia for Northeast Corridor service.
10. It would establish a "post-Amtrak passenger-rail employee" category of worker who is exempt from the Railway Labor Act, Federal Employers' Liability Act, Railroad Retirement Act, and Railroad Unemployment Insurance Act. Such employees would be covered instead by Social Security and ordinary unemployment and workers compensation acts.

This kind of program would permit states to enjoy the benefits of competitively contracted local and regional passenger rail services in those markets where such services are in high demand—commuter service and selected short-haul intercity service. Besides permitting the continuation of these conventional services on a lower-cost basis, this program would also permit the emergence of two additional forms of passenger service: land cruises and high-tech, high-speed rail.

There is a market for long-distance trains. The target audience is tourists and vacationers willing to pay the price for "sentimental rail journeys" operated by niche market "land cruise" operators. Among the operators in business today to serve this market are the American Orient Express and Montana Daylight, as well as Great Canadian Railtours' "Rocky Mountaineer." In a post-Amtrak United States, these and similar land-cruise companies would have to negotiate operating agreements with the freight railroads directly, rather than making use of Amtrak's authority to operate over those railroads' track. But since land cruises do not have to meet the kind of precise schedule constraints of traditional long-distance passenger trains, and operate far less frequently than regularly scheduled passenger trains, the freight railroads are more likely to be able to negotiate mutually acceptable operating agreements with them.

High-tech, high-speed passenger rail—ranging from the Japanese bullet trains and French TGV up to the prototype German and Japanese maglev trains—are an entirely different proposition. Their high speed operations require separate infrastructure not shared with freight railroads. To the extent that viable market opportunities for such services exist, they are best pursued as individual private or public-private ventures, each tailored to the market it seeks to serve and competing mostly with air service in that market. Their future depends primarily on technology and economics and is not at all jeopardized by the proposed liquidation of Amtrak. Since airlines are by-and-large not subsidized by American taxpayers, neither should high-tech rail systems be subsidized by our taxpayers.

This concludes my testimony. I would be happy to answer any questions you many have.

STATEMENT OF JEFFREY R. LADD, CHAIRMAN, METRA COMMUTER RAIL

Senator SHELBY. Mr. Ladd.

Mr. LADD. Thank you, Mr. Chairman, members of the subcommittee.

I am Jeff Ladd and I have had the privilege of serving as Metra chairman since 1984. Now, that was the first full year that Metra became responsible for all of the commuter train traffic in the six-county northeastern portion of Illinois. In my tenure, I have seen a steady and unfocused commuter rail structure became a sure-footed single-minded system. The managers of Amtrak are engaged in a similar effort on a much broader scale, and I can certainly empathize with them and I admire their persistence against the difficulties that make what we have faced seem minor by comparison.

It is in this context of respect, in fact, that I offer my views on passenger railroading as we practice it back in northeastern Illinois. We agree with Amtrak's business approach, or at least nominal approach. We agree that public transportation can and should be operated on private sector principles. These include cost control on the one hand and revenue enhancement on the other. Above all, we agree that the key to both is adequate capital funding.

COMPARISONS WITH METRA

I congratulate Amtrak's managers on their dedication to better business practices that have produced gains in both ridership and passenger revenues and put Amtrak at the threshold of its first $1 billion year. Anything I say here today to win support for Amtrak's cause I say gladly, because support for Amtrak's approach is support for Metra as well.

Anything I say about Metra that may be useful to Amtrak I do not say boastfully. While we both believe that in certain corridors the railway is the right way, Metra has faced far fewer restrictions in pursuing that belief. While we share certain commonalities, we are different in many respects, as will be clear from my review of Metra's business practices. This is by no means an apples-to-apples comparison.

A thumbnail sketch of Metra may help to understand that. Metra is the commuter rail service arm of the Regional Transportation Authority. The Illinois State Legislature brought us into being in late 1983 with an amendment to the legislation that had created the RTA in 1974. Other RTA service arms are the Chicago Transit Authority and PACE, which is a suburban bus agency.

Metra, however, is not just a suburban commuter carrier. Thirty percent of our 228 stations lie within the Chicago city limits. We are truly a regional passenger railroad. We connect a dynamic city core with fast-growing suburban and reviving urban communities. Our service territory is rapidly becoming a six-county megalopolis.

Our trains run on 12 main and 4 branch lines, totaling more than 500 total route miles, and we operate more than 700 trains each weekday and hundreds more on weekends. Last year we provided 75.2 million passenger trips, the most in Metra's history and the most for northeast Illinois commuter trains in any year since 1980. That translates into well over 1.6 billion passenger-miles, which is the mark of a true regional carrier.

Contributing to those results was the first full year of operation for our North Central Service, Chicago's first new commuter rail line in 70 years, and ridership greatly exceeded expectations. Other factors included a strong economy and resurgent employment in

downtown Chicago, our main market, along with growth in nontraditional city to suburb and suburb to suburb travel. In addition, there was a spurt in offpeak, non-work-related travel, especially on weekends. We pursued all opportunities with aggressive niche marketing that recognizes especially the growth in nontraditional elements of our ridership.

Above all, we attribute our gains to our safe, clean, and reliable service. Last year we operated more than 200,000 trains without injury to a single passenger and with average ontime performance of just over 97 percent.

METRA'S SUCCESS

Just as Congress told Amtrak that it wanted a national system run like a business, the Illinois legislature told us it wanted a regional system run like a business, and that is exactly what they got.

But we could not have done that and we cannot keep doing it without your help. Metra's success is predicated on four essential elements and, much like a four-legged stool, if we lose one leg we lose our balance. The four elements are Federal support, organized labor, freight railroads, and our customers.

While Federal operating subsidies account for very little in our annual budgets, Federal capital grants account for a lot. Like Amtrak, we fervently believe that the better you capitalize the less you subsidize, and we hope the results of our strategic capital investments will continue to demonstrate our worthiness for Federal funding. That investment has totaled over $2 billion since 1984 and has resulted in a rebuilding of Chicago's regional rail lines into a system that has achieved a greatly improved level of physical well-being and the best service quality in the country.

We continue, however, to reclaim and modernize our aging infrastructure. A major example is our ongoing bridge renewal program. This alone accounts for 21 percent of this year's capital budget. We have over 796 bridges in our system and this program addresses some 91 bridges identified in a 1989 assessment as critical or badly needing repair after 90 years of service.

At the same time, we continue the ongoing rehabilitation of our car and locomotive fleets. A number of our coaches date back to the early fifties. Through this effort of regular maintenance and rehabilitation, we are able to keep our rolling stock in service for 50 years or more. About 71 percent of our 5-year projection covers further improvements of existing rolling stock and infrastructure.

The rest embraces a proposed expansion project, including double track capacity for the North Central service, extension of our current Union Pacific West Line service, and extension of our current Southwest service. Along all three segments of this project we see strong demand and solid support from communities.

The price tag on this year's capital program is $147.5 million and we anticipate that 60 percent of that will come from the Federal Transit Administration.

Briefly to sum up, let me talk about labor. Unless labor agrees with us about the efficiencies we bring to our system, we will not accomplish our objectives. To do that, we have to understand what they want out of the system, what we need out of the system, and

work closely with them. We formed the first labor-management relations committee in commuter rail history. It is still ongoing, and we have created a wonderful working relationship. Our contracts are now 5 years in duration and we are hopeful that the next time around they will be 7 years in duration. That does not happen without labor peace.

Freight railroads. We run almost all of our service over freight railroads, two of them the busiest in the country, Union Pacific West Line and the Burlington Northern-Santa Fe, and we have some of the best ontime performance. How do we get their attention? Because our investments are meant to create coexistence. They benefit Metra and they benefit freight railroad, and when you do that you get their attention and you run an ontime reliable service.

Finally, our customers. We survey our customers every 2 years to know what they want, when they want it, what are the attributes they want to assign to our service. And we continually fine-tune our operations to make sure we are providing them what they want.

Mr. Chairman, in summary, that is what we wanted to say today. If I can answer any questions for you or members of the committee, I would be delighted.

PREPARED STATEMENT

Senator SHELBY. Mr. Ladd, thank you. We have your complete statement and it will be made part of the hearing record.

[The statement follows:]

PREPARED STATEMENT OF JEFFREY R. LADD

Mr. Chairman and members of the Subcommittee, thank you for this opportunity to talk about the business of moving people by rail.

I'm Jeff Ladd and I've had the privilege of serving as chairman of Metra since 1984. That was the first full year that Metra became responsible for all commuter train service in our six-county region.

In my tenure, I've seen an unsteady and unfocused commuter rail structure become a sure-footed, single-minded system.

The managers of Amtrak are engaged in a similar effort on a much broader scale. I can certainly empathize with them. I admire their persistence against difficulties that make what we have faced seem minor by comparison.

It is in this context of respect, in fact, that I offer my views on passenger railroading as we practice it back in northeast Illinois. We agree with Amtrak's business approach. We agree that public transportation can and should be operated on private-sector principles. These include cost control on the one hand and revenue enhancement on the other. Above all, we agree that the key to both is adequate capital funding.

I congratulate Amtrak's managers on their dedication to better business practices that have produced gains in both ridership and passenger revenues and put Amtrak at the threshold of its first $1 billion year.

Anything I say here today to win support for Amtrak's cause, I say gladly—because support for Amtrak's approach is support for Metra as well.

Anything I say about Metra that may be useful to Amtrak, I do not say boastfully. While we both believe that in certain corridors the railway is the right way, Metra has faced far fewer restrictions in pursing that belief. While we share certain commonalities, we're different in many respects, as will be clear from my review of Metra's business practices. This is by no means an apples-to-apples comparison.

A thumbnail sketch of Metra may help to understand that.

Metra is the commuter rail service arm of the Regional Transportation Authority. The Illinois State Legislature brought us into being in late 1983 with an amendment to the legislation that had created the RTA in 1974. Other RTA service arms include the Chicago Transit Authority and Pace, the suburban bus agency.

Metra, however, is not just a suburban commuter carrier. Thirty percent of our 228 stations lie within the Chicago city limits. We are truly a regional passenger railroad. We connect a dynamic city core with fast-growing suburban and reviving urban communities. Our service territory is fast becoming a six-county megalopolis.

Our trains run on 12 main and four branch lines totaling more than 500 total route miles. We operate more than 700 trains each weekday and hundreds more on weekends. Last year, we provided 75.2 million passenger trips—the most in Metra's history and the most for Northeast Illinois commuter trains in any year since 1980. That translates into well over 1.6 billion passenger miles, which is the mark of a true regional carrier.

Contributing to those results was the first full year of operation for our North Central Service, Chicago's first new commuter rail line in 70 years. Ridership greatly exceeded expectations.

Other factors included a strong economy and resurgent employment in downtown Chicago—our main market—along with growth in non-traditional, city-to-suburb and suburb-to-suburb travel. In addition, there was a spurt in off-peak, non-work-related travel, especially on weekends. We pursued all opportunities with aggressive "niche" marketing that recognizes especially the growth in the non-traditional elements of our ridership.

Above all, we attribute our gains to our safe, clean and reliable service. Last year, we operated more than 200,000 trains without injury to a single passenger and with average on-time performance of just over 97 percent.

Just as Congress told Amtrak that it wanted a national system run like a business, the Illinois legislature told us that it wanted a regional system run like a business. That's exactly what they got. But we couldn't have done that and we can't keep doing it without Congress's help.

Metra's success is predicated on four essential elements and, much like a four-legged stool, if we lose one leg, we lose our balance. The four elements are federal support, organized labor, freight railroads, and our customers.

While federal operating subsidies account for very little in our annual budgets, federal capital grants account for a lot. Like Amtrak, we fervently believe that the better you capitalize, the less you subsidize. We hope the results of our strategic capital investments will continue to demonstrate our worthiness for federal funding.

That investment has totaled over $2 billion since 1984 and has resulted in a rebuilding of Chicago's regional rail lines into a system that has achieved a greatly improved level of physical well-being and the best service quality in the country.

We continue, however, to reclaim and modernize our aging infrastructure. A major example is our ongoing bridge renewal program. This alone accounts for 21 percent of this year's capital budget. We have over 796 bridges in our system and this program addresses some 91 bridges identified in a 1989 assessment as critically or badly needing repair after 90 years of service.

At the same time, we will continue the ongoing rehabilitation of our car and locomotive fleets. A number of our coaches date back to the early 1960's. Through this effort of regular maintenance and rehabilitation, we are able to keep our rolling stock in service for 50 years or more.

About 71 percent of our five-year projection covers further improvements of existing rolling stock and infrastructure. A preventative maintenance mentality dominates a portion of our capital planning. Many of our capital planners are railroaders who remember how deferred maintenance led segments of Chicago commuter service to the brink of collapse.

The rest embraces a proposed expansion project including double track capacity for the North Central Service, extension of our current Union Pacific-West line service, and extension of our current SouthWest service.

Along all three segments of this project, we see strong demand and solid support from communities. Some local governments already are acquiring land for stations and parking. And we have the full support of the entire Congressional delegation from northeastern Illinois. In addition, we are planning yet another ambitious work season for general track and signal improvements, and we will upgrade the last of our key maintenance facilities.

The price tag on this year's capital program is $147.5 million. We anticipate that 60 percent of that will come from the Federal Transit Administration. Other sources include the Illinois Department of Transportation, 9 percent, and the Regional Transportation Authority, 6 percent.

The balance will come from two sources within Metra. One is a five percent fare increase that took effect in 1989, with all proceeds pledged to capital improvements. Moreover, as we provide more and longer passenger trips, we generate additional revenue for improvements.

The other form of Metra-generated capital funds represents the surplus in our annual RTA operating subsidy that comes from transit-designated proceeds of a six-county sales tax. We are allowed to use anything we can save from our budgeted subsidy each year for capital projects. These "plowback" funds have made a sizable contribution to our improvement programs. Obviously, this is an extra incentive to control operating costs.

It is noteworthy that we are required by Illinois law to cover 55 percent of any operating costs from revenues. Here, of course, you see a major difference. Amtrak is expected to reach a much higher ratio. While we always achieve a higher recovery ratio than required, we don't match Amtrak's performance.

The great majority of our capital program is prioritized based on the ability of the investment to reduce operating costs. However, we can be properly but still not adequately capitalized, and therein lies our concern.

Our future needs are enormous as we face calls for more and more service while we struggle to maintain and improve what we already operate. Our current budget document shows capital needs for the period 1998 through 2002 of more than $1 billion. Despite the prospects for ISTEA reauthorization, we know we'll always face fierce competition in the annual appropriations race.

A year ago, when we first asked for federal help for our expansion project, we said it deserved support because it demonstrated the wise use of existing resources in partnership with local governments. Our proposed expansion would occur along rail lines already in place in strong markets. That was the secret to the success of our North Central Service.

This growth strategy further demonstrates Metra's business-like approach to passenger railroading. It shows how we strive to produce the greatest possible return on limited capital resources.

Nevertheless, no matter how well you apply capital funds, you can't produce a great return unless you use improved assets in the most efficient manner. Here's where the labor unions and the freight railroads come in.

First, the unions. Clearly, labor must support efficiency as much as management does. That can happen only when both sides respect each other and communicate freely and effectively about problems. We think we have that at Metra, where we operate under 19 separate labor agreements, most of which are five years in duration.

We have a labor-management committee that dates back to our early days. It was the first of its kind in the commuter rail industry. It was so successful that we kept it going after the federal seed money ran out. It remains the pride and joy of our internal initiatives.

This committee does not get involved in collective bargaining, but it has set the stage for peaceful negotiations by creating the context for working together on a vast array of non-contractual issues. These include the safety, morale and education of our employees and the safety, reliability and efficiency of our operations.

First and foremost among the committee's many accomplishments is our employee assistance program, the longest running management-labor offshoot. Employee assistance has grown far beyond its original focus on drug and alcohol addiction. Its latest refinement, a three-pronged employee service network, offers a range of counseling for many aspects of daily life beyond the workplace itself.

Another offshoot is our safety task group that keeps devising new approaches to the single most daunting challenge of railroad operations, injury prevention. The latest development is a safety-captain program that speeds up the reporting and handling of workplace hazards. It is this kind of cooperative effort that has allowed Metra to win six Harriman awards for safety—the first commuter railroad to ever win even one.

A counterpart to the safety task force is our inter-active management group, which focuses on other workplace issues. It's a modern-day version of the traditional employee suggestion system.

Then there's our work force education group, which has spawned an exciting new apprentice program for skilled crafts persons. We think this program will be a trend-setter for the commuter rail industry.

Beyond these specific initiatives, the committee's main achievement is the prevailing atmosphere of open, frank discussion. We're counting on it in negotiations that are under way for new contracts that will take effect next year.

We are greatly impressed by Amtrak's recent success in gaining work rule changes to increase productivity with the Brotherhood of Maintenance of Way Employees. We hope that agreement will indeed set the pattern for Amtrak's negotiations with other unions.

Equally daunting can be the negotiations with the freight carriers. We have found that such relations are definitely smoother if a railroad has a tradition of passenger

service. But the bottom line is there must be something in it for the freight carrier, too. The trick is to make commuter capital investments pay dividends for freight operations as well.

That principle underlies our relationships with seven freight railroads, as Chicago continues to demonstrate its stature as the rail hub of North America. Only one of our main lines enjoys complete freedom from freight operations. Freight trains share and cross all of our other routes.

Our two routes with the most freight traffic belong to the largest freight carriers in the United States. They are the Burlington Northern Santa Fe and the Union Pacific, which provide Metra commuter service under contract. Their crews move our trains over their tracks controlled by their dispatchers. The single BNSF route handles the most weekday commuter trains of any line, along with up to 50 freight trains. On one of three UP lines used by Metra, we see up to 70 freights a day.

These two railroads account for 39 percent of our weekday trains and nearly 50 percent of our ridership. Their dependability is outstanding and far exceeds that of some other railroads that carry far fewer of our trains. They are excellent partners, but both carriers have long histories of dedication to commuter operations. That includes innovations in operations and equipment design that contributed to the survival of Chicago's commuter service long before the Regional Transportation Authority was created.

Metra's own crews operate our trains on other routes that we own, lease or use through trackage rights. In addition, we partially subsidize service provided by the State of Indiana. In all cases, we are partners in planning and funding track, signal, bridge and communications improvements designed to improve our co-existence. This is true even where our relationship is limited to a route intersection.

More and more, it seems, freight trains crossing our routes affect our service more than those that share them. That's true especially on the south side of Chicago, which boasts the greatest collection of freight yards of any urban center. There, we are engaged in a massive analysis of ten commuter/freight intersections—all under the control of the freight carriers.

With the full cooperation of the freight railroads, this study will tell us how operating practices and the signal systems, track capacity and layout affect our commuter service. We'll look for solutions that may combine track, signal and operating improvements that will benefit commuter and freight operations.

The customer is the fourth leg of our stool. While a railroader's mentality permeates our capital planning, our labor-management dialogue, and our discussions with freight carriers, we don't run trains just for the sake of running trains. We are in the business of moving people, not trains. We know that if we don't provide satisfactory service to our customers, we won't have reason to run these trains.

Safe, clean, convenient and, above all, reliable transportation is our objective. All capital decisions support that objective, as do our discussions with labor unions and freight railroads.

So do the massive on-board customer surveys that we carry out every two years. In general, they let us know how we're doing and alert us to trends. Specifically, they're designed to help us rank in great detail the satisfaction levels for many Metra service attributes.

These surveys are tools for evaluating service and weighing adjustments route by route, and, of course, for identifying problems. A more immediate means of identifying problems is the telephone. Our executive director, our deputy executive director, and the heads of departments including operations, transportation, mechanical, marketing and media relations and myself often take calls directly from riders, in addition to calls handled by our passenger service staff. Every letter from our customers receives a written response. Moreover, a majority of the Metra Board uses our service.

We also communicate with customers and potential customers through research, promotions, market development, and direct marketing campaigns. Our main marketing objective in 1998 is to continue to build awareness of Metra as an alternative to the automobile and to increase ridership among a very broad base of prospects.

We want to continue to reinforce with our current users the notion that to ride Metra is a smart buying decision. In addition, we want to build on a cost-efficient direct marketing and database program by maintaining an on-going dialogue with prospective riders. Another objective is to take greater advantage of opportunities for reverse, suburb-to-suburb, and recreational commuting, to utilize better our capacity. In other words, we're constantly looking for ways to maximize our potential in the marketplace. In this, we agree with Amtrak.

As George Warrington said two weeks ago in House Appropriations Committee testimony, we have to better understand all the forces that affect our market. As he put it, "It is not enough to know who our customers are, rather we need to know

where they want to go, what we need to do to get them there, and how we can get them to buy our service again. We need to sense change and to react in a way that satisfies customer travel needs while strengthening the bottom line."

There you have it. The focus on the customer must dominate all of our daily discussions with freight carriers and labor unions and our decisions on capital spending.

Again, the formula for success consists of four essential elements: satisfied customers; commuter/freight cooperative efforts to achieve reliable, convenient and safe service; sufficient capital investment to achieve that service; and labor/management relations that will allow both parties to prosper.

And there you have my summary of how Metra goes about the business of regional passenger railroading.

Let me close by repeating that I offer these observations knowing full well that Metra is but a microcosm of Amtrak. I don't presume to fully understand Amtrak's problems and to have all of the answers to them.

In one respect, however, the problem is the same. That is the competition from the private automobile, fueled by governmental largess toward road building and gas guzzling vehicles.

How well we meet the competition as a convenient transportation alternative and serve as a remedy for pollution and congestion will depend greatly on government policy toward our capital needs. We still have a long way to go.

If my remarks have promoted the understanding of this key issue here today, I will have helped Metra as well as Amtrak.

Thank you again for this opportunity. I'll be happy to answer any questions you may have about Metra's way of doing business.

USE OF OPERATING AND CAPITAL SUBSIDIES

Senator SHELBY. Mr. Kiley, I know you made an extraordinary effort to get here today and not only are you jet-lagged, you are going to be for a while because you have got to get back to New York, we understand. We thank you for your effort and your contribution.

Having said that, Mr. Kiley, you were a member of the Working Group in Intercity Passenger Rail in 1997 and submitted a blue ribbon panel report as your written statement. In short, the blue ribbon panel recommended separating Amtrak's infrastructure management from its operations. The infrastructure company would continue to receive Federal support for capital needs, while the operating company could be contracted to the private sector with no Federal subsidy whatsoever.

Mr. Kiley, do you think we can read the administration's request of asking only for capital dollars in the 1999 budget as a move in the same direction of the blue ribbon panel's recommendations, or how do you view that?

Mr. KILEY. Well, the proof may be in the tasting of the pudding.

Senator SHELBY. Right. It always is, is it not.

Mr. KILEY. If, in fact, capital dollars end up being diverted to maintenance expenditures that really do not extend the useful life of the properties being invested in, then fundamentally that will be a capital expense designed to provide an operating subsidy. So I would throw up an amber light on that and to be sure—I mean, maybe that is the direction in which we want to go, but it ought to be done consciously and overtly.

I see a parallel here between what is essentially happening in the transit area with commuter railroads and with urban transit systems, where the operating subsidy essentially is provided by the user and by State and local governments. In all of my experience in the transit arena, I have never been an advocate of the continuation of operating subsidy. There may be exceptions in rural sys-

tems and in areas where ridership will just never be substantial that would argue to the contrary, but I just do not see it.

I think the same is true of passenger rail, that if subsidy is needed it ought to be done as close to the operation as possible and the subsidy ought to be split among the users, local and State governments. We may be entering an era where interstate compacts make a lot of sense. It certainly makes sense in the Northeast corridor. It seems to me to make sense on the west coast, California, Oregon, Washington, perhaps even Nevada. It certainly makes sense in the upper Midwest and it may make sense increasingly in the Appalachian region.

So I think we have just got to get away from the late 19th century way of looking at passenger rail.

Senator SHELBY. Thank you.

Mr. Poole, we also appreciate, we appreciate all of you being here. We know you came from the west coast.

Your national research and educational organization, The Reason Foundation, has published a report entitled "Replacing Amtrak: A Blueprint for Sustainable Passenger Rail Service," which states: "It is time to liquidate Amtrak, privatize and regionalize parts of it, permit alternative operators, and stop service on helpless routes."

Just how feasible is it to privatize Amtrak, Mr. Poole?

FEASIBILITY OF PRIVATIZATION

Mr. POOLE. Well, I think if we had not had 48 countries now do all of the kinds of things we were talking about, I would say, well, this is very, very theoretical and it would be hard to justify taking a big leap into the dark. But we have a lot of experience now with all of the pieces that we have laid out there.

We have seen the de facto liquidation of British Rail by breaking it up and selling off the pieces in those forms that are viable. We have seen the virtual end of subsidies in Australia and New Zealand, where they have sold off their rail systems to private operators. Even passenger rail is not being subsidized today in Australia and New Zealand, thanks to privatization and the willingness to do the kind of surgery on routes that just could never—that are hopeless, that could never be done—and the competitive contracting of routes of short to medium distances, up to 300 miles, that brings out the best in creativity from operators like Virgin Trains, the related company from Virgin Airlines, that is now investing hundreds of millions of dollars in new passenger rail service in Britain.

There is a lot of creativity out there in the private sector. I think we are seeing it in other countries. We are seeing the transformation of the Argentine railways due to long-term private franchises investing in new trains and track. So I think there is a lot of evidence that says we can put those pieces together and replace Amtrak with a decentralized, privatized system. I do not think it is theoretical at all.

STRUCTURE OF PRIVATIZED AMTRAK

Senator SHELBY. Do you think it would work here? Do you think there would be private companies interested in bidding to run Amtrak's operations as they are currently structured, or do you envision a different structure?

Mr. POOLE. I have actually talked to one company off the record that told me they intend to come to the Congress this spring with a proposal to buy the entire national system. Now, I am very skeptical that that could be viable, but if they are there you certainly should listen to them. But I understand that Secretary Slater has received a letter 2 months ago from Guilford Transportation offering to buy the Northeast corridor, to engage in serious negotiation to buy the Northeast corridor.

There is interest out there. There is also a company in Pennsylvania that has proposed to take over the operation of the Keystone Line between Harrisburg and Philadelphia. So we are seeing interest in the private sector out there in at least portions of the Amtrak system.

Senator SHELBY. And what do you say to those people who say, my gosh, we have got to have the status quo. What have we been doing? What do you say to those people?

Mr. POOLE. Well, I think it was Senator Gorton that said it and was correct. The analogy to oceangoing passenger travel, I think, is right on, that this is a 19th-century form. The long-distance passenger trains are a nostalgic kind of thing from the past. There is a market there for cruises for people who are willing to pay for a leisurely, scenic journey, but they should not be asking the taxpayers of this country to subsidize them as a form of transportation.

Mr. KILEY. Although the Titanic is making a lot of money.

Mr. POOLE. That is true, that is true. [Laughter.]

Senator SHELBY. Mr. Ladd, to just sum up here, your system carries almost four times as many passengers annually as Amtrak's national system. What does Metra do better than Amtrak in terms of your relationship with rail labor and with freight railroads in terms of developing new service?

Mr. LADD. Well, we have to run over freight railroads, Senator, to take those in reverse order. To do that we have to get their attention. There has to be something in it for them. And the way we do that is by using our capital program so we are at the same time improving their movement of freight that we are improving the movement of our commuters. By that in effect we get cooperation that leads to this coexistence.

The labor thing is extremely important for us and, as I said, we had some Federal seed money when we first started and we created a labor-management committee. We did not use that to negotiate our contracts, but we did use it to discuss a whole lot of things of mutual interest where we were able to create a relationship and build trust over a period of time. We have kept that going. We have gotten into literacy programs for our employees, we have gotten into employee assistance and things way beyond that, where we have created a real relationship with our employees and the unions.

At the same time, what is in it for the unions is, if we are successful, we are growing our employment needs, which means their union grows. As a result, our last form of contracts—and we have over 19 labor unions—were 5 years in duration, and we are hoping next time they are going to be 7.

Senator SHELBY. Senator Bennett.

Senator BENNETT. Thank you, Mr. Chairman.

ALTERNATIVES TO AMTRAK

I have unburdened myself of my general position on this and have no more pearls of wisdom to share. This has been a very interesting panel. I think the vision of the possible move in the direction of privatization is one that we clearly should pursue, and I thank the members of the panel for their thoughtfulness and their willingness to contribute to the debate.

Senator SHELBY. Senator Gorton.

Senator GORTON. Mr. Ladd, I grew up in Evanston a long time ago and I would like to sort of envisage what you have and impose it on what I saw as a youth. What is the longest single line from downtown Chicago that you would have? How far would it go, in what direction?

Mr. LADD. I think it is roughly 65 miles, Senator. That goes from downtown Chicago to Harvard, IL. That is the northwest line and it is probably about 10 miles south of Lake Geneva, WI.

Senator GORTON. I understand that. And yours is six counties all in Illinois, I take it?

Mr. LADD. That is correct, sir.

Senator GORTON. So you do not run anything into northwest Indiana or into Wisconsin?

Mr. LADD. We subsidize the Northwestern Indiana Commuter Transit District's line, the South Shore Line, which comes into Chicago, and they also then run a portion over our tracks.

Senator GORTON. I see. So you can commute at least into Indiana?

Mr. LADD. Yes.

Senator GORTON. And beyond the end of your line.

Could a system like yours work, say, between Chicago and Milwaukee?

Mr. LADD. I think it could. At one point when the State of Illinois was looking at much increased rates from Amtrak for providing service in Illinois and to St. Louis, the Illinois Department of Transportation asked us whether or not we would consider providing that service if they were unable to reach an agreement with Amtrak. Any smart man understands the answer to that question is yes, and that was our response.

We are not looking to expand that way, but if that is what would happen, yes, we could do that. We have got the rail people that can do that. We would need equipment and we would have to start building a relationship with a whole new set of railroads to upgrade the capital properties that you need to provide safe and reliable service. But we could do that, Senator, yes.

Senator GORTON. Now, what is that—you said something. I take it independently of Metra is the old El, the CTA? Is that a separate organization from yours?

Mr. LADD. That is run by the Chicago Transit Authority, Senator.

Senator GORTON. So that——

Mr. LADD. That is part of El Rapid Transit lines. That is all part of the CTA.

Senator GORTON. So there are then two rail systems in greater Chicago?

Mr. LADD. We run a heavy rail system. It is akin to the old Chicago North Western, which was operating, I am sure, when you were in Evanston, now Union Pacific.

RAILROAD COMPETITION TODAY

Senator GORTON. All right. So if I were going out to Evanston I would still have the same two choices that my family had many years ago, the old El system run by CTA and one along the North Western tracks which is run by your Metra?

Mr. LADD. That is correct, sir.

Senator GORTON. Thank you.

Mr. Poole, has anyone actually drafted and introduced the bill that you outline in your testimony?

Mr. POOLE. Not to my knowledge, no. But we have certainly given the outline for what I think all the essential pieces would be. We do not really do legislative drafting. We would be happy—our author, Joseph Vranich, would certainly be happy to work with any staff that were interested in drafting such a bill.

Senator GORTON. I take it it is in somewhat more detail than it is outlined in your written testimony?

Mr. POOLE. Yes, it is.

Senator GORTON. Now, what you advocate really I take it is not competitive or an alternative to what Mr. Ladd is talking about, because you are not speaking of commuter rail even at the rather broad extent that he or Mr. Kiley talked about, I take it; is that right?

Mr. POOLE. Essentially, what I am saying is that Metra is the kind of organization we think that makes sense for passenger rail service of a commuter nature, and even potentially, as he just mentioned, it could also take on relatively short distance intercity routes such as Chicago to Milwaukee if there were no longer a Federal Amtrak Corporation.

That is exactly the kind of model. We think the markets where rail makes sense are basically commuter and regional, short haul regional services, which are ideally suited to be done not as a Federal operation, but either with one State or by State or metropolitan area entities, either operating the services themselves or contracting with the private sector.

Senator GORTON. Well, could you give me the kind of guesstimate I was asking the previous panel about, about other major city or urban pairs where you think the private sector might find intercity rail service to be reasonably attractive?

Mr. POOLE. On a totally unsubsidized basis, I doubt if there are any. But I think if there were a competitive contracting situation much like the Working Group proposed, under which you put the service out to bid for whoever could come up with the least—whoever would need the least subsidy to provide a given level of service, I think you would see real interest in corridors such as Seattle to Portland, Los Angeles-San Diego, possibly Houston-Dallas, Chicago to Milwaukee, and a number of others around the country.

Probably less than a dozen would be my guess, because it is a question of how much subsidy would be needed to provide a viable level of service.

Senator GORTON. Where would that subsidy come from, from us here in Washington, DC, or from the communities and States that would be involved?

Mr. POOLE. From the communities and States that would be involved. We propose a phaseout down to zero of the Federal operating subsidies during the transition period, but with the idea that this is really not a national function. If there is only a handful of markets, up to a dozen possibly, where this kind of service makes any kind of sense, it is not really a Federal function. It is properly a State and regional function.

Senator GORTON. Thank you, Mr. Chairman.

Senator SHELBY. Thank you. Thank you, Senator Gorton.

We thank you for coming. We thank you for your candor and participation.

Mayor Rendell, he was going to be on our fourth panel, but he has a train to catch, which is fitting and proper for the mayor. Mayor, if you will come on up, we will take you first, and then we will go to Jack Lew, the Deputy Director of OMB.

Mayor, your written statement will be made part of the record in its entirety. I know you are here to support Amtrak, and you may proceed with any comments you want to make.

STATEMENT OF HON. ED RENDELL, MAYOR OF THE CITY OF PHILADELPHIA, PA

Mayor RENDELL. Thank you, Senator.

Since the written statement is part of the record, I am just going to highlight it briefly.

Senator SHELBY. Absolutely.

BENEFITS OF CAPITALIZATION

Mayor RENDELL. Listening to the other panel, there are some points that I want to make. Senator, I know you are keenly aware that less than 4 months ago this Senate by unanimous consent on a bill sponsored by Senator Hutchison of Texas passed the Amtrak Reform and Accountability Act, which was contemplated to give Amtrak, No. 1, the tools to make some of the changes that you are talking about here today over the next 5 years; and No. 2, to give it the type of long-term funding for high-rate capital investment, high rate of return capital investment, that it could be on a sound financial footing by the year 2002.

The man from Metra gave us that catchy saying. I think I wrote it down here, something about: If you want to—the better you capitalize, the less you will subsidize. That was the whole point of what you did 4 months ago. With the TRA you gave Amtrak the money to make the high rate of return capital investments so that they could stand on its own by 2002.

What I am essentially saying is give Amtrak the 5-year test that you all decided 4 months ago. Let them capitalize at a rate that, frankly, has never been allowed for them to do before. They are turning the corner. We are about to get high-speed trains on the Northeast corridor and other places which are estimated to return

$150 million annually in profit. Let them do what they said they wanted to do over the next 5 years. Let them capitalize so at the end of 5 years they do not have to subsidize.

You have given them the ability to make changes, to renegotiate labor contracts. Let us see where that goes. I have heard all this talk about privatization. I am going to mention that in a second, but that is what you all did 4 months ago. I think you should let that plan operate and then come back to the table. If Amtrak by the year 2002 has had the ability to capitalize, gets the yearly appropriations that the act contemplated—the act did not contemplate that the $2.2 billion of TRA funds would supplant any yearly appropriation; it would just supplement it. And they do need the yearly appropriation and the change in the broad definition of capital expenditures to basically do what one of your witnesses said is operating dollars. That is correct, but you do not give them operating dollars, basically, any more.

They need that ability to take care of their short-term needs so that they can isolate the $2.2 billion to do the type of high rate of investment that can make them sound by the year 2002 and not need to come to you for the subsidy, or certainly the subsidy at this level.

So I think the plan that you all signed off on and so many of you spoke so highly of, I think that plan deserves the next 5 years to see if it works. If it does not, then I think we should seriously consider privatizing.

I am a mayor, Senator, who has privatized 42 functions in the city of Philadelphia, considered one of the most difficult labor towns in America.

Senator SHELBY. How have they worked?

Mayor RENDELL. And they have worked very well. We save about $36 million a year annually and in all but one of those functions I can say without contradiction we provide a better level of service to our people.

PROBLEMS WITH PRIVATIZATION

But understand, and I think you do, Senator: Private companies are interested in one thing—profit. They are not interested in the maximum reach of service. You subject Amtrak to privatization, the Amtrak system, and you know what will happen? Rural passengers who in many cases depend on it desperately—Amtrak serves 62 million rural Americans. They will get the shaft. Not one private company will serve those small towns in Mississippi that Senator Lott spoke about, or the towns in Montana that Senator Baucus spoke about. That will not happen.

The Northeast corridor, you have already heard, this is an offer on the table to buy the Northeast corridor right now. That could be, is for Amtrak and could be more of a profit center. But if you want to take rail service away from rural America, away from the Mississippi's, the Montana's, the North Dakota's, and the Louisiana's, then subject it to privatization, because private companies, they can do a defined task very well, but they are not going to provide service, the broadest service to the taxpayers and citizens of this country.

So beware. Privatization is great when it is focused on a narrow goal. But put the whole system up to privatization, Senator, and I would suggest that many, many of the Senate's constituents will be left without any rail service at all. Remember, in some of those towns the only nonautomobile link between towns in rural areas is Amtrak. So I think we have got to go very, very, very, very carefully down that road.

POSITIVE EFFECTS OF FUNDING

Amtrak deserves some credit, Senator, as some of the witnesses said, for better performance: $300 million added to the bottom line in 2 years; ridership up in the last quarter of the past year; ridership had its biggest increase in 14 years, a 7-percent increase; $100 million in additional revenues over the last 2 years.

As I said, I think they are making strong decisions to spend their money in the high rate of return type of lines and type of business. They should be given this 5-year chance.

You know, it was interesting. Everyone was all over the gentleman from Metra with praise, and could Metra take care of Milwaukee to Chicago or Portland to Seattle. Everyone was praising him. But remember what he said: There are four legs to the stool, and one of the essential legs was Federal support. Take Federal support away from Metra and let us see how successful they are, Senator.

This is a shell game. You hear the man from the Reason Foundation—and by the way, I am one of the darlings of the Reason Foundation. When they point to municipal government, I am one of the guys they talk about. But they talk about all of these great private companies that are running rail systems in different countries. Well, high-speed rail in Japan and in Europe—subsidized.

My wife and I went for our 25th anniversary to London and Paris, the first time I have been in either of those countries, far too busy to go under normal circumstances. So we went for our 25th anniversary. I am so interested in trains that we did not fly from London to Paris. We took what they call the Chunnel. And the Chunnel is beautiful. It is wonderful. It provides high-speed rail traffic between London and Paris. It is a great alternative. Highly subsidized, highly subsidized.

They are selling you snake oil. The most successful rail lines in the world are highly subsidized.

Amtrak deserves the chance. Give them the $621 million that is in the President's budget, let them take care of their short-term needs, and then let them use the $2.2 billion in the TRA that you all approved 4 months ago to do this high rate of return of investment. Just like the man from Metra says: The better they capitalize, the less they are going to have to subsidize. And see where they are in 2002.

Go warily down the road of changing Amtrak. There are Mississippians and I would even suggest Alabamians who will be hurt, hurt badly, if we do this, if we just say, OK, guys, highest bidder, let the private sector take it, we are not going to provide a subsidy, we are going to save all this Federal money.

I love to hear these fellows up here who say: Let the local governments pay. You know, I think you asked the question or Sen-

ator Gorton asked the question: Who would pay for Portland to Seattle? Well, the State of Washington, the State of Oregon, and the city of Portland and the city of Seattle. In all due respect, we feel beaten and battered in local government, Senator, because everybody is devolving things down to us, and as they devolve them down to us the money that used to be coming to us is less and less. The Federal share is less because we are going to get flexibility. When the State devolves it down to us, the State share is less because we are going to get flexibility.

And I look around and there is nobody for me to devolve them to. There is nobody left for me to devolve them to and I have to bear the burden. And of all of the governments, local government has the least resources, the least revenues that we can call on, the least taxes we can impose.

So I think what you are hearing here sounds great when you first hear it. You know, it is magic: Oh, Senator, they would buy that in a minute. But be wary of how you go down the road. We want to keep rail service for America. If we want to keep rail service for America, do not think that we can accomplish what the Japanese could not and what the Europeans could not. Do not think that we can accomplish it with nonsubsidy.

Senator SHELBY. That might be the central question: Do we want to keep it? I am speaking about whether the American people want to keep it, and if they want to keep it they are going to have to give that support and voice to the Congress. And second, they are going to have to ride the trains.

PAYING FOR AMTRAK

Mayor RENDELL. Well, there is no question. And Senator——

Senator SHELBY. Let me ask you this, Mayor Rendell. Do you believe that the people who ride the trains ought to pay for the trains?

Mayor RENDELL. Ought to pay the appropriate price?

Senator SHELBY. Yes; sure. Or should it be people who do not ride them pay for the ones that do ride them? And that is what we are doing.

Mayor RENDELL. Well, Senator, I think in the palace of truth and justice the people who ride the trains should pay for them.

Senator SHELBY. Absolutely.

Mayor RENDELL. But let me suggest to you that, if you want to apply that standard to everything that we do in Washington, then I am fine with it. But I do not use a lot of the things that you subsidize here in Washington and why should I pay for them?

And you know, you hear from the rural States that they do not want to subsidize the mass transit in Philadelphia and New York, and I understand all that. But if we are going to do it, let us do it across the board. And then the question is, as a government what is our—and this is a really fundamental question, and you have asked the right question. As a government, what is our responsibility to the taxpayers? Do we link those two rural towns with rail service so that that poor person who does not have a car and has no other means of getting between those two towns, because there is no bus service, has a chance to get between those

two towns? Is that something that we as a U.S. Government want to do?

I do every day in Philadelphia, I do things every day—and we are again the poster boy for fiscal stability. We took a $1.4 billion deficit and turned it into the three largest surpluses in the last 3 years in the city's history.

Senator SHELBY. How can Amtrak do that?

Mayor RENDELL. But I do every day, Senator, I make decisions every day which are not totally wise on the bottom line. I have district health centers and I could close my district health centers and say: Let them go to the emergency rooms of the hospitals. But some of those district health centers are located in areas for people who are old and infirm and cannot get to the nearest hospital, which may be 10, 12 miles away in a big city like Philadelphia.

So what I am saying is we do not always decide things by the bottom line. Can Amtrak do it? I do not know. And even as much of a fan as I am of Amtrak, I have some doubts.

But I believe for the first time what all 100 of you did 4 months ago gives them the right and proper tools and ability to do it, if you will fund the President's budget request. Let us give them the 5-year test. If they are back here in 5 years and they are still in shaky financial condition, then we should look at some of these alternatives.

AMTRAK'S 5-YEAR PLAN

By the way, in the 5 years in between we can really do some study. I mean, let us go to Japan and see how they do it, see how important a part government subsidy is. Let us talk about these maglev trains. Let us see about the Chunnel. Let us examine all of these things carefully. I think we have the time to do that.

Give Amtrak a fair chance. Do what you did 4 months ago, give them the $621 million. You know, we have increased funding for almost every other form of transportation, and properly so, thanks to the action that you took in the Senate. We have increased funding for all of those other modes by 38 percent from ISTEA 1991 to what you have just done to reauthorize ISTEA. You have increased it by 38 percent. Amtrak, what we are doing for Amtrak is negligible compared to that in percentage terms. I am not even talking about real dollars.

Give them a chance over the next 5 years and see where we are. Do I think that they can make it? I am not sure. Do I think that 5 years from now you are still not going to be faced with the choice of some of those rural lines saying there are not enough people riding them, I am sorry, Mrs. Smith, the 87-year-old grandmother who has no other way to get to those towns, we cannot provide transportation for you?

Maybe we have to make that choice. Give them a chance. This is one area where the Northeast corridor can wind up subsidizing rural transportation. And you know what, Senator? That does not bother me. If that is the only way that rural Americans can get from town to town, it does not bother me.

Thank you for your consideration.

Senator SHELBY. We appreciate your statement and we appreciate everything you have said, and I know where you are coming from.

I do have an observation, though. You mentioned the 5 years. Where are we going to be in 5 years? That would concern me. I think we will be right back at the table here and Amtrak will be wanting more and more money. I hope that will not be the case, but if it is I think Amtrak will have to go.

Mayor RENDELL. Absolutely.

Senator SHELBY. Because the American people should not continue to let a system hemorrhage and hemorrhage and hemorrhage. What we are trying to do is look at Amtrak realistically and also prospectively, where is it today, where is it going, and what is going to change it?

Mayor RENDELL. I agree, Senator. But give them some credit, as all the speakers here said, for all the improvements they have made in the bottom line. The high-speed trains will increase their profitability. Let us see where they are.

Senator, again, if you form a task force to look at this while you let the TRA and what you did 4 months ago work, I would be happy to volunteer my time to look at it, because it is an issue that I care very, very deeply about.

Senator SHELBY. Thank you, and I hope you get to the train on time.

Mayor RENDELL. I will. It is an Amtrak train.

Senator SHELBY. Thank you.

OFFICE OF MANAGEMENT AND BUDGET

STATEMENT OF HON. JACK LEW, DEPUTY DIRECTOR

INTRODUCTION OF WITNESS

Senator SHELBY. Our last panel will be Mr. Jack Lew, Deputy Director of OMB. Mr. Lew, thank you for your patience in deferring to the mayor on that. Your written testimony will be made part of the record in its entirety and you may proceed as you wish.

Mr. LEW. Thank you, Mr. Chairman. It is a pleasure to listen to Mayor Rendell and I would like to associate myself with many of his remarks.

Since my prepared statement is in the record, I will just briefly summarize my remarks, and then I would be happy to answer any questions that you have.

If I can take off on the question that you were asking Mayor Rendell, I think there is a very fundamental question that we are going to be dealing with over not just this year, but the next 5-plus years. Do we want to have a national railroad system; do we want to have there be any subsidies?

Senator SHELBY. The central question.

Mr. LEW. The central question.

FLEXIBILITY OF CAPITAL FUNDS

I think we have to take a step back, though, and realize where we were when I had the pleasure of testifying before this committee last year. We were looking at an Amtrak that was going literally from day to day unable to see how it was going to pay obligatory tax payments, without a clear vision of what we were going to do over the next several years to make things better.

An awful lot has happened in the last year, and I think it is important, as Mayor Rendell said, to give some of the things that have happened over the last year a chance to mature. Over the last year two important pieces of law were enacted. Obviously, I do not need to tell this committee about either the Taxpayer Relief Act or the Amtrak Reform Act.

Those two pieces of legislation provided not just money. They provided a framework for Amtrak to get its house in order. They provided a framework where decisions can be made so that the tradeoffs between operating expenses, urgent immediate expenses, and capital are somewhat less severe.

In light of the decision made, I think very wisely, by this committee last year on the transportation appropriation bill regarding transit to provide additional flexibility for the use of capital to encourage the repair and maintenance of rolling stock, rather than just to go out and purchase because that is what capital support could be used for. If you apply that principle to the appropriation request that we have made, what you have is an Amtrak that will

be able, over the next year, to invest wisely in maintaining its equipment, to invest wisely in intermediate term investment strategies, and to use the Taxpayer Relief Act assistance to do the kind of long-range capital planning, high-yield investment that it was designed to provide.

That is a very different picture from the Amtrak we were looking at a year ago that needed money just to pay its bills and then had to pay the next bill. It could not go through the kind of planning that we are talking about here.

Second, there was a very important labor agreement. Reaching an agreement with a major union gives Amtrak a framework for managing its fiscal affairs very, very different than we saw a year ago. It opens the door to discussions with other crafts.

Can I sit here before the committee and say that never again will an OMB Director or Deputy Director be asking for an Amtrak subsidy? No, I cannot, and frankly I do not think I should say that. I do not think that would be the right policy.

Senator SHELBY. Why? Why would it not be the right policy? I mean, this is taxpayer money.

Mr. LEW. If I may, Mr. Chairman, I was going to address that question.

I think that what we have to do is get Amtrak's house in order. We have to separate the question of should there be a subsidy for railroads in this country from the question of is Amtrak managing its affairs sensibly. I think the comparisons that you have heard earlier today to highway investments, to investments in aircraft, in the airline industry, are very relevant.

We are watching Congress pass a very generous highway bill, a bill which meets many urgent needs around the country. But we are not questioning whether every mile built is economically as valuable as every other mile built. We are saying the whole country needs roads. We are saying that places need to be connected. People have to travel for business, people have to travel for their personal affairs, commerce has to flow.

The question of aircraft, airlines: the research and development that goes into the airline industry is very heavily supported by the Government. A large share of the NASA budget goes into research that is very relevant to the future of the next century of aircraft development.

Senator SHELBY. Let me stop you just a second.

Mr. LEW. Sure.

OTHER TRANSPORTATION MODES

Senator SHELBY. You realize probably as well as anybody, but we ought to clear it up for the record, that the highway funds are supported by gas taxes on all Americans, everywhere you buy it; and also the airlines are supported by the airline ticket tax, are they not?

Mr. LEW. Well, clearly there are ticket taxes, there are gas taxes.

Senator SHELBY. But we do not have a tax that I recall on Amtrak passengers.

Mr. LEW. There are many uses of the highway trust fund that are cross-subsidies. I do not think that there would be anyone who would argue that every dollar goes back to where it was collected.

It is a large enough system that permits cross-subsidies internally. I think if we were to look at the airline industry over the years and look at Federal dollars that have gone into airport construction, air traffic control design, air traffic control system, air traffic control operation, research into aviation, they are very substantial subsidies.

The fact that there are now user fees is very real, and we have proposed them. We advocate them. I think that it is the right way to go. We think that Amtrak revenues should provide most of their operating subsidies.

The question that I was trying to get to, and I will wrap up my remarks, if I can, with this, is that if everything is going well in Amtrak there still will be a question, do we want to have a very, very much reduced rail system where only the systems that can run privately economically are left? I do not think that is where we want to go as a country. It is not our view of where we want to go.

The important thing about the framework we are operating under under the Taxpayer Relief Act and the Amtrak Reform Act is that it builds in place a 2-year look-back. In 2 years we are supposed to see whether Amtrak has gotten its fiscal house in order. Over 5 years we are supposed to see how much progress they have made and then look back and see, should we proceed with privatization.

FUNDING AMTRAK

What would be unfair would be not to fund the agreement, and the agreement called for $5 billion of support over the 5 years. Part of the funds came through the Taxpayer Relief Act, part of the funds come through our request in the budget. If the $620 million that is requested in the budget is not provided, we are not going to be giving the 5-year experiment a chance.

I would be happy to answer any questions, Senator.

PREPARED STATEMENT

Senator SHELBY. Thank you, Mr. Lew. We have your complete statement and it will be made part of the hearing record.

[The statement follows:]

PREPARED STATEMENT OF JACOB J. LEW

Mr. Chairman and distinguished members of the Subcommittee. I am Jack Lew, Deputy Director of the Office of Management and Budget. Thank you for the opportunity to appear before you to discuss the President's fiscal year 1999 budget proposal for Amtrak. After my brief statement I will be happy to answer your questions.

The goal of the President's 1999 budget proposal for Amtrak is straightforward—we seek to continue on the bipartisan path to reform that was laid out last year in the Taxpayer Relief Act (TRA) and the Amtrak Reform and Accountability Act (ARAA). The budget is the first step along this difficult path.

Since my testimony on Amtrak before this Subcommittee last July, a number of significant changes have occurred. Last year, Amtrak had operated for three years without a reauthorization bill. The failure to reauthorize Amtrak was symptomatic of the deep divisions in Congress on the future of intercity passenger rail. There were also serious and pressing questions concerning Amtrak's economic viability. As you may recall, my July testimony about railroad retirement payments made clear that Amtrak faced pressing cash-flow issues for both the short-term and long-term. Finally, at this time last year Amtrak and its 14 unions were at loggerheads over

terms of collective bargaining agreements which had long since gone past the end of their original terms.

Over the past year, there have been a number of encouraging developments. A bipartisan consensus emerged to support the Amtrak Reform and Accountability Act. The Act was passed by the Congress and signed into law by the President on December 2, 1997. Enactment of this Act allows Amtrak access to roughly $2.2 billion in financial resources made available to the Corporation under the Taxpayer Relief Act of 1997. The TRA resources hold the promise of allowing Amtrak to recapitalize its rolling stock and make the high-yield investments necessary to sustain intercity passenger rail into the next century. Finally, there has been progress in negotiations with the unions representing Amtrak employees. An agreement was signed with one of Amtrak's largest crafts, the Brotherhood of Maintenance of Way Employees last November. In addition, constructive negotiations appear to be underway between Amtrak and its other unions.

The President's 1999 budget proposal for Amtrak follows through on the bipartisan efforts of this Congress in the Reform Act. Like the Amtrak Reform and Accountability Act, the President's Budget seeks to provide adequate funding, promote efficiency, and enhance accountability. First, our budget provides the minimum funding necessary for a revitalized and viable Amtrak. Second, our budget seeks to broaden the definition of "capital expenses," and thereby allow Amtrak to enhance its capital stock in the most cost-effective manner possible. Finally, our budget insists on the accountability needed to ensure that Federal funds are spent appropriately.

THE NEED FOR DISCRETIONARY APPROPRIATIONS IN FISCAL YEAR 1999

The President's 1999 budget seeks $621 million in capital grant funding and no operating grant funding. The President's budget assumes Amtrak outyear funding for capital grants of $571 million in 2000, and $521 million annually in 2001, 2002, and 2003. The 1999 request for $621 million is comprised of:

—up to $409 million for general capital;

—no less than $200,000,000 for the Northeast Corridor Improvement Program (NECIP);

—$12 million for the Pennsylvania Station Redevelopment Project to complete the Administration's $100 million commitment of Federal funds to the Project; and

—$500,000 for administrative support of the Amtrak's Reform Council and an annual financial assessment of Amtrak.

The Reform Act authorizes over $5 billion for Amtrak over the next five years. The President's budget implements the Reform Act authorizations by providing $5 billion in financial resources for Amtrak through 2002, inclusive of the $2.2 billion provided through the TRA. This $5 billion level of funding meets the requirements of Amtrak's most recent business plan of March 10, 1998. Counting the resources provided by the TRA, the President's budget provides roughly $1.7 billion in financial resources in 1999—$700 million more than any of the annual appropriations received by Amtrak in the past 17 years.

We believe these resources are necessary. Without them, Amtrak will not be able to recapitalize its rolling stock and enjoy the fruits of the bipartisan consensus embodied in the Amtrak Reform and Accountability Act. New capital appropriations will allow Amtrak to move beyond its "hand to mouth" existence of recent years, and permit investments in the capital assets that will return benefit to the Corporation and, over the long run, reduce Amtrak's reliance on Federal financial assistance.

PROMOTING AMTRAK'S ECONOMIC EFFICIENCY

The Administration supports Amtrak's proposal to use its Federal capital grants in the same fashion as transit uses Federal capital grants. We also support Amtrak's request to have the capital funds made available on October 1, 1998.

Last year Congress adopted a new definition of capital that allowed Federal capital grants for transit to be used either to buy new assets or to maintain existing assets. By supporting equally both the repair of existing assets and the purchase of new capital, Federal transit grants now encourage grant recipients to manage their capital stock in the most cost-effective manner. In contrast, capital grants for Amtrak in the past have been used only for the purchase of new assets. Allowing Amtrak to use its capital grants under the same rules that now apply to transit will ensure that Amtrak capital grants do not distort market signals about the tradeoff between the repair of existing assets and the purchase of new capital. And by allowing Amtrak to face true price signals, the broader definition of capital will ensure

that Amtrak can use capital grants in a cost-effective manner that recognizes the tradeoffs between maintenance and the purchase of new assets.

With an expanded definition of capital, Amtrak will not only be able to make high-yield investments in infrastructure and equipment, but also to fund activities that improve operational reliability. For example, Amtrak will be able to maintain shop facilities and machinery used to repair car and locomotive mechanical and electrical systems (e.g. air conditioning, engines), perform progressive overhauls, and rework train components (rewiring or updating of equipment).

PROMOTING ACCOUNTABILITY

Finally, the President's Budget request would impose new fiscal discipline on Amtrak by requiring the Corporation to submit a comprehensive plan for spending its funds in a prudent fashion. Both the fiscal year 1999 capital appropriation and the 1999 portion of TRA funds would be released to Amtrak only after approval of the plan by the Secretary of the Department of Transportation and the Director of the Office of Management and Budget. This plan will provide added assurances to Congress and the Administration that Amtrak will invest wisely in its future.

CONCLUSION

The President's Budget offers a practical way to encourage the long-term success of Amtrak. By providing $621 million in direct appropriations, the President's Budget would allow the funds made available by the TRA to be invested in high rate-of-return projects, such as the critical infrastructure needed to begin high speed rail service in the Northeast Corridor in 1999. We believe that these high-return projects will revitalize the undercapitalized core of Amtrak's assets and provide fresh revenue to Amtrak, thereby reducing the need for future federal financial assistance.

As Amtrak has testified before the House Appropriations Committee, the President's Budget request—with the added flexibilities that I have discussed above—will allow Amtrak to implement its five-year business strategy. The Administration looks forward to working with this Committee to provide Amtrak with the funding that it needs to succeed as a vital part of our nation's transportation system.

This concludes my written statement. At this time I would be pleased to answer any questions that you may have.

FLEXIBILITY OF FUNDING

Senator SHELBY. The TRA specifically allows for funds to be used, it is my understanding, for maintenance of existing equipment, which is traditionally an operating expense; is that correct?

Mr. LEW. That is correct, Senator.

Senator SHELBY. But do you think we need flexibility in the appropriated fund? In other words, your appropriations request is for $621 million in capital funding. I do not see any bill language directing that some of the funds can be used for operating activities.

Mr. LEW. Well, with respect to the appropriation request, we really are taking the view that the approach the committee took for transit last year is the appropriate approach. Now, that does provide some flexibility, but it does not go all the way to operating. It is a somewhat broader definition of capital and we think an appropriately broadened definition of capital.

There are legal questions whether you have to enact a new provision, whether the current provision would extend to Amtrak. We think that it is a wise approach, it is the approach that should be taken, and if it requires legislative language we would like to work with the committee to develop it.

That would permit the most economical decisions to be made. Amtrak has enough operating revenues of its own to meet its basic operating expenses. If there is a choice between repairing rolling stock, and going out and purchasing rolling stock, and repairing is cheaper and will keep the system functioning longer at a lower

price, we think it would be wise for the capital funds to be available for that purpose.

The same is true over many, many aspects of the system.

Senator SHELBY. Do you plan to send up a budget amendment to change the request?

Mr. LEW. I am not certain it requires a change. We would like to work with the committee and the staff. If the view of the committee is it requires——

Senator SHELBY. Why would it not be required?

Mr. LEW. The definition of transit and the interpretation of it under the Federal Railroad Administration has been broad. It could extend to Amtrak. We are frankly not certain it requires legislation. If it does we would be delighted to send up language. We do not mean to make a challenge of it. We are not sure.

FUTURE SELF-SUFFICIENCY A MYTH

Senator SHELBY. Well, we appreciate your participation and we appreciate your patience and your efforts earlier.

It seems to me at this point in time that there is never really enough, enough money for Amtrak, and the whole concept of glidepath to self-sufficiency seems to be a myth. You know, we have had testimony here to that effect, basically. Amtrak I believe intends to remain on the Federal dole for a long time as we provide it, and the administration's request seems to support that position. That is what concerns me as well as a lot of Senators: When will Amtrak be self-sufficient, if ever?

I think it is time to actively look for a better way, perhaps an alternative. There are places in America that need and can sustain competitive passenger rail service. We have had testimony to that effect. But we should no longer, I believe, support the status quo, putting more and more Federal funds into a system that can be characterized basically as a failed national experiment up to now.

SUBMITTED QUESTIONS

We will submit additional questions to be answered in writing for the record.

[The following questions were not asked at the hearing, but were submitted to the agencies for response subsequent to the hearing:]

OFFICE OF MANAGEMENT AND BUDGET

QUESTIONS SUBMITTED BY SENATOR LAUTENBERG

ADMINISTRATION'S MODIFIED BUDGET REQUEST

Question. Recently, the Administration made an important modification to its Amtrak budget request which was to support applying the transit capital maintenance definition to Amtrak. Can you please explain the reason behind this modification and how you believe it allows the Administration's budget request to work for Amtrak?

Answer. The application of the transit capital maintenance definition to Amtrak is an important step in providing Amtrak the flexibility it needs to operate more like a business. This broader definition, one which the Congress has already embraced for use by the Federal Transit Administration, will allow Amtrak to manage their capital assets in the most efficient manner. We do not view the application of the transit definition as a change to our budget request, but, as stated during the hearing, the Administration stands ready to work with the Committee to submit

any additional language or legislative proposal the Committee deems necessary to support this request.

Previously, federal capital grants for Amtrak have been used only for the purchase of new assets. The expanded definition of capital grants will allow Amtrak to make a balanced trade off between purchasing new assets or repairing existing assets. For example, Amtrak will now be able to use its capital grant to invest in facilities and machinery which improve operational reliability. Further, this proposal will allow Amtrak to use the funds provided under the Taxpayer Relief Act for high rate of return capital investments.

FAILURE TO FULLY FUND PRESIDENT'S REQUEST

Question. What do you believe the impact on Amtrak's financial situation would be if this Committee provided less then the $621 million requested by the President.

Answer. The $621 million request is the level of funding needed to ensure Amtrak a fair chance at proceeding with its efforts to recapitalize the Corporation and to institute the reforms envisioned in the Amtrak Reform and Accountability Act. If the Committee were to provide less than the $621 million request, Amtrak would continue its operations, but be forced to substitute the TRA funds for "missing" grant funds. Depending on the amount of underfunding, the substitution could quickly eat away at the TRA funds. The use of the TRA funds to cover the discretionary funding shortfall would mean that Amtrak would soon again be in the same position it found itself prior to passage of the TRA—staggering from appropriation to appropriation barely able to survive. In sum, the underfunding of the President's request will delay critical long-term investments, and undermine recent bipartisan reform efforts.

RELEASE OF FUNDS ON OCTOBER 1, 1998

Question. What would the impact be on Amtrak's financial health and its operations if we do not release the funds on October 1, but instead delay release until July 1 as we've done for the past few years? Does the Administration support releasing the funds on October 1 rather than July 1?

Answer. The Administration supports release of the funds on October 1, 1998, rather than July 1, 1998. The delay in release of the funds would force Amtrak to take steps to meet serious cash flow problems. During fiscal year 1998, and in previous years, Amtrak was able to draw 50 percent of its Federal operating grants at the beginning of the fiscal year. With no operating grant proposed this year, Amtrak must rely on the capital grant and TRA borrowing to meet any cash flow shortages. According to Amtrak, delaying the release of funds to July 1, 1999, could cause (but is not certain to cause) Amtrak's cumulative cash shortfall up until July 1 to exceed the amount Amtrak is able to borrow from the TRA and commercial banks.

USING AMTRAK FUNDS FOR BUILDING HIGHWAYS

Question. There are some in Congress who would like to shut down Amtrak and use this money to build more highways. In your opinion, would such a move be good transportation policy? Would the Administration support that approach?

Answer. We need to have a balanced transportation policy. Shutting down Amtrak would not be good transportation policy, and would not be supported by the Administration. Our NEXTEA proposal to the Congress, our budget, and my testimony before this Committee have made it clear that funding Amtrak is a vital part of our nation's balanced transportation policy.

PREVENTIVE MAINTENANCE

Question. How can preventive maintenance be considered a capital expense?

Answer. In passage of the 1998 Transportation Appropriations Act, this Committee recognized that preventive maintenance conducted by the Federal Transit Administration could be considered a capital expense. When Amtrak, for example, inspects, tests, adjusts and repairs rail cars, locomotives, tracks, communication systems, signal systems, and power transmission systems, these expenses sustain the related equipment infrastructure and facility capital assets of Amtrak and help ensure their continued dependable service.

NATIONAL RAILROAD PASSENGER CORPORATION [AMTRAK]

QUESTIONS SUBMITTED BY SENATOR SHELBY

Question. If Amtrak adheres to its March 1998 Strategic Business Plan, will the railroad be independent from federal operating subsidy by 2002?

Answer. The revised Strategic Business Plan assumes no federal operating subsidy, but does assume a single federal capital appropriation with flexibility identical to that enjoyed by the transit, aviation, maritime and highway industries. However, between fiscal year 1999–03, Amtrak plans to reduce the amount of federal capital appropriations used for "capital maintenance" to levels below fiscal year 1998's operating subsidy.

All of the following needs to happen for Amtrak to achieve financial viability over the next several years:

—General capital appropriations of $621 million in fiscal year 1999, $571 million in fiscal year 2000 and $521 million in fiscal year 2001, fiscal year 2002 and fiscal year 2003 as proposed by the Administration;

—Flexibility for Amtrak to use these general capital grants in a manner consistent with the Federal Transit Administration's definition of capital grants;

—Amtrak is allowed to draw 40 percent of these capital grants on October 1 of each fiscal year and the remaining 60 percent on October 1 of the following fiscal year.

Question. Does the administration's request for $621,000,000 in capital funds for Amtrak reflect the Blue Ribbon Panel recommendations to separate Amtrak's infrastructure management from its operations?

Answer. No, it does not. The request for $621 million in capital does, however, reflect the Blue Ribbon Panel's recommendation that a higher level of reliable federal capital funding is absolutely essential to preserve a healthy national passenger rail system.

Question. Please explain the administration's position that no specific legislative provision is required to give Amtrak the flexibility to use the same capital project investment criteria as was specified for the Federal Transit Administration in Sec. 316 of Public Law 105–66.

Answer. Amtrak understands that the Administration's opinion is based on the fact that the first requirement in determining the ability to spend capital funding is to look to the language of the appropriation itself, and then to authorizing and program legislation. Historically, there has been no specific statutory definition of what constitutes a capital expense for Amtrak in either appropriations acts or authorizing legislation. Congress could have subjected Amtrak to the accounting rules mandated by the Interstate Commerce Commission (now the Surface Transportation Board), but chose not to do so. Where the statute and the legislative history do not provide a clear legislative intent for particular language, a court turns first to the "plain meaning" of the words, which is a dictionary or ordinary, everyday meaning, rather than some obscure usage. Application of this standard still takes into consideration related factors, such as its interaction with other statutes, to avoid an unreasonable result. The ordinary, everyday meaning of "capital expense" in American business matters is that defined under Generally Accepted Accounting Principles (GAAP).

Since Amtrak funding flows through Federal Railroad Administration (FRA) appropriations, the next element of analysis is the weight to be given FRA's interpretation of how the funding may be spent. Although the disbursement of Amtrak funding is not subject to specific regulations issued by FRA, since Congress has charged FRA with the responsibility of administering that disbursement, FRA's interpretation is entitled to considerable weight.

Thus, it is our understanding the Administration believes that Amtrak could begin using the Transit Act definition of "capital expense" if it were to first inform the appropriations committee in its budget request of this intention and Congress then directs that the funds be spent in accordance with the budget request.

Question. For what specific activities does the Taxpayer Relief Act allow Amtrak to use the 1998 and 1999 tax refund allocations? How does this differ from activities allowed under the expanded capital definition the administration is requesting for Amtrak in the fiscal year 1999 appropriations request?

Answer. The Taxpayer Relief Act allows Amtrak to use the 1998 and 1999 tax refund amounts for the acquisition of capital assets (equipment and other capital improvements): upgrading maintenance facilities and the maintenance of equipment; and payment of interest and principal on obligations incurred for qualified expenses. Maintenance of equipment expenses include the following costs related to equipment used in intercity passenger rail service; mechanical and electrical inspec-

tions; programmed and unscheduled repairs; and maintenance shop facility and equipment costs.

The expanded capital definition the Administration is requesting for Amtrak in the fiscal year 1999 appropriations request includes all of the same items allowed under the Taxpayer Relief Act except interest. In addition, it allows for the use of capital funds for maintenance of infrastructure and facilities. These costs include inspection, testing, repair and adjustments related to tracks, bridges, trestles, culverts, roadway machinery, facilities and communication, signal and power transmission systems.

Question. If the FTA's expanded capital definition were applied to Amtrak capital, what is the maximum amount of the $621,000,000 in the fiscal year 1999 request that could be used for maintenance of equipment, infrastructure, and facilities?

Answer. An estimated maximum amount of $542,000,000 could be used for maintenance of equipment infrastructure and facilities in fiscal year 1999.

Question. What control mechanisms are in place for ensuring that both TRA and appropriated funds are utilized in a manner consistent with the law?

Answer. The TRA funds along with the interest earned on these funds, are held in accounts separate from the Company's operating funds. Withdrawals from these accounts can only be made for legally qualified expenses, which have also been approved by Amtrak's board of directors. Internal control procedures on withdrawals include (1) funds can only be withdrawn by wire transfer; (2) only two individuals in the Treasurer's Department can request a wire transfer; (3) all transfers must be authorized by one of three Corporate Officers, the Chief Financial Officer, the Treasurer or the Controller. These withdrawals must be clearly identified and properly supported. Reports have been designed and are being used to track all activity in the fund, including earnings and withdrawals. These reports are prepared monthly by a certified public accountant assigned to this responsibility.

In regard to other appropriations, spending is also subject to approval by Amtrak's board of director's, and must be clearly identified and properly supported. Reports on these expenditures are also prepared monthly.

As far as external controls, every year Price Waterhouse L.L.P., audits our financial statements. This past year they provided an unqualified opinion, meaning they have no issues or concerns with our statements. In addition, we are subject to continual review by the General Accounting Office (GAO), our own Inspector General, and more recently, the DOT Inspector General, and the Amtrak Reform Council (ARC). We have several Congressional oversight committees which include House Transportation and Infrastructure; House Committee on Appropriations; Senate Committee on Science, Commerce and Transportation, and Senate Committee on Appropriations.

Question. Please compare the amount of income anticipated from the express pilot program in fiscal year 1997 and thus far in fiscal year 1998 with the amount of funds actually generated by this program. How will this shortfall against anticipated income affect Amtrak's net loss in fiscal year 1998, and what will the Corporation do to mitigate these losses? What level of income from the express pilot program is anticipated for fiscal year 1999?

Answer.

[In millions of dollars]

Fiscal year	Revenue	Expense	Net
1997	0.3	0.4	−0.1
1998 (as of March 31, 1998)	1.2	4.4	−3.1
1998 Business Plan	36.1	25.0	+11.1
1999 Business Plan	61.2	40.3	+20.9

Due to deterioration of the express business, incremental wage costs and other expenses, Amtrak now expects to have to cover approximately $200 million at year end, worst case. This $200 million maximum cash shortfall will be covered by $100 million short-term bank borrowing and temporary borrowing from the TRA fund for qualified expenses of up to $100 million.

Question. Amtrak has traditionally received its capital appropriation in July of each year. Given that the money contained in the Administration's budget would not be available until July 1999, will this create any short-term funding shortfalls and if so, how will this be addressed?

Answer. In working with the Administration, Amtrak stated that it could work with their proposed capital appropriation with two modifications. First, 40 percent

of the general capital grant would be available October 1, 1998 and the remaining 60 percent would be available October 1, 1999. Second, Amtrak would have the flexibility to use this general capital grant for capital maintenance consistent with the Federal Transit Administrator's fiscal year 1998 appropriations language governing general capital. In the Federal Railroad Administration's grant justification they have included both those modifications.

Under the proposed plan, the funds available to Amtrak on October 1st (40 percent of the annual appropriation) is significantly less than the amount Amtrak has traditionally received when 100 percent of the operating grant was received by April 1. If the receipt of the 40 percent of the fiscal year 1999 appropriation is delayed to July 1st, the cumulative cash shortfall until that time will exceed the amount Amtrak is able to borrow.

The administration supports the release of funds on October 1 rather than on July 1, as stated in Deputy Director Jacob Lew's written and oral testimony of March 24th.

Question. The reforms contained in the Amtrak Reform and Accountability Act of 1997 provide Amtrak with additional flexibility to address its financial problems. Specifically, how will these reforms contribute to Amtrak's short-term and long-term financial viability?

Answer. With the passing of the Amtrak Reform and Accountability Act, many of the barriers imposed in the past have been removed.

These reforms include the repeal of the requirement that Amtrak operate a federally-mandated basic route system for passenger services, the elimination of the statutorily prescribed protections for employees affected by a route discontinuance, authorization for Amtrak to negotiate changes in how it contracts out certain labor functions, and significant liability reforms.

In the short-term, the contracting out of certain labor functions will not have an immediate effect on Amtrak's financial performance. This is because under the terms of the Authorization Bill, the contracting out language in the Rail Passenger Service Act was eliminated in law and placed in each labor agreement. Negotiations over contracting out must begin no later than Nov. 1, 1999, under the terms of the Railway Labor Act.

The liability reforms will also have little or no effect on Amtrak's financial performance in the short-term. The $200 million liability limit will likely only come into play following an incident resulting in a large number of severe injuries to passengers and passenger deaths. Such an event has not yet occurred, and we hope it never will.

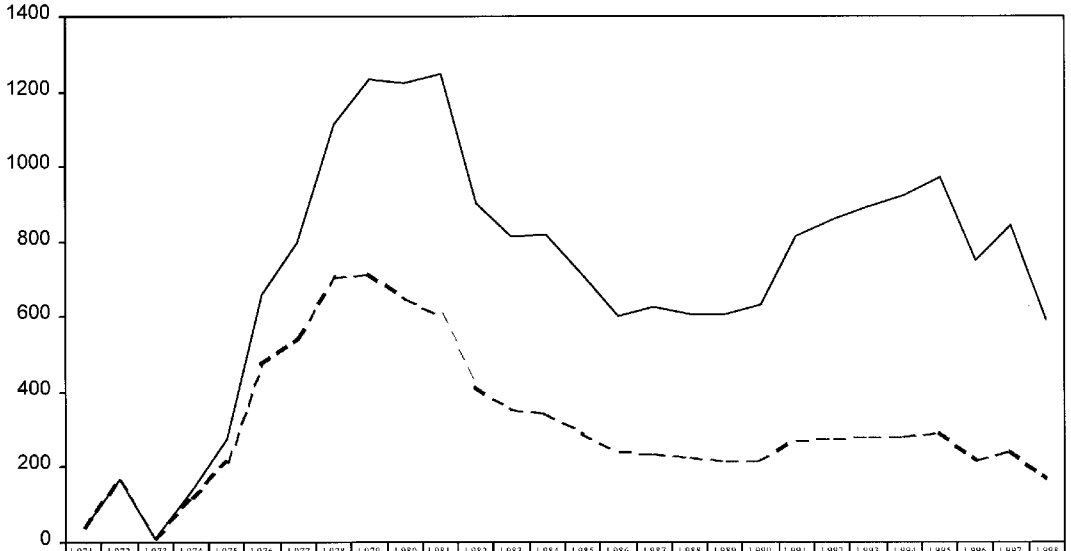
It is unclear what the long-term effect of contracting out certain labor functions will be since this will depend on the types of work that Amtrak may try to contract out, as well as the outcome of the negotiations on this issue.

It is also unclear of how the liability reforms will effect Amtrak's financial viability in the long-term. Amtrak has had only one accident where the total losses exceeded $100 million: Chase, MD. Unless the future brings several larger catastrophes, this $200 million liability limit for compensatory and punitive damages for passenger injuries or death will function mainly as "unused insurance".

Question. Please provide a funding history, by fiscal year, of Amrak's federal appropriations and other federal funds from the Corporation's creation to present.

Answer. The requested information follows:

Amtrak Total Federal Grant
FY1971-FY1998



	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
– – – 1971 Dollars	40	163	8	117	211	474	541	704	716	650	605	413	356	345	291	240	237	227	216	216	269	275	279	282	289	218	241	167
——— Current Dollars	40	170	9	140	277	659	800	1116	1234	1223	1246	904	811	816	712	603	624	608	604	629	815	856	891	922	972	750	843	594

Total Grant includes Operating & capital grants including NECIP, NHRIP & Farley: Does not include Taxpayer Relief Act

Using GDP chain type price index supplied by GAO as of 3/21/98

Question. Please provide a table displaying Amtrak's net end-of-year operating loss, by fiscal year, from the Corporation's creation to present.

Answer. We define net operating loss as total revenues minus total expenses. The requested information follows:

Year	*Amount*
1971	$91,600,000
1972	150,800,000
1973	158,600,000
1974	272,700,000
1975	352,500,000
1976	342,600,000
1977	536,700,000
1978	581,700,000
1979	619,800,000
1980	27,200,000
1981	179,100,000
1980–81 cum. adj.[1]	40,900,000
1982	795,100,000
1983	804,900,000
1984	763,300,000
1985	774,300,000
1986	702,200,000
1987	698,500,000
1988	650,400,000
1989	665,500,000
1990	703,400,000
1991	721,600,000
1992	711,800,000
1993	731,000,000
1994	1,076,800,000
1995	808,200,000
1996	763,600,000
1997	761,900,000

[1] In 1983, Amtrak changed its method of depreciation for track structures. 1983 and 1982 net loss figures reflect the effects of this change, while the effect for 1980–1981 as disclosed in the 1993 Annual Report totaled $40.9 million.

Question. Please provide a table displaying Amtrak's net end-of-year debt load, by fiscal year, from the Corporation's creation to present.

Answer.

Fiscal year	*Fiscal year end outstanding debt*
1971	$25,700,000
1972	7,100,000
1973	109,500,000
1974	297,500,000
1975	484,900,000
1976	753,200,000
1977	762,400,000
1978	885,900,000
1979	972,600,000
1980	1,236,000,000
1981	1,784,400,000
1982	2,342,900,000
1983	2,743,500,000
1984	3,004,600,000
1985	3,185,500,000
1986	23,800,000
1987	22,700,000
1988	35,900,000
1989	126,500,000
1990	183,800,000
1991	287,900,000
1992	418,800,000
1993	492,300,000
1994	770,300,000
1995	836,900,000

Fiscal year	Fiscal year end outstanding debt
1996	986,900,000
1997	1,336,400,000

In fiscal year 1988 two promissory notes issued by the Federal Government to fund the acquisition of and improvements to property and equipment were reclassified as Federal Paid-In Capital. Fiscal year 1986 and fiscal year 1987 are restated to reflect this reclassification. The reclassification does not affect operating results.

Question. What plans does Amtrak have to adjust its route structure in calendar 1998, in order to decrease the railroad's operating losses? What route structure adjustments were made in calendar 1997?

Answer. The following route structure adjustments were made in calendar 1997 to decrease Amtrak's operating losses:

1. *March 1997.*—Discontinuance of the Gulf Coast Limited between New Orleans, LA and Mobile, AL. This service had originally been started in June 1996 as a three month demonstration service, funded in part by a regional funding authority. Although the regional funding was used up within 90 days, continuation of service was mandated by Congress through March, 1997. Service between New Orleans and Mobile continues three days a week on the Sunset Limited.

2. *May 1997.*—An extensive service restructuring in Amtrak's Intercity SBU to use equipment more efficiently. This included rationalizing maintenance facilities and re-positioning equipment onto routes with more market potential. The original restructuring was recommended to take effect in November 1996, but Congress statutorily delayed implementation of most elements of the plan until May, 1997.

The following routes were discontinued:

Pioneer—Route operated between Chicago and Seattle via Denver and Portland, Oregon. Discontinuance only affected the segment between Denver and Portland, since daily service remains on the Chicago–Denver and Portland–Seattle portions of the route.

Desert Wind—Route operated between Chicago and Los Angeles via Salt Lake City. Discontinuance only eliminated service between Salt Lake City and Los Angeles, since daily service continues between Chicago and Salt Lake City on the California Zephyr. Daily service is expected to resume between Los Angeles and Las Vegas in early calendar 1999.

In addition, through car service from the Texas Eagle that had been combined with the Sunset Limited between San Antonio and Los Angeles was discontinued in order to make the extra equipment required for this service available for other routes.

The following routes were restored to daily service:

City of New Orleans—Route operates between New Orleans, LA and Chicago, IL. This route also began sharing equipment with the Empire Builder in order to use equipment more efficiently.

Empire Builder—Route operates between Chicago and Seattle or Portland. Daily service was restored between Minneapolis and the West Coast. This service shares equipment with the City of New Orleans.

California Zephyr—Route operates between Chicago and Emeryville, CA (near Oakland).

3. *July 1997.*—The Twilight Shoreliner replaced the Night Owl in Northeast Direct service in the Northeast Corridor. The Night Owl operated overnight between Washington, DC and Boston, MA. With the startup of the Twilight Shoreliner service was extended to Newport News, VA, in order to make better use of equipment and attract additional revenue. The schedule was also adjusted to serve New York City at a more attractive time, and new Viewliner sleepers were added to the train's consist.

4. *August 1997.*—The Sunset Limited was extended to Orlando, FL, after determining that the additional revenue attracted would more than offset the additional cost incurred by extending the route.

5. *October 1997.*—Two additional state-supported San Diegan frequencies were established between Los Angeles, CA and San Diego, CA, with one existing frequency extended beyond Los Angeles to Chatsworth, CA.

In addition, one of three existing Chicago to Pontiac, MI services was cut back to Detroit, MI, in order to make better use of equipment.

Calendar year 1998 adjustments were, or will be, as follows. Where service additions are noted, they are either due to cost savings (Ethan Allen Express) or due to anticipated revenues exceeding the incremental cost of adding the service.

1. *January 1998.*—Extension of an existing, state-supported Capitols frequency from Roseville, CA to Colfax, CA.

2. *February 1998.*—Addition of one Texas Eagle frequency to bring the total to four round trips per week. This new frequency operates between Chicago and Los Angeles via San Antonio. It was added primarily due to the current and future growth of the full car-load express business.

Also, a northbound only frequency was added to the Ethan Allen Express between Albany, NY and Rutland, VT. This change allows substantial savings in crew layover and contracted turnaround servicing costs.

3. *April 1998.*—An eleventh weekday frequency was added between Albany, NY and New York City due to significant ridership growth over the preceding year.

4. *May 1998.*—Amtrak is planning to add a fourth daily frequency in the Pacific Northwest Corridor between Seattle, WA and Portland, OR. This is made possible by FRA and freight railroad approval of Amtrak's Talgo train equipment, allowing the tilting feature of the equipment to be used for faster speeds around curves. The faster schedules will allow the equipment to be used more efficiently—three Talgo frequencies will be operated with the same amount of equipment as was needed for two before.

Amtrak is also planning to add a fifth weekly frequency to the Texas Eagle. As with the fourth frequency, it will operate the entire distance between Chicago and Los Angeles.

5. *October 1998.*—Pending freight railroad approval, Amtrak is planning fifth and sixth daily, state-supported frequencies for the Capitols between San Jose, CA and Sacramento, CA.

Also pending freight railroad approval, Amtrak is planning to add a fifth daily, state-supported frequency to the San Joaquins. It would operate between Bakersfield, CA and Sacramento, CA.

Question. Please list the loans made to Amtrak in fiscal year 1997 and thus far in fiscal year 1998 (through March 31). Please include information on the lending institution, amount of loan, repayment period, and interest rate.

Answer. Several leveraged leases were closed with NationsBank, N.A. as owner participant, and Kreditanstalt fur Wiederaufbau (KfW) as loan participant: (1) $33.8 million, 20 years, 5.5805 percent, closed 12/23/96; (2) $18.2 million, 19 years, 5.5946 percent, closed 3/27/97; and (3) $49.4 million, 20 years, 5.521 percent, closed 6/26/97.

A $52 million leveraged lease was closed 12/23/97, with a term of 20 years; an interest rate of 5.5766 percent; Norlease, Inc. as owner participant; and KfW as loan participant.

A $65 million leveraged lease was closed 3/27/97, with a term of 19 years; an interest rate of 5.6961 percent; U.S. Bancorp Leasing & Financial as owner participant; and KfW and ING Lease (Ireland) B.V. as loan participants.

Two leveraged leases were closed with BA Leasing & Capital Corporation as owner participant and KfW, Columbine Life Insurance Company, and Security Life of Denver Insurance Company as loan participants: (1) $13 million, 17 years, 6.3412 percent, closed 6/27/97; and (2) $44.2 million, 17 years, 5.91795 percent, closed 10/17/97.

A $5.6 million term loan was closed 6/3/97, with a term of two years and one month, and the State of Texas as lender. Interest is floating monthly, based on rate of interest earned by the State of Texas on funds invested during that month.

A $16,671,400 leveraged lease was closed 12/30/97, with a term of 18 years; an interest rate of 6.4341 percent; and GE Capital Corporation as owner participant.

A $3,802,700 leveraged lease was closed 12/30/97, with a term of 15 years; an interest rate of 5.5986 percent; and GE Capital Corporation as owner participant.

A $96,534,529 leveraged lease was closed 12/31/97, with a term of 20 years; an interest rate of 5.598 percent; GE Capital Corporation as owner participant; and Swiss Reinsurance America Corp., American Re-Insurance Co., NAC Reinsurance Co., Universal Underwriters Insurance Co., Chartwell Reinsurance Corp., Everest Reinsurance Co., and Fidelity & Deposit Co. of Maryland as loan participants.

A $32 million leveraged lease was closed 3/27/98, with a term of 17 years; and interest rate of 4.6906 percent; NationsBank, N.A. as owner participant; and KfW and Columbine Life Insurance Company as loan participants.

A $700 million loan was closed 12/2/97, with a term of 20 years after final delivery date of high speed trainsets and locomotives; a floating interest rate based on six-month LIBOR plus 75 basis points; and Export Development Corporation and MBK Rail Finance Corporation as lenders.

A $120 million loan was closed 12/2/97, with a term of 20 years after Commitment Termination Date but no later than 4/31/2022; a floating interest rate based on six-month LIBOR plus 90 basis points; and Export Development Corporation and MBK Rail Finance Corporation as lenders.

A $170 million short-term revolver was closed 12/18/97, with a term of 364 days and a floating interest rate based on either LIBOR plus 40 basis points or the Alternate Base Rate (usually Prime). The bank group providing this loan consists of Bank of America, Bank of Tokyo-Mitsubishi, Chase Manhattan, First National Bank of Maryland, Industrial Bank of Japan, NationsBank, and CIBC, Inc.

Question. Please inform the Committee of any pending bids by private companies to purchase Amtrak lines or run Amtrak operations.

Answer. Amtrak is not aware of any pending bids by private companies to purchase or to run Amtrak operations, at this time.

Question. Please update the Committee on the status of the Amtrak Reform Council, and summarize the council's scope of responsibility under the Amtrak Reform and Accountability Act.

Answer. As of today, eight of the eleven Amtrak Reform Council (ARC) members have been appointed. Majority Leader Trent Lott appointed Gil Carmichael, Joseph Vranich and Paul M. Weyrich. Senate Minority Leader Tom Daschle appointed Donald R. Sweitzer. Speaker of the House Newt Gingrich appointed Christine Todd Whitman, Bruce Chapman and Chris Gleason. House Minority Leader Dick Gephardt appointed S. Lee Kling. Secretary of Transportation, Rodney Slater is automatically an ARC member, as designated by law, leaving the Administration two appointments to make—one to represent rail labor, and one to represent rail management.

The Amtrak Reform Council was created to evaluate Amtrak's performance, make recommendations to Amtrak for achieving further cost containment and productivity improvements, and financial reforms. The Council will present an annual report to Congress on Amtrak's progress and make legislative recommendations.

Question. Please update the Committee on the status of the appointment of the new Amtrak Reform Board. What time sensitive trigger mechanisms are included in the Amtrak Reform and Accountability Act provisions regarding appointment and confirmation of board members?

Answer. Nominations for the Amtrak Reform Board have not yet been sent to Congress by the Administration.

As stated in Public Law 105–134, the Amtrak Reform Board "shall assume the responsibilities of the Board of Directors of Amtrak by March 31, 1998, or as soon thereafter as at least four members have been appointed and qualified. The Board appointed under prior law shall be abolished when the Reform Board assumes such responsibilities". If the Reform Board has not assumed the responsibilities of the Board of Directors before July 1, 1998, all provisions for the authorization of appropriations under the amendments for fiscal year 1999 and thereafter shall cease to be effective.

Question. How many people are employed by Amtrak? Please provide a table or chart divided by SBU's, showing all employment centers and number of employees at each center.

Answer.

SBU	*Fiscal year 1998 personnel*
Corp/SVC	2,814.0
Intercity	5,975.0
Northeast corridor	12,355.0
West	2,729.0
Total	23,873.0

Actuals as of February 28, 1998.

QUESTIONS SUBMITTED BY SENATOR FAIRCLOTH

Question. The Taxpayer Relief Act authorized $2.3 billion in capital expenditures. What has been Amtrak's approach to working with the States to identify projects of mutual interest and to leverage non-Amtrak matching funds?

Answer. A key criterion in evaluating capital projects continues to be leveraging non-Amtrak funds. Each of the Strategic Business Units seeks projects which are of mutual benefit to Amtrak and to the state partnering on the project. The policy framework that has been developed to guide the investment of TRA funds places highly leveraged (greater than 3:1) projects as the highest priority. A number of projects have been approved which leverage such funds, including: the Oakland, CA maintenance facility ($30 million from the state of California, $7 million Amtrak), the King Street Station Intermodal Facility in Seattle, WA ($16.25 million state and

local partners, $5 million Amtrak), and the Salem, OR Multimodal Facility ($3.7 million state and local funds, $1 million Amtrak funds).

Question. USDOT submitted a report to Congress in September of 1997 entitled "High Speed Ground Transportation for America" and therein identified commercially feasible high-speed rail corridors, and, in fact, the report praises the Southeast Corridor from Washington to Charlotte:

> "The average trip would be longer and generate more revenue than on any other illustrative route, including California North/South . . . Every Southeast Corridor traveler bound for New York City must traverse some 200 Northeast Corridor route-miles as well, with potentially lucrative revenue consequences for the HSGT operator . . . In light of these preliminary results, the Southeast Corridor states and Amtrak might consider jointly exploring the incremental economics of a wide range of Southeast Corridor scenarios (including various routing and segmentation alternatives) as extensions of prospective Northeast Corridor services."

In light of this economic opportunity, what actions has Amtrak taken or expect to take to extend the NEC to Charlotte?

Answer. The logical extension of the Northeast Corridor (NEC) should be south to Richmond, Raleigh, Charlotte and eventually other southern markets. Connecting the NEC and the Southeast Corridor, and having through service between Charlotte and New York City, would take intercity high-speed rail to a new level. Achieving this goal requires a significant, multi-year financial commitment, but it would clearly have significant benefits for the traveling public, Amtrak, and the states of Virginia and North Carolina. Amtrak and the North Carolina Department of Transportation have recently started to develop a joint work plan in order to more expeditiously progress the Southeast Corridor High-Speed Rail Program.

The work plan is in phases, to achieve high-speed rail in increments. In the first phase, the key element of this plan would be the joint acquisition of higher speed rail passenger equipment. The use of this type of equipment would reduce travel time without the need for significant improvements to the track and signal systems.

Another element of the work plan is to establish a three-way partnership with North Carolina, Amtrak and the State of Virginia. Clearly, any southward extension of the NEC would be more successful with the support of Virginia.

The establishment of a partnership with the freight railroads (specifically, Norfolk Southern and CSX) is also key to the work plan. Neither Amtrak nor the State of North Carolina owns the track and other infrastructure between Washington, D.C., and Raleigh, and thus it would be difficult to upgrade that trackage without freight railroad support.

Finally, funding agreements for long-term equipment purchases and long-term infrastructure improvements must be reached by all involved parties. The ultimate goal of a two-hour trip time between Raleigh and Charlotte and a high-speed through service between New York and North Carolina cannot be achieved without major infrastructure improvements and new technology.

In addition, Amtrak will be reviewing the southeastern markets to develop a long-term vision for maximizing its potential in the marketplace. This market analysis will determine how Amtrak can be relevant in the marketplace, how it will reinforce the goals of our state partnership, and what is the expected return-on-investment.

Question. I am told that the North Carolina Secretary of Transportation, Norris Tolson, wrote to Amtrak to ask that their state-sponsored services—the Carolinian and Piedmont be included in the NEC strategic business unit. What action do you envision taking on this request and when do you intend to act?

Answer. On September 4, 1997, David King, the Deputy Secretary of the North Carolina Department of Transportation wrote to former Amtrak Chairman and President Thomas Downs and asked that Amtrak consider moving the North Carolina service from the Amtrak Intercity strategic business unit (SBU) to the NEC. Mr. Downs responded to that request in October 1997 and informed the State that for the foreseeable future, the state-supported Carolinian and Piedmont trains would continue to be operated by Amtrak Intercity. We believe that from an operational standpoint the current North Carolina service fits largely into an Intercity profile. At present, all Amtrak trains which operate in or through North Carolina are operated by the Intercity SBU. These include the two state-supported trains as well as four long-distance trains operating between New York and Florida or New York and New Orleans.

However, Mr. Downs also agreed that as Amtrak considers long-term investment and service prospects for the corporation, a much closer association between the Southeast Corridor and the Northeast Corridor would be mutually beneficial. To that end he directed the NEC SBU to take the lead in long-term planning for the

development of the extension. It is clear to us that the logical extension of the NEC should be south to Richmond and Charlotte, enhancing Amtrak's connection with the Charlotte-to-Raleigh federally designated high-speed rail corridor. Consequently, representatives from both the NEC and the Intercity business units recently met with the State of North Carolina to develop a joint work plan to progress the Southeast Corridor High-Speed Rail Program. The NEC and Amtrak Intercity will work together jointly on all planning for future expansion of services in and to North Carolina. In this manner, Amtrak plans to tap the resources of both businesses units to ensure the best possible provision of service to North Carolina.

Question. What is your timetable for making higher speed improvements between Richmond and Charlotte?

Answer. Amtrak has recently developed a joint work plan with the State of North Carolina to progress the Southeast Corridor High-Speed Rail Program. High-speed improvements between Richmond and Charlotte are part of the long-term plan for that program and are phased in, first through possible equipment acquisition or leasing combined with state proposed infrastructure improvements, and ultimately through extensive infrastructure improvements and new equipment technology.

Amtrak owns the track between New York and Washington, D.C. North Carolina has recently purchased the North Carolina Railroad Company, a railroad which owns the tracks between Raleigh and Charlotte. However, neither Amtrak nor the States of Virginia or North Carolina owns any of the right-of-way between Washington, D.C. and Raleigh. It will require us to work with the freight railroads to make right-of-way improvements or acquisitions. Thus, the development of partnerships between Amtrak, the states and the freight railroads will be a crucial element and a key factor for success in the plans to implement higher speed rail to the Southeast.

In considering the way to allocate costs, Amtrak believes that right-of-way improvements are best funded by the states, since they represent an asset that remains within the state. Amtrak believes it can bring the greatest value to the partnership through funding equipment acquisitions.

Question. The Coalition of Northeastern Governors, at the request of North Carolina Governor Jim Hunt, resolved to support the efforts to extend the Northeast Corridor Improvement Project through Richmond to Charlotte and further suggested that the corridor be renamed the "Atlantic Coast Corridor". How has this resolution figured into your request for continued NECIP funding?

Answer. Amtrak did not request separate NECIP funding for fiscal year 1998 or fiscal year 1999. Amtrak requested a $621 million capital grant to be used throughout the system, in a manner most beneficial to the corporation's long term goals and without federally designated geographical constraints. In addition, Amtrak does not own the infrastructure south of Washington, D.C., making it unlike most of the Northeast Corridor.

However, that does not mean that Amtrak intends to ignore the high-speed rail effort through Richmond to Charlotte. Quite to the contrary. Amtrak has already met with the State of North Carolina and the Commonwealth of Virginia to begin to plan the improvements and equipment necessary to extend the NEC's high-speed rail corridor southward. Both Amtrak and North Carolina intend to spend significant amounts on the project, modeled on similar arrangements with other states on the Northeast Corridor. For example, Amtrak has implemented an ambitious $250 million joint funding project with the State of New Jersey, with each entity investing $25 million a year for five years, for capital improvements, and similar joint benefit/jointly funded efforts are underway in Delaware and Maryland.

In addition, Amtrak's NECIP project has direct benefits for the Richmond to Charlotte extension. The expertise developed through the NECIP project is already being drawn upon for the North Carolina and Virginia high-speed rail effort, providing invaluable experience and knowledge, as well as technology and safety standards development.

CONCLUSION OF HEARINGS

Senator SHELBY. This hearing of the subcommittee will now be recessed and we will next meet on Thursday, April 2, at 10 a.m. in Dirksen 138 for another installation of the subcommittee's hearings on aviation competition. At that hearing we will explore airline ticketing prices.

That concludes the subcommittee's regular budget hearings for this fiscal year. Thank you so much.

[Whereupon, at 11:44 a.m., Tuesday, March 24, the hearings were concluded and the subcommittee was recessed, to reconvene subject to the call of the Chair.]

MATERIAL SUBMITTED SUBSEQUENT TO CONCLUSION OF HEARING

[CLERK'S NOTE.—The following material was not presented at the hearing, but was submitted to the subcommittee for inclusion in the record subsequent to the hearing:]

PREPARED STATEMENT OF ROSS B. CAPON, EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION OF RAILROAD PASSENGERS

Thank you for the opportunity to file this statement. Our non-partisan Association—whose members are individuals—has worked since 1967 towards development of a modern rail passenger network in the U.S.

SUMMARY

—We join the Office of Management and Budget and the Department of Transportation in strongly supporting the Amtrak budget request. This is the first time I can remember those three organizations supporting an identical budget request.

—Usage of Amtrak trains is growing for the second straight year; the turn-around is well over a year old and reflects growing confidence in train travel and, in many cases, growing problems with other modes of transportation. Intercity passenger revenues are growing for the third straight year.

—The public at large favors retention and improvement of the nation's intercity rail passenger network, as reflected in new nationwide and State of New York polls.

—Notwithstanding extensive talk about "alternatives to Amtrak," we believe an Amtrak shutdown would result in loss of most or all intercity passenger rail in the U.S.

1. THE "OMB/DOT/AMTRAK"-SUPPORTED BUDGET REQUEST

The Administration and Amtrak are supporting an approach to Amtrak's appropriations which eliminates operating grants as a separate category. However, they propose to use appropriated capital funds for any type of "maintenance"—including some categories heretofore considered operating expenses. Amtrak believes that with the annual appropriations proposed by the Administration (including $621 million in fiscal year 1999), the right to spend 40 percent the first year and 60 percent the second, and the broader definition of "capital," it can survive and ultimately prosper.

The broader definition of "capital" currently applies to federal transit funds, where the justification apparently is to remove any incentive to do wasteful, unnecessary equipment rebuilds (or otherwise spend more money than necessary) because capital grants are more readily available than operating grants. A similar rationale presumably applies here to Amtrak, although our support for this concept equally stems from the remarkable consensus that now exists among OMB, DOT and Amtrak.

The Administration also proposes to fund Amtrak out of the Highway Trust Fund. While we have no problem with that in principle, we fear that—as in years past—this aspect of the Administration's budget proposal is not viable. We certainly do not want to see Amtrak fall apart because of disagreement over this.

High speed rail.—We strongly support full funding of the grade crossing program for high speed corridors. The Senate-passed ISTEA bill has $5 million a year in contract authority but $15 million a year in authorizations for appropriations. The House-passed version has these annual funding levels for high speed corridors: $10.25 million for grade-crossing work; $25 million for Swift Act technology development; and $10 million for Swift Act corridor planning. The House bill also has ear-

marked funds to upgrade corridors in Georgia, Oregon, Virginia and elsewhere. Most if not all of this work will enhance the economics of Amtrak's operations.

At the same time, we are concerned that the vast expansion in highway infrastructure funding now being contemplated not come at the expense of intercity passenger rail. As discussed below, ticket purchases and polls both show the American people would not favor such a trade-off. Senate approval of the Lautenberg-Lott "sense-of-the-Senate" amendment during consideration of the Senate budget resolution is another indication of the strength of support Amtrak enjoys.

2. AMTRAK IN THE MARKETPLACE

Fiscal year 1997 passenger-miles (5.2 billion) were up 2.3 percent over the fiscal year 1996 level. For the first five months of fiscal year 1998 (October-February) passenger-miles are 5.0 percent above the level for the year-earlier months.

Fiscal year 1997 passenger-related revenues—a record $1.034 billion—were 7.2 percent above the fiscal year 1996 level, which in turn was 6.0 percent above the fiscal year 1995 level. The 1997 level was 6.7 percent above the previous record ($969 million in fiscal year 1993), even though Amtrak operated about 8.6 percent fewer train-miles in the more recent year (32 million vs. 35 million in fiscal year 1993).

Figures in the above paragraph include state payments. This seems reasonable because the significant increase in state payments is one reflection of the value Americans put on Amtrak services. State payments rose in fiscal year 1997 for the eighth consecutive year; the $70 million level was up 9.3 percent from the fiscal year 1996 level and up 775 percent from $8 million in fiscal year 1989.

However, it may be informative to restate the passenger-related-revenue paragraph excluding state payments. The fiscal year 1997 level—$964 million—was 7.0 percent above the fiscal year 1996 level, which in turn was 3.1 percent above the fiscal year 1995 level.

Here are the percentage changes (in each case, from the same period a year earlier) in total Amtrak revenues and expenses:

Fiscal year	Percent—	
	Revenues	Expenses
1998 (five months)	+5.3	−4.9
1997	+7.7	+5.1
1996	+3.9	+0.6
1995	+5.9	−7.4
(Note 1)	.....	+2.6
1994	+0.7	+16.7
(Note 1)	.....	+5.2

(Note 1 "alternate" figures exclude a $244 million "one-time charge" from fiscal year 1994 expenses.)

These figures show a favorable relationship between revenue and expense trends in each year since fiscal year 1994, that is, revenues grew more than expenses and in some cases expenses actually declined. We expect the Congress ultimately to agree that whether Amtrak literally reaches self-sufficiency in 2003 or not is less important than reasonable assurances that Amtrak is efficiently managed and is meeting a real need.

We remind the committee about the heavy use of long-distance trains by lower-income individuals and the prospects for further improving the economic performance of these trains through Amtrak's express initiative. In addition, of course, the Taxpayer Relief Act capital investment funds should enhance the economic performance of all services, as well as help leverage more non-federal capital investment in passenger rail by allowing Amtrak to match contributions from states and other parties.

We believe Amtrak cannot and should not try to abandon more routes. We look forward to Amtrak's planned return to Las Vegas, Nevada, next year. We expect to see other service additions, particularly in connection with Amtrak's express initiative.

3. AMTRAK IN THE POLLS

An October 27, 1997, nationwide Gallup Poll sponsored by CNN and USA Today asked whether "the federal government should continue to provide funding for the cost of running Amtrak, in order to ensure that the US has a national train service,

or the federal government should stop funding Amtrak, even if that means the train service could go out of business if it doesn't operate profitably on their own." Favoring continued funding were 69 percent of respondents, with 26 percent against (and 6 percent other responses).

A poll conducted between September 29 and October 5, 1997, by the Marist College Institute for Public Opinion (Poughkeepsie), found strong support throughout New York State for passenger rail. The poll was commissioned by the Empire State Passengers Association and the Empire Corridor Rail Task Force. The poll found that 97 percent of the 644 registered voters interviewed felt intercity train service ("such as Amtrak which is mostly used for trips of 75 miles or more") should be "improved and modernized" rather than eliminated. Also, 82 percent felt "improved and modernized intercity passenger train service throughout New York State" was just as important as (70 percent) or more important than (12 percent) "having good highways and airports." The poll found that 89 percent of those who made a train trip over 75 miles in the previous 12 months (or a member of their household) would consider the train for their next trip

4. AN AMTRAK SHUTDOWN

It is unlikely that Congress would extend to any other party the rights Amtrak acquired when it took intercity passenger service over from the private railroads and relieved them of their intercity passenger losses. These rights include the right of access to tracks and the right to pay for that access on the basis of incremental rather than fully allocated costs. (Amtrak actually makes substantial payments above incremental costs, keyed to on-time performance incentives, and has offered the freight railroads the opportunity to earn even more as part of Amtrak's express initiative.)

When considering private, specialized operations such as the Florida Fun Train and the American Orient Express, it is important to note that these technically are Amtrak charter trains. In other words, Amtrak—not the private operators—negotiates with the freight railroads. Absent the Rail Passenger Service Act, the private operators likely would either be denied access outright or would face prohibitive charges from railroads not anxious for this type of traffic.

Thank you for considering our views.

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

MATERIAL SUBMITTED BY AGENCIES NOT APPEARING FOR FORMAL HEARINGS

[CLERK'S NOTE.—The following agencies of the Department of Transportation and independent related agencies did not appear before the subcommittee this year. Chairman Shelby requested these agencies to submit testimony in support of their fiscal year 1999 budget request. Those statements and answers to questions submitted by the chairman follow:]

DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

LIMITATION ON GENERAL OPERATING EXPENSES

Question. Please explain in extensive detail your plans to allocate GOE funds for each R, D, and T activity based on the authorization provided in Public Law 105–130.

Answer. The FHWA will manage the General Operating Expenses (LGOE) funding provided by the Surface Transportation Extension Act of 1997 (STEA) to cover the first three quarters of fiscal year 1998. This strategy makes almost $46 million available for research and technology activities. This level allows priority research and technology commitments to continue, defers new starts, and allows essential research and technology to continue for three quarters.

[In thousands of dollars]

Research and Technology	*Amount*
Safety	4,566
Pavements	2,920
Structures	2,835
Environment	1,974
Real Estate Services	
Policy	2,452
Planning	3,839
Motor Carrier	3,654
Tech. Assessment and Deployment	8,435
R&T Technical Support	2,084
ADP Support Services for TFHRC	610
National Advanced Driver Simulator	6,100
Long Term Pavement Performance (LTPP)	6,420
Lake Tahoe Weather Information System	75
LGOE R&T programs	45,964

In addition, the STEA made other funds available for research and technology activities. These funds included:

[In thousands of dollars]

	Amount
Intelligent Transportation Systems	47,000
Operation Lifesaver	150
Eisenhower Transportation Fellowship Programs	1,000
National Highway Institute	2,500
Education and Training Program	3,000
Other R&T programs	53,650

Question. Did FHWA's allocation for those interim funds specify a significant decrease in M&C costs? If so, what significant or adverse impact did this have on the vitality of the R, D, and T program?

Answer. The R&T Technical Support (formerly referred to as M&C) was allocated $2,084,000 from the STEA. This amount has been used only for such critical needs as the extension of some support contracts to carry our R, D, and T program through July 1998. We have also delayed some of our other commitments, such as our work with the Small Business Innovation Research Program (SBIR). However, after July, we will run out of funds for our support contracts and we will either have to terminate the ongoing contracts or not renew those that are ending. Also, we will be unable to fund our commitment to the SBIR Program.

Question. Why couldn't FHWA adjust permanently to a reduced M&C expense?

Answer. As indicated in the previous answer, the funds we have received so far in fiscal year 1998 for R&T Technical Support have been used to fund only those critical needs to keep us operating until July. We are estimating that we will need the full requested amount for R&T Technical Support in fiscal year 1998. The SBIR Program assessment is a fixed amount that must be paid each year. Our funding commitment to the Transportation Research Board remains strong and must be maintained. With our increase emphasis on dissemination of our research and technology information in electronic format, and the need for increased service to our customers, it is difficult to see how we could significantly reduce our R&T Technical Support funding.

Question. By office, including the JPO, please specify the expected allocation of personnel reductions in fiscal year 1998 and in fiscal year 1999.

Answer. The following table reflects the current distribution of FTE within the FHWA to meet the NPR targets for fiscal year 1998 and fiscal year 1999. The distribution for fiscal year 1999 will be adjusted after implementation plans for our Field restructuring efforts and Headquarters review are completed later this summer.

FTE ALLOCATIONS

Organization	Fiscal year 1998	Reduction	Fiscal year 1999
Administrator's Office	18	1	17
ITS Joint Project Office	17	1	16
Program Quality Coordination	6	.....	6
Public Affairs	7	1	6
Chief Counsel	36	1	35
Civil Rights	18	1	17
Policy	86	3	83
Research and Development	106	4	102
Program Development	202	6	196
Safety and Systems Applications	108	3	105
Administration	254	8	246
Federal Lands	583	18	565
Motor Carriers	678	18	660
Region One	209	6	203
Region Three	161	4	157
Region Four	232	7	225
Region Five	206	6	200
Region Six	148	4	144

FTE ALLOCATIONS—Continued

Organization	Fiscal year 1998	Reduction	Fiscal year 1999
Region Seven	104	3	101
Region Eight	133	3	130
Region Nine	134	4	130
Region Ten	105	3	102
Career Development and Other Positions	105	1	104
Total	3,656	106	3,550

Question. Please discuss how FHWA will comply with each of the directives in bill and conference reports relevant to the fiscal year 1998 appropriations act.

Answer. The FHWA will comply with each of the directives in bill and conference reports. In the case of required reports to the committees, the FHWA has already submitted a number of reports and will complete all outstanding reports as requested. In the case of earmarked funds, the FHWA intends to comply with the funding directives provided the Congress authorizes the necessary level of funds in reauthorization legislation before the close of this fiscal year. Should an inadequate level of funds be provided by the Congress, the FHWA intends to seek further guidance from the committees.

Question. Please provide separate tables breaking down administrative expenses into PC and B, permanent change of station, travel, communication, ADP, non-mandatory awards, and other administrative categories for each of the last four years and the fiscal year 1999 request. Please present a table showing net administrative expenses for each of the last four years and the fiscal year 1999 request.

Answer. See the following table showing net administrative expenses for each of the last four years and the fiscal year 1999 request.

GENERAL OPERATING EXPENSES—FEDERAL-AID AND MOTOR CARRIER SAFETY

[In thousands]

	Fiscal year—				
	1995	1996	1997	1998	1999
Salaries and Benefits	$194,793	$200,659	$206,621	$215,537	$218,031
Performance Awards	1,272	1,298	1,084	1,199	1,233
PCS Moves	9,477	6,934	6,533	6,200	8,900
Travel	15,787	12,398	13,811	12,380	12,729
Transportation	521	557	549	568	590
Rental Payments to GSA	16,619	17,601	17,408	17,480	17,922
Other Rent and Comm. and Util	8,679	10,387	8,917	9,764	9,984
Printing and Graphics	4,447	3,110	3,138	504	647
ADP Services	20,682	16,862	16,698	20,245	24,844
Other Services	16,731	14,059	13,838	18,183	21,100
Supplies	3,725	3,430	3,666	2,354	2,354
Equipment	8,375	4,393	4,719	7,140	8,110
Total	301,107	291,688	296,982	311,554	326,444

GENERAL OPERATING EXPENSES—FEDERAL-AID

[In thousands]

	Fiscal year—				
	1995	1996	1997	1998	1999
Salaries and Benefits	$157,979	$162,766	$167,977	$175,365	$177,530
Performance Awards	1,058	1,093	891	996	1,023

GENERAL OPERATING EXPENSES—FEDERAL-AID—Continued

[In thousands]

	Fiscal year—				
	1995	1996	1997	1998	1999
PCS Moves	8143	6,500	5,967	5,800	8,200
Travel	11,167	9,476	9,660	9,273	9,273
Transportation	511	555	548	556	556
Rental Payments to GSA	16,619	17,601	17,408	17,480	17,922
Other Rent and Comm. and Util	8,317	10,117	8,512	9,369	9,589
Printing and Graphics	4,404	3,039	3,072	[1] 89	89
ADP Services	17,175	14,514	15,356	16,615	21,214
Other Services	15,235	13,055	11,649	16,629	17,283
Supplies	3,321	3,078	3,181	2,079	2,079
Equipment	7,088	3,894	3,811	6,303	6,303
Total	251,016	245,688	248,032	260,554	271,061

[1] Funding for Printing and Graphics are also captured in TASC within ''Other Services.''

GENERAL OPERATING EXPENSES—MOTOR CARRIER SAFETY

[In thousands]

	Fiscal year—				
	1995	1996	1997	1998	1999
Salaries and Benefits	$36,814	$37,893	$38,644	$40,172	$40,501
Performance Awards	214	205	193	203	210
PCS Moves	1,334	434	566	400	700
Travel	4,620	2,922	4,151	3,107	3,456
Transportation	10	2	1	12	34
Rental Payments to GSA	.....	.....	.....	.....	.....
Other Rent and Comm. and Util	362	270	405	395	395
Printing and Graphics	43	71	66	415	558
ADP Services	3,507	2,348	1,342	3,630	3,630
Other Services	1,496	1,004	2,189	1,554	3,817
Supplies	404	352	485	275	275
Equipment	1,287	499	908	837	1,807
Total	50,091	46,000	48,950	51,000	55,383

Question. Please provide a table describing how you have reduced administrative expenses, addressing each of the categories mentioned in the previous question for fiscal year 1998 in light of the interim funding limitation.

Answer. The following chart from FHWA has made an interim distribution of funds to its Leadership Team for administrative expenses as a result of the limited funds for general operating expenses under the Surface Transportation Extension Act of 1997. This distribution of funds was based on two major assumptions. The first was that the Congress would enact authorizing legislation before the end of this fiscal year and second, that the levels enacted would allow a full distribution of general operating expense funds up to the limitation set in the Department of Transportation Appropriations Act of 1998. Based on these two assumptions, the FHWA has deferred making funds available for payments of bills to other government agencies, such as rent payments to GSA, printing bills to GPO, and workman's compensation payments to the Department of Labor. We have deferred a half-of-a-year's worth of payments to the Transportation Administrative Services Center for what will be a full-year's worth of services. We have also deferred the necessary acquisition of IRM equipment and office furnishings to the fourth quarter. The interim funding allocations in the table below do not reflect a reduction in administrative expenses for the year, but primarily a deferral of payments or a postponement of activities.

GENERAL OPERATING EXPENSES

[In thousands]

	Fiscal Year 1998 Interim Allocation		
	Federal-aid and motor carrier safety	Federal-aid	Motor carrier safety
Salaries and Benefits	$174,307	$141,360	$32,947
Performance Awards	1,199	996	203
PCS Moves	3,250	3,000	250
Travel	8,418	6,918	1,500
Transportation	424	415	9
Rental Payments to GSA	4,400	4,400	.....
Other Rent and Comm. and Util	7,009	6,989	20
Printing and Graphics	86	66	20
ADP Services	11,489	9,674	1,815
Other Services	13,501	12,405	1,096
Supplies	1,757	1,551	206
Equipment	611	200	411
Total	226,451	187,974	38,477

Question. Please break down the $7.528 million requested for "other services" on page 34.

Answer. Listed below is a break down of the $7.528 million requested in the fiscal year 1999 Budget:

Federal-aid:

TASC: (+4,692)

This requested increase will cover Transportation Administrative Service Center (TASC) charges as estimated by the Department for common services.

Other: (+561)

The requested increase is required to:

Training: (+$200).—As FHWA began strategically planning for a post-ISTEA era, one of our goals was to create a fundamental cultural change both within FHWA and the transportation community as a whole that would provide a foundation for the next century. One of the cornerstones for the future was a strong shift of resources and energy to innovation—innovation that would provide for a greater return on our investment. For FHWA, this change would also move us from a traditional oversight role to one of proactive leadership, and make technology, in the broadest sense, a leading element in the transportation system for the 21st century.

The requested increase of $200,000 in fiscal year 1999 will provide an expansion of training and development to support these changes within the FHWA. Additional funding is necessary to equip FHWA employees with the technical and non-technical knowledge and skills to effectively support the agency's roles as partners to the states and resources for technical expertise and technology transfer. Mechanisms for obtaining the needed training and development will include formal training, academic and institute-based training, and enhanced on-the-job learning and development. Much of the data for projections of increased needs stems from a nationwide needs assessment conducted in 1997 which highlights areas which the FHWA must focus on. They include:

—Strengthening technical expertise in core engineering and transportation technologies;

—Strengthening technical expertise to support expanding roles in safety, environment and planning;

—Developing skills in emerging technologies and in integrated systems support for intelligent transportation systems;

—Developing expertise in innovative approaches to fiscal management and financing of transportation programs and projects;

—Developing strong partnership skills throughout the agency to strengthen relationships with the States and local transportation organizations (communica-

tions, interpersonal and management skills, data analysis and measurement); and

—Strengthening skills in information technology throughout the agency.

Electronic Grants System: (+$200).—This increase will allow FHWA to assist the Department in demonstrating the feasibility of using the Internet to process grant applications and test security systems.

Acquisition Training: (+$36).—This increase will allow FHWA to assist the Department in meeting the guidelines in The Clinger-Cohen Act of Fiscal Year 1996 (Public Law 104–106), formerly known as the Federal Acquisition Reform Act. This law requires Federal agencies to include funding within their budgets for acquisition training.

Vulnerability Studies: (+$125).—This increase will allow FHWA to do a pilot test on one region of the bridge inventory system. This will be conducted using a PC with friendly interface and querying ability. This database will be tested with one of the states in the region to do automatic uploading and downloading of information. This database will also be updated with bridges and tunnels in that region, and linked with both tunnel and GIS information with other modes and navigable waterways.

Motor Carrier Safety: (+$2,275)

The fiscal year 1999 budget includes five categories of initiatives which have needs for funding in the Other Services category. The following provides a breakdown of those funds by initiative:

Safety Programs Enhancement.—$925,000 is requested to provide contractual support for industry forums; a pilot study on ways to reduce the possibility of "high risk" hazardous materials carriers being involved in crashes; and support for a performance based grant workshop.

Office Support and Efficiency.—$135,000 is requested to provide contractual support for conversion of division office files to electronic record keeping and to provide for office design support for offices that will be renovated or relocated.

Communications and Technical Assistance.—$440,000 is requested to develop and staff a driver listening post, convene a panel of experts to evaluate the impact of advances in technology and medical knowledge on current guidelines and advance development of the No-Zone message.

Training Initiatives.—$325,000 is requested to provide a contract professional course developer at the National Training Center; develop a training course to educate State and Federal staff how to analyze and code the new National Governors' Association crash data elements; develop a training course to train the law enforcement community on the recommendations of a study on how to identify unsafe driving practices by automobile operators in the vicinity of heavy commercial vehicles.

Systems Development.—$450,000 provides for contract staff to complete the ADP portion of the Unified Carrier Register; conduct a study to develop alternatives to downsize the Motor Carrier Management Information System and to develop a new Safety Fitness Rating Methodology based on recent program enhancements and information.

Question. What is the empirical basis of the $860,000 request for additional travel funds on page 36?

Answer.

Federal-aid: +500

The requested increase is to cover the additional cost of relocating our employees as part of Permanent Change of Station moves. The FHWA is continuing to streamline and improve efficiency in response to the National Performance Review's objectives. As a result of those objectives, the FHWA will continue to restructure our organization to better serve customer needs, and implement the Congressional desire for the FHWA to restructure our field organization.

Motor Carrier Safety: +360

The travel increase is to provide the funds necessary to implement new initiatives requested in the budget. Although the overall staff is reducing in numbers, there are increasing responsibilities which must be addressed therefore requiring additional travel for less numbers of staff.

The additional travel will allow federal staff to: (1) In concert with State staff and contractors, evaluate the effect of adding an additional Safety Evaluation Area to SafeStat on Hazardous Materials, (2) Evaluate the progress of the performance based grants program, which will require travel to selected States (3) Evaluate how the Federal staff and state partners are implementing SafeStat, (4) Provide seminars to Federal, state and industry representatives on the new Automated Safety Assessment Program which is designed to electronically collect safety performance

data from carriers who have little or no data and (5) Provide travel funds to enable Federal staff to conduct industry forums such as the second FHWA safety summit to be held in early fiscal year 1999.

Question. Why does the amount of funds for printing need to increase by $143,000?

Answer. The Office of Motor Carriers has a many faceted approach to improving safety. One approach which we have found very valuable is education of drivers, carriers and the motoring public on how to improve safety before an incident occurs. To achieve this we have developed programs such as the No-Zone campaign along with various industry forums. To make this means of education effective we publish information brochures, conference materials, posters etc. to reach the intended audience. Since we have realized the successes of education campaigns over the past couple of years, the Office of Motor Carriers requests additional funds to support these printing initiatives.

Question. During fiscal year 1997 and fiscal year 1998, how much money was subtracted from any R, D, and T activity to pay for any expenses related to new initiatives that were not presented in the budget justification?

Answer. None

Question. Please provide a table showing carryover funds for each of the last two years for each GOE funding area.

Answer. See the following chart.

[In thousands of dollars]

	1996 contract programs		1997 contract programs carryover [2]
	Fiscal year 1996 carryover [1]	Fiscal year 1997 carryover [1]	
Highway Research, Development and Technology	2,117,613	66,702	3,774,479
Intelligent Transportation Systems	2,530,984	1	350,967
Long-Term Pavement Performance	217,810	.....	.....
Tech. Assessment and Deployment	590	26,002	299,926
Local Tech. Assistance Program	.....	.....	771
National Highway Institute	.....	604,457	668,714
Minority Business Enterprise	.....	56,140	13,900
International Transportation	.....	40,898	168,116
Russia Technical Assistance	.....	6,724	2,269
Rehab. of TFHRC	.....	.....	65
Federal Lands Contamination Site Clean-up	.....	.....	1,774,458
Transportation Investment	.....	.....	4
Cost Allocation Study	.....	.....	.....
Total	4,866,997	800,924	7,053,669

[1] Carryover balance expire at the close of fiscal year 1998.
[2] Carryover balances expire at the close of fiscal year 1999.

NO YEAR PROGRAMS

[In thousands of dollars]

	Fiscal year 1996 carryover	Fiscal year 1997 carryover
Highway Research, Development and Technology	1,664,369	538,438
Intelligent Transportation Systems	2,161,251	510,657
Long-Term Pavement Performance	38,372	.....
Tech. Assessment and Deployment	67,774	98,618
Local Tech. Assistance Program	71,347	72,757
National Highway Institute	70,269	89,391
Minority Business Enterprise	560,624	243,095
International Transportation	13,333	7,074
OJT Skill Training	89,787	62,108

NO YEAR PROGRAMS—Continued

[In thousands of dollars]

	Fiscal year 1996 carryover	Fiscal year 1997 carryover
Total	4,737,126	1,622,138

Note: Funds available until expended.

Question. In House Report No. 104–177, reprogramming guidelines state that Congressional approval is required for funding shifts of 10 percent or more among programs, projects and activities.

Answer. There were no funding shifts in fiscal year 1997 or thus far in fiscal year 1998 which fall within the reprogramming guidelines in House Report 104–177.

Question. Please show the amounts, nature, and source of any funding shifts that were implemented in fiscal year 1997 and thus far in fiscal year 1998.

Answer. There were no funding shifts in fiscal year 1997 or thus far in fiscal year 1998 which fall within the reprogramming guidelines in House Report 104–177.

Question. In any area have you exceeded this 10 percent threshold without notification since that requirement went into effect?

Answer. There were no funding shifts in fiscal year 1997 or thus far in fiscal year 1998 which fall within the reprogramming guidelines in House Report 104–177.

Question. Please provide a table listing the number, purpose, and reimbursement for each of the foreign trips taken by each of the associate administrators.

Answer. See the following chart.

Position	Country	Purpose	Funding
Associate Administrator for Program Development.	Mexico	To participate in the Eighth Meeting of the Joint Working Committee (NAFTIA–related working committee on border issues).	FHWA.
	Mexico	To participate in the North American Superhighway Summit of Mayors.	FHWA.
Associate Administrator for Motor Carriers.	Canada	To attend Canadian Council on Motor Trucking Meeting.	FHWA.
Associate Administrator for Research and Development.	Portugal ...	To give keynote presentation and participate in the Traffic Safety on Two Continents Conference.	FHWA.
	Canada	To make a presentation and attend the Concluding Conference of the Organization for Economic Cooperation and Development's (OECD) Dynamic Interaction Vehicle Infrastructure Experiment Program (DIVINE).	FHWA.
Associate Administrator for Safety and Systems Applications.	Germany ...	To participate in the ITS World Congress Meetings.	FHWA.
Associate Administrator for Policy.	Russia	To participate in PIARC Executive Committee Meeting and Russian Federal Highway Service meetings.	FHWA.
	Canada	International Road Federation World Meeting	FHWA.
Director, Intelligent Transportation Systems Joint Program Office.	Spain	To serve as chairperson of the PIARC Committee on Intelligent Transportation.	FHWA.
	Germany ...	To participate in the ITS World Congress Meetings.	FHWA.

Question. Since there is a substantial reduction of FTE's proposed, why isn't there an associated reduction in travel, training, and transportation?

Answer. The FHWA's total reduction in FTE in fiscal year 1999 is less than 3 percent over the fiscal year 1998 levels. Even with its shrinking workforce, FHWA's programs are growing and the focus of our efforts is changing. This change is moving us from a traditional oversight role to one of proactive leadership, with a focus on deployment of new technologies and technical service to State DOT's and our many other program partners. One of the cornerstones for future activities for the

FHWA was a strong shift of resources and energy to innovation—innovation in technology, and innovation in program financing. This requires an expansion of our training and support efforts. Administrative funds are being used to equip FHWA employees with the technical knowledge and skills to effectively support the agency's roles as partners to the States along with resources for technical expertise and technology transfer. This includes strengthening technical expertise to support expanding roles in safety, environment and planning, and for developing skills in emerging technologies and integrated systems support for intelligent transportation systems.

Furthermore, the buying power of our administrative funds are being eroded by the increases in travel and transportation rates. These include the increases which GSA is passing on to individual agencies for the mandatory use of alternate fuel vehicles, and the increasing costs related to the processing fees charges by the travel industry for air travel.

Question. Please break down the $4.692 million increase requested for TASC on page 42.

Answer. The following table provides a summary of the charges estimated, and incremental increases, for the Transportation Administrative Service Center.

TRANSPORTATION ADMINISTRATIVE SERVICE CENTER—SUMMARY OF FISCAL YEAR 1998 AND FISCAL YEAR 1999 ESTIMATES

[In thousands of dollars]

Service Area	Fiscal year—		Difference
	1998	1999	
Worklife Wellness	159	165	+6
Building Management	1,339	1,196	−56
Information Services	3,844	4,366	+525
Learning and Development	636	582	−54
Space Management	1,432	107	−1,325
Security Operations	614	576	−38
IT Systems Development	337	454	+117
Telecommunications Operation	1,457	1,658	+201
TASC Computer Center	8,746	13,473	+4,850
Procurement Services	.....	3	+3
Human Resource Services	198	38	−160
DAFIS Operations and Other Support	1,874	2,410	+623
Total	20,636	25,028	+4,692

Question. For each item listed on pages 41–43, please show the amount appropriated in the fiscal year 1998 and fiscal year 1997 base.

Answer. See the following chart.

FEDERAL-AID GENERAL OPERATING EXPENSES

	General operating expenses and motor carrier safety		General operating expenses		Motor carrier safety	
	Fiscal year—		Fiscal year—		Fiscal year—	
	1997 enacted	1998 enacted	1997 enacted	1998 enacted	1997 enacted	1998 enacted
Salaries and Benefits	216,109	220,765	176,127	180,065	39,982	40,700
Travel	12,263	12,593	9,813	9,473	2,450	3,120
Transportation	683	711	673	656	10	55
Comm. Rent and Util	8,684	9,764	8,444	9,369	240	395
Printing	257	504	92	89	165	415

FEDERAL-AID GENERAL OPERATING EXPENSES—Continued

	General operating expenses and motor carrier safety		General operating expenses		Motor carrier safety	
	Fiscal year—		Fiscal year—		Fiscal year—	
	1997 enacted	1998 enacted	1997 enacted	1998 enacted	1997 enacted	1998 enacted
Other Services:						
TASC	17,659	20,336	17,659	20,336	.....	.....
Other	17,421	18,911	12,313	13,708	5,108	5,203
Supplies	2,479	2,354	2,204	2,079	275	275
Equipment	4,282	7,140	3,512	6,303	770	837
Total	279,837	293,078	230,837	242,078	49,000	51,000

OFFICE OF MOTOR CARRIERS (OMC)

Question. We understand that privatization of inspection programs is being pilot tested in Canada, and that in this country, the bus industry supports such a program. What, if anything, is being done to assess the feasibility and reliability of such programs in this country?

Answer. The Office of Motor Carriers is not currently studying the feasibility of private inspection programs. However, the Commercial Vehicle Safety Alliance is actively working with several States to develop such programs on a pilot basis. Once these inspections become active and an assessment of their data and reliability is made by CVSA, the Office of Motor Carriers can better assess policy development of this initiative.

Question. OMC is seeking funds for contracting a new professional curriculum developer/trainer for the NTC. What is the long-term plan for the NTC? Is it anticipated that all NTC functions would be entirely contracted out?

Answer. The long-term plan for NTC is to continue developing and instructing technical motor carrier program courses for Federal and State safety investigators. The instruction is performed by associate staff comprised of Federal and State employees under the coordination of NTC. The administration of the courses is performed by NTC Federal and contract employees from the NTC location. Every year there are courses which are updated and new ones developed. That process is coordinated by NTC staff with contract assistance as well as technical input by Federal and State employee expertise.

The mix of Federal, State and contract employees serves NTC well. The addition of a professional developer to the staff would not only greatly assist course development but provide a consistent entity to work with other personnel on a daily basis. This would be preferable to the current situation of using new contractual arrangements each time a new course is developed, thus avoiding the program and organization learning curve of each new contractor.

Question. OMC has been stating for several years that it is working towards performance-based regulations. Which performance-based regulations have you issued during the last few years?

Answer. During the last few years the OMC has issued no performance-based regulations. The issuance of a final regulation is the final step in the rulemaking process. We have a number of performance-based regulations in the NPRM stage. They are (1) conspicuity, (2) rear-underride protection, (3) supporting documents, (4) cargo securement, (5) hours-of-service, (6) anti-lock brake systems, and (7) zero-base regulatory review.

Question. When will the rewrite of the safety regulations be issued?

Answer. An NPRM proposing the rewrite of the safety regulations, commonly referred to as the zero-base regulatory review, is scheduled for publication this fall. The final rule should be issued by December, 1999.

Question. Please break out separately the expected costs of each of the new initiatives specified under safety program enhancements.

Answer. See the chart below:

Industry Forums $445,000

HazMat Safety Evaluation Area Development	150,000
HazMat Registration and Permitting	500,000
SAFESTAT Evaluation	75,000
Performance Grants Workshop	80,000
Total	1,250,000

Question. Please break out separately the expected costs of each of the new initiatives specified under office support and efficiency.

Answer. The fiscal year 1999 budget request for office support and efficiency includes $400,000 for electronic record keeping and $360,000 for office renovations and relocations.

Question. Please break out separately the expected costs of each of the new initiatives specified under communications and technical assistance.

Answer. The proposed budget for communication and technical assistance is as follows: driver medical updates $203,000; commercial driver hotline $150,000; and Share the Road Campaign $190,000.

Question. Please break out separately the expected costs of each of the new initiatives specified under Training initiatives?

Answer. The fiscal year 1999 budget for training includes $100,000 proposed for each of the following new initiatives: automated safety assessment program, crash data collection training, unsafe driving practices, and professional trainer/course development.

Question. You have previously conducted meetings such as the Safety Summit and various cargo tank forums within the base program without asking for additional funds. Why is it necessary in the fiscal year 1999 budget to ask for additional funds for similar purposes?

Answer. One of the results of the 1995 Truck and Bus Safety Summit was the opportunity for the Office of Motor Carriers to learn valuable information and techniques on developing and conducting forums. Building upon lessons learned and the value of partnering with representatives of the entire universe of parties who are affected by motor carrier operations to collectively improve safety, new forums or expansion of those previously held will take place in fiscal year 1999.

These forums, such as the cargo tank forum and the second Safety Summit, will require funding, in excess of the cost of the 1995 summit alone. The concept of the 1995 Truck and Bus Safety Summit was developed after the 1995 budget submission and, therefore, Summit funding was redirected from other activities which had to be postponed. In order to avoid adversely affecting other activities again, the agency is requesting funds to support various partnership forums in fiscal year 1999.

Question. Why aren't the monies requested to conduct meetings related to a performance-based MCSAP and to hire a contractor to evaluate that initiative funded under the national priority portion of, or the administrative takedown for, the MCSAP?

Answer. The agency believes that national priority funding is necessary to fund and support national, uniform program initiatives such as drug interdiction, the Commercial Vehicle Safety Partnership Program (formerly Judicial Outreach Program), data timeliness and quality initiatives and other similar program activities. FHWA has expended MCSAP administrative funds in the past, and will continue to do so, to support performance-based program delivery activity and training because we believe it provides support to the development and implementation of the States' programs. However, given the limits on MCSAP administrative funding, we believe these funds should be used to support program delivery activity whenever possible.

Question. How many meetings during the last year has FHWA already sponsored that deal with training to conduct performance-based MCSAP planning?

Answer. Between August and December 1997, the FHWA conducted three meetings of the Performance-Based Workgroup, which is the group that designed and developed the training curriculum and content. We also completed nine two-day training sessions from January to March of 1998 in each region for State and OMC personnel. An abbreviated version of the course (necessitated by time constraints) will be presented to all interested State personnel at the CVSA Spring Conference in Irvine, California in May, and another full two-day course is scheduled for OMC headquarters personnel in June 1998.

Question. Why can't you use your existing staff to audit SafeStat implementation?

Answer. FHWA does plan to use its existing staff to audit SafeStat implementation. The scope of this audit would include: analyzing our success in reviewing all SafeStat A & B carriers during the six-month period; assessing the resulting level of enforcement to project our follow-up needs and our capacity; measuring the safety

improvement resulting from SafeStat implementation for improvement effectiveness and for consideration of other features of the PRISM pilot; and reviewing the staffing and resource distributions to determine the most effective field allocations.

Question. During the last five years, have you used internal team reviews to audit various aspects of program delivery without asking for additional funds?

Answer. Yes, during the past five years the FHWA has initiated more than a dozen quality review teams, peer review teams, management review teams, and operational program review teams to evaluate various aspects of its program delivery without requesting additional funds. These teams have reviewed the enforcement process and procedures, the compliance review activity, the MCSAP program consistency and administration, outreach initiatives, and the management of regional programs. Reviews of this type, where specialized program expertise and experience are critical elements for measuring success and improving processes, have been very beneficial to streamlining and improving the effectiveness of the program.

Question. Why do you want to hire a contractor for a task, such as SafeStat evaluations, that could be conducted by your federal program managers?

Answer. SafeStat is a very sophisticated, complex and highly effective analytical tool for identifying high-risk carriers. The SafeStat prioritization system was designed to be a dynamic program that would continue to be improved as new sources of data and more accurate methods of measuring safety performance were developed and tested. SafeStat has gone through 6 versions. Each new version of SafeStat represents a marked improvement over the last. SafeStat was designed and tested with the utmost rigor and scientific method over the course of 6 years and has resulted in a performance assessment system that is accurate, defendable, analytically sound and cost effective. A major portion of SafeStat's success is directly attributable to the extensive testing and evaluation done by an independent provider prior to implementation of any new version of SafeStat. To remove this most critical element would jeopardize the continued success of the program.

SafeStat affects all OMC functional areas. Consequently, there is not one who has not been, or is currently, involved in some aspect of SafeStat. In order to ensure that we receive the most critical and objective assessment of SafeStat, we believe evaluations should be performed by an independent and impartial reviewer.

Question. How much money did OMC spend during each of the last three years on office renovations and relocations? On electronic record keeping systems? What was the account used to pay for these expenses?

Answer. The Office of Motor Carriers spent approximately $132,231 for office relocations and renovations in fiscal year 1995, $11,336 in fiscal year 1996 and $11,175 in fiscal year 1997. The source of funding for relocations and renovations was the general operating expense account. The Office of Motor Carriers has not spent any funds on electronic record keeping. This is a new initiative which has been researched and piloted by the Federal Highway Administration as an opportunity to consolidate records, reduce space needs, and have ready access to documents.

Question. Why can't those improvements be funded out of the base program?

Answer. Available funds from the "base program" have been reduced in recent years for the many new program initiatives the Office of Motor Carriers has undertaken such as NAFTA and SafeStat. The base-program funding pool is insufficient to meet the needs of office renovations and relocations as well as the new electronic recordkeeping initiative.

Question. Shouldn't such renovations be postponed until FHWA's field reorganization is completed and you know where all of such offices will be located?

Answer. Funding requested for renovations is mostly for division offices which will be unaffected by the field restructuring. However, some portion of the request is funding of renovations for regional offices as well which will be needed regardless of the location. The "resource center" concept will result in restructuring the types and numbers of personnel needed in each office, thus requiring office reconfiguration.

Question. Why can't the ASAP training be conducted in conjunction with other planned OMC meetings, such as your Federal Program Manager meetings?

Answer. Most of the ASAP training that is planned for Federal personnel can be conducted in conjunction with regularly scheduled meetings, such as OMC Federal Program Managers' meetings or Regional/State Director meetings to reduce travel costs. However, as we provide ASAP training to State personnel, the motor carrier industry, and to other safety organizations, additional travel costs will be incurred. Costs for the publication of various educational materials such as brochures, pamphlets and video tapes, will also be incurred.

Question. Does your budget include funds for ASAP in both OMC operations and in the CVO program? If so, what are those amounts and why are both of those amounts necessary? What are the differences in the purpose of those requests?

Answer. For fiscal year 1999, the ASAP program has requested funding of $350,000 from the CVO program. This is the only request for funds for the ASAP program in fiscal year 1999. The purpose of the funding will be to administer the functional and maintenance requirements of the ASAP program once it becomes fully operational. The proposed fiscal year 1999 funding will also support the testing of the ASAP software for use as a certifying tool in particular applications like that of the international border crossings.

Question. In Audit Report No. AS–FH–7–006, the Inspector General (I.G.) concluded that FHWA had not established goals for conducting compliance reviews and that approximately 64 percent of the interstate motor carrier population remained unrated at the end of fiscal year 1995. Please discuss whether you have since established such goals. What percent of interstate motor carriers remain unrated and what are you doing to reduce this percentage?

Answer. FHWA's goal setting is ''performance based'' rather than ''activity based.'' Our objective is to reduce the number and frequency of commercial motor vehicle (CMV) crashes and the resulting fatalities, injuries, and property damage. This is accomplished through a comprehensive list of analytically focused activities intended to address all of the causes of CMV crashes and related consequences, not merely the motor carrier's compliance status.

It is not an FHWA objective to assign safety ratings to all motor carriers. FHWA focuses its compliance reviews (CR's) on carriers identified as ''high risk.'' These are carriers with high crash rates, and safety performance problems related to drivers, vehicles, and management operating practices. These carriers are identified using the SafeStat risk assessment criteria and are included in categories A and B. In fiscal year 1998, the FHWA has identified the reviewing of all category A and B carriers as an objective.

At this time, approximately 71 percent of the motor carrier population is unrated. In an effort to address this situation, the FHWA is developing a revised performance-based safety fitness assessment process that would not require a CR. This performance based-proposal is being developed as an ANPRM, which will be published soon. In addition, the FHWA is developing an expanded ASAP pilot to include the 1,000 highest risk, unrated, hazardous materials carriers. This process involves analyzing carrier responses to specific safety and operational questions and generally does not require an on-site review to assess the carrier's fitness.

In response to industry demand for safety fitness ratings, FHWA is working in partnership with a private sector initiative to develop an independent industry standard of excellence which would not require any direct involvement by FHWA. This, in conjunction with third party review initiatives, will significantly increase the level of coverage issues raised by the IG with minimal impact on FHWA program resources.

Question. The I.G. stated that the number of compliance reviews performed by Federal investigators have decreased by 41 percent since fiscal year 1991, even though FHWA requested and received 150 more safety investigators during the early 1990's. Please explain the decrease in compliance reviews.

Answer. The number of reviews has gone down because we are using more comprehensive strategies and countermeasure activities to reduce CMV crashes and to address our increasing responsibilities. The focus is on safety results rather than compliance activities.

Since 1991, our management activities relating to the MCSAP have significantly grown due to the increased size of the program and the expanded range of funded compliance and enforcement. At the same time, the FHWA safety program responsibilities have been expanded to include the Commercial Driver License Program, controlled substance testing, ITS/CVO, increased hazardous materials responsibilities, and various additional authorities on larger numbers of carriers.

Since passage of the Government Performance and Results Act of 1993, FHWA has continued to increase its focus on performance measurement and safety results, rather than compliance and enforcement activities. Its goals and objectives have related to the reduction of CMV crashes and the resulting consequences, in addition to reducing the risk of motor carrier operations. In analyzing the crash data, the majority of CMV fatal crashes involve another motor vehicle in addition to the CMV. It is also true that a large segment of the CMV crashes do not involve interstate carriers. These and other facts have led to a broadened FHWA perspective in developing countermeasure activities to reduce all types of motor carrier crashes. These include educational and outreach programs to better inform the public of the inherent risks related to driving near CMV's, partnering with industry and other safety agencies to promote increased seatbelt usage and better driver behavior, engaging in multi-modal strategies to improve the safeness of intermodal transportation, focusing on crash-causation factors as a means to improvement, and better identifying

through performance data those high-risk carriers in greatest need for compliance and enforcement attention.

Question. Why does the number of reviews continue to decrease? What was the effect and purpose of adding 150 investigators to the enforcement staff?

Answer. The number of reviews has gone down because we are using more comprehensive strategies and countermeasure activities to reduce commercial motor vehicle (CMV) crashes and to address our increasing responsibilities.

The FHWA recognizes that the original purpose of adding 150 investigators to the enforcement staff was to help with the increasing workload related to the task of rating all motor carriers. In the early 1990's, the FHWA realized generating huge numbers of safety ratings by the Federal and State enforcement staff would quickly overwhelm FHWA's capacity to address the "less than satisfactory" population in a timely manner. In addition, we were not utilizing all available data sources that could better identify the highest-risk carriers. As FHWA became more performance oriented, we recognized that the traditional FHWA compliance and enforcement activities were not broad enough to address the complex environment that leads to crashes. In order to better address the safety problem, broader countermeasure activities have been developed to improve safety in a more comprehensive manner. These activities include: "Share the Road" and outreach initiatives directed at all highway motorists; commercial driver's license program implementation; enhanced MCSAP management and monitoring; and the promotion of ITS-CVO technologies and partnering with other Federal, State, and local safety agencies to identify through data analysis critical safety problems and countermeasures to reduce CMV crashes. The field staff has been involved with these new activities, in addition to conducting more effective and better focused compliance reviews which will result in a safer, crash-free environment.

Question. The I.G. observed that a large number of safety investigators performed only a small number of compliance reviews. What were they doing instead? How do you measure the effectiveness of their efforts?

Answer. In its analysis, the OIG included all FHWA personnel who had conducted at least one compliance review (CR) during the period reviewed. This included supervisors, managers, and program specialists. We advised them that this approach did not reflect the actual situation since they included staff whose primary responsibilities do not include field compliance and enforcement activities. This resulted in a number of individuals being identified with very few CR's. Safety investigators also perform various outreach and educational activities, and are increasingly developing more complex enforcement cases. These functions are critical elements of the overall comprehensive safety program.

We measure the effectiveness of our field by what is achieved in terms of motor carrier safety improvement. Focusing on the reduction of crashes, compliance improvement and commercial motor vehicle risk reduction, we have implemented specific performance measures for our field managers which center on the safety outcomes of our various activities.

Question. Industry wants problem carriers to receive increased attention by the OMC. If you are conducting compliance reviews on fewer and fewer carriers each year, how can you assure us that you are adequately addressing all problem carriers in a timely manner?

Answer. Given the size of the industry, FHWA is focusing its compliance and enforcement resources on the worst of the problem carriers. Using current, performance-based data we are regenerating the list, are conducting compliance reviews of this group every 6 months, and are producing higher rates of enforcement with greater penalties for chronic problem carriers.

This compliance and enforcement effort is a significant part of FHWA's comprehensive strategy to reduce commercial motor vehicle crashes, and the resulting fatalities, injuries and property damage. This objective is also being addressed through education, outreach, partnering, general deterrence, and technology assessment initiatives which also require field staffing resources to implement. We believe that these additional strategies will influence the behavior of larger populations of carriers, and drivers of all types, to reduce the number of serious crashes involving large trucks.

Question. Please provide data for each of the last three years on the following expenditures for OMC: personnel change of station, education and training, international travel, and non-mandatory bonuses or incentives (awards).

Answer. See chart below.

	1995	1996	1997
Personnel Change of Station	$1,334,364	$434,099	$566,000

	1995	1996	1997
Education and Training	694,580	234,423	561,282
International Travel	81,176	29,256	63,043
Non-Mandatory Bonuses or Incentives (awards)	[1] 110,252	327,722	316,678

[1] This amount does not include performance awards. Under the old performance rating system, performance awards were mandatory based on employee rating.

Question. How many compliance reviews, enforcement cases closed with action (e.g., civil penalty), compliance orders, operations out-of-service orders, and consent orders were conducted or issued by each of the OMC Regional Offices during each of the last three years?

Answer. See chart below.

Region	Compliance reviews			Enforcement cases closed [1]		
	Fiscal year 1995	Fiscal year 1996	Fiscal year 1997	Fiscal year 1995	Fiscal year 1996	Fiscal year 1997
01	960	846	671	295	243	139
03	908	740	220	325	327	113
04	1,151	1,057	758	321	248	168
05	1,464	1,400	1,107	441	414	369
06	466	488	455	239	245	293
07	287	243	245	156	123	72
08	274	301	259	69	133	122
09	383	305	241	76	84	56
10	307	368	213	103	155	52
Total	6,200	5,748	4,169	2,025	1,972	1,384

Region	Compliance orders [1]			Consent orders [1]			Out of service orders [1]		
	Fiscal year 1995	Fiscal year 1996	Fiscal year 1997	Fiscal year 1995	Fiscal year 1996	Fiscal year 1997	Fiscal year 1995	Fiscal year 1996	Fiscal year 1997
01	13	2	.....	33	20	18	17	8	.....
03	51	26	9	56	13	1	6	5	.....
04	.....	1	1	1	.....	.....	8	11	1
05	65	31	15	55	37	16	1	.....	.....
06	34	18	.....	6	5	.....	1	9	4
07	7	6	2	15	22	7	2	.....	2
08	2	7	5	.....	4	8	3	1	2
09	20	16	.....	1	.....	.....	7	.....	.....
10	24	14	4	.....	9	13	1	2	4
Total	216	121	36	167	110	63	46	36	13

[1] Fiscal year 1996 and fiscal year 1997 data only reflect completed enforcement cases. Other enforcement actions initiated during this period are pending.

Source: Motor Carrier Management Information System.

Question. Please break out in extensive detail the fiscal year 1996, fiscal year 1997, and planned fiscal year 1998 expenses for each of the following items: training, total quality management, strategic planning, non-mandatory incentive awards, and retreats of senior management away from headquarters. Please assume in your answer authorization for the entire amount appropriated in the fiscal year 1998 Appropriations Act.

Answer. See chart below.

OFFICE OF MOTOR CARRIERS COSTS FOR SELECTED ACTIVITIES

Activity	1996	1997	1998 (Projected)
Training	$234,423	$561,282	$725,000
TQM and Strategic Planning [1]	21,100	14,400	2,000
Non-Mandatory Incentive Awards	113,430	121,242	135,156
Senior Man. Retreats	1,892	2,844	2,000

[1] This includes publishing of strategic planning pamphlet, training, Quality Program Managers meetings, Strategic Planning Coordinator's training and travel.

Question. Please break out in detail the amount and purpose of all fiscal year 1998 activities, projects, contracts, and programs that relate to information systems and analytical studies. Please specify the source of those funds, delineating contract and GOE monies for fiscal year 1997, fiscal year 1998 (assuming full authorization up to the appropriated amount) and proposed for fiscal year 1999.

Answer. See chart below.

[In thousands of dollars]

Project	GOE	ITS/CVO	R&T	L&I	Other	Total
FISCAL YEAR 1997						
Information Systems:						
MCMIS	1,945	1,300	540	647	150	4,582
SAFETYNET	672	1,290	250	275	32	2,519
Field and Office Systems	758	.....	.....	79	.....	837
SAFER/200 Sites	.....	2,410	450	.....	.....	2,860
Licensing	.....	.....	.....	224	.....	224
Subtotal	3,375	5,000	1,240	1,225	182	11,022
Data Analysis:						
Crash Systems	.....	.....	310	.....	.....	310
Effectiveness	.....	.....	250	.....	.....	250
Analysis in Policy	.....	.....	512	.....	.....	512
In-Use Population	.....	.....	210	.....	.....	210
Causation	.....	.....	225	.....	.....	225
Subtotal	.....	.....	1,507	.....	.....	1,507
TOTAL	3,375	5,000	2,747	2,450	182	12,529
FISCAL YEAR 1998						
Information Systems:						
MCMIS	1,563	1,350	540	1,100	850	5,403
SAFETYNET	587	485	450	50	250	1,822
Field and Office Systems	650	.....	.....	50	.....	700
SAFER/200 Sites	800	1,765	.....	.....	500	3,065
Licensing	.....	.....	.....	500	.....	500
Subtotal	3,600	3,600	990	1,700	1,600	11,490
Data Analysis:						
Crash Systems	.....	.....	275	.....	.....	275
Effectiveness	.....	.....	300	.....	.....	300
Analysis in Policy	.....	.....	565	.....	.....	565
In-Use Population	.....	.....	60	.....	195	255
Causation	.....	.....	25	.....	205	230

[In thousands of dollars]

Project	GOE	ITS/CVO	R&T	L&I	Other	Total
Subtotal	.....	.....	1,225	.....	400	1,625
TOTAL	3,600	3,600	2,215	1,700	2,000	13,115

GOE = General Operating Expenses; ITS/CVO = Intelligent Transportation Systems/Commercial Vehicle Operations; R&T = Research and Technology contracts; L&I = Licensing and Insurance (ex-ICC); Other = Other sources, e.g., MCSAP, etc.

Fiscal year 1999

(The amounts planned for fiscal year 1999 assuming full authorization, are as below. We do not have this broken out by individual projects at this time.)

Purpose	*Requested*
Information systems:	
Operations, Mods & Support	[1] $10,500,000
Development & Deployment	5,000,000
Data Analysis	3,000,000
PRISM	6,000,000
Driver Program Enhancements	3,000,000
Total	[2] 27,500,000

[1] Includes $4,300,000 from ITS/CVO.
[2] The $27,500,000 total would be comprised of $17,000,000 of new authorization plus $10,500,000 from existing sources. Of the $10,500,000 from existing sources, $4,300,000 has been requested from ITS/CVO.

Question. How much was spent on the Office of Motor Carrier's ADP requirements during fiscal year 1997?

Answer. In fiscal year 1997 $11,022,000 was spent.

Question. How much is planned for fiscal year 1998, assuming full authorization of the appropriated amount? In your answer please break out for each year the amounts from the motor carrier account and the ITS-CVO account and indicate each of the projects funded and the source of funds.

Answer. See chart below.

[In thousands of dollars]

Project	GOE	ITS/CVO	R&T	L&I	Other	Total
FISCAL YEAR 1998						
Information Systems:						
MCMIS	1,563	1,350	540	1,100	850	.....
SAFETYNET	587	485	450	50	250	.....
Field and Office Systems	650	.....	.....	50	.....	.....
SAFER/200 Sites	800	1,765	.....	.....	500	.....
Licensing	.....	.....	.....	500	.....	.....
Subtotal	3,600	3,600	990	1,700	1,600	11,490
Data Analysis:						
Crash Systems	.....	.....	275	.....	.....	.....
Effectiveness	.....	.....	300	.....	.....	.....
Analysis in Policy	.....	.....	565	.....	.....	.....
In-Use Population	.....	.....	60	.....	195	.....
Causation	.....	.....	25	.....	205	.....
Subtotal	.....	.....	1,225	.....	400	1,625
TOTAL	3,600	3,600	2,215	1,700	2,000	13,115

GOE = General Operating Expenses; ITS/CVO = Intelligent Transportation Systems/Commercial Vehicle Operations; R&T = Research and Technology contracts; L&I = Licensing and Insurance (ex-ICC); Other = Other sources, e.g., MCSAP, etc.

Question. Please compare the amount spent with the amount appropriated for ADP for each of the last five years.

Answer. The total amounts appropriated and spent for ADP, considering all sources, are as shown below.

[In millions of dollars]

Fiscal year:	
1994	6.15
1995	8.40
1996	9.45
1997 [1]	11.02
1998 [1]	[2] 11.49

[1] Fiscal year 1997 and fiscal year 1998 include expenditures related to the information systems of the Licensing and Insurance Division (formerly in the ICC), as well as user-fees received, which are not appropriated.

[2] Planned.

Question. What amount of PC and B was reallocated or used for any other purpose in fiscal year 1996? In fiscal year 1997? For which purposes were such funds used?

Answer. Due to fluctuations in FTE's, promotion costs, number of personnel relocations etc., and the fact that the budget for the PC and B account is prepared over a year prior to enactment there are some minor variances among object classes. In fiscal year 1996 and fiscal year 1997 less than $200,000 (one-half of 1 percent) of that was reallocated directly to program activities such as the No-Zone program. For fiscal year 1998 we anticipate the PC and B budget estimate to be spent as appropriated.

Question. Please list the amount and purposes of each of your fiscal year 1997 and fiscal year 1998 contracts related to strategic planning or quality management, being certain to include contracts and outside consultants and organizations in those efforts. Which funding source or budget allocation was used to pay for those expenses?

Answer. There were no contractual funds expended in fiscal year 1997 or planned for fiscal year 1998 to support strategic planning and quality management. The Office of Motor Carriers has established programs in these areas and operates these programs with internal staff.

Question. How much money does OMC typically reserve to pay for initiatives other than R&D conducted by OMC headquarters? Please specify separately the amount and nature of each of the activities funded with those monies for fiscal year 1997 and fiscal year 1998. What is the amount requested for those activities for fiscal year 1999?

Answer. OMC typically has a $900,000 headquarters support budget. Typical areas funded on an annual basis are Departmental Administrative Law Judges ($150,000), contractual support for the Freedom of Information Act office ($130,000), rent for the National Training Center ($140,000), local training funds ($45,000), supplies ($30,000), printing ($30,000), conference support ($25,000), non-recurring special studies ($200,000) and equipment maintenance contracts/miscellaneous office support $150,000.

The fiscal year 1999 budget contains several funding initiatives which require contractual support to implement. A $1.8 million increase is requested for fiscal year 1999 headquarters support which will fund such initiatives as the driver listening post, various industry forums, program evaluations.

Question. As directed by the Committee, how have you ensured that none of the Motor Carrier FTE reductions were taken from the field staff, especially motor carrier safety specialist positions?

Answer. The Federal Highway Administration is restructuring the field and headquarters offices to provide better service to our customers and to operate more efficiently. As part of that study, the Office of Motor Carriers is conducting a review of both field and headquarters FTE use and allocations.

Question. Please list all of the regulatory requirements and reports dealing with OMC programs, CVO or commercial vehicle safety which are past due as specified in various congressional acts and bill reports. What is the expected date of submittal for each of those?

Answer. The information follows:

Law	Rulemaking	Deadline	Status
HM Transportation Uniform Safety Act of 1990, Sections 8 and 15.	Motor Carrier Safety Permits, Inspect Radioactive Materials.	Final Rule by 11/16/91	NPRM published 6/17/93 (58 FR 33418). After reviewing the Alliance for Uniform HazMat Transportation Procedures' (the Alliance) 1993 preliminary report and recommendations concerning implementation of 49 U.S.C. 5119, the FHWA decided not to proceed with further rulemaking action to implement 49 U.S.C. 5109 (Section 8) and 5105 (Section 15) until the Alliance's pilot project was completed. Notice announcing availability of the Alliance's final report and requesting public comment published 7/9/96. Supplemental NPRM published 3/31/98 to request additional comments from the States and industry. Anticipate publishing final rule in 2001.
Motor Carrier Act of 1991 (Intermodal Surface Transportation Efficiency Act), Section 4007(b)(2).	Minimum Training Requirements for Operators and Training Instructors of Multi-Trailer Combination Vehicles.	NPRM by 12/18/93	NPRM currently being revised to respond to issues raised during Departmental review. Anticipate publishing NPRM by end of 1998, final rule in 1999.
Motor Carrier Act of 1991 (Intermodal Surface Transportation Efficiency Act), Section 4007(b)(2).	Entry-Level Driver Training	NPRM by 12/18/92 ..... Final by 12/18/93 ..... Report to Congress by 1/18/94	ANPRM published 6/21/93, 104 comments received and analyzed. Final study report sent to Congress 2/5/96. Notice of availability and request for comments on the report published in the Federal Register 4/25/96 with 6-month comment period. Public hearings were held 11/13/96, comment period extended to 11/29/96. NPRM drafted, currently under internal review, anticipate publishing by end of 1998. Anticipate final rule in 1999.
Hazardous Materials (HM) Transportation Authorization Act of 1994, Public Law 103–311, Section 112.	Railroad Grade Crossing Safety	Final Rule by 2/26/95	FHWA has prepared a draft NPRM, which is under review.
Hazardous Materials (HM) Transportation Authorization Act of 1994, Public Law 103–311, Section 113.	Supporting Documents for Records of Duty Status.	Notice of Proposed Rulemaking by 8/25/95 Final Rule by 2/26/96.	NPRM published in Federal Register 4/20/98. Anticipate final rule in 1st quarter of 1999.
HM Authorization Act of 1994, Section 114.	Safety Performance History of New Drivers.	Final Rule by 2/26/96	NPRM published 3/14/96. SNPRM drafted and under review by DOT. DOT to confer with Small Business Administration concerning impacts on small businesses.
Interstate Commerce Commission Termination Act of 1995, Section 408. Fiscal Year 1996 DOT Appropriations Act, C–47 and S95.	Advance Notice of Proposed Rulemaking (ANPRM) on HOS and Related Issues.	ANPRM by 3/01/96 ..... NPRM by 3/01/97	ANPRM published 11/05/96. Comment period extended to 6/30/97. Over 1,600 docket comments received. Comments analyzed, technical and regulatory review assessments of alternatives underway, NPRM in preparation. Anticipate publishing NPRM by late 1998, Final Rule by late 1999-early 2000.

PAST DUE RULEMAKINGS, REPORT—Continued

Law	Rulemaking	Deadline	Status
Registration and Other Forms (Motor Carrier Replacement Information/Registration System), Includes Table Item 3–35. Interstate Commerce Commission Termination Act of 1995, Section 13908.	Rulemaking to develop new integrated information system and transmit a mandated report..	Statutory Deadline: Final 1/1/98	ANPRM published 8/26/96 at Vol. 61 page 43816. Comments due by 10/25/96. A cementer's request for a 90-day extension to file comments was rejected. ANPRM comments analyzed. Letter report sent notifying Congress that the 1/1/98 deadline not met due to complexity of issues. Awaiting action of State-Motor Carrier industry group meeting under the auspices of the House Transportation Committee on Single-State Registration Program issues.
Fiscal year 1997 Appropriations, Senate Report 104–325.	REPORT: Long-Term Funding of the CVISN System: foundation for a smooth transition by 2001 from a federally financed to a user-financed system that will ensure its long-term operation and improvement..	Statutory deadline: Late 1997	The FHWA has completed a draft report on long term-funding of CVISN. The final report is expected to be submitted to both the House and Senate Appropriations Committees by October, 1998.

Question. Why hasn't the OMC complied with Section 114 of Public Law 103–311 that requires the issuance of regulations that should improve the transfer of information regarding an employee's safety performance? When will a final regulation be issued in that area?

Answer. The Federal Highway Administration published a notice of proposed rulemaking on March 14, 1996 (61 FR 10548), with respect to Section 114. The Small Business Administration submitted comments to the docket requesting more detailed analyses under the Regulatory Flexibility Act and Paperwork Reduction Act. The FHWA initially planned to publish these analyses in the final rule and proceeded to draft that document. After consulting with SBA, it was determined that FHWA should allow the public an opportunity to comment on the amended analyses by publishing a supplemental notice of proposed rulemaking.

Question. What has the OMC done to implement the provisions of that law which requires improvement in the use of supporting documents, and requires previous motor carrier employers to provide driver information to current motor carrier employers?

Answer. The Federal Highway Administration (FHWA) published a notice of proposed rulemaking (NPRM) on April 20, 1998 (63 FR 19457), with respect to Section 113. The comment period closes on June 19, 1998.

The FHWA published an NPRM on March 14, 1996 (61 FR 10548), with respect to Section 114. The Small Business Administration submitted comments to the docket requesting further additional analyses under the Regulatory Flexibility Act and Paperwork Reduction Act. The FHWA is drafting a supplemental notice of proposed rulemaking to allow the public an additional opportunity to comment.

Question. The Committee's fiscal year 1998 allowance included $500,000 for the OMC to expand and improve its no-zone campaign and related activities. Assuming full authorization of the appropriated amount, how will these monies be used?

Answer. Assuming full authorization, this funding would be used to support four principal activities:

Improvement of the No-Zone public safety education campaign.—FHWA, with the assistance of states, is working on the development of new, top-notch public service announcements, graphics, brochures, and other safety promotional materials to convey the No-Zone message. A No-Zone home-page has been established to communicate the share-the-road message via the Internet. FHWA has established a support contract to handle coordination and clearing-house activities for nationwide No-Zone events and requests. The support contract will also help with establishment of a nationwide, public/private Share-the-Road coalition. FHWA also plans to conduct a national survey on public knowledge of the limitations of large commercial vehicles and safe driving practices in their vicinity. The survey would measure the current level of awareness of the No-Zone message and serve as a baseline for measuring the effectiveness of the No-Zone education campaign.

International Highway Transportation Safety Week.—FHWA and the Commercial Vehicle Safety Alliance are jointly sponsoring this special week dedicated to truck and bus safety in the United States, Canada, and Mexico. Events held across the country will educate motorists about safely sharing the road with large commercial vehicles. State, industry, and federal teams also will provide drivers with information on safety belts, driver alertness and related health issues, work zone safety, the dangers of running red lights, highway grade crossing safety, and other highway safety issues.

Public education component of the National Agenda for Motor Carrier Safety.—Among its key recommendations, the National Agenda for Motor Carrier Safety suggests that more attention be given to share the road issues in commercial driver training, new driver education, and driver rehabilitation courses. Based on research now underway in identifying unsafe driving practices in the vicinity of large vehicles, FHWA hopes to develop training modules tailored to specific audiences.

Promotion of truck safety at national safety conferences.—Historically, the passenger vehicle and commercial vehicle safety communities have developed along separate tracks. Communication about the importance of safely sharing the road has led both these safety communities to see the advantages of collaboration and coordination in key conferences and events. With this coordination in mind, FHWA has developed a master exhibit for use by headquarters and field staff at safety events around the country. Also, FHWA OMC is participating in major conferences sponsored by the National Safety Council and other safety organizations.

Question. Please provide an update on activities intended to open up the southern border to comply with the intent of NAFTA.

Answer. The Administration remains committed to NAFTA and its promise of economic prosperity for North America. We intend to honor our NAFTA obligations, in-

cluding allowing safe Mexican motor carriers and drivers to operate in the United States.

Over the past two years, we have been negotiating with Mexico to resolve safety and commercial concerns. First, since the key to minimizing safety risk is to ensure that Mexican inspectors check northbound trucks before they cross the border, we are helping Mexico establish a system to continuously assess the safety of these carriers. With DOT assistance, Mexico is establishing U.S.-compatible databases to facilitate the exchange of information on motor carrier and vehicle identification, driver licensing, and motor carrier safety performance, including inspections and accidents. The United States, Canada, and Mexico have agreed to develop a safety certification assessment process that will address these safety areas: (a) safety management systems, (b) driver qualifications, (c) hours of service compliance, (d) drug and alcohol testing, (e) condition of vehicles, (f) accident monitoring programs, and (g) compliance with regulations governing the transportation of hazardous materials. We believe Mexico is committed to motor carrier safety and is moving in the right direction in establishing a motor carrier safety oversight regime. Mexico is developing minimum safety standards regulations. We are awaiting the publication of these regulations and the establishment of an inspection program. We are confident that once the regulations are published and an inspection program in place, we will be able to begin planning for the gradual implementation of the NAFTA's access liberalization provisions. The DOT is revising its Mexican carrier applications to enhance the safety review at the application stage and is also developing a safety monitoring and compliance program designed to ensure that Mexican carriers comply with the Federal Motor Carrier Safety Regulations when they operate in the United States.

On the commercial side, Mexico has satisfactorily addressed two out of three U.S. "doing business" concerns. Specifically, issues related to (1) U.S. investment in Mexican trucking companies and (2) increased access for 53-foot trailers have been resolved. The third issue, Mexico's regulation of express delivery services, is still outstanding. The NAFTA obligates Mexico to extend national treatment to U.S. companies that operate express delivery services in Mexico. In violation of the NAFTA, Mexico does not allow U.S. companies to use the same size trucks that Mexican express delivery companies are permitted to use. Consultations on this issue continue as we await Mexico's long-promised revised regulations.

Background.—Consultations regarding the implementation of the NAFTA's land transportation access provisions are ongoing. On December 18, 1995, the date on which the United States and Mexico were to have allowed access to each other's border states for the delivery and backhaul of cargo, the United States announced a delay in the NAFTA implementation schedule for safety reasons. Since then, officials from the Department of Transportation and Mexico's Secretariat of Communications and Transportation (SCT) have met numerous times to devise a strategy for addressing our safety concerns. These negotiations are taking place in the Land Transportation Standards Subcommittee (LTSS), which was established by the NAFTA to seek compatibility of safety standards for truck, bus, and rail operations and for the transportation of hazardous materials. In addition to safety, the United States and Mexico are discussing issues involving increased access for 53-foot trailers on Mexican roads and the regulation of express delivery services. In view of Mexico's plans to further liberalize access for 53-foot trailers as highways are upgraded, the United States has decided to remove this issue from the list of "doing business" issues that must be resolved before reaching agreement on a date certain to begin processing applications for cross-border trucking operations. A problem with Schneider National's investment in Mexico was successfully resolved last year, and is no longer a potential obstacle to eventual implementation of the NAFTA provisions.

MOTOR CARRIER REGULATORY RELIEF AND SAFETY DEMONSTRATION PROJECT

Question. Under Section 344 of the National Highway System Designation Act of 1995, FHWA was required to implement a "Motor Carrier Regulatory Relief and Safety Demonstration Project" to determine whether certain eligible motor carriers could operate safely with fewer regulations. Congress specifically required that this program be up and running by August 24, 1996. Final guidelines were not published until June 10, 1997. In December 1997, the Office of Motor Carriers (OMC) announced a six-month extension of the time period for carrier applications. Why is it taking so long for OMC to implement this program?

Answer. Several factors had to be considered as this project was designed. Foremost in these factors was the available data regarding this population's safety performance and the need to balance safety while developing a careful way to demonstrate how changes in our regulatory system might be possible. The pilot is de-

signed to permit "safe" carriers operating light to medium weight vehicles a wider latitude in selecting how they manage their safety performance while balancing all of the above concerns. However, there was limited interest in participation in the pilot based on the final guidelines.

The FHWA was advised of Congressional concern regarding limited industry participation in the Project and the industry coalition that lobbied for the exemptions has suggested that additional exemptions and modifications to Project criteria were necessary to increase industry interest. The Office of Motor Carriers (OMC) discovered there was industry confusion regarding some of the project criteria and how the pilot would be run. The OMC has initiated an effort to provide additional Project exemptions, clarify existing exemptions, and modify certain Project criteria. This effort should improve industry understanding of the Project and provide substantive industry incentives, without reducing highway safety.

Question. OMC may be considering changes in the pilot program to revise the application requirements, provide additional relief and minimize paperwork burdens. When will OMC announce these changes?

Answer. The Office of Motor Carriers has developed a draft Notice; request for comments that will modify the final guidelines published on June 10, 1997. The notice provides additional Project exemptions, clarifies existing exemptions, and modifies certain Project criteria. The notice is currently in concurrence channels and should be published in late spring or early summer.

Question. The Final Guidelines require participants in the program to have no more than 1.6 police-reported accidents per million miles regardless of fault. The program is targeted toward smaller commercial vehicles between 10,000 and 26,000 lbs. These vehicles are typically operated in urban environments where "fender-benders" are common. Why should potential participants be excluded for minor accidents which are not their fault?

Answer. The Office of Motor Carriers (OMC) has determined that the prescribed accident rate for participation in the program, based on "police-reported" accidents, may be a concern for interested companies. The rate itself has not been identified as a problem as much as the definition of an accident. The OMC is currently developing a Supplemental Notice of Final Determination that will establish a new participation accident-rate threshold. The accident rate for eligibility would be based on "DOT-recordable" accidents in lieu of police-reported accidents. These accidents have a higher threshold (i.e., tow-away, injury or fatality) than police-reported accidents. Therefore, just "DOT-recordable" accidents would be considered when determining a motor carrier's accident rate, which is consistent with all motor carrier safety programs.

Question. There is no common definition or understanding of the term "police-reported accidents" among jurisdictions or motor carriers. OMC has not previously employed this standard, using instead the standard of "DOT-recordable" accidents. This is a standard which carriers already use. Given this, what is the rationale for using police-reported accidents as the criterion?

Answer. The rationale for using "police-reported accidents" as the criterion was to obtain as much accident data as possible to analyze the overall accident experience of these motor carriers. The Office of Motor Carriers (OMC) agrees that the term "police-reported accident" is ambiguous and has determined that a modification to the eligibility criterion is in order. The OMC is currently developing a Supplemental Notice of Final Determination that would establish a new participation accident rate based on "DOT-recordable" accidents in lieu of police-reported accidents.

Question. The actual regulatory relief provided in the Final Guidelines is minimal. In addition, the paperwork requirements associated with project participation would appear to outweigh any benefits. Given that the purpose of the project is to test the proposition that fleets can operate safely under fewer regulations, why is more substantive relief not provided?

Answer. The Office of Motor Carriers (OMC) is currently developing a Supplemental Notice of Final Determination that proposes additional exemptions for the Project. The OMC believes these additional exemptions are substantive incentives that will increase industry interest in the Project. The OMC is aware that this Project imposes special record-keeping and reporting requirements on participating motor carriers (e.g. reporting accidents and changes regarding drivers participating in the project). The OMC believes that the paperwork requirements of the Project are absolutely necessary to conduct this Project and ensure the safety of the public on the highways. For instance, in the absence of a roster of the drivers participating in the Project, the Agency would be unable to assist enforcement personnel at roadside inspection locations in identifying Project drivers. Another problem cited by potential applicants is the extra burden placed on applicants by the requirement to

develop a safety-control plan. Any motor carrier which participates must provide a safety plan to the FHWA explaining what it intends to do to ensure that its crash rate, roadside inspection results, and driver performance remain equal to or better than its current safety record. This safety-control plan is required by the National Highway Safety Act of 1995.

Question. OMC has stated that the program is designed to apply only to interstate carriers. Many, if not most, businesses with trucks in the project weight range do not cross state lines as a part of their trucking operations. How does OMC define "interstate" for the purposes of the project?

Answer. The Office of Motor Carriers (OMC) has jurisdiction, with regard to the Federal Motor Carrier Safety Regulations (FMCSR's), over motor carriers operating commercial motor vehicles in interstate commerce. Any project conducted by the OMC which would provide exemptions from the FMCSR's can only be offered to interstate motor carriers. However, for the purposes of this project,intrastate movements of an interstate motor carrier, if the participating drivers are interstate, would be covered by the Project.

Question. How many carriers have applied to participate in the pilot program? How many have been accepted?

Answer. The Office of Motor Carriers have received six (6) applications for participation in the project. In the interest of the continuity and uniformity of the project pending the proposed revisions, no carrier has been accepted yet. There is no information or data that would preclude their participation; however, we want to ensure the applicants are aware of the proposed changes prior to their acceptance.

Question. Section 344 also requires the Secretary, within three years of enactment, to conduct a "zero-based" review of the Federal Motor Carrier Safety Regulations to determine "whether and to what extent such regulations should apply to eligible vehicles." We are now into the third year following enactment. What is the status of this congressionally-mandated review?

Answer. The Office of Motor Carriers (OMC) initiated the Zero-Base Regulatory Review Project in 1992. This effort is a comprehensive zero-base review of the Federal Motor Carrier Safety Regulations (FMCSR's) in their entirety. We are in Phase III of this four-phase effort, with a Notice of Proposed Rulemaking expected to be published in the Federal Register in the summer of 1998. The OMC implemented the Motor Carrier Regulatory Relief and Safety Demonstration Project in response to Section 344 of the NHS Act of 1995 on June 10, 1997, with an anticipated completion date of June 10, 2000. The OMC intends to consider the results of the final evaluation of this Project when making decisions regarding the comprehensive zero-base review of the FMCSR's.

HIGHWAY RESEARCH, DEVELOPMENT AND TECHNOLOGY TRANSFER GENERAL

Question. Please explain why the allocation for highway safety research and development is much less than the amount typically allocated to motor carrier research and development, especially when those amounts are normalized on a per fatality basis.

Answer. Safety research and development funding is allocated based on research and development needs and priorities, not a cost per fatality ratio. Also, while the ratio of funding to fatalities may appear to be higher for motor carrier research and development than for highway safety research and development, it should be considered that any improvement in motor carrier safety has significant carry over improvements for passenger car safety.

Question. The Conferees directed FHWA to increase substantially its cost sharing arrangements for the R&D program with non-federal sources in fiscal year 1998. Please discuss how FHWA complied with that directive. What additional measures to obtain cost sharing did you pursue?

Answer. So far in fiscal year 1998, the FHWA has had available for research and technology only a fraction of its full years budget because of the provisions of the STEA legislation which extended parts of the ISTEA program to May of 1998. This has meant that our research expenditures so far in fiscal year 1998 have been used to fund our laboratory support contracts and to provide funds for those multi-year commitments that had been made prior to fiscal year 1998. No new starts have been initiated in fiscal year 1998 and this has seriously limited the opportunities for joint funded projects with the private sector. Nevertheless, we have initiated several cooperative research and development agreements (CRADA's) with the private sector so far in fiscal year 1998. Among these are agreements: with a private company in Massachusetts to produce an asphalt modifier invented at FHWA's Turner-Fairbank Highway Research Center (TFHRC) for construction of the first demonstration pavement this summer in Georgia; with the Corps of Engineers and a company in San

Diego to construct a laser based rolling weight deflectometer for pavement analysis; with a newly formed company in Northern Virginia to commercially develop the Roadway Surface Analyzer (ROSAN), also invented at TFHRC, to measure pavement surface conditions at highway speeds; and we have an agreement with the American Concrete Pavement Association where they are providing the construction equipment and materials necessary to construct several test pavements at our Accelerated Loading Facility (ALF) at TFHRC. The FHWA will provide the engineering support and run the ALF for this experiment. In all four cases the technologies are being developed and evaluated with private sector funds enabling these technologies to advance.

Question. Please compare your actual GOE expenditures for each R&D and technology transfer activity against the amount actually appropriated for fiscal year 1997 and expected for fiscal year 1998.

Answer. See chart below.

[In thousands]

Highway research and development	Fiscal year 1997 enacted [1]	Fiscal year 1997 actual expenditures	Fiscal year 1998 expected
Safety	8,650	7,533	9,500
Pavements	19,731	19,633	10,500
Structures	14,362	14,254	15,256
Environment	5,443	5,348	5,666
Real Estate Services	322	322	365
Policy	5,328	5,298	5,400
Planning	5,889	5,889	7,000
Motor Carriers	7,399	5,072	7,400
ITS R&D	26,393	26,393	31,500
Automated Highway Systems	22,000	22,000	.....
ITS Operational Test	56,447	55,942	83,900
Technical Assessment and Deployment	13,811	13,511	13,311
Local Technical Assistance Program	2,827	2,827	.....
National Highway Institute	4,269	3,600	.....
Fairbank Building Renovation	500	500	2,000
Minority Business Enterprise	9,378	9,364	10,000
International Transportation	475	307	.....
Russia Technical Assistance	200	198	.....
Transportation Investment Analysis	250	250	.....
Cost Allocation Study	300	300	.....
Federal Lands Contamination Clean-up	2,500	726	.....

[1] Adjusted enacted amount to reflect $3 Million Procurement savings.

Question. Please indicate on a year-by-year basis the amount of carryover funds for each year by category.

Answer. See chart below.

[In thousands of dollars]

Highway research and development	Fiscal year 1997 carryover	Estimated fiscal year 1998 carryover
Safety	1,117	.....
Pavements	98	.....
Structures	108	.....
Environment	95	.....
Real Estate Services	.....	.....
Policy	30	.....
Planning	.....	.....
Motor Carriers	2,327	.....
ITS R&D	.....	.....
Automated Highway Systems	.....	.....

[In thousands of dollars]

Highway research and development	Fiscal year 1997 carry-over	Estimated fiscal year 1998 carry-over
ITS Operational Test	505	.....
Other R&T activities:		
Technical Assessment and Deployment	300	.....
Local Technical Assistance Program	.....	.....
National Highway Institute	669	.....
Fairbank Building Renovation	.....	.....
Minority Business Enterprise	14	.....
International Transportation	168	.....
Russia Technical Assistance	2	.....
Transportation Investment Analysis	.....	.....
Cost Allocation Study	.....	.....
Federal Lands Contamination Clean-up	1,774	.....

Question. Did the RTEB carefully review the fiscal year 1999 request for sustainable communities submitted by the Office of Planning and Environment? When did this occur?

Answer. The RTEB reviewed the program objectives for the initiative on sustainability and transportation submitted by the Office of Planning and Environment on March 5, 1998. This request was included as one of the focus areas for the Research and Technology Council Group for Environment, Planning, and Real Estate Services.

SAFETY

Question. Please break out in extensive detail the amount of funds allocated or planned to be allocated separately by R&D, OHS, and OTA on pedestrian and work zone safety for each of the following years: fiscal year 1997, fiscal year 1998 and fiscal year 1999. How many research or technology transfer/outreach projects pertaining to work zone safety are likely to be phased out during fiscal year 1998?

Answer. The following table depicts the amount of funds allocated or planned by OTA and R&D. No program funding is specifically earmarked for OHS. The OHS utilizes funding from OTA and R&D to carry out pedestrian and work zone research or technology transfer/outreach projects.

[In thousands]

	Work Zone Safety			Pedestrian and Bicyclist Safety		
	Fiscal year 1997	Fiscal year 1998	Fiscal year 1999[1]	Fiscal year 1997	Fiscal year 1998	Fiscal year 1999[1]
OTA	$820	$100	$360	$200	$200	$400
R&D	400	400	400	25	.....	1,350

[1] Subject to availability.

The technology transfer/outreach project pertaining to work zone safety that is likely to be phased out during fiscal year 1998 is the Strategic Highway Research Program (SHRP) marketing of work zone products. The last year of funding for encouraging implementation of the SHRP work zone products was fiscal year 1997 with funding in the amount of $92,000. The program has been completed.

Question. How many research or technology transfer/outreach projects pertaining to work zone safety are likely to be initiated during fiscal year 1999?

Answer. The only research or technology transfer/outreach project pertaining to work zone safety to be initiated during 1999 (subject to availability of funds) is developing a work standard crash definition for collection of work zone accident information and then promoting it to law enforcement officers. Ongoing initiatives are: Provide information on the technology as well as market and promote the National Work Zone Safety Information Clearinghouse located at the Texas Transportation Institute; and Promote the recently released work zone safety campaign (i.e., public service announcements) to develop a unified nationwide message.

Question. What is the status of your research on UV head lighting in combination with fluorescent delineation and signing? How much money was invested in that work during fiscal year 1997? During fiscal year 1998? How much is planned for fiscal year 1999?

Answer. During the past fiscal year we conducted exploratory tests at the FBI Training Facility in Quantico, Virginia. This field data is currently being analyzed and evaluated, including a detailed cost-benefit analysis. This study will be completed in November 1998. A new study was initiated in early March 1998 to further assess the potential of the technology in improving nighttime visibility, especially during adverse weather. This study will identify and investigate problems that may occur in implementing the technology from the perspective of headlight and motor vehicle manufacturers, departments of transportation, cost effectiveness, driver acceptability, etc. Funding used or planned for this research in fiscal year 1997, fiscal year 1998 and fiscal year 1999 is, respectively, $99,000, $700,000, and $800,000.

Question. In Conference Report 104–286, the conference agreement provides $8,768,000 for safety-related R&D. The conferees directed that the total R&D safety activity be funded at a level of at least $12,768,000, including both ISTEA and appropriations authority. Please document how this directive was accomplished, being certain to provide specific funding details.

Answer. The four million in ISTEA funds were used to provide support for safety research in the following areas: development, maintenance and operation of the Highway Safety Information System; development of finite element simulation models for use in designing and evaluating roadside safety hardware; development of a prototype driver model for use in highway design; technical support for the FHWA's human factors laboratories; and development and evaluation of active roadside warning systems.

The Highway Safety Information System is a multi-State safety data base that contains accident, roadway inventory, and traffic volume data. This data is used to study current highway safety issues (for example the evaluation of the Safety Effects of Cross-Section Design on Rural Multilane Highways was one successful study completed), direct research efforts, and evaluate the effectiveness of crash countermeasures. The finite element simulation models being developed will reduce the time and cost involved with testing roadside safety hardware and the prototype driver model will result in highway design, better accommodating driver behavior in response to traffic control devices, highway geometrics and safety countermeasures. The HF labs are used extensively to better understand driver behavior and drives performance. The results of this research are used to develop products such as design guidelines that practitioners use to design safer and more efficient roadways. The application of technology to improve safety within the transportation system is still an area in need of further development. One area that has shown promise is the implementation of active roadside warning systems that alert drivers to impending problems at the time the problem exists.

Question. How are you going to implement the directive that the total fiscal year 1998 funds related to safety research and development exceed the total amount allocated during fiscal year 1997? Assume full authorization of the fiscal year 1998 appropriation and quantify your answer.

Answer. In fiscal year 1997, $11,495,399 was awarded for safety research and development. At this time it would be premature to indicate how we will comply with the directive as fiscal year 1998 funding has not been fully appropriated.

STRUCTURES

Question. Last year the Committee directed FHWA to pursue research into high performance materials and bridge systems which could be applied to improve safety, function, durability, and renewability with minimal cost and environmental impact. Please provide an update on the progress of this research effort.

Answer. The high performance materials research program advances technology related to structural concrete, steel, and composites. For high performance concrete, two fiscal year 1998 studies are planned, but not initiated due to the lack of an authorization bill. Those studies related to concrete include efforts to compile, review, and evaluate the data resulting from the testing and monitoring of FHWA-State bridge and research projects for high performance concrete (HPC). To date, there have been 15 bridge construction projects in 12 States. The study will analyze the data and develop guidelines and new design equations for material and structural behavior such as: mix design, prestress losses, camber, Young's Modulus, maximum internal temperature, shear testing, bond, tensile strength and quality assurance and quality control. The results will be presented in a format suitable for inclusion in the AASHTO Standard Specifications for Bridge Design, the AASHTO Load and

Resistance Factor Bridge Design Specifications and the AASHTO Materials Specifications. A second study will determine the adequacy of the equations in the current AASHTO Bridge specifications for bond between lightweight HPC and pretensioning strands. A study initiated in fiscal year 1997 is beginning to show results for the development of an HPC permeability test for in place concrete structures (those existing structures which in addition to steel reinforcement have admixtures which make the concrete HPC).

Again, due to the lack of an authorization bill no new studies for the advancement of high performance steel (HPS) have been initiated. However studies will advance the development of a higher strength steel (grade 100W) and innovative designs to take advantage of the properties of HPS for cost reduction and durability. Two HPS bridges (of lower strength) have been constructed in Nebraska and Tennessee. Research initiated for the development of a lower grade, 70W HPS is drawing to a conclusion with its off the shelf availability from the steel industry. The optimized use of HPS has demonstrated technical advantages including improved fatigue behavior and project cost reduction for use in the field.

The program in advanced composites will move ahead once the authorization bill is complete to advance technology for bonding the material to existing concrete and steel bridges which are in need of strengthening or repair. Advanced composites afford the opportunity to extend the useful service life of existing bridges which seem to have reached premature life expectancy. Use of these space age materials for rehabilitation will afford additional years of bridge service to owners who would otherwise have to perform more costly, lengthy repair projects.

Question. The Committee directed FHWA to work with an academic and industry-led national consortium and fund with available balances an advanced composite bridge project to demonstrate the applications of an all-composite bridge for civil infrastructure purposes. What is the status of this effort to date?

Answer. FHWA has not as yet initiated the study as requested due to the lack of an authorization bill. However, a report written by an academic institution under contract to FHWA who was also a major contributor in the Defense Advanced Research Projects Agency consortia for advanced composites research has been reviewed and indicates that an "all composite" bridge is not feasible from a technical and economic point of view. The report points out that composites are extremely advantageous for use in certain critical elements of bridge construction. The conclusion indicates that bridging technology can be significantly improved when advanced composite materials are used or optimized in conjunction with other more traditional materials to take advantage of the best structural and material properties of each. FHWA is pursuing how best to involve academic and industry-led consortia in the development of this emerging technology.

ENVIRONMENT

Question. Please further explain the highway transportation aspects of your request for funds regarding environmental justice. Exactly how will those monies be used?

Answer. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations, requires 16 federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing disproportionate high and adverse human health or environmental effects on minority populations and low-income populations. Consistent with the Executive Order, the Department of Transportation has also issued an Order. Both Orders reaffirm the principles and interrelationships of Title VI of the 1964 Civil Rights Act and related statutes, the National Environmental Policy Act (NEPA), and other Federal environmental laws.

A priority of the FHWA's Environmental Research Program and FHWA's request for funding regarding environmental justice is to help FHWA, State DOT's, MPO's and other partners understand how to effectively assess, prevent, and address potential discriminatory effects and disproportionately high and adverse environmental and health effects of transportation decisions on low-income and minority populations. Early identification of potential effects requires transportation officials to understand the principles and interrelationships of Title VI, NEPA, and Environmental Justice and have the skills, tools, and information to assess project effects. FHWA will use the environmental research funds to (1) develop tools to identify and assess the impacts of transportation on low-income and minority populations; (2) develop case studies of "success" stories, best practices, and model community initiatives which embody the principles of environmental justice; (3) develop methodologies to assess community impacts and health and risk burdens on low income and minorities; and (4) conduct national conference and regional workshops to highlight

exemplary projects that implemented principles of environmental justice, disseminate tools for identifying and addressing environmental justice, and provide information on the latest training material.

Question. What are the major challenges that the environmental research program needs to address during fiscal year 1999, and how is this emphasis different from the fiscal year 1998 approach?

Answer. Most of the challenges will remain the same as reported in last year's summary, with the notable addition of those posed by the Kyoto agreement to reduce greenhouse gas emissions.

Major Challenges

New Air Quality standards.—Changes to the national ambient air quality standards for ozone and fine particles were promulgated by the Environmental Protection Agency in July, 1997. Since highway travel contributes to both of these air pollutants, significant research will be needed to reestablish our understanding of the transportation sector's contributions to achieving the new standards along with methods of control. Previous attempts to define the linkages between transportation and air pollution have yielded incomplete answers and frequently have posed as many new questions as answers. The tighter standards announced last July are likely to result in more areas failing to meet these limits and falling under some level of transportation-emissions control.

FHWA is beginning a mid- to long-term effort to fine-tune many of the less understood linkages between transportation and pollution. The agency is pursuing a number of efforts geared toward greater understanding of the formation of fine particulate matter, mitigation of this newly controlled pollutant, and strategies for reducing ground-level ozone. We also anticipate research over the next few years on the emission characteristics of heavy duty diesel engines for which EPA has also published control standards. These efforts in addition to many other research endeavors will seek an improved knowledge base of the impacts that transportation activities may exert on air quality planing.

Global Climate Change.—Although still to be ratified by the Senate, the climate change protocol reached during the Kyoto meetings may have substantial ramifications for the transportation community. The significant levels of greenhouse gas reductions anticipated by the Kyoto agreement may prompt consideration of a wide array of emissions sources and mitigation strategies. As mentioned above, much research will be required to uncover greater knowledge of the linkages between transportation and air pollution. In addition, technological research into advanced vehicles and fuels will be a necessity as we assess the role of electric vehicles, fuel cells, various hybrid engine designs, and other 21st century solutions that apply across the modal spectrum of transportation.

Water Quality.—Changes to the Clean Water Act in 1987 established a two-phased approach to addressing stormwater discharges under the National Pollution Discharge Elimination System (NPDES). Phase I is currently regulating stormwater sources of large and medium-sized municipalities (100,000 or greater in population) and industrial sites, including construction sites of at least 5 acres in size. Under Phase II, dischargers to be covered include communities of less than 100,000 inhabitants and construction sites under 5 acres. EPA has issued draft regulations for Phase II stormwater sources which will be finalized by March 1999.

The NPDES Phase II program will include, at a minimum, requirements for Water quality Best Management Practices (BMP's) at construction sites, BMP's for existing stormwater sources, and monitoring/enforcement requirements for local communities. Our current and projected water quality research program includes BMP development and assessment, as well as, monitoring techniques and analysis of data. Our program will emphasize the cost and effectiveness of BMP's, particularly those appropriate for limited-space applications in urban areas.

Another emphasis area of our research which has been stimulated by EPA requirements is the determination of possible water quality impacts from highway stormwater runoff. Our understanding of the chemical constituents in runoff is well documented. However, relatively little is understood regarding the impacts to water bodies that these constituents may pose. The effects of dilution, bio-availability, exposure time, and other factors must be determined before any conclusions about impacts are possible.

Watersheds.—The recently released Clean Water Action Plan and changing requirements in various States indicate a coming need to incorporate watershed-based water resource protection and management into various highway planning, project development, and operation/maintenance processes. Proposed research will integrate environmental and transportation planning and assessment (particularly in the wa-

tershed management and land-use planning arenas) and explore innovative ways to bring about a merger of the environment/planning and permit processes.

Communities, Neighborhoods, and People.—The 1970 Federal Highway Act, passed the same time as the National Environmental Policy Act (NEPA), places a responsibility on FHWA to fully consider adverse effects of transportation on community cohesion; public facilities; employment; tax and property values; displacement of people, businesses, and farms; and community and regional growth. The U.S. DOT and FHWA Strategic Plans and the FHWA Environmental Policy Statement highlight the importance of putting people first and fully considering communities, neighborhoods, and people in transportation decision making. The President's Report on Sustainable Development underscores the importance of sustainable transportation projects that contribute to sustainable communities, and the DOT Livable Communities Program emphasizes that transportation is about more than concrete, asphalt, steel, and vehicles. It is also about people's day-to-day lives which are affected by the location and appearance of transportation facilities, the design of streets and sidewalks, and the placement of on-street parking. FHWA initiatives in "Flexibility in Highway Design" further emphasize providing safe and community friendly transportation projects nationwide.

A priority within the environmental research program is to help FHWA, State DOT's, Federal agencies, Native American tribes, grassroot groups and the public understand how to ensure full consideration of communities, neighborhoods, and people in transportation decision making. To meet this goal, FHWA will be developing and disseminating the skills, tools, and information needed to achieve effective transportation decision making that protect and enhance the human environment and quality of life through full consideration of communities, neighborhoods, and people.

Integrated Decisionmaking.—The U.S. Department of Transportation (DOT) and the Council on Environmental Quality (CEQ) have been working together to make the transportation decisionmaking and NEPA process more efficient and more effective. Through joint efforts with the CEQ, the U.S. DOT has brought together Federal, State, and local officials and non-governmental representatives across the country to share innovative ideas and to recommend ways to effectively integrate the NEPA process in transportation decision making.

As a result of these efforts, National Performance Review recommendations, and Congressional interest, FHWA is seeking ways to redesign Federal environmental and transportation decision making to ensure an integrated process at the Federal, State, tribal, and local levels that achieves the best overall public interest decisions.

In order to achieve the intentions of the ISTEA, and other legislation and initiatives, FHWA and its partners must achieve and practice an environmental ethic that accomplishes transportation goals in accordance with environmental standards through shared decision making with other stakeholders in the process. This requires environmentally conscious leadership within transportation agencies. Furthermore, as FHWA, States, and other partners seek to meet transportation needs that involves the potential for impacts to communities and natural resources, we must use, through shared decisionmaking, a balanced decisionmaking process that considers impacts to resources, along with their societal values, and the transportation needs.

A priority within the environmental research program is to help FHWA, State DOT's, local entities, Federal agencies, Native American tribes and the public understand how to effectively integrate environmental and transportation decision making to achieve decisions in the best overall public interest. To meet this goal, FHWA will develop and disseminate the skills, tools, and information to redesign Federal environmental and transportation decision making, and to ensure an integrated process at the Federal, State, tribal, and local levels that achieves the best overall public interest decisions.

Environmental Justice and Non-discrimination.—The President's Executive Order No. 12898, DOT Order, and FHWA Order on environmental justice direct that programs, policies, and activities not have a disproportionately high and adverse health and environmental effect on minority and low-income communities. These orders are a reaffirmation of the principles of Title VI and related statutes, the NEPA process, and other Federal environmental laws.

It has been FHWA's longstanding policy to actively ensure nondiscrimination in Federally funded activities under Title VI of the 1964 Civil Rights Act. Under Title VI and related statutes, each Federal agency is required to ensure that no person is excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving Federal financial assistance on the basis of race, color, national origin, age, sex, disability, or religion.

FHWA's commitment to prevent potential discriminatory effects and disproportionately high and adverse health and environmental effects of transportation decisions on low-income and minority populations has placed renewed emphasis on nondiscrimination and environmental justice. FHWA will ensure environmental justice by administering a transportation system that does not unfairly affect any one segment of our society and that equitably distributes benefits as well. To meet these goals, the FHWA will ensure an unprecedented level of collaboration and consensus-building with all its partners.

A priority within the environmental research program is to help FHWA, state DOT's, grassroot groups, Native American tribes, the public, and other partners understand how to effectively assess, prevent, and address potential discriminatory effects and disproportionately high and adverse environmental and health effects of transportation decisions on low-income and minority populations.

Additional Research

National Environmental Research Needs Conference.—An Environmental Research Needs Conference, jointly sponsored by the Transportation Research Board (TRB), the Center for Transportation and the Environment (CTE) at North Carolina State University, FHWA, and FTA was conducted November 14–16, 1996, in Washington, D.C. The participants generated approximately 95 detailed problem statements for critical environmental research needs totaling over $28 million.

Development of FHWA Environmental Research Strategic Plan.—The Federal Highway Administration, Office of Environment and Planning is nearing completion of the development of the Strategic Plan for Environmental Research, 1998–2003. The plan establishes a research agenda for the Environmental Research Program in eight program areas, which cover environmental, social, and economic issues.

Development of the strategic plan was initiated nearly two years ago, and relied on input from several previously held conferences and recent reports, which identified research needs related to transportation and the environment. Two particular reports reflected in the plan's development and content are the Transportation Research Board (TRB) Circular 469, Environmental Research Needs in Transportation, and the Research and Technology Coordinating Committee (RTCC) report, Clean Air and Highway Transportation. Circular 469 is a compilation of research problem statements generated during the 1996 Environmental Research Needs Conference held at the TRB offices in Washington, D.C.

A major level of input into the plan was provided through a focus group meeting with stakeholders and customers, who reviewed plan drafts and assembled during a one-day meeting, conducted at the TRB Offices. The Focus Group Meeting, held on November 19, 1997, was attended by representatives of national public and private organizations, Federal agencies, local governments, State departments of transportation, interest groups, and academic institutions. Many of the ideas, concerns, and feedback received were incorporated into the final strategic research plan.

Research and Technology Coordinating Committee (RTCC) Report.—The RTCC of the TRB recommended short and long term air quality research needs and organizational reform to improve coordination between FHWA and EPA.

POLICY

Question. Please further explain the request for $500,000 for contractor support services.

Answer. The cost represents charges for contract personnel who provide on-going on-site support to the policy research program. These individuals are typically deployed to provide specialized technical and administrative skills necessary for a specific project or program area. Typical services provided include the analysis of various statistical submittal by the States and software development, modification, and application in response to programmatic requirements.

Question. Please specify total expenditures for fiscal year 1997, fiscal year 1998, and planned for fiscal year 1999 for all activities related to policy research.

Answer. The following table identifies these expenditures.

[In thousands of dollars]

Fiscal year	All funds	Funds by source		
		Research	6005	Cost allocation line item 2B
1997	7,428	5,328	1,800	300

[In thousands of dollars]

Fiscal year	All funds	Funds by source		
		Research	6005	Cost allocation line item 2B
1998[1]	2,452	2,452	([2])	([3])
1999	6,362	6,362	([4])	([3])

[1] Because there was no reauthorization, resources were prioritized for salaries over R&D.
[2] None.
[3] Not Applicable.
[4] Unknown.

PLANNING

Question. The conference agreement did not provide any funding for the sustainable transportation initiative under the planning subaccount. During fiscal year 1998, have any FHWA contract or LGOE monies been used for this purpose? If so, please specify the exact amount and the specific funding source including which specific area (pavements, structure, etc.)?

Answer. The FHWA has not funded projects specifically targeted toward the sustainable transportation initiative from contract or LGOE funds in fiscal year 1998.

Question. Please justify in extensive detail why the funds for sustainable communities research needs to increase from $0 to $5 million. What is the analytical basis for the request? Exactly why is $5 million required? How was this determined?

Answer. The FHWA requested $5,000,000 in fiscal year 1999 for its Sustainable Transportation Initiative. This level of funding will provide resources for FHWA to begin a balanced range of initiatives in the development of this new program area. The proposed funding level will enable FHWA to begin research to address sustain ability issues: support State and local agencies to test and evaluate innovations that can begin to be used now; work closely with State and local agencies and other partners and stakeholders to define the performance measures and additional research that is needed; and begin to share this information and best practices as it becomes available. Providing a balanced framework for the development of this new initiative that includes research, outreach, grants for case studies, performance measures, and technical assistance will effectively assist the transportation community to begin addressing its role in global climate change and sustain ability.

At least half of these funds would be used for grants by State and local governments for analytical case studies and pilot projects to test and evaluate sustain ability initiatives. A portion of the funds would be used to initiate research on land use, travel behavior, and the development of analytical tools. The Transportation Research Board's report, Toward a Sustainable Future and the National Science and Technology Council's Committee on Transportation Research and Development have identified transportation research that is needed in sustain ability. The remaining funds would be used to work with State and local agencies and other partners and stakeholders to develop performance measures for sustain ability, identify additional research needs, share best practices and provide technical assistance.

The basic concept of sustain ability is to use resources today in a manner that does not preclude options for future generations. Sustain ability is an emerging issue in a broad range of public policy areas including sustainable development, communities, agriculture, energy sources, as well as transportation. Applying the concept of sustain ability to transportation will require transportation planning and operational decisions be made to ensure mobility and accessibility meet today's needs for goods and services in a manner that balances short and long term economic growth, environmental quality, and social equity.

Global climate change is an immediate priority in sustain ability because changes in ocean levels, rainfall patterns, and temperatures would adversely impact future generations. Industrial production, buildings, and transportation each account for about one third of greenhouse gases from human activities in the U.S. Therefore, the transportation sector will play a significant role in developing programs and policies to begin to address this. Global climate change is a primary focus for sustain ability and transportation. However, other sustain ability issues in transportation are very important and must be addressed. These include, for example, land development patterns, travel behavior and demand, habitat and ecosystems, and community values and needs. Some of the strategies to begin to address these include advanced technologies for vehicles and fuels, making the most efficient use of

current transportation infrastructure and systems, and coordinating land use decisions and transportation needs.

Question. Please provide more information on the request for TRANSIMS totaling $5,000,000 in your budget justification.

Answer. Activities planned for accomplishment in fiscal year 1999 include an activity generation methodology, feedback methods between various TRANSIMS modules, implementation of procedures to select activity location, completion of the interface between the traffic micro-simulation module and the emissions module, completion of research on the medium and heavy duty vehicle (freight) emissions module and the inclusion transit, freight, walk and bicycle modes within the traffic simulator.

These activities will require 23 full time professional staff, 7 graduate students, two post-doctoral students, subcontracts to the National Institute of Statistical Sciences for activity based research, subcontracts to groups specializing in graphics capabilities, and subcontracts for technical support on the development of the emissions module. The Los Alamos National Laboratory provides for very high speed computer capabilities, enabling the basic research to proceed at a much faster pace than would be supported by conventional computers. Travel costs to Portland, Oregon to continue the case study are included along with travel to the Transportation Research Board and other forums to present TRANSIMS results to potential users.

In addition to the above, in fiscal year 1999, we will begin the early stages of the deployment of TRANSIMS. Current plans call for soliciting interest from contractors in packaging TRANSIMS in a user friendly format, requesting interest from MPO's to be early users of TRANSIMS, and preparation of documentation and training materials for potential users.

Question. How much money was allocated to TRANSIMS during fiscal year 1995, fiscal year 1996, fiscal year 1997, and fiscal year 1998 and how much is planned for fiscal year 1999? Please break out all FHWA monies, including LGOE and contract monies, spent on this activity.

Answer. The table below shows how funding allocations for TRANSIMS.

FUNDING FOR TRANSIMS, FISCAL YEAR 1995–98

[In thousands]

	Fiscal year—				
	1995	1996	1997	1998	1999
GOE-FHWA:					
Planning	$1,350	$1,500	$2,000	$2,000	$1,800
ITS	500	.....	.....	.....	2,000
6005—FHWA [1]	1,400	2,000	2,500	2,900	1,100
FTA	500	500	.....	.....	200
EPA	250	525	275	100	100
OST	.....	.....	.....	.....	300
TOTAL	4,000	4,525	4,775	[2] 5,000	[2] 5,500

[1] Sec. 6005 funds in ISTEA through fiscal year 1997; anticipate continued funding as part of reauthorization.

[2] FHWA needs $5 million in fiscal year 1998 and $5.5 million in fiscal year 1999 for TRANSIMS from all sources. Because of the delay in reauthorization, FHWA has diverted available Planning R&D GOE funds (above $2,000 million shown) to support TRANSIMS. Should reauthorization legislation provide funds directly for TRANSIMS, FHWA will deobligate the additional GOE funds for TRANSIMS so they may be used for other Planning R&D priorities as originally planned.

Question. House Report 104–631 addressed the Committee's concern over the amount of current and planned expenditures for the TRANSIMS program. What has been done to contain costs and to reduce laboratory overhead charges?

Answer. As stated in our letter of May 12, 1997, FHWA has continued its efforts to contain costs on the TRANSIMS project. FHWA has pursued two types of cost containment measures, direct actions which limit staff costs and reduce overhead, and actions to limit expenditures by drawing on existing research and software.

With respect to direct cost containment, the LANL recently lowered the overhead rates on all projects and TRANSIMS benefitted from this. The TRANSIMS effort also makes extensive use of post-doctoral research fellows and graduate students, paid in accordance with University of California guidelines at a lower rate than regular staff employees. The LANL overhead covers the use of high speed computing

capability to aid in TRANSIMS research, a capability which would not be available in other research institutions.

The TRANSIMS effort makes extensive use of outside expertise and integrates research done by others. Specific uses of outside sources include cooperating with the National Cooperative Highway Research Program to obtain data and models on vehicle modal emissions, obtaining data from the University of West Virginia on medium and heavy duty vehicle emissions, developing TRANSIMS activity based forecasting procedures from work begun by the National Institute of Statistical Sciences and the Metropolitan Portland Council of Governments, and the use of contractors to advise on specific portions of TRANSIMS. The LANL have drawn extensively on simulation technologies developed for the Department of Defense for the TRANSIMS traffic simulator. Without the availability of these technologies the costs of TRANSIMS would be prohibitively expensive. TRANSIMS also uses commercial software when available, thereby reducing the cost of software development.

Without the above measures, costs of TRANSIMS would have been significantly higher or the quality of the final product would have been compromised.

Question. Please prepare a table showing the expected sums required for each of the next five years to bring TRANSIMS to completion, breaking out both FWHA and other expected cost-shared funds. When will the FHWA support for TRANSIMS be substantially diminished?

Answer. The table below summarizes the estimate of funds necessary to complete the development of TRANSIMS by the Los Alamos Laboratories (with ITS), the packaging of TRANSIMS for deployment, and providing support to State and local agencies in the deployment of TRANSIMS.

ESTIMATE OF FUNDS REQUIRED TO COMPLETE TRANSIMS, FISCAL YEAR 1998–2002

[In thousands]

	Fiscal year—				
	1998	1999	2000	2001	2002
Funds required:					
TRANSIMS	$4,500	$3,000	$500	$500	$500
ITS	.....	2,000	2,000	2,000	.....
Deployment	500	500	3,000	1,500	1,500
Local Agency Support	.....	.....	3,000	3,000	2,000
Fund Sources:					
FHWA	4,900	4,800	7,800	5,800	3,300
FTA	.....	200	200	200	200
EPA	100	500	500	500	500
Total	5,000	5,500	8,500	6,500	4,000

At this time we estimate that EPA funding of approximately $500,000 per year and FTA funding of approximately $200,000 per year beginning in fiscal year 1999. The cost of TRANSIMS development will significantly decline after fiscal year 1999. We do anticipate that ongoing improvements to TRANSIMS will continue, but at a lower level of funding than TRANSIMS development. The cost of packaging, deployment and early financial support will peak in fiscal year 2000 and fiscal year 2001, then decline. FHWA will provide ongoing technical support for TRANSIMS, just as the agency provides support for current travel forecasting procedures.

Question. What did you do to seek additional non-DOT funds for the TRANSIMS? How successful were you? Please show all contributions for each of the last three years.

Answer. The table below shows all contributions of non-DOT funds for fiscal years 1995–1998.

FUNDING FOR TRANSIMS FROM NON-DOT FUNDS, FISCAL YEAR 1995–98

[In thousands]

	Fiscal year—			
	1995	1996	1997	1998
EPA	$500	$500	$275	$100

The EPA has a major interest in the development of TRANSIMS. FHWA has continually sought funds from the EPA and have received commitments to support TRANSIMS development. A multi-agency group manages TRANSIMS and EPA participates in this group. EPA funding in fiscal year 1998 is lower than in previous years due to one-time EPA administrative expenses. EPA has indicated willingness to provide funding in future years. EPA not only provides financial support to TRANSIMS but also actively cooperates with DOT in establishing methods to implement TRANSIMS within the guidelines of the Clean Air Act Amendments.

Question. If funds are going to be provided for TRANSIMS under the reauthorization bill, why are LGOE monies also needed?

Answer. FHWA is in a transition from relying primarily LGOE funds for TRANSIMS to relying primarily on funds available through authorizing legislation. There will continue to be uncertainty about available funding until reauthorization is complete. Additional LGOE funds are critical to ensure the completion and deployment of TRANSIMS including technical assistance to local areas for the implementation of TRANSIMS.

Question. Have you received any requests from States that would like to participate in sustainable transportation research or demonstration projects? What are the proposed state projects?

Answer. The FHWA has not yet requested proposals or made funds available specifically for sustainability projects. However, interest in sustainability is growing and State and local agencies are interested in information and analytical tools. Several national transportation conferences in the last year have specifically focused on the issues of sustainability in transportation. In addition, the Transportation Research Board's recent report, Toward a Sustainable Future, was a topic of panel and committee discussions at its annual conference.

States, metropolitan, and local areas are working on various aspects of land use and transportation planning that can become a part of the broader sustain ability agenda. For example, a number of States are working to learn to manage growth to make most efficient use of existing infrastructure and services. In addition, metropolitan areas are looking for ways to develop growth plans that make the most efficient use of land development and transportation infrastructure. In some large regional areas, multiple jurisdiction are working together to investigate ways to balance growing demands for development while maintaining the quality of life, mobility and accessibility, and protecting the environmentally sensitive areas from development pressure. Local towns are working to balance plans for continuing economic development with quality of life and the environment. Each of these efforts opens additional broader questions from the sustain ability perspective. Applying the criteria of sustain ability will expand the decisions, analysis and tools to include meeting both short and long term needs plus actively working to balance and maximize economic growth, environmental quality, and social equity. FHWA's sustain ability initiative will support the State and local agencies in beginning to address these issues through case study evaluations, conducting research on land use and travel behavior, developing analytical tools and processes that can be used by all, and sharing best practices.

MOTOR CARRIER

Question. Last year, the conferees included sufficient funds to conduct a study on the prevalence of sleep apnea in truck drivers. What did you do to respond to that initiative? What specific contracts have you or will you sign to implement that directive? Please specify the fiscal year 1997 and fiscal year 1998 funding amounts allocated in that area.

Answer. Sleep apnea may be an important cause of driving impairment and potentially, truck accidents among CMV drivers. While it is estimated that between 5–10 percent of CMV drivers, in particular those aged 40 or over and/or overweight, may suffer from sleep apnea, the prevalence of sleep apnea in commercial drivers is not known and, moreover, the level of sleep apnea at which a driver's ability to

operate safely is impaired is also unknown. The objectives of FHWA-sponsored research in this area are to get a handle on prevalence and how apnea affects driving.

Currently, the FHWA has completed overnight studies of 250 drivers at high risk for sleep apnea. A draft final report on prevalence and performance of this sample of drivers is in progress and the final report should be completed by Spring, 1998.

Fiscal year 1997—No additional funding allocated.

Fiscal year 1998—No additional funding allocated.

Future Research.—Based on Congressional direction to study sleep apnea and peer review (11/97) recommendations to conduct follow-on research of truck drivers at low-risk for sleep apnea, the FHWA will request a technical proposal from ATA/TRI. A study of low risk drivers would generate an overall prevalence estimate in this population of truck drivers. It would identify and evaluate remedial measures including screening and detection technologies. The request for a technical proposal will be initiated upon acceptance of the final report on truck drivers at high risk for sleep apnea.

Fiscal year 1997—No additional funding allocated.

Fiscal year 1998—$500,000 allocated; $200,000 has been obligated; remaining $300,000 to be obligated upon availability of all fiscal year 1998 appropriation for OMC Research and Technology.

Question. The conferees included sufficient funds for an operational test and validation of technological aids to improve fatigue management. What did you do to respond to that initiative? What specific contracts have you or will you sign to implement that directive? Please specify the fiscal year 1997 and fiscal year 1998 funding amounts of each.

Answer. A number of projects undertaken during recent years have helped to set the stage for an operational tests of technological aids (such as the actigraph) to improve fatigue management. Below are listed several relevant projects (and fiscal year 1997 and fiscal year 1998 funding, if applicable):

—Driver Work/Rest Cycles/U.S. Army Actigraph Study (in final year of cooperative project involving FAA, FRA, and the U.S. Army);

—Cost-Benefit Study of Electronic On-Board Recorders (completed);

—Conference on Driver Vigilance Monitoring ($40,000 in fiscal year 1997 Activity 13 R&T funds); and

—Ocular (Eye) Dynamics as Early Indicators of Driver Fatigue ($133,000 in fiscal year 1997 and $133,000 in fiscal year 1998 Activity 13 R&T funds).

Projects under consideration for initiation during fiscal year 1998 include phase 1 (assessment and planning) of the main operational test of technological aids to fatigue management and an adjunct study of in-vehicle technology and commercial motor vehicle driver performance management which would emphasize fatigue management. The fiscal year 1998 starts are contingent on fund availability; to date, the OMC has received authority to obligate less than half of its authorized $7.4 million in fiscal year 1998 R&T funds. We have had to apply available funds to sustaining ongoing research, limiting our ability to proceed with new starts in this technology-related area.

In addition to the above, the ITS program, through the OMC ITS/CVO division and the NHTSA Office of Crash Avoidance Research, has been conducting a major on-road validation of technologies for continuous in-vehicle driver alertness monitoring. ITS funding of $195,000 in fiscal year 1997 and $582,000 in fiscal year 1998 has been provided to this on-road study. An adjunct laboratory study to validate eye and other psychophysiological monitors and to develop a safety-effective driver-vehicle interface received approximately $356,000 in fiscal year 1997 ITS funds and has pending $201,000 in fiscal year 1998 ITS funds.

Question. Exactly what would be done with the $500,000 requested under regulatory reform? Won't the private sector conduct similar activities?

Answer. This money would be used to continue the Zero Base Regulatory Review Project. This Project is currently in the third of four phases and will result in a clearer, better organized version of the Federal Motor Carrier Safety Regulations. The regulations are Federal rules regulating the safety and other aspects of the motor carrier industry. They can only be amended by the Executive Branch acting through the designated agency, the Federal Highway Administration.

Question. What new rules would be issued? Will those really be "new" or will they be reorganized rules with unnecessary and obsolete portions removed?

Answer. The new rules to be issued will be the Federal Motor Carrier Safety Regulations in their entirety. They will be totally new in organization and format, with a few changes in the substantive rules, particularly where performance-based alternatives have been created. At the same time, the FHWA is conducting two other efforts: (1) the removal of obsolete and redundant regulations, and (2) several major rulemakings which draw upon the agency's latest research. All three efforts are ex-

pected to take place concurrently, and thus the final product will encompass the FHWA's most up-to-date effort in a performance-based approach to regulation.

Question. The media have reported that TRI and FHWA will provide 500 commercial drivers with free, one-year membership to fitness centers. How much is FHWA contributing to this study? Why is the project of critical importance?

Answer. The FHWA-TRI Truck Stop Fitness Facility Utilization Study (TSFFUS) is one of about 20 projects in the Congressionally-directed Cooperative Agreement between the American Trucking Associations Foundation's Trucking Research Institute and the OMC. Consistent with the language in Conference report 104–286 to accompany H.R. 2002, the Department of Transportation's Appropriation Bill (Public Law 104–50), the purpose of the Cooperative Agreement is to address a number of motor carrier safety issues, such as: driver fatigue and alertness; the implementation and dissemination of emerging safety-related technologies; productively and regulatory compliance; and commercial driver training, licensing and education.

The TRI and OMC have agreed to allocate $257,000 of the $5 million Cooperative Agreement (which includes $1 million for the National Private Truck Council) for the TSFFUS. The planned 500 participants in the study will receive a one-year free membership to the truck stop fitness facilities involved in the study. An organization called The Rolling Strong Company is providing the truck stop gyms. The memberships were obtained at a cost of $100 each (as opposed to the nearly $400 regular annual membership fee). As a condition of receiving this membership, drivers will be required to respond to a series of questionnaires to assess a number of areas, including: how frequently participants use the truck stop gyms; when do the drivers work out; do they feel better; are they making any other positive lifestyle changes; and are they getting other drivers to start an exercise program. Note that Rolling Strong Company is a private company. The TRI and the OMC did not fund the design or construction of the gyms; we are only evaluating the concept of truck-stop fitness.

The Truck Stop Fitness Utilization Study is a innovative, holistic approach for improving highway safety. Truck driving, particularly long haul truck driving, is largely sedentary in nature with few opportunities to exercise. About 50 percent of all adult Americans are overweight and data suggest that an even larger percentage of truck drivers are overweight. Regular aerobic exercise not only helps get and keep one in shape, but according to the American Heart Association, it also combats fatigue, reduces stress, improves alertness and enhances sleep quality. As a result, truck drivers will be better rested and more alert for another day of driving. A healthier and fit driver will, over the long run, tend to be a better and safer driver.

Question. Given the numerous other priorities for research funds, how did you determine that a wellness study was a high priority research activity?

Answer. Altogether, the FHWA has underway more than 20 research, regulatory and outreach projects relating to truck-driver fatigue and alertness. Our main thrusts are regulatory hours-of-service changes, research on specific operational issues (e.g., sleeper berth), and research and development relating to in-vehicle alertness and performance. The Truck Stop Fitness Utilization Study is one of several adjunct driver wellness/lifestyle initiatives, not a central countermeasure or "solution" to driver fatigue. The project is not "high priority" in relation to other FHWA projects more directly related to specific fatigue countermeasures or hours-of-service issues. However, the issue of CMV driver physical-fitness level does have safety relevance and warrants this one-time government program to stimulate the provision of better opportunities for exercise for CMV drivers. A relatively small investment by government/industry to evaluate this concept could result in long-term payoffs by improving CMV driver health and, therefore, alertness and safety.

Question. Do you envision that the States would do the crash causation research requested under information analysis? How much is planned for this activity?

Answer. OMC is currently developing a commercial vehicle crash causation coding scheme with the University of Michigan Transportation Research Institute. OMC has plans to encourage States to adopt this coding scheme when they investigate truck and bus crashes. Ultimately, OMC plans to build a national database of truck and bus crash causes with data supplied by volunteer States. While OMC intends to use State-collected data for this research, there are no plans at this time to ask States to conduct research. Costs for building a crash causation database are dependent on the success of working with our State partners. If these efforts are successful and timely, the costs may be under $500,000 for building this National database. However, if OMC's data needs are not met through these cooperative efforts, a separate intensive crash causation research project will be considered, and, if funds are available, implemented.

Question. As part of your jurisdiction for $1.9 million under the technology category of motor carrier research, FHWA uses the rationale used to justify the pro-

posed National Technology Deployment program. Motor carrier activities would be eligible expense under this proposed contract program. Why then, are additional GOE funds for similar purposes also requested under motor carrier research?

Answer. The Office of Motor Carriers (OMC) has conducted its technology research activities under the assumption that innovative safety technologies, however originated, may require OMC research program support under LGOE. This would occur in the event that implementation funding is not forthcoming from the originating organization (e.g., ITS/CVO or NHTSA), and the OMC concludes that the technology warrants OMC research and technology support through an investment in information dissemination, education and training, or demonstration piloting.

In fiscal year 1998, the OMC supports the implementation of the proposed NTDI program, because it may permit us to broaden our technology training and dissemination efforts. However, we cannot assume that the program will be implemented by the Congress this year. Also, the final criteria for receipt of funding under the NTDI have not been provided to us, so we cannot be assured that all needed technological research would be so fundable. For this reason, we must continue to plan for an allocation of LGOE resources to support priority technology projects.

Question. Please break out the specific funding request for each project under the category "technology."

Answer. For fiscal year 1999, the OMC now estimates that the following technology projects will require R&T funds as indicated:

Deployment of Fatigue-Related Technologies	$150,000
Evaluation of Hazardous Materials Transportation	250,000
Innovative Hazardous Materials Enforcement Strategies	150,000
Marketing of SAFER/Carrier Register	200,000
Automated Safety Assistance Program (ASAP)	200,000
New Brake Inspection Technologies	200,000
Cargo Tank Safety	250,000
Iowa Simulator Support	500,000
TOTAL	1,900,000

Question. Please prepare a table estimating the amount of funds spent on fatigue-related research for each of the last five years.

Answer. The following chart describes estimated spending between fiscal year 1993 and fiscal year 1997 on research relating to commercial driver fatigue and alertness:

Fatigue related research

Fiscal year:	
1993	$2,283,992
1994	728,072
1995	1,684,419
1996	2,551,910
1997	1,677,982

Question. OMC recently conducted a study to determine the general random condition of trucks and drivers. What were the results of this study and how much did it cost? How much are you requesting in fiscal year 1999 to update this effort? Why can't that project be conducted every two years?

Answer. In the summer of 1996, OMC conducted the National Fleet Safety Survey (NFSS) to determine the true out-of-service rate for large trucks and their drivers. Based on over 10,000 random Level 1 inspections, the national vehicle and driver out-of-service rates were found to be 29 percent and 5 percent, respectively. These rates were slightly lower than similar rates obtained from fiscal year 1996 MCSAP "nonrandom" inspections and the differences were found to be statistically significant.

Since the inspections for the NFSS were conducted by State MCSAP inspectors, the data collection costs were minimal, approximately $6,000. Data processing costs were approximately $5,000. The sample design and statistical analysis costs were approximately $70,000.

OMC plans to conduct the NFSS every two years. The next NFSS is scheduled for the summer of 1998.

Question. During the few years, FHWA completed several studies on the medical requirements for drivers. Which studies have been completed? Were these studies ever published?

Answer. The information provided in the following chart includes study reports on medical requirements for drivers, initiated/completed by FHWA in the past 3 years:

Title	Completed	Published/ Released	NTIS PB No.	Status
Role of driver hearing in commercial motor vehicle operations: An evaluation of the FHWA hearing requirement.	August 1997 ...	Yes	98–114606 ..	Completed August 1997.
Research on Sleep Apnea and commercial Drivers—TASK A.	.....	.....	.....	Task A report on high-risk drivers to be completed spring 1998.
Medical Panels—Visual disorders and commercial drivers.	.....	.....	.....	Final report, Medically-Based Recommendations for Amending the Vision Requirements, to be completed July 1998.
Insulin-treated diabetes and job performance.	.....	.....	.....	Research ongoing; final report due December 1998.
Review of State medical infrastructures—update of medical review practices and procedures in U.S. and Canadian CDL programs.	June 1997	Yes	97–19393	Final report submitted to FHWA in June 1997; this is a resource document for FHWA rulemaking and research activities.
Commercial Truck and Bus Driver wellness program.	.....	.....	.....	Final report to be completed May 1999.
Qualifications of Drivers—Vision, Diabetes, Hearing and Epilepsy.	January 1998 ..	.....	.....	Final descriptive report to be published (NTIS) Spring 1998.

HIGHWAY OPERATIONS

Question. What is the empirical basis used to determine the $2 million requested for highway operations? Won't the NTDI, if authorized, provide sufficient funds for work on highway operations?

Answer. The $2 million requested for fiscal year 1999 will be focused on closing a gap in the Federal Highway Administration (FHWA) by initiating a highway operations research program that will complement the National Technology and Deployment Initiative (NTDI). Basically, where the NTDI will be used to test, evaluate and deploy, the FHWA is seeking funding to establish a research program to provide a complete highway operations program within the research and technology structure.

Highway operations is an important and developing program segment within the Federal Highway Administration (FHWA). This program addresses actions that do not appropriately fit into other areas such as pavements, structures, safety and intelligent transportation systems—all of whom have both a research and a technology deployment program. Highway operations responds to the actual movement of people and goods on our Nation's streets and highways whereas other areas tend to be more infrastructure related.

The Highway Operations program is in direct response to customers' (highway users) concerns voiced in the recent National Quality Initiative Survey. Responding to the survey, the FHWA's primary focus in Highway Operations, in concert with its Strategic Plan, will be to improve mobility, safety and productivity by reducing motorist delay in (1) construction and maintenance work zones and (2) on existing roadway facilities. The FHWA will be implementing a program which includes major areas of high performance construction and maintenance methods, high performance materials and innovative management and specification strategies. This program will result in:

—Reduced exposure and risk to the traveling public and the highway worker due to construction and maintenance and operations thus improving overall safety and congestion.

—Improved work methods, practices and procedures for highway construction and maintenance operations.

—Accelerated implementation of promising technology and best practices to improve the overall performance of the highway product through increased mobility.

The fiscal year 1999 funding provides for accelerated field implementation of emerging technologies coming from FHWA's traditional Research, Development, and Technology program areas and include: innovative contracting, technician certification, adoption of performance-related specifications, performance and serviceability measurement tools, and improved maintenance practices.

The concept for the Highway Operations proposed initiatives have been closely coordinated with other FHWA R&T deliverables including products and activities planned by other research and technology groups to avoid duplication and ensure they are complementary. The Highway Operations fiscal year 1999 GOE request supports a planned program which will bridge the traditional gap between technology development and roadway performance.

There is a planned goal in the proposed NTDI that is highway operations related, Reduced Delay and Improved Safety in Construction and Maintenance Work Areas. The distinction between the requested GOE funds for highway operations (and the related program) and the planned NTDI goal is in the focus of the respective programs. The $2 million requested for highway operations will be focused on research activities as described above. The NTDI is focused on deploying technologies. Through NTDI we project that new technologies, construction methods, and contracting practices can be applied to reduce the time required to complete construction and maintenance projects. Products such as model contract specifications to provide incentives for expedited delivery; improved safety hardware and practices to protect workers and prevent accidents; innovative detour systems; and enhanced communication with the traveling public to improve their driving and behavior through construction zones all can be deployed more aggressively to minimize the disruption of commercial and personal travel. In addition to improving work zone management, the use of new pavement materials with long service life will decrease the needed frequency of the work, thus greatly reducing overall impact on travelers and adjacent businesses.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Question. The conferees stated that if the funds for specified ITS projects are reduced due to the levels specified in the reauthorization or the temporary extension of the Intermodal Surface Transportation Efficiency Act (ISTEA), the Federal Highway Administration (FHWA) is directed to fund the 41 ITS projects at the levels specified from deployment or R&D funds made available in the temporary extension and the reauthorization of the ISTEA. How do you intend to comply with this directive?

Answer. Due to the uncertainty of when a multi-year reauthorization would be enacted, no GOE funding was made available to the ITS program during the extension period. The only source of ITS funds during this period was the $47 million of contract authority included in the Extension. This represents less than one-quarter of annual ITS funding in recent years. The ITS JPO made the decision to delay the initiation of all new starts, using the available resources to fund critical ongoing efforts. This prevented the shutdown of existing contracts, avoiding layoffs, dispersal of staff and the additional expenses that would be incurred in stopping and restarting efforts. The Department intends to fully fund the 41 specified ITS projects when full GOE funding is made available. If GOE funding is not available to fund these projects, we would use ITS deployment funds made available as part of the reauthorization.

Question. How can you assure the Committee that each of the ITS projects specified in the conference report will either be fully funded or that funds will be set aside by the end of fiscal year 1998?

Answer. Once we have full GOE funding or reauthorization we will fund all of the ITS earmarks. We will not fund the earmarks in a piecemeal manner, nor will we choose one of the earmarks over another. If we receive less than full GOE funding without reauthorization, we intend to prorate the funds across all earmarks. If the GOE funding is at such a reduced level that prorating the funds would be unworkable, we will return to Congress for additional guidance.

Question. Please delineate how much you plan to spend on ITS awareness under the interim funding act. Please break down each of the contracts funded in that area. Be certain to explain why each publication cost was incurred and why those documents simply could not be made available on the Internet to download as necessary.

Answer. Under the interim funding act, the U.S. DOT plans to spend $1.1 million on awareness activities. The following is the breakdown of expenditures under that category:

Architecture Consistency—$300,000

Consistency with the national ITS architecture is essential for promoting interoperability among ITS networks regionally and nationally. It is among the highest priority activities of the national ITS Program. The DOT has been conducting outreach on its proposed policy for architecture consistency and will be developing docu-

ments that further inform the transportation community about the importance of architecture consistency. This item provides funding for these activities.

Distribute NTCIP Standards to Field—$40,000

ITS standards, along with the national ITS architecture is essential for promoting interoperability among ITS networks regionally and nationally. This item provides funding for distribution of technical materials related to the National Transportation Communication for Intelligent Transportation Systems Protocol, the first set of ITS standards, to transportation professionals.

Scanning Reviews—$300,000

Scanning reviews enable transportation practitioners to see and understand first hand how technologies that are being developed and implemented in other areas can be applied to their own regions to improve transportation services.

NGA Initiative—$100,000

The Department is working with the National Governors' Association, to educate and inform American governors of the benefits and availability of Intelligent Transportation Systems technologies. This item covers workshops as well as production and dissemination of printed materials and other projects.

Shipping and Handling Exhibits—$36,000

The Joint Program Office provides shipping and handling funds for all U.S. DOT Intelligent Transportation Systems-related exhibits throughout the country and internationally.

ITS America Annual Meeting Exhibit—$44,000

Each year the Department of Transportation exhibits at the ITS America Annual Meeting Exhibit, the largest national trade show of ITS products. The DOT exhibit represents the current ITS program information, policy and technical guidance. Because of the dynamic nature of the program requires continuous updating and renewal.

ITS Cooperative Development Network Website—$275,000

The ITS Cooperative Deployment Network is an Internet resource, under development, that will tie together the Websites from the JPO, ITS America, ITE and other leading national trade associations into a single network that can provide access to and dissemination of all current ITS research and information.

To date, the ITS Joint Program Office has not provided the majority of its publications via the Internet because its electronic document library is currently under development. A partial collection, consisting of the most recent ITS publications, is expected to be available through the electronic library in the summer of 1998. The full collection of ITS documents will be available as of March, 1999.

Cost savings in dissemination of ITS publications are expected when the electronic library is fully operational. Nevertheless, there will continue to be the need for hard-copy production to promote new products and to provide information to government and other private entities lacking Internet access.

Question. Is FHWA still allocating funds for scanning tours and scholarships to ensure that State and local government leaders as well as traffic engineers and operators have a chance to visit exemplary ITS sites as well as to attend major ITS meetings and seminars? How much was allocated for those types of activities during fiscal year 1996, fiscal year 1997, and planned for fiscal year 1998?

Answer. FHWA is allocating funds to the FHWA and FTA field offices to sponsor Scanning Reviews for State and local highway, transit, and planning elected and management officials to visit operational transportation management and traveler information centers and activities around the country. Furthermore, FHWA is contracting with the Institute of Transportation Engineers (ITE) to sponsor Scanning Reviews for State and local highway, transit, and planning technical staff to visit operational transportation management and traveler information centers and activities around the country.

ALLOCATION DURING FISCAL YEAR 1996, 1997 AND PLANNED FOR FISCAL YEAR 1998

	FHWA	ITE Contract
1996	$360,000	$116,000
1997	360,000	99,000
1998	[1] 400,000	[1] 80,000

[1] Planned.

Question. Please justify those expenses, explain their importance, and specify proposed funding levels for comparable activities in fiscal year 1999.

Answer. Nearly $500 million has been spent on operational tests as part of the ITS Program. The scanning tours and scholarships maximizes this investment by allowing State and local government leaders, traffic engineers, and operators the opportunity to visit and learn from these ITS deployments. It represents an investment in the education and experience of transportation practitioners in ITS that enables them to see first hand how technologies are being developed and implemented in other parts of the United States. State and local highway, transit, and planning elected and management officials visit operational transportation management and traveler information centers and activities around the country and interact with their peers. It also afford them the opportunity for networking and learning about state of the art and state of the practice in ITS technology. The scanning tours have resulted the incorporation of ITS into transportation projects nationwide.

Based on reports we have received from Scanning Review participants, the FHWA and FTA sponsored Scanning Review Program is very successful. Here are some testimonials on their success:

Anne Watkins, Transit Department, City of Albuquerque, NM, "I now have a much better understanding of the opportunities which ITS implementation offers to both transportation systems providers and travelers in New Mexico. I also gained a much broader understanding of the scope of planning that needs to be done for a system to be fully effective."

Captain George K. Coffman, Special Services, Arkansas Highway Police, "the networking among the attending representatives is extremely valuable * * * I was very interested in commercial vehicle operation and safety. I now better understand the reasoning why the proponents of the intelligent transportation system concept feel there is a great need for implementation of ITS."

Daniel W. Howard, Civil Engineer with the New York State Department of Transportation stated, "I networked with other ITS professionals and brought back to my agency ideas, information, and experiences that will aid the Department as we start up our new center."

Joseph Kott, the Transportation Planning Manager for a regional planning agency in Portland, Maine found the Scanning Review was helpful to him in his work as project manager of his region's ITS Early Deployment Planning project. He said, "I learned about the opportunities and obstacles in ITS transit, traveler information, and traffic management deployments. This was a wonderful opportunity for both "look and see" as well as dialog with my peers."

Thomas Merritt, the Director of the Department of Public Service for Columbus, Ohio found the systems that are in place in San Antonio and Houston provided him with first-hand knowledge of these intelligent transportation infrastructure applications and permitted him to discuss implementation issues with local agencies. He also stated, "I believe a great benefit was derived from the informal communications that occurred in the Scanning Review."

PROPOSED FUNDING LEVELS FOR COMPARABLE ACTIVITIES IN FISCAL YEAR 1999

	FHWA	ITE Contract
1999	[1] $300,000	[1] $80,000

[1] Planned.

Question. Why is it critical at this time to increase funding for evaluations? What is the empirical basis for the requested increase?

Answer. As the ITS Program transitions to deployment, robust evaluation funding is essential to ensure thorough evaluation of the costs and benefits of providing ITS user services and to measure overall program impacts in the context of stated goals and objectives. For the first time, all centrally managed field evaluations of oper-

ational tests and model deployments are funded by the same line item. The increases in evaluation funding reflect implementation of the policy to conduct independent evaluations of all operational tests and model deployments in addition to increasing program assessment requirements. The principal emerging assessment requirements include the following: Tracking project activity funded by deployment incentives to assess outcome measures; Synthesis and analysis of data collected in deployment incentive projects and operational tests into meaningful GPRA assessment measures; Development of policy analyses and Congressional reporting; and Anticipated policy assessment endeavors resulting from linking federal funding for projects to architecture consistency and adherence to standards.

Evaluation/Assessment Program emphasis will be on completing the metropolitan and CVISN model deployment evaluations, cross-cutting analyses of results from ongoing operational tests and new evaluations of rural, highway-rail and intelligent vehicles. Specific evaluation funding requests include: Metropolitan Model Deployment—$800,000; CVISN Model Deployment—$490,000; Field Operational Tests Cross-Cutting Analyses—$900,000; Rural Field Operational Tests—$2,290,000; Intelligent Vehicle Operational Tests—$2,250,000; Intermodal Freight Evaluation—$150,000; APTS Field Operational Tests—$300,000; and Highway-Rail Field Operational Tests—$375,000.

In the Program/Policy Assessment area, areas of emphasis include: ITS Deployment Tracking—$895,000; Project Tracking—$250,000; and Policy Assessment—$3,700,000.

Question. As part of the ITS program, FHWA annually spends millions of dollars on outreach, public information, mainstreaming, and training. Please present documentation which substantiates that those expenses are still critical in light of the benefits already established for the ITS program.

Answer. The focus of FHWA efforts in this area are to ensure that ITS technologies and services are being implemented in an integrated and interoperable manner, by providing: (1) technical assistance on the planning, procurement, and implementation of integrated ITS technologies; (2) guidance on the use of the National ITS architecture, the implementation of ITS standards, and the identification of "best practices;" and (3) the training necessary to building a skill base at the Federal, State and local levels. The importance of these efforts has been documented in several recent reports. A February 1997 GAO report, "Challenges to Widespread Deployment of Intelligent Transportation Systems " cited the "lack of technical expertise and knowledge about ITS among those who will actually deploy the systems" as a significant obstacle to the widespread deployment of integrated ITS. Similarly, a December 1997, Volpe Center report "ITS Training and Education Needs Assessment Baseline" provided a documented summary of 13 studies of ITS training and education needs and field interviews in 10 States. This report pointed to the need for increased ITS training and education efforts to support effective ITS deployment.

Question. Please provide a table indicating the funding spent on each of those activities for each of the last three years. How much is planned for fiscal year 1999 for each of these areas?

Answer. The following table depicts funding for ITS mainstreaming activities for fiscal years 1996 through 1999.

INTELLIGENT TRANSPORTATION SYSTEMS MAINSTREAMING ACTIVITIES—FISCAL YEAR 1996–1999

[In thousands of dollars]

Activity/project	Fiscal year [1]—			
	1996 actual	1997 actual	1998 estimate	1999 estimate
Mainstreaming:				
Commercial vehicle operations(CVO)	2,885	1,199	([2])	([2])
Advanced public transp. systems (APTS)	.....	450	([2])	([2])
Training (Professional Capacity Building) [3]	2,736	5,074	10,000	9,000
Planning/process guidance	3,919	1,000	4,000	4,000
Deployment technical assistance	5,733	4,587	5,000	6,500
Awareness and advocacy	.....	.....	3,000	2,000

INTELLIGENT TRANSPORTATION SYSTEMS MAINSTREAMING ACTIVITIES—FISCAL YEAR 1996–1999—Continued

[In thousands of dollars]

Activity/project	Fiscal year [1]—			
	1996 actual	1997 actual	1998 estimate	1999 estimate
Grand total	15,273	12,310	22,000	21,500

[1] Fiscal year 1998 and fiscal year 1999 amounts are those included in the Congressional Budgets for those years; they assume full funding, i.e., that we will eventually receive all funds requested for those fiscal years; final spending plans for fiscal years 1998 and 1999 will not be completely formulated until after final Congressional action is taken on appropriation acts and substantive legislation for those years.

[2] No separate funding; merged into program categories below.

[3] Fiscal year 1997 amount includes $2,002,000 of training funding charged to Operational Tests per Congressional direction.

Question. What ITS monies are being used to further the productivity of the intermodal freight industry?

Answer. No ITS monies are being used to further the productivity of the intermodal freight industry alone. U.S. DOT plans to identify critical intermodal freight movement problems and bottlenecks and apply ITS technology solutions to those problem areas in partnership with the freight industry. The critical federal role is developing congestion mitigation strategies that can be applied throughout the nation on major transportation corridors, and developing strategies that will facilitate the safe movement of the traveling public along those corridors.

The intermodal freight industry has indicated an interest in coordinating development efforts with DOT on electronic data interchange and on technology standardization, and on resolving access issues to the ports. Major evidence for this interest in DOT's assistance is the workshop that was held in Baltimore in November 1995. Also, the establishment of a national freight partnership to assist in the development of DOT initiatives and to stimulate feedback from the rest of the freight industry has been a critical step in the process. This partnership has provided valuable input to the Trade Corridor and Border Gateway Pilot Planning initiative in the proposed reauthorization of ISTEA. Further evidence is the interest given in the development of a workshop planned for June, 1998 to address some of the issues related to intermodal freight identification, and to help identify the role that DOT and DOD may need to play in coordinating an intermodal freight transportation architecture.

Question. Why is that investment considered a critical funding need that could not be delayed given the limitation of the interim authorization?

Answer. Rapid growth of congestion in urban areas, including major ports of entry, is a nationwide problem that reduces transportation efficiency and market competitiveness. Loss of transportation system reliability due to congestion hampers the ability of American business and industry to take advantage of manufacturing and distribution logistics that rely on just-in-time performance. The private sector freight transportation industry has been applying information management and communication technologies to integrate freight transportation and provide shippers and receivers with a seamless freight transportation system. Working with the private sector, the public sector can enhance economic performance and ensure national security by reducing delay at ports of entry, intermodal terminals, and on the national highway system.

Minimal ITS funds, $150,000, have been allocated from the fiscal year 1998 funds available from the ISTEA Extension, to ensure that proper strategic and program planning was conducted prior to initiation of the intermodal test deployments proposed for fiscal year 1999. A team has been established in USDOT, consisting of representatives of all modes to address issues that will help seek intermodal solutions. The urgency of the activity was related to preparing an effective agenda for fiscal year 1999 requested funds. The intention of the fiscal year 1999 efforts are to take advantage of ITS lessons learned and leverage appropriate existing ITS projects to examine solutions to congestion related to intermodal movements in corridors of significance to international trade and national defense.

For example, the State of Washington and the Province of British Columbia are cooperating on a project to streamline the movement of freight across the Blaine border crossing. In addition, they also plan to test the viability of using dedicated short range communication devices to facilitate the movement of freight from the

Port of Seattle through the border crossing. The DOT is working with the two jurisdictions on the test, and is currently sponsoring the development of standards for DSRC. As such, it is critical for DOT to work with the freight industry, the DSRC manufacturing industry and other users to work toward harmonizing standards and eliminating interference.

Question. How much are you now spending on this objective? How much is proposed in fiscal year 1998? (Assume full authorization of fiscal year 1998 appropriated funds.) In fiscal year 1999?

Answer. In fiscal year 1996 the DOT allocated $250,000 to a study conducted by the Volpe Center titled, ''Intelligent Transportation Systems and Intermodal Freight Transportation.'' This study provided a foundation for additional work to conduct proper and strategic program planning prior to initiation of the intermodal test planned for fiscal year 1999. The program planning work is estimated to cost approximately $300,000. Under the ISTEA Extension, $150,000 has been allocated to the fiscal year 1998 effort. The fiscal year 1999 funding of $1 million is requested to be applied to the deployment of two ITS intermodal test projects. The projects will be in corridors of significance to international trade and the national defense. DOT also plans for the tests to cross at least two state lines, involve at least one international port of entry, and involve one or more MPO's.

Question. Please present for the record a breakdown of how you have allocated the ITS interim funds.

Answer. The following table shows how the $47 million of interim ITS funds for fiscal year 1998 have been allocated.

INTELLIGENT TRANSPORTATION SYSTEMS—FISCAL YEAR 1998 SPENDING PLAN

[In thousands of dollars]

Programs	Fiscal year 1998 budget		
	GOE	Cont. auth.	Total
RESEARCH AND DEVELOPMENT:			
TRAFFIC MANAGEMENT & CONTROL	.....	2,650	2,650
INTELLIGENT VEHICLE RESEARCH	.....	7,750	7,750
ENABLING	.....	848	848
RURAL RESEARCH	.....	630	630
HIGH RISK RESEARCH	.....	.....	.....
OTHER RESEARCH	.....	500	500
ADVANCED TRANSIT MGMT. RESEARCH	.....	.....	.....
COMMERCIAL VEHICLE OPERATIONS	.....	6,150	6,150
HWY.-RAIL INTERSECT INNOV DEV. RESEARCH	.....	.....	.....
INTERMODAL FREIGHT RESEARCH	.....	150	150
TOTAL	.....	18,678	18,678
OPERATIONAL TESTS:			
APTS	.....	.....	.....
CVO (Safety Test @ Two Border Crossings)	.....	500	500
INTELLIGENT VEHICLE	.....	2,500	2,500
RURAL	.....	1,100	1,100
ALERT Vehicle Deployment [1]	.....	150	150
TOTAL	.....	4,250	4,250
EVALUATION/PROGRAM ASSESSMENT:			
ITS Field Evaluations	.....	1,900	1,900
ITS Program Assessment	.....	975	975
TOTAL	.....	2,875	2,875
ARCHITECTURE AND STANDARDS:			
ARCHITECTURE	.....	2,467	2,467

INTELLIGENT TRANSPORTATION SYSTEMS—FISCAL YEAR 1998 SPENDING PLAN—Continued

[In thousands of dollars]

Programs	Fiscal year 1998 budget		
	GOE	Cont. auth.	Total
STANDARDS	.....	5,373	5,373
TOTAL	.....	7,840	7,840
MAINSTREAMING:			
TECHNICAL ASSISTANCE	.....	2,150	2,150
PLANNING/POLICY	.....	20	20
TRAINING	.....	2,580	2,580
AWARENESS AND ADVOCACY	.....	1,095	1,095
TOTAL	.....	5,845	5,845
CORRIDORS	.....	.....	.....
PROGRAM SUPPORT	.....	4,971	4,971
ITS DEPLOYMENT INCENTIVES PROGRAM	.....	1,000	1,000
CONTINGENCIES	.....	1,541	1,541
GRAND TOTAL	.....	47,000	47,000

Question. Please submit for the record a detailed breakout of how the fiscal year 1997 funds for model deployment were allocated. Specify the amount and nature of any supporting contracts. Provide similar breakouts for fiscal year 1998 monies, assuming full authorization of contract and appropriated funds.

Answer. The following information.

Metropolitan:

Fiscal year 1997 funds were allocated to the four metropolitan Model Deployment sites as follows: Seattle—$9,088,000; Phoenix—$2,920,000; San Antonio—$2,544,000; and New York/New Jersey/Connecticut metropolitan area—$6,010,000, which included $250,000 from the I–95 Corridor Coalition.

It is important to note that the metropolitan Model Deployment projects are true public/private partnerships, with the project partners providing at least 50 percent of the total project costs. Therefore, the Federal ITS funding above represents only a portion of the overall value of the total program.

A total of $1,481,814 was used in fiscal year 1997 to support the four selected metropolitan Model Deployment sites and to encourage the non-selected sites to continue their ITS deployment plans. This included regular workshops to facilitate information exchange among the Model Deployment sites and to provide a forum for addressing crosscutting issues. The funding also provided technical assistance on the national ITS architecture, systems engineering, and other issues relevant to both the selected and non-selected Model Deployment partnerships. The funding was allocated as follows: Model Deployment Quarterly Workshops—$105,000; National Architecture Early Implementation Support—$600,000; Technical/Systems Engineering Support—$426,814; Showcasing/Lessons Learned—$250,000; and Program Management Software, Internet Site Support—$100,000.

Evaluation of the Model Deployment effort is essential to obtain valuable information to support the national ITS program and allow the public and private sectors to make informed deployment decisions. To avoid conflict of interest created by having a participant evaluate its own project, two ITS Program Assessment support contracts were awarded, in part, to evaluate the benefits of the metropolitan Model Deployment sites. fiscal year 1997 funds allocated for this evaluation effort totals $3,300,000.

The only fiscal year 1998 funding for the model deployment effort will be $750,000 allocated to fully fund the evaluation effort.

Commercial Vehicle Operations:

Fiscal year 1997 funds were allocated to the eight CVISN Model Deployment sites as follows: California—$500,000; Colorado—$500,000; Connecticut—$500,000; Ken-

tucky—$500,000; Michigan—$0 [1]; Minnesota—$500,000; Oregon—$500,000; and Washington—shared with Oregon.

FHWA planned to use model deployment incentive funds for fiscal year 1998 to complete the funding for the CVISN model deployment states. The cost estimate for states to complete CVISN level one model deployment is $6–$8 million. One million dollars of federal funds has already been allocated to the model deployment states. With a 50–50 share between states and the federal government, the current investment is $2 million. The remaining federal allocation is $2–$3 million per State to complete CVISN level in the model deployment states.

Question. Please submit a copy of the ITS spending plan for fiscal year 1998 assuming full authorization of contract and appropriated funds and proposed for fiscal year 1999. Also please submit a comparable final ITS spending allocation for fiscal year 1997. Please be certain that the fiscal year 1998 and fiscal year 1997 spending plans are in a form identical to that provided on pages 215–221 of your fiscal year 1999 budget submittal.

Answer. The following tables displays the ITS spending plans for fiscal years 1997, 1998, and 1999.

[1] Michigan did not complete the requirements for additional funding, but expects to continue participation as funds become available.

INTELLIGENT TRANSPORTATION SYSTEMS FISCAL YEAR 1997 SPENDING PLAN (ACTUAL)

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
RESEARCH AND DEVELOPMENT	6,891	22,458	8,100	475	.....	31,033	26,393	4,640	31,033
TRAFFIC MANAGEMENT & SOFTWARE TOOLS	.....	.....	.....	.....	.....	.....	.....	.....	.....
COMMERCIAL VEHICLE OPERATIONS	6,891	6,891	.....	.....	.....	6,891	6,891	.....	6,891
CRASH AVOIDANCE RESEARCH	.....	.....	7,500	.....	.....	7,500	7,500	.....	7,500
ENABLING RESEARCH	.....	4,044	600	175	.....	4,819	4,779	40	4,819
HIGH RISK RESEARCH	.....	4,300	.....	.....	.....	4,300	.....	4,300	4,300
ADVANCED FLEET MGMT. RESEARCH	.....	.....	.....	300	.....	300	300	.....	300
OTHER R&D	.....	5,813	.....	.....	.....	5,813	5,813	.....	5,813
PROGRAM ASSESSMENT	.....	1,410	.....	.....	.....	1,410	1,110	300	1,410
AUTOMATED HIGHWAY SYSTEM	.....	22,000	.....	.....	.....	22,000	22,000	.....	22,000
ARCHITECTURE AND STANDARDS	.....	12,803	.....	.....	.....	12,803	5,000	7,803	12,803
ARCHITECTURE	.....	2,629	.....	.....	.....	2,629	.....	2,629	2,629
STANDARDS	.....	10,174	.....	.....	.....	10,174	5,000	5,174	10,174
OPERATIONAL TESTS	14,483	53,797	3,050	1,950	.....	58,797	56,447	2,350	58,797
ATMS/ATIS	.....	11,637	.....	600	.....	12,237	12,237	.....	12,237
COMMERCIAL VEHICLE OPERATIONS (CVO)	13,483	13,483	.....	.....	.....	13,483	12,483	1,000	13,483
AVCSS	.....	.....	3,050	.....	.....	3,050	3,050	.....	3,050
APTS	.....	.....	.....	1,350	.....	1,350	.....	1,350	1,350
MODEL DEPLOYMENT (INCL. IN ATMS/ATIS IN BUDGET)	.....	26,675	.....	.....	.....	26,675	26,675	.....	26,675
TRAINING ACTIVITIES	1,000	2,002	.....	.....	.....	2,002	2,002	.....	2,002
EVALUATION	.....	2,039	.....	100	.....	2,139	1,999	140	2,139
MAINSTREAMING	1,199	9,558	.....	750	.....	10,308	193	10,115	10,308
COMMERCIAL VEHICLE OPERATIONS (CVO)	1,199	1,199	.....	.....	.....	1,199	193	1,006	1,199
ADVANCED PUBLIC TRANSP. SYSTEMS (APTS)	.....	.....	.....	450	.....	450	.....	450	450
TRAINING (Professional Capacity Building)	.....	2,772	.....	300	.....	3,072	.....	3,072	3,072
PLANNING/PROCESS GUIDANCE	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
DEPLOYMENT TECHNICAL ASSISTANCE	.....	4,587	.....	.....	.....	4,587	.....	4,587	4,587
CORRIDORS PROGRAM	11,500	71,700	.....	.....	.....	71,700	.....	71,700	71,700
PROGRAM SUPPORT	.....	9,461	.....	200	.....	9,661	8,326	1,335	9,661

NAT'L. ADV. DRIVER SIMULATOR (NADS)	.....	.....	14,000	.....	.....	14,000	.....	14,000	14,000
GRAND TOTAL	34,073	203,816	25,150	3,475	.....	232,441	120,358	112,083	232,441
RESEARCH AND DEVELOPMENT	6,891	22,458	8,100	475	.....	31,033	26,393	4,640	31,033
TRAFFIC MANAGEMENT & SOFTWARE TOOLS	.....	.....	.....	.....	.....	.....	.....	.....	.....
Real-Time Traffic Mgmt. & Control	.....	.....	.....	.....	.....	.....	.....	.....	.....
RT-TRACS 2.0	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ramp Metering	.....	.....	.....	.....	.....	.....	.....	.....	.....
Surface Street Incident Detection	.....	.....	.....	.....	.....	.....	.....	.....	.....
Support Systems	.....	.....	.....	.....	.....	.....	.....	.....	.....
Research & Anal. for ATMS (Oak Ridge)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Traffic Mgmt. Lab (TML)	.....	.....	.....	.....	.....	.....	.....	.....	.....
CVO	6,891	6,891	.....	.....	.....	6,891	6,891	.....	6,891
Safer MCSAP Sites	5,100	5,100	.....	.....	.....	5,100	5,100	.....	5,100
System Develop. & Enhancement	1,890	1,890	.....	.....	.....	1,890	1,890	.....	1,890
Field Deployment	1,610	1,610	.....	.....	.....	1,610	1,610	.....	1,610
System Operation and Support	1,600	1,600	.....	.....	.....	1,600	1,600	.....	1,600
Driver Monitoring (with NHTSA)	90	90	.....	.....	.....	90	90	.....	90
Industry Research (NPTC, ATA, etc.)	120	120	.....	.....	.....	120	120	.....	120
On-Board Safety Diagnostics	686	686	.....	.....	.....	686	686	.....	686
Auto Roadside Inspec. (Imaging)	135	135	.....	.....	.....	135	135	.....	135
Electronic Brake (with NHTSA)	150	150	.....	.....	.....	150	150	.....	150
Brake Performance Specifications	401	401	.....	.....	.....	401	401	.....	401
Black Box (Data Recorder)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Automated Compliance Review Program (Volpe)	500	500	.....	.....	.....	500	500	.....	500
State Research (Baxter Replacement)	245	245	.....	.....	.....	245	245	.....	245
Dedicated Short Range Comm. (DSRC) (Booz-Allen)	150	150	.....	.....	.....	150	150	.....	150
CRASH AVOIDANCE RESEARCH	.....	.....	7,500	.....	.....	7,500	7,500	.....	7,500
Research Tools and Knowledge Base	.....	.....	1,000	.....	.....	1,000	1,000	.....	1,000
Application of Vehicle Motion Env. (VME)	.....	.....	100	.....	.....	100	100	.....	100
Application of DASCAR	.....	.....	250	.....	.....	250	250	.....	250
Human Factors Research	.....	.....	150	.....	.....	150	150	.....	150
SAVME and FOCAS Extensions	.....	.....	500	.....	.....	500	500	.....	500
Performance Specifications	.....	.....	3,450	.....	.....	3,450	3,450	.....	3,450
Rear-end Collision Avoidance Systems	.....	.....	1,500	.....	.....	1,500	1,500	.....	1,500
Intersection Collision Avoidance Systems	.....	.....	500	.....	.....	500	500	.....	500

INTELLIGENT TRANSPORTATION SYSTEMS FISCAL YEAR 1997 SPENDING PLAN (ACTUAL)—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
Lane Change and Merge Systems	.....	.....	450	.....	.....	450	450	.....	450
Roadway Departure Systems	.....	.....	500	.....	.....	500	500	.....	500
Drowsy Driver Detection Sys. & Prototype Eval	.....	.....	400	.....	.....	400	400	.....	400
Vision Enhancement	.....	.....	100	.....	.....	100	100	.....	100
Facilitate Commercial Development	.....	.....	680	.....	.....	680	680	.....	680
Intelligent Cruise Control (ICC)	.....	.....	300	.....	.....	300	300	.....	300
Auto. Collision Notification Evaluation (ACN)	.....	.....	380	.....	.....	380	380	.....	380
Miscellaneous Support	.....	.....	2,370	.....	.....	2,370	2,370	.....	2,370
NHTSA Administrative Support	.....	.....	600	.....	.....	600	600	.....	600
Cooperative Agreements	.....	.....	1,770	.....	.....	1,770	1,770	.....	1,770
CAMP (Ford/GM Metrics Performance Study	.....	.....	1,250	.....	.....	1,250	1,250	.....	1,250
IR Vision Enh. (Texas Inst./US Army/Scientex)	.....	.....	270	.....	.....	270	270	.....	270
Heavy Vehicle Intelligent Dynamic Stability	.....	.....	150	.....	.....	150	150	.....	150
Commercial Veh. Commun. & Power Enhan	.....	.....	100	.....	.....	100	100	.....	100
ENABLING RESEARCH	.....	4,044	600	175	.....	4,819	4,779	40	4,819
Augmentation of Global Positioning Sys. (GPS)	.....	566	.....	.....	.....	566	566	.....	566
Telecommunications	.....	200	.....	.....	.....	200	200	.....	200
Human Factors Support	.....	3,238	600	175	.....	4,013	4,013	.....	4,013
In-vehicle Display Icons	.....	275	.....	.....	.....	275	275	.....	275
IVIS Behavioral Model & Design Support Sys	.....	400	.....	.....	.....	400	400	.....	400
Technical & Administrative Services (SAIC)	.....	925	.....	.....	.....	925	925	.....	925
ATIS/CVO Design Evolution	.....	200	.....	.....	.....	200	200	.....	200
Tech. Support for IVIS Development (ORNL)	.....	500	.....	.....	.....	500	500	.....	500
TMC Computer-aided Design Support System	.....	400	.....	.....	.....	400	400	.....	400
FTA Traveller Information Effectiveness	.....	.....	.....	175	.....	175	175	.....	175
ATMS Human Factors Study (Georgia Tech)	.....	244	.....	.....	.....	244	244	.....	244
Safety Workload Assessment	.....	.....	300	.....	.....	300	300	.....	300
ITS In-Vehicle Device Integration for CAS	.....	.....	100	.....	.....	100	100	.....	100
Long Term Effects of ITS on Driver Behavior	.....	.....	200	.....	.....	200	200	.....	200

Prel. Human Factors Review of IVI		294				294	294		294
Track FCC Petition for 5.8 GHZ Spectrum Alloc. (ITSA)		40				40		40	40
Coord. Supp. of DOT Navig. & Positioning Prog. (OST)									
HIGH RISK RESEARCH		4,300				4,300		4,300	4,300
IDEA		1,000				1,000		1,000	1,000
Research Centers of Excellence		1,700				1,700		1,700	1,700
Texas Transportation Institute (1997 Earmark)		600				600		600	600
Adv. Trans. Weather Sys.-Univ. N Dakota (1997 Earmark)		1,000				1,000		1,000	1,000
University of North Dakota (1996 Cong. Earmark)									
ADVANCED FLEET MGMT. RESEARCH (APTS)				300		300	300		300
OTHER R&D		5,813				5,813	5,813		5,813
Research Centers of Excellence		1,000				1,000	1,000		1,000
TFHRC Support/Overhead		3,403				3,403	3,403		3,403
TRB Correlation Service		1,077				1,077	1,077		1,077
Small Business Innovative Research (SBIR)		1,821				1,821	1,821		1,821
RD&T Report Center Support Services		131				131	131		131
Editorial Support Services		374				374	374		374
Pan American Hwy. Study									
Audit Costs									
Electronics Laboratory		191				191	191		191
ADP Support Services (In Support/Overhead in 1996		500				500	500		500
Develop ITS Planning Models (ORNL) (See IV.A.1.b.(7))									
Rural Res.-Toolbox Devel./Mgmt.(Move $200K to I.D.3.h)									
Other (Internet Access, report distribution, logistics, etc.)		719				719	719		719
PROGRAM ASSESSMENT		1,410				1,410	1,110	300	1,410
Evaluation Support for Oper. Tests (Booz-Allen)		687				687	687		687
Evaluation Support for Operational Tests (Booz-Allen)		413				413	413		413
Unobligated Carryover		10				10	10		10
Program Assessment of AHS		300				300		300	300
ITS Program Assessment (Volpe) ($400K)									
AUTOMATED HIGHWAY SYSTEM		22,000				22,000	22,000		22,000
ARCHITECTURE AND STANDARDS		12,803				12,803	5,000	7,803	12,803
ARCHITECTURE		2,629				2,629		2,629	2,629
Deployment/Implementation Support		129				129		129	129
Architecture Maintenance		2,500				2,500		2,500	2,500
STANDARDS		10,174				10,174	5,000	5,174	10,174

INTELLIGENT TRANSPORTATION SYSTEMS FISCAL YEAR 1997 SPENDING PLAN (ACTUAL)—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
Spatial Data Transfer Standard	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
National Transp. Communications ITS Protocol (NTCIP)	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
CVO Standards	.....	500	.....	.....	.....	500	500	.....	500
Traffic Mgmt. System Support Standards	.....	800	.....	.....	.....	800	800	.....	800
Transit Mgmt. Standards Support (APTS)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Standards Development Organizations	.....	3,799	.....	.....	.....	3,799	1,700	2,099	3,799
Standards Support (JPL)	.....	2,300	.....	.....	.....	2,300	.....	2,300	2,300
Dedicated Short Range Communications	.....	510	.....	.....	.....	510	.....	510	510
Architectural Support of Standards	.....	265	.....	.....	.....	265	.....	265	265
OPERATIONAL TESTS	14,483	53,797	3,050	1,950	.....	58,797	56,447	2,350	58,797
ATMS/ATIS	.....	11,637	.....	600	.....	12,237	12,237	.....	12,237
Real-time Traffic Adaptive Control (1997 Earmark)	.....	10,000	.....	.....	.....	10,000	10,000	.....	10,000
Operational Tests	.....	6,000	.....	.....	.....	6,000	6,000	.....	6,000
RT-TRACS Testing I (Reston Pkwy.) (Kaman)	.....	2,050	.....	.....	.....	2,050	2,050	.....	2,050
RT-TRACS Testing II (Site B)	.....	675	.....	.....	.....	675	675	.....	675
RT-TRACS Testing III (Site C)	.....	1,750	.....	.....	.....	1,750	1,750	.....	1,750
RT-TRACS Testing IV (Site D)	.....	1,525	.....	.....	.....	1,525	1,525	.....	1,525
Other (R&D)	.....	4,000	.....	.....	.....	4,000	4,000	.....	4,000
Deployment Issues of Surveillance Sys	.....	250	.....	.....	.....	250	250	.....	250
Ramp Metering	.....	750	.....	.....	.....	750	750	.....	750
Development of RT TRACS	.....	500	.....	.....	.....	500	500	.....	500
ATMS Research Tools Database System	.....	500	.....	.....	.....	500	500	.....	500
Traffic Mgmt. Lab. Support	.....	750	.....	.....	.....	750	750	.....	750
Support Services	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
Devel. of ITS Planning Models (See I.G.5.)	.....	250	.....	.....	.....	250	250	.....	250
Rural Program Activities	.....	1,637	.....	600	.....	2,237	2,237	.....	2,237
Strategic Plan Coordination Workshops	.....	.....	.....	.....	.....	.....	.....	.....	.....
Toolbox Devel. & Mgmt. (See Other R&D)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Regional Applications of APTS Technology	.....	.....	.....	600	.....	600	600	.....	600

Sweetwater, Wyoming	.....	.....	.....	200	.....	200	200	.....	200
Florida Panhandle	.....	.....	.....	200	.....	200	200	.....	200
Cape Cod, Massachusetts	.....	.....	.....	200	.....	200	200	.....	200
Tourism and Advanced Traveler Info. Systems FOT	.....	850	.....	.....	.....	850	850	.....	850
Road Weather Information System	.....	700	.....	.....	.....	700	700	.....	700
Misc. Rural Projects	.....	87	.....	.....	.....	87	87	.....	87
ITSA ARTS Conference	.....	30	.....	.....	.....	30	30	.....	30
Weather Video	.....	7	.....	.....	.....	7	7	.....	7
ARTS Program Coordination Workshops	.....	.....	.....	.....	.....	.....	.....	.....	.....
Virginia AVL for Snow Plows	.....	50	.....	.....	.....	50	50	.....	50
CVO	13,483	13,483	.....	.....	.....	13,483	12,483	1,000	13,483
CVISN & Prototype Testing (1997 Earmark)	9,218	9,218	.....	.....	.....	9,218	9,218	.....	9,218
Prototypes and Pilots	4,000	4,000	.....	.....	.....	4,000	4,000	.....	4,000
Technical Support	5,218	5,218	.....	.....	.....	5,218	5,218	.....	5,218
Border Crossings	3,150	3,150	.....	.....	.....	3,150	3,150	.....	3,150
Texas Border Deployment	2,500	2,500	.....	.....	.....	2,500	2,500	.....	2,500
Texas Border Technical Assistance ($350=BAH)	650	650	.....	.....	.....	650	650	.....	650
CVO Corridors (Advantage I–75)	1,000	1,000	.....	.....	.....	1,000	.....	1,000	1,000
One Stop Shopping	115	115	.....	.....	.....	115	115	.....	115
Safer Mailbox (Delaware)	.....	.....	.....	.....	.....	.....	.....	.....	.....
AVCSS (Adv. Veh. Control Sys.) (1997 Earmark = $3 M)	.....	.....	3,050	.....	.....	3,050	3,050	.....	3,050
ICC Operational Field Test	.....	.....	822	.....	.....	822	822	.....	822
Auto. Collision Notification (ACN) Oper. Field Test	.....	.....	23	.....	.....	23	23	.....	23
Rear-end Crash Avoidance Systems	.....	.....	1,155	.....	.....	1,155	1,155	.....	1,155
ICC Heavy Vehicles	.....	.....	1,000	.....	.....	1,000	1,000	.....	1,000
Crash Avoidance Op. Test Exhibit @ AHS Demo	.....	.....	50	.....	.....	50	50	.....	50
APTS	.....	.....	.....	1,350	.....	1,350	.....	1,350	1,350
Next Generation Kiosk & Visitor Transit Information	.....	.....	.....	700	.....	700	.....	700	700
Advanced Fare Media	.....	.....	.....	200	.....	200	.....	200	200
Advanced Fleet Mgmt. System	.....	.....	.....	450	.....	450	.....	450	450
MODEL DEPLOY. (Integration of ITI Tech.) 1997 Earmark	.....	26,675	.....	.....	.....	26,675	26,675	.....	26,675
Metropolitan Areas	.....	22,488	.....	.....	.....	22,488	22,488	.....	22,488
Model Deployments	.....	20,645	.....	.....	.....	20,645	20,645	.....	20,645
Phoenix	.....	2,920	.....	.....	.....	2,920	2,920	.....	2,920
San Antonio	.....	2,544	.....	.....	.....	2,544	2,544	.....	2,544
Seattle	.....	9,088	.....	.....	.....	9,088	9,088	.....	9,088

INTELLIGENT TRANSPORTATION SYSTEMS FISCAL YEAR 1997 SPENDING PLAN (ACTUAL)—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
New York/New Jersey/Connecticut	.....	5,760	.....	.....	.....	5,760	5,760	.....	5,760
Other	.....	333	.....	.....	.....	333	333	.....	333
Model Deployment Program Management	.....	1,843	.....	.....	.....	1,843	1,843	.....	1,843
MDI Quarterly Workshops	.....	106	.....	.....	.....	106	106	.....	106
Nat'l. Architecture Early Implementation Effort	.....	600	.....	.....	.....	600	600	.....	600
Debriefing Packages (Deployment Asst. Workshops	.....	126	.....	.....	.....	126	126	.....	126
Technical/Systems Engineering Support	.....	416	.....	.....	.....	416	416	.....	416
WWW Site Support	.....	.....	.....	.....	.....	.....	.....	.....	.....
Program Mgmt. Software	.....	.....	.....	.....	.....	.....	.....	.....	.....
Public Sector Nat'l. Arch. Seminar (Devel. & Deliver)	.....	595	.....	.....	.....	595	595	.....	595
Evaluations	.....	4,187	.....	.....	.....	4,187	4,187	.....	4,187
ITI Model Deployment Evaluations (4 sites)	.....	2,564	.....	.....	.....	2,564	2,564	.....	2,564
CVISN Evaluation (7 sites)	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
Evaluation Support for Oper. Tests (Booz-Allen)	.....	623	.....	.....	.....	623	623	.....	623
Other	.....	.....	.....	.....	.....	.....	.....	.....	.....
CVISN (See CVO Op. Tests above)	.....	.....	.....	.....	.....	.....	.....	.....	.....
ITI & CVO Training (See Training Activities below)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lessons Learned—Atlanta (Booz-Allen)	.....	.....	.....	.....	.....	.....	.....	.....	.....
TRAINING ACTIVITIES	1,000	2,002	.....	.....	.....	2,002	2,002	.....	2,002
ITI Training	.....	1,002	.....	.....	.....	1,002	1,002	.....	1,002
Traf. Opr. Curr & Certification Devel. Support	.....	200	.....	.....	.....	200	200	.....	200
Printing—Seminar & Course Support Materials	.....	.....	.....	.....	.....	.....	.....	.....	.....
Refinements/Enhanc. to Seminars/New Courses	.....	802	.....	.....	.....	802	802	.....	802
CVO Training	1,000	1,000	.....	.....	.....	1,000	1,000	.....	1,000
EVALUATION	.....	2,039	.....	100	.....	2,139	1,999	140	2,139
NCTI Showcase Evaluation (IPAS)	.....	150	.....	.....	.....	150	150	.....	150
ITI Deployment Tracking (ORNL)	.....	350	.....	.....	.....	350	350	.....	350

PCB Tracking (Volpe)	.....	50	.....	.....	.....	50	50	.....	50
CVISN Tracking (Volpe)	.....	10	.....	.....	.....	10	10	.....	10
Standards Tracking (Volpe)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Benefits Analysis (IPAS)	.....	425	.....	.....	.....	425	385	40	425
Cost Analysis (IPAS)	.....	480	.....	.....	.....	480	480	.....	480
Policy Analysis (IPAS)	.....	574	.....	.....	.....	574	574	.....	574
FTA Admin. Support/Evaluation (Volpe)	.....	.....	.....	100	.....	100	.....	100	100
Operational Test Evaluations ($450K)	.....	.....	.....	.....	.....	.....	.....	.....	.....
MAINSTREAMING	1,199	9,558	.....	750	.....	10,308	193	10,115	10,308
CVO	1,199	1,199	.....	.....	.....	1,199	193	1,006	1,199
CVO Outreach	106	106	.....	.....	.....	106	.....	106	106
CVO Training (See Training under Operational Tests)	.....	.....	.....	.....	.....	.....	.....	.....	.....
CVO Deployment Technical Asst. (Regional Champs)	1,093	1,093	.....	.....	.....	1,093	193	900	1,093
State, Reg. and Nat'l. Forums/Activities	.....	.....	.....	.....	.....	.....	.....	.....	.....
APTS	.....	.....	.....	450	.....	450	.....	450	450
TRAINING (Professional Capacity Building (PCB))	.....	2,772	.....	300	.....	3,072	.....	3,072	3,072
Nat'l. ITS Training Initiative	.....	2,712	.....	.....	.....	2,712	.....	2,712	2,712
PCB Awareness Seminars—Delivery to Field	.....	1,557	.....	.....	.....	1,557	.....	1,557	1,557
Scanning Reviews	.....	375	.....	.....	.....	375	.....	375	375
PCB External Steering Committee Support	.....	125	.....	.....	.....	125	.....	125	125
On-site (PCB) Tech. & Clerical Support	.....	255	.....	.....	.....	255	.....	255	255
Tours & Scholarships (ITE)	.....	150	.....	.....	.....	150	.....	150	150
Support for ITI Seminars at Nat'l. Assoc. Conf	.....	.....	.....	.....	.....	.....	.....	.....	.....
PCB Program Update	.....	250	.....	.....	.....	250	.....	250	250
Present New ITS Short Courses	.....	.....	.....	.....	.....	.....	.....	.....	.....
FTA Training Initiative	.....	.....	.....	300	.....	300	.....	300	300
Develop Transit Mgmt. Overview Course	.....	.....	.....	100	.....	100	.....	100	100
PCB Program Support	.....	.....	.....	200	.....	200	.....	200	200
Telecommunications Workshops (Apogee)	.....	60	.....	.....	.....	60	.....	60	60
PLANNING/PROCESS GUIDANCE	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Planning for Managing Non-Recurring Congestion	.....	150	.....	.....	.....	150	.....	150	150
ITS-Based Performance Monitoring for Decision-Support	.....	385	.....	.....	.....	385	.....	385	385
Congestion Mgmt./Freight Movement/Intermodal Connections	.....	.....	.....	.....	.....	.....	.....	.....	.....
Regional Coord. of Systems Operations	.....	200	.....	.....	.....	200	.....	200	200
Tech. Transfer & Outreach on Strategies for Cong. Mgmt	.....	265	.....	.....	.....	265	.....	265	265

INTELLIGENT TRANSPORTATION SYSTEMS FISCAL YEAR 1997 SPENDING PLAN (ACTUAL)—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
Pennsylvania EDPS (Harrisburg/Allentown)									
California EDPS (Fresno)									
Charleston, SC EDPS									
DEPLOYMENT TECHNICAL ASSISTANCE		4,587				4,587		4,587	4,587
ITI Technical Assistance		1,000				1,000		1,000	1,000
Peer-to-Peer Tech. Asst. Program		300				300		300	300
ITE Tech. Info. Clearinghouse		32				32		32	32
ITE Report ''Toolbox for Allev. Traf. Cong.''		68				68		68	68
Service Plans (formerly Tech. Repts Database)		100				100		100	100
Local Gov't. Technical Assistance (PTI)		175				175		175	175
Quick Response Supp. for Prog. Development		200				200		200	200
Garrett A. Morgan Room Support		125				125		125	125
ITI Outreach		1,114				1,114		1,114	1,114
Shipping & Handling (thru OTA Contract)		200				200		200	200
Exhibits		208				208		208	208
World Wide Web									
Reprinting Materials		556				556		556	556
Duplicating Multi-media Presentations		150				150		150	150
Annual Report, etc. (Volpe)									
CVO Outreach (Under A above)									
ITS Consortium		346				346		346	346
ITI Technical Guidance		1,373				1,373		1,373	1,373
ITI Implementation Guidance Documentation		1,348				1,348		1,348	1,348
Transit Management Guidance Document		200				200		200	200
Freeway Management Guidance Document		244				244		244	244
Incident Management Guidance Document		244				244		244	244
Traffic Signal Control Guidance Document		242				242		242	242
Traveler Information Guidance Document		242				242		242	242
Software Procurement		176				176		176	176

TMC Guidance Document	.....	.....	.....	.....	.....	.....	.....	.....	.....
R&D Field Guidance Documentation	.....	25	.....	.....	.....	25	.....	25	25
Procurement Guidance Documentation	.....	.....	.....	.....	.....	.....	.....	.....	.....
Electronic Clearinghouse System	.....	754	.....	.....	.....	754	.....	754	754
Develop Regional Plans for ATIS (ITSA/WASH. STATE)	.....	.....	.....	.....	.....	.....	.....	.....	.....
ITS Deployment Partnership Network (IDPN) (ITE)	.....	.....	.....	.....	.....	.....	.....	.....	.....
CORRIDORS PROGRAM	11,500	71,700	.....	.....	.....	71,700	.....	71,700	71,700
Priority Corridors	1,000	44,600	.....	.....	.....	44,600	.....	44,600	44,600
I–95 Northeast Corridor	1,000	23,920	.....	.....	.....	23,920	.....	23,920	23,920
Nat'l. Transp. Center, Oakdale, NY (1997 Earmark)	.....	2,500	.....	.....	.....	2,500	.....	2,500	2,500
Operation Respond Maryland (1997 Earmark)	1,000	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Pennsylvania Turnpike (1997 Earmark)	.....	3,000	.....	.....	.....	3,000	.....	3,000	3,000
Nat'l. Capital Region Cong. Mitigation (1997 Earmark)	.....	3,500	.....	.....	.....	3,500	.....	3,500	3,500
TRANSCOM, New York/New Jersey (1997 Earmark)	.....	2,250	.....	.....	.....	2,250	.....	2,250	2,250
Urban Transp. Saf. Sys. Ctr.—Phila. (1997 Earmark)	.....	500	.....	.....	.....	500	.....	500	500
New York Thruway (1997 Earmark)	.....	3,000	.....	.....	.....	3,000	.....	3,000	3,000
Advanced Rail/Hwy. Crossings—NY (1997 Earmark)	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
Other	.....	5,845	.....	.....	.....	5,845	.....	5,845	5,845
I–95 Corridor Evaluations	.....	325	.....	.....	.....	325	.....	325	325
Gary-Chicago-Milwaukee Corridor	.....	7,680	.....	.....	.....	7,680	.....	7,680	7,680
Houston Corridor	.....	3,440	.....	.....	.....	3,440	.....	3,440	3,440
1997 Earmark	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
Other	.....	1,440	.....	.....	.....	1,440	.....	1,440	1,440
Southern California Corridor	.....	9,560	.....	.....	.....	9,560	.....	9,560	9,560
Inglewood, California (1997 Earmark)	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Other	.....	8,560	.....	.....	.....	8,560	.....	8,560	8,560
Other Corridors	10,500	27,100	.....	.....	.....	27,100	.....	27,100	27,100
Utah Advanced Traffic Mgmt. System (1997 Earmark)	.....	5,000	.....	.....	.....	5,000	.....	5,000	5,000
Haz. Mat. Intermodal Monitoring Sys. (NIER) (1997 Earmark)	2,000	2,000	.....	.....	.....	2,000	.....	2,000	2,000
Minnesota Guidestar (1997 Earmark)	.....	3,600	.....	.....	.....	3,600	.....	3,600	3,600
I–10 Mobile, Alabama Causeway (1997 Earmark)	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
Mobile Adv. Traf. Mgmt. Sys., Montgomery, Ala. (1997 Earmark)	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Nashville, Tenn. Traffic Guidance Sys. (1997 Earmark)	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000

INTELLIGENT TRANSPORTATION SYSTEMS FISCAL YEAR 1997 SPENDING PLAN (ACTUAL)—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
Green Light CVO Project, Oregon (1997 Earmark)	7,000	7,000	.....	.....	.....	7,000	.....	7,000	7,000
Kansas City, Mo. (Region) (1997 Earmark)	.....	2,500	.....	.....	.....	2,500	.....	2,500	2,500
US/Canada CVO (1997 Earmark)	1,500	1,500	.....	.....	.....	1,500	.....	1,500	1,500
Rochester, NY Congestion Mgmt. (1997 Earmark)	.....	1,500	.....	.....	.....	1,500	.....	1,500	1,500
Johnson City, Tennessee (1995 Earmark)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Johnson City, Tennessee (1996 Earmark)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Southern State Parkway (Rome Lab)	.....	.....	.....	.....	.....	.....	.....	.....	.....
PROGRAM SUPPORT	.....	9,461	.....	200	.....	9,661	8,326	1,335	9,661
ITS America	.....	2,605	.....	.....	.....	2,605	2,605	.....	2,605
Regular Contract	.....	2,605	.....	.....	.....	2,605	2,605	.....	2,605
Kassoff White Papers, etc	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mitre Corporation	.....	5,587	.....	.....	.....	5,587	4,455	1,132	5,587
Volpe	.....	700	.....	.....	.....	700	700	.....	700
ENO Foundation (Battelle)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Other Support Services	.....	467	.....	.....	.....	467	464	3	467
APTS Program Support	.....	.....	.....	200	.....	200	.....	200	200
ITS International Prog. Supp. (Farradyne)	.....	100	.....	.....	.....	100	100	.....	100
Miscellaneous (Interest, etc.)	.....	2	.....	.....	.....	2	2	.....	2
NAT'L. ADV. DRIVER SIMULATOR (NADS) 1997 Earmark	.....	.....	14,000	.....	.....	14,000	.....	14,000	14,000
GRAND TOTAL	34,073	203,816	25,150	3,475	.....	232,441	120,358	112,083	232,441

NOTE: Fiscal year 1997 GOE amount excludes $1.642 million associated with ITS share of $3 million ''accountwide adjustments'' shown on page 43 of Conference Report 104–785. Fiscal year 1997 ISTEA amount reflects an additional $917 thousand reduction associated with Sec. 1003 of Public Law 102–240 (ISTEA) due to Treasury Dept. error in HTF receipts.

INTELLIGENT TRANSPORTATION SYSTEMS ESTIMATED FISCAL YEAR 1998 SPENDING PLAN

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
SUMMARY									
RESEARCH AND DEVELOPMENT	7,500	25,900	13,650	2,450	3,500	45,500	33,000	12,500	45,500
TRAFFIC MANAGEMENT & CONTROL	.....	6,750	.....	750	.....	7,500	7,500	.....	7,500
CRASH AVOIDANCE RESEARCH	.....	.....	12,500	.....	.....	12,500	.....	12,500	12,500
ENABLING	.....	5,650	1,150	700	.....	7,500	7,500	.....	7,500
RURAL RESEARCH	.....	2,000	.....	.....	.....	2,000	2,000	.....	2,000
HIGH RISK RESEARCH	.....	.....	.....	.....	.....	.....	.....	.....	.....
OTHER RESEARCH	.....	4,000	.....	.....	.....	4,000	4,000	.....	4,000
ADVANCED TRANSIT MANAGEMENT RESEARCH	.....	.....	.....	1,000	.....	1,000	1,000	.....	1,000
COMMERCIAL VEHICLE OPERATIONS	7,500	7,500	.....	.....	.....	7,500	7,500	.....	7,500
HWY.-RAIL INTERSECTION INNOVATIVE DEV. RESEARCH	.....	.....	.....	.....	3,500	3,500	3,500	.....	3,500
ADVANCED VEHICLE CONTROL & INFORMATION SYSTEMS	.....	25,000	.....	1,000	.....	26,000	.....	26,000	26,000
OPERATIONAL TESTS	2,000	7,000	12,500	5,000	.....	24,500	.....	24,500	24,500
APTS	.....	.....	.....	5,000	.....	5,000	.....	5,000	5,000
CVO	2,000	2,000	.....	.....	.....	2,000	.....	2,000	2,000
CRASH AVOIDANCE	.....	.....	12,500	.....	.....	12,500	.....	12,500	12,500
RURAL	.....	5,000	.....	.....	.....	5,000	.....	5,000	5,000
EVALUATION/PROGRAM ASSESSMENT	350	6,800	1,200	1,000	.....	9,000	9,000	.....	9,000
ITS Field Evaluations	350	5,050	1,200	1,000	.....	7,250	7,250	.....	7,250
ITS Program Assessment	.....	1,750	.....	.....	.....	1,750	1,750	.....	1,750
ARCHITECTURE AND STANDARDS	500	12,000	.....	1,000	.....	13,000	.....	13,000	13,000
ARCHITECTURE	.....	2,800	.....	.....	.....	2,800	.....	2,800	2,800
STANDARDS	500	9,200	.....	1,000	.....	10,200	.....	10,200	10,200
MAINSTREAMING	2,750	17,700	.....	4,300	.....	22,000	3,000	19,000	22,000
TECHNICAL ASSISTANCE	1,500	3,500	.....	1,500	.....	5,000	.....	5,000	5,000
PLANNING/POLICY	.....	4,000	.....	.....	.....	4,000	.....	4,000	4,000
TRAINING	1,250	7,500	.....	2,500	.....	10,000	.....	10,000	10,000
AWARENESS AND ADVOCACY	.....	2,700	.....	300	.....	3,000	3,000	.....	3,000

INTELLIGENT TRANSPORTATION SYSTEMS ESTIMATED FISCAL YEAR 1998 SPENDING PLAN—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
PROGRAM SUPPORT	.....	9,200	.....	800	.....	10,000	9,000	1,000	10,000
CORRIDORS PROGRAM	.....	.....	.....	.....	.....	.....	.....	.....	.....
ITS DEPLOYMENT INCENTIVES PROGRAM	25,000	100,000	.....	.....	.....	100,000	100,000	.....	100,000
GRAND TOTAL	38,100	203,600	27,350	15,550	3,500	250,000	54,000	196,000	250,000
RESEARCH AND DEVELOPMENT	7,500	25,900	13,650	2,450	3,500	45,500	33,000	12,500	45,500
TRAFFIC MANAGEMENT & CONTROL	.....	6,750	.....	750	.....	7,500	7,500	.....	7,500
Advanced Traffic Mgmt. Research (Incl. TML)	.....	2,950	.....	.....	.....	2,950	2,950	.....	2,950
Advanced Traffic Management	.....	2,200	.....	.....	.....	2,200	2,200	.....	2,200
Traffic Mgmt. Center (TMC) Integration Issues	.....	500	.....	.....	.....	500	500	.....	500
Deployment Issues of Surveillance Systems	.....	250	.....	.....	.....	250	250	.....	250
Support Systems	.....	1,350	.....	.....	.....	1,350	1,350	.....	1,350
Research & Analysis for ATMS	.....	750	.....	.....	.....	750	750	.....	750
Internet Operation	.....	100	.....	.....	.....	100	100	.....	100
Supplemental Data Collection	.....	500	.....	.....	.....	500	500	.....	500
Models	.....	2,450	.....	750	.....	3,200	3,200	.....	3,200
Enhancement and Maintenance of ITS Models	.....	1,500	.....	400	.....	1,900	1,900	.....	1,900
ITS Deployment Analysis System	.....	450	.....	350	.....	800	800	.....	800
ATMS Research Tools Database System	.....	500	.....	.....	.....	500	500	.....	500
CRASH AVOIDANCE RESEARCH	.....	.....	12,500	.....	.....	12,500	.....	12,500	12,500
System for Assessing the Vehicle Motion Env. (SAVEME)	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
Data Acquisition Sys. for Crash Avoid. Research (DASCAR)	.....	.....	2,000	.....	.....	2,000	.....	2,000	2,000
Development of Objective Test Procedures	.....	.....	1,800	.....	.....	1,800	.....	1,800	1,800
Variable Dynamics Test Vehicle (VDTV)	.....	.....	500	.....	.....	500	.....	500	500
Integrated Demonstration and Testbed Vehicle	.....	.....	3,000	.....	.....	3,000	.....	3,000	3,000
Lane Change/Merge Performance Specification	.....	.....	1,600	.....	.....	1,600	.....	1,600	1,600
Cooperative Agreements with Industrial Partners	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
Test Track Procedures/ITS System Performance	.....	.....	500	.....	.....	500	.....	500	500

Support of AHS/Variable Dynamics Test Vehicle (VDTV)	.....	.....	100	.....	.....	100	.....	100	100
Continuation of Indefinite Quantity Contracts (IQC)	.....	.....	750	.....	.....	750	.....	750	750
System Contractor Support	.....	.....	250	.....	.....	250	.....	250	250
ENABLING	.....	5,650	1,150	700	.....	7,500	7,500	.....	7,500
Human Factors	.....	4,150	1,150	700	.....	6,000	6,000	.....	6,000
ATMS/ATIS/APTS Human Factors Support	.....	1,975	.....	700	.....	2,675	2,675	.....	2,675
Travel Information Effectiveness (Traffic/Transit)	.....	.....	.....	700	.....	700	700	.....	700
ATMS Human Factors Support	.....	400	.....	.....	.....	400	400	.....	400
TMC Human Factors Research	.....	500	.....	.....	.....	500	500	.....	500
TMC Human Factors Computer-Aided Design System	.....	1,075	.....	.....	.....	1,075	1,075	.....	1,075
Human Factors Research—Driver Vehicle Interface	.....	2,175	1,150	.....	.....	3,325	3,325	.....	3,325
Risk Compensation/Driver Acceptance	.....	.....	400	.....	.....	400	400	.....	400
Workload Evaluation of Countermeasures	.....	.....	300	.....	.....	300	300	.....	300
Driving Simulator Studies	.....	.....	450	.....	.....	450	450	.....	450
Integration of IVIS Subsystems	.....	725	.....	.....	.....	725	725	.....	725
Technical Support	.....	1,200	.....	.....	.....	1,200	1,200	.....	1,200
FHWA Simulator Upgrade	.....	250	.....	.....	.....	250	250	.....	250
Communications	.....	1,500	.....	.....	.....	1,500	1,500	.....	1,500
DSRC Spectrum Issues	.....	450	.....	.....	.....	450	450	.....	450
Communications Alternatives	.....	550	.....	.....	.....	550	550	.....	550
Electromagnetic Compatibility (EMC) Testing	.....	500	.....	.....	.....	500	500	.....	500
RURAL RESEARCH	.....	2,000	.....	.....	.....	2,000	2,000	.....	2,000
Development of Rural ITS Services	.....	1,900	.....	.....	.....	1,900	1,900	.....	1,900
Analysis of Site Characteristics	.....	100	.....	.....	.....	100	100	.....	100
HIGH RISK RESEARCH	.....	.....	.....	.....	.....	.....	.....	.....	.....
OTHER RESEARCH	.....	4,000	.....	.....	.....	4,000	4,000	.....	4,000
University Programs	.....	3,250	.....	.....	.....	3,250	3,250	.....	3,250
University Research/RCE's	.....	2,250	.....	.....	.....	2,250	2,250	.....	2,250
IDEA	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
Policy & Market Research for ITS	.....	400	.....	.....	.....	400	400	.....	400
Electronic Support Services	.....	200	.....	.....	.....	200	200	.....	200
Other	.....	150	.....	.....	.....	150	150	.....	150
ADVANCED TRANSIT MANAGEMENT RESEARCH	.....	.....	.....	1,000	.....	1,000	1,000	.....	1,000
COMMERCIAL VEHICLE OPERATIONS	7,500	7,500	.....	.....	.....	7,500	7,500	.....	7,500
SAFER/MCSAP SITES—System Develop. & Enhancement	3,500	3,500	.....	.....	.....	3,500	3,500	.....	3,500

INTELLIGENT TRANSPORTATION SYSTEMS ESTIMATED FISCAL YEAR 1998 SPENDING PLAN—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1998 budget		
							GOE	ISTEA	Total
CVISN Support	3,600	3,600	.....	.....	.....	3,600	3,600	.....	3,600
Automated Compliance Review	400	400	.....	.....	.....	400	400	.....	400
HWY.-RAIL INTERSECTION INNOVATIVE DEV. RESEARCH	.....	.....	.....	.....	3,500	3,500	3,500	.....	3,500
ADVANCED VEHICLE CONTROL & INFORMATION SYSTEMS	.....	25,000	.....	1,000	.....	26,000	.....	26,000	26,000
OPERATIONAL TESTS	2,000	7,000	12,500	5,000	.....	24,500	.....	24,500	24,500
APTS	.....	.....	.....	5,000	.....	5,000	.....	5,000	5,000
Regional Fleet Management	.....	.....	.....	4,000	.....	4,000	.....	4,000	4,000
Hybrid Bank-Proximity Card	.....	.....	.....	1,000	.....	1,000	.....	1,000	1,000
CVO	2,000	2,000	.....	.....	.....	2,000	.....	2,000	2,000
CRASH AVOIDANCE	.....	.....	12,500	.....	.....	12,500	.....	12,500	12,500
Rear End Collision Avoidance Systems	.....	.....	7,000	.....	.....	7,000	.....	7,000	7,000
Heavy Vehicle Intelligent Cruise Control	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
Road Departure	.....	.....	3,000	.....	.....	3,000	.....	3,000	3,000
Hvy. Vehicle Stability Enhan. by Selective Electronic Braking	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
On-Road Eval. of Hvy. Vehicle Drowsy Driver Detection Sys	.....	.....	500	.....	.....	500	.....	500	500
RURAL	.....	5,000	.....	.....	.....	5,000	.....	5,000	5,000
EVALUATION/PROGRAM ASSESSMENT	350	6,800	1,200	1,000	.....	9,000	9,000	.....	9,000
ITS Field Evaluations	350	5,050	1,200	1,000	.....	7,250	7,250	.....	7,250
ITS Program Assessment	.....	1,750	.....	.....	.....	1,750	1,750	.....	1,750
ARCHITECTURE AND STANDARDS	500	12,000	.....	1,000	.....	13,000	.....	13,000	13,000
ARCHITECTURE	.....	2,800	.....	.....	.....	2,800	.....	2,800	2,800
Architecture Maintenance	.....	2,500	.....	.....	.....	2,500	.....	2,500	2,500
Engineering Support	.....	300	.....	.....	.....	300	.....	300	300
STANDARDS	500	9,200	.....	1,000	.....	10,200	.....	10,200	10,200
Standards Development Activities	.....	6,000	.....	.....	.....	6,000	.....	6,000	6,000
Technical Support	500	2,200	.....	800	.....	3,000	.....	3,000	3,000
Program Management	.....	1,700	.....	.....	.....	1,700	.....	1,700	1,700
DSRC/EDI Support for CVO	500	500	.....	.....	.....	500	.....	500	500

Transit Standards Support	.....	.....	.....	800	.....	800	.....	800	800
Research and Development	.....	400	.....	.....	.....	400	.....	400	400
In-vehicle ICON Standards	.....	400	.....	.....	.....	400	.....	400	400
Transit International Support	.....	.....	.....	200	.....	200	.....	200	200
Conformity Assessment	.....	600	.....	.....	.....	600	.....	600	600
MAINSTREAMING	2,750	17,700	.....	4,300	.....	22,000	3,000	19,000	22,000
TECHNICAL ASSISTANCE	1,500	3,500	.....	1,500	.....	5,000	.....	5,000	5,000
Information and Technology Transfer	.....	1,500	.....	.....	.....	1,500	.....	1,500	1,500
Transit Technical Assistance	.....	.....	.....	1,500	.....	1,500	.....	1,500	1,500
Technical Assistance to Transit Authorities	.....	.....	.....	500	.....	500	.....	500	500
APTS Mobile Showcase	.....	.....	.....	800	.....	800	.....	800	800
Electronic Payment Guidelines	.....	.....	.....	200	.....	200	.....	200	200
Commercial Vehicle Operations	1,500	1,500	.....	.....	.....	1,500	.....	1,500	1,500
State, Regional, Natl. Forums/Technical Guidance	1,000	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Border Technical Guidance	250	250	.....	.....	.....	250	.....	250	250
Deployment Technical Assistance	250	250	.....	.....	.....	250	.....	250	250
Technical Assistance for Rural ITS Planning	.....	500	.....	.....	.....	500	.....	500	500
PLANNING/POLICY	.....	4,000	.....	.....	.....	4,000	.....	4,000	4,000
TRAINING	1,250	7,500	.....	2,500	.....	10,000	.....	10,000	10,000
National ITS Training Initiative	.....	6,250	.....	2,500	.....	8,750	.....	8,750	8,750
CVO Training	1,250	1,250	.....	.....	.....	1,250	.....	1,250	1,250
AWARENESS AND ADVOCACY	.....	2,700	.....	300	.....	3,000	3,000	.....	3,000
ITI Awareness Campaign	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
Publications, Exhibits, etc	.....	1,700	.....	300	.....	2,000	2,000	.....	2,000
PROGRAM SUPPORT	.....	9,200	.....	800	.....	10,000	9,000	1,000	10,000
CORRIDORS PROGRAM	.....	.....	.....	.....	.....	.....	.....	.....	.....
ITS DEPLOYMENT INCENTIVES PROGRAM	25,000	100,000	.....	.....	.....	100,000	.....	100,000	100,000
GRAND TOTAL	38,100	203,600	27,350	15,550	3,500	250,000	54,000	196,000	250,000

INTELLIGENT TRANSPORTATION SYSTEMS ESTIMATED FISCAL YEAR 1999 SPENDING PLAN

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1999 budget		
							GOE	ISTEA	Total
SUMMARY									
RESEARCH AND DEVELOPMENT	8,000	41,300	12,500	2,300	2,500	58,600	29,100	29,500	58,600
TRAFFIC MANAGEMENT & CONTROL	.....	5,500	.....	500	.....	6,000	6,000	.....	6,000
INTELLIGENT VEHICLE RESEARCH (FORMERLY AVCIS/AHS)	.....	16,700	12,500	300	.....	29,500	.....	29,500	29,500
ENABLING	.....	3,500	.....	.....	.....	3,500	3,500	.....	3,500
RURAL RESEARCH	.....	3,400	.....	.....	.....	3,400	3,400	.....	3,400
OTHER RESEARCH	.....	3,200	.....	.....	.....	3,200	3,200	.....	3,200
ADVANCED TRANSIT MANAGEMENT RESEARCH	.....	.....	.....	1,500	.....	1,500	1,500	.....	1,500
COMMERCIAL VEHICLE OPERATIONS	8,000	8,000	.....	.....	.....	8,000	8,000	.....	8,000
HWY.-RAIL INTERSECTION INNOVATIVE DEV. RESEARCH	.....	.....	.....	.....	2,500	2,500	2,500	.....	2,500
INTERMODAL FREIGHT SUMMARY	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
OPERATIONAL TESTS	4,000	11,100	10,000	7,000	.....	28,100	.....	28,100	28,100
APTS	.....	.....	.....	2,000	.....	2,000	.....	2,000	2,000
INTELLIGENT VEHICLE (CRASH AVOIDANCE IN PY)	4,000	4,000	10,000	2,500	.....	16,500	.....	16,500	16,500
RURAL	.....	7,100	.....	2,500	.....	9,600	.....	9,600	9,600
EVALUATION/PROGRAM/POLICY ASSESSMENT	.....	12,400	.....	.....	.....	12,400	12,400	.....	12,400
EVALUATIONS	.....	7,555	.....	.....	.....	7,555	7,555	.....	7,555
ITS PROGRAM/POLICY ASSESSMENT	.....	4,845	.....	.....	.....	4,845	4,845	.....	4,845
ARCHITECTURE AND STANDARDS	500	18,700	.....	700	.....	19,400	.....	19,400	19,400
ARCHITECTURE	.....	5,400	.....	.....	.....	5,400	.....	5,400	5,400
STANDARDS	500	13,300	.....	700	.....	14,000	.....	14,000	14,000
MAINSTREAMING	2,875	16,900	140	4,460	.....	21,500	2,500	19,000	21,500
TECHNICAL ASSISTANCE	1,700	5,100	.....	1,400	.....	6,500	.....	6,500	6,500
PLANNING/POLICY	.....	4,000	.....	.....	.....	4,000	500	3,500	4,000
TRAINING	1,000	6,500	.....	2,500	.....	9,000	.....	9,000	9,000
AWARENESS AND ADVOCACY	175	1,300	140	560	.....	2,000	2,000	.....	2,000
PROGRAM SUPPORT	.....	9,200	.....	800	.....	10,000	10,000	.....	10,000

ITS DEPLOYMENT INCENTIVES PROGRAM	25,000	100,000	.....	.....	.....	100,000	.....	100,000	100,000
GRAND TOTAL	40,375	209,600	22,640	15,260	2,500	250,000	54,000	196,000	250,000
RESEARCH AND DEVELOPMENT	8,000	41,300	12,500	2,300	2,500	58,600	29,100	29,500	58,600
TRAFFIC MANAGEMENT & CONTROL	.....	5,500	.....	500	.....	6,000	6,000	.....	6,000
Advanced Traffic Mgmt. Research (Incl. TML)	.....	2,500	.....	.....	.....	2,500	2,500	.....	2,500
Support Systems	.....	800	.....	.....	.....	800	800	.....	800
Research & Analysis for ATMS	.....	500	.....	.....	.....	500	500	.....	500
Internet Operation	.....	100	.....	.....	.....	100	100	.....	100
Supplemental Data Collection	.....	200	.....	.....	.....	200	200	.....	200
Models	.....	2,200	.....	500	.....	2,700	2,700	.....	2,700
Enhancement and Maintenance of ITS Models	.....	1,250	.....	500	.....	1,750	1,750	.....	1,750
ATMS Research Tools Database System	.....	450	.....	.....	.....	450	450	.....	450
Dynamic Traffic Assignment (DTA) System	.....	500	.....	.....	.....	500	500	.....	500
INTELLIGENT VEHICLE RESEARCH (FORMERLY AVCIS/AHS)	.....	16,700	12,500	300	.....	29,500	.....	29,500	29,500
Tool Development	.....	900	1,000	.....	.....	1,900	.....	1,900	1,900
Simulation Tools	.....	475	.....	.....	.....	475	.....	475	475
Upgrade FHWA Driving Testbed	.....	425	.....	.....	.....	425	.....	425	425
Development of Objective Test Procedures/CAMP	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
Performance Specification & Benefits Estimate Validation	.....	.....	5,500	.....	.....	5,500	.....	5,500	5,500
Application of NADS	.....	.....	750	.....	.....	750	.....	750	750
Benefits Associated with Enhanced Vision Systems	.....	.....	500	.....	.....	500	.....	500	500
Utilization of Test Vehicles	.....	.....	1,250	.....	.....	1,250	.....	1,250	1,250
Benefits Analyses	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
Application of SAVME	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
Application of VDTV	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
Intelligent Vehicle Development	.....	7,500	1,500	.....	.....	9,000	.....	9,000	9,000
Level 1 Design/Build IVI	.....	4,000	.....	.....	.....	4,000	.....	4,000	4,000
Integrate Crash Avoidance Technologies	.....	.....	1,500	.....	.....	1,500	.....	1,500	1,500
Infrastructure Preparation for Level 1	.....	1,500	.....	.....	.....	1,500	.....	1,500	1,500
Develop Integrated DVI for Multiple Systems	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
Critical Technology	.....	8,300	4,500	300	.....	13,100	.....	13,100	13,100
Driver Control Assistance	.....	3,000	.....	.....	.....	3,000	.....	3,000	3,000
Extend Performance Specifications	.....	.....	2,000	.....	.....	2,000	.....	2,000	2,000
Develop User Services and Stakeholder Involvement	.....	1,200	.....	.....	.....	1,200	.....	1,200	1,200

INTELLIGENT TRANSPORTATION SYSTEMS ESTIMATED FISCAL YEAR 1999 SPENDING PLAN—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1999 budget		
							GOE	ISTEA	Total
Transit Study	.....	.....	.....	300	.....	300	.....	300	300
Human Factors	.....	4,100	2,500	.....	.....	6,600	.....	6,600	6,600
Driver Workload Compensatory Action	.....	.....	500	.....	.....	500	.....	500	500
Warning Reliability and Driver Reactions	.....	600	.....	.....	.....	600	.....	600	600
Human Factors Aspects of Enhanced Display	.....	750	.....	.....	.....	750	.....	750	750
Special IVIS Needs for Emergency Vehicle Operations	.....	750	.....	.....	.....	750	.....	750	750
HF Issues for Driver Interaction Modes	.....	500	.....	.....	.....	500	.....	500	500
Driver Behavioral Adaptation	.....	500	.....	.....	.....	500	.....	500	500
Suitability of DVI with Special Needs	.....	.....	500	.....	.....	500	.....	500	500
Adverse Safety Effects of In-Vehicle Devices	.....	.....	500	.....	.....	500	.....	500	500
In-House Human Factors Studies	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Driver Behavior Data Collection Using DASCAR	.....	.....	1,000	.....	.....	1,000	.....	1,000	1,000
ENABLING	.....	3,500	.....	.....	.....	3,500	3,500	.....	3,500
Human Factors Research—ATMS	.....	2,400	.....	.....	.....	2,400	2,400	.....	2,400
Computer Aided Design for Traffic Mgmt. Centers	.....	850	.....	.....	.....	850	850	.....	850
Traffic Mgmt. Center Research	.....	800	.....	.....	.....	800	800	.....	800
Support Services	.....	750	.....	.....	.....	750	750	.....	750
Communications and Radionavigation	.....	1,100	.....	.....	.....	1,100	1,100	.....	1,100
DSRC Spectrum Issues	.....	800	.....	.....	.....	800	800	.....	800
Wide Area Communications for Traffic Mgmt. Systems	.....	300	.....	.....	.....	300	300	.....	300
RURAL RESEARCH	.....	3,400	.....	.....	.....	3,400	3,400	.....	3,400
Development of Rural ITS Services	.....	3,400	.....	.....	.....	3,400	3,400	.....	3,400
OTHER RESEARCH	.....	3,200	.....	.....	.....	3,200	3,200	.....	3,200
University Programs	.....	2,300	.....	.....	.....	2,300	2,300	.....	2,300
University Research/RCE's	.....	1,800	.....	.....	.....	1,800	1,800	.....	1,800
IDEA	.....	500	.....	.....	.....	500	500	.....	500
Electronic Support Services	.....	230	.....	.....	.....	230	230	.....	230
ADP Support Services	.....	550	.....	.....	.....	550	550	.....	550

Other	.....	120	.....	.....	.....	120	120	.....	120
ADVANCED TRANSIT MANAGEMENT RESEARCH	.....	.....	.....	1,500	.....	1,500	1,500	.....	1,500
Advanced Fleet Management Research	.....	.....	.....	500	.....	500	500	.....	500
Transit Radio Spectrum Allocation Impact Assessment	.....	.....	.....	100	.....	100	100	.....	100
Traveler Information ADA Compatibility	.....	.....	.....	900	.....	900	900	.....	900
COMMERCIAL VEHICLE OPERATIONS	8,000	8,000	.....	.....	.....	8,000	8,000	.....	8,000
Safety Systems Deployment Support	7,200	7,200	.....	.....	.....	7,200	7,200	.....	7,200
Safety Development and Enhancement	2,050	2,050	.....	.....	.....	2,050	2,050	.....	2,050
Systems Operations and Support	2,250	2,250	.....	.....	.....	2,250	2,250	.....	2,250
Architectural Standards Support and Integration	2,900	2,900	.....	.....	.....	2,900	2,900	.....	2,900
Advances in Roadside Inspection Technology	450	450	.....	.....	.....	450	450	.....	450
Automated Compliance Review	350	350	.....	.....	.....	350	350	.....	350
HWY.-RAIL INTERSECTION INNOVATIVE DEV. RESEARCH	.....	.....	.....	.....	2,500	2,500	2,500	.....	2,500
INTERMODAL FREIGHT SUMMARY	.....	1,000	.....	.....	.....	1,000	1,000	.....	1,000
OPERATIONAL TESTS	4,000	11,100	10,000	7,000	.....	28,100	.....	28,100	28,100
APTS	.....	.....	.....	2,000	.....	2,000	.....	2,000	2,000
Asynchronous Demand Responsive Transit (ADART)	.....	.....	.....	300	.....	300	.....	300	300
Hybrid Bank-Proximity Card Phase III	.....	.....	.....	1,700	.....	1,700	.....	1,700	1,700
INTELLIGENT VEHICLE (CRASH AVOIDANCE IN PY)	4,000	4,000	10,000	2,500	.....	16,500	.....	16,500	16,500
Integrated Transit Vehicle	.....	.....	.....	2,500	.....	2,500	.....	2,500	2,500
Rear End Collision Avoidance Systems	.....	.....	7,000	.....	.....	7,000	.....	7,000	7,000
Road Departure Crash Avoidance Systems	.....	.....	3,000	.....	.....	3,000	.....	3,000	3,000
Intelligent Vehicle Heavy Truck	4,000	4,000	.....	.....	.....	4,000	.....	4,000	4,000
RURAL	.....	7,100	.....	2,500	.....	9,600	.....	9,600	9,600
Traveler Safety and Security	.....	1,500	.....	.....	.....	1,500	.....	1,500	1,500
Rural Emergency Services	.....	1,600	.....	.....	.....	1,600	.....	1,600	1,600
Rural Infrastructure Operations and Maintenance	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
Rural Fleet Operations and Maintenance	.....	.....	.....	2,500	.....	2,500	.....	2,500	2,500
Preliminary Integrated Systems	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
EVALUATION/PROGRAM/POLICY ASSESSMENT	.....	12,400	.....	.....	.....	12,400	12,400	.....	12,400
EVALUATIONS	.....	7,555	.....	.....	.....	7,555	7,555	.....	7,555
Metropolitan Model Deployment	.....	800	.....	.....	.....	800	800	.....	800
CVISN Model Deployment	.....	490	.....	.....	.....	490	490	.....	490
Field Operation Tests Cross-Cutting Analyses	.....	900	.....	.....	.....	900	900	.....	900
Rural Field Operational Tests	.....	2,290	.....	.....	.....	2,290	2,290	.....	2,290
Intelligent Vehicle Operational Tests	.....	2,250	.....	.....	.....	2,250	2,250	.....	2,250

INTELLIGENT TRANSPORTATION SYSTEMS ESTIMATED FISCAL YEAR 1999 SPENDING PLAN—Continued

[In thousands of dollars]

ACTIVITY/PROJECT	CVO	FHWA	NHTSA	FTA	FRA	TOTAL	Fiscal year 1999 budget		
							GOE	ISTEA	Total
Intermodal Freight Evaluation	.....	150	.....	.....	.....	150	150	.....	150
APTS Field Operational Tests	.....	300	.....	.....	.....	300	300	.....	300
Highway-Rail Field Operational Tests	.....	375	.....	.....	.....	375	375	.....	375
ITS PROGRAM/POLICY ASSESSMENT	.....	4,845	.....	.....	.....	4,845	4,845	.....	4,845
ITS Deployment Tracking	.....	895	.....	.....	.....	895	895	.....	895
Program Tracking	.....	250	.....	.....	.....	250	250	.....	250
Policy Assessment	.....	3,700	.....	.....	.....	3,700	3,700	.....	3,700
ARCHITECTURE AND STANDARDS	500	18,700	.....	700	.....	19,400	.....	19,400	19,400
ARCHITECTURE	.....	5,400	.....	.....	.....	5,400	.....	5,400	5,400
DOT Architecture Activities	.....	3,400	.....	.....	.....	3,400	.....	3,400	3,400
In-Vehicle ITS Systems Architecture	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
STANDARDS	500	13,300	.....	700	.....	14,000	.....	14,000	14,000
Research and Development	.....	1,100	.....	.....	.....	1,100	.....	1,100	1,100
In-vehicle ICON Standards	.....	600	.....	.....	.....	600	.....	600	600
Standardization of ATIS Information Across Media	.....	500	.....	.....	.....	500	.....	500	500
Standards Development Activities	500	8,600	.....	700	.....	9,300	.....	9,300	9,300
Infrastructure and Safety	.....	7,100	.....	.....	.....	7,100	.....	7,100	7,100
DSRC/EDI Support for CVO	500	500	.....	.....	.....	500	.....	500	500
Transit	.....	.....	.....	700	.....	700	.....	700	700
Federal Rulemaking Support	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
User Implementation Guides	.....	600	.....	.....	.....	600	.....	600	600
International Activity	.....	300	.....	.....	.....	300	.....	300	300
Testing and Integration	.....	2,200	.....	.....	.....	2,200	.....	2,200	2,200
Data Registration	.....	500	.....	.....	.....	500	.....	500	500
MAINSTREAMING	2,875	16,900	140	4,460	.....	21,500	2,500	19,000	21,500
TECHNICAL ASSISTANCE	1,700	5,100	.....	1,400	.....	6,500	.....	6,500	6,500
Information and Technology Transfer	.....	3,000	.....	.....	.....	3,000	.....	3,000	3,000
Specifications and Contract Mgmt	.....	815	.....	.....	.....	815	.....	815	815
Grass Roots Involvement	.....	535	.....	.....	.....	535	.....	535	535

Tailored Technical Assistance	.....	650	.....	.....	.....	650	.....	650	650
Guidance Documents	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Transit Technical Assistance	.....	.....	.....	1,400	.....	1,400	.....	1,400	1,400
Technical Assistance to Transit Authorities	.....	.....	.....	550	.....	550	.....	550	550
Industry Cooperation	.....	.....	.....	350	.....	350	.....	350	350
APTS Mobile Showcase	.....	.....	.....	500	.....	500	.....	500	500
Commercial Vehicle Operations	1,700	1,700	.....	.....	.....	1,700	.....	1,700	1,700
State, Regional, Natl. Forums/Technical Guidance	1,060	1,060	.....	.....	.....	1,060	.....	1,060	1,060
Border Technical Guidance	500	500	.....	.....	.....	500	.....	500	500
Deployment Technical Assistance	140	140	.....	.....	.....	140	.....	140	140
Technical Assistance for Rural ITS Planning	.....	400	.....	.....	.....	400	.....	400	400
PLANNING/POLICY	.....	4,000	.....	.....	.....	4,000	500	3,500	4,000
IDAS Case Studies/Lessons Learned	.....	500	.....	.....	.....	500	.....	500	500
Development of ITS Module Within TRANSIMS	.....	2,000	.....	.....	.....	2,000	.....	2,000	2,000
Support for Developing Regional/Statewide Framework	.....	250	.....	.....	.....	250	250	.....	250
Management & Operations in Transportation Planning	.....	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Role of ITS in Supporting FHWA/FTA Mobility Goal	.....	250	.....	.....	.....	250	250	.....	250
TRAINING	1,000	6,500	.....	2,500	.....	9,000	.....	9,000	9,000
National ITS Training Initiative	.....	4,000	.....	.....	.....	4,000	.....	4,000	4,000
CVO Training	1,000	1,000	.....	.....	.....	1,000	.....	1,000	1,000
Standards Training/Technology Transfer	.....	1,500	.....	.....	.....	1,500	.....	1,500	1,500
FTA Professional Capacity Building	.....	.....	.....	2,500	.....	2,500	.....	2,500	2,500
AWARENESS AND ADVOCACY	175	1,300	140	560	.....	2,000	2,000	.....	2,000
ITI Awareness Activities	75	300	.....	360	.....	660	660	.....	660
Publications, Exhibits, etc	100	1,000	140	200	.....	1,340	1,340	.....	1,340
PROGRAM SUPPORT	.....	9,200	.....	800	.....	10,000	10,000	.....	10,000
ITS DEPLOYMENT INCENTIVES PROGRAM	25,000	100,000	.....	.....	.....	100,000	100,000	.....	100,000
GRAND TOTAL	40,375	209,600	22,640	15,260	2,500	250,000	54,000	196,000	250,000

Question. What is the status of each of the projects in the ITS program related to highway/rail grade crossings? For each project, please list accomplishments to date, purposes and objectives, amount obligated, amount planned to be spent, amount unobligated, scope and nature of the project, and expected date of completion. What has been achieved with past ITS investments in this area?

Answer. There are two ITS investments involving highway/rail intersections. Both have been earmarked projects. The first project involves the Vehicle Proximity Alert System (VPAS), managed by Federal Railroad Administration, and tested in Pueblo Colorado.

Section 1072 of the 1991 ISTEA required the testing of VPAS and comparable systems to determine their feasibility for use by priority vehicles as an effective highway-rail grade crossing safety device. VPAS is an in-vehicle device, mounted to the dashboard, that provides both an audible and visual warning to the driver of a priority vehicle (ambulance, school bus, police car, etc) that a train is approaching, or in, a grade crossing.

Total funding available to conduct this testing was $1 million, with $600,000 transferred from FHWA to FRA in fiscal year 1994 and $400,000 in fiscal year 1995.

Reliability testing of the prototype systems was conducted at the Transportation Technology Center (TTC) in Pueblo, Colorado. The prototypes were tested for their maximum range, reliability, ease of installation, etc. The reliability testing has been completed and the Final Test Report has been submitted. The Evaluation Report final draft should be finished by the end of May, 1998.

Based on (1) the conclusions of the evaluation report, (2) a comparison of the tested systems with the recently developed ITS User Service #30 element of the National ITS Architecture, (3) the final accounting of costs for the testing and evaluation work now being completed, and (4) the results of ongoing independent demonstrations of still other concepts in Minnesota and Illinois, a decision will be made whether or not to conduct further reliability or revenue-service testing of the prototype systems addressed in this project.

Three systems were tested:

3-point system—by SmartStops, Inc.—The original concept had a transceiver on the locomotive, one at the grade crossing and a receiver in the priority vehicle. The locomotive-mounted transceiver would broadcast continuously, and as it approached a grade crossing the transceiver at the crossing would be activated, broadcasting a signal to any equipped priority vehicles in the area and also returning a message to the locomotive that the crossing system had been activated. This system worked reasonably well, although it would require some modifications to reduce its activation range, temperature response, and so on, before any further testing or development were to occur. However, after discussions with several railroads, no railroad would allow the mounting of a transmitter for this purpose on their locomotives. As a result, the concept had to be modified to use a wayside detector. The manufacturer is in the process of modifying their system now, and will have to return to TTC to do basic reliability testing, should FRA determine that such further testing is advisable.

1-point system by EARS.—This system is a receiver mounted in the priority vehicle which is activated by the sound of the train horn. It is an outgrowth of a system used to help hearing-impaired drivers hear emergency sirens. However, this system did not perform well. It suffered from a lack of range and several other problems that lead to a large number of false alarms.

1-point system by Dynamic Vehicle Safety Systems.—This system is a receiver mounted in the priority vehicle that is activated by the train's Front/Rear End Device (FRED). The FRED is used to monitor air brake pressure and continuously updates via radio an indicator in the locomotive cab. This device is used on more than 85 percent of the freight trains in the country and has an FRA-approved usage and maintenance protocol. This system worked very well, although it had an excessive range problem, but the range should be reducible to minimize false alarms. However, the concept is not compatible with the ITS User Service #30. This system would need to be modified for purposes of any further testing.

A fourth system selected for testing, a 2-point system which used a transmitter on the locomotive and a receiver in the priority vehicle, was dropped from consideration because of the failure of the manufacturer, RF Solutions, to supply a prototype for testing.

The second project includes the development of a prototype integrated warning system for use at railroad/highway grade crossings. This effort will demonstrate the benefits of an integrated approach for managing highway/rail crossings by sharing data between driver and train warning and control systems. This demonstration will employ an Intelligent Grade Crossing System (IGC), working in concert with an Intelligent Traffic System (ITS) and a modified radio communications-based Automatic

Train Control (ATC) system. This work is being conducted by the New York DOT under an earmark of $4,625,000, all ISTEA funds. The first phase is complete. The second phase, hardware development, is expected to be complete by September 30, 1998. The field testing and final evaluation of the system is expected to be complete by the first quarter in 2000.

To date no fiscal year 1998 funds have been allocated to any Highway/Rail grade crossing projects. When funding is available, efforts will be primarily focused on the evaluation of GPS, full barrier systems and "a 2nd train coming" systems. A team within USDOT is now reviewing the earmarked projects of VPAS and Long Island Railroad to develop an ITS evaluation plan, to review lessons learned and to determine the next steps. Use of the VPAS technology is expected to be applied to other sites, but those sites have not been determined to date.

In fiscal year 1999, the plans are to establish projects for integrating railroad technology with automatic traffic management systems, and for traffic signal preemption at crossings as well as health monitoring. The three projects included in the budget request are expected to cost $2.5 million.

Question. Please compare your GOE expenditures for each of the last three years with the amounts appropriated for each ITS category of funds specified in the Conference report as well as amounts earmarked by the House or Senate reports that were not objected to in either the Senate report or in the Conference report. Indicate the amount of carryover funds for each year by category and explain any deviations from amounts specified in various congressional reports.

Answer. The following table compares actual and/or planned GOE obligations for each of the last three fiscal years (1996, 1997 and 1998) to the amounts for each ITS program area included in the annual conference reports. This table also reflects unobligated balances at the end of each of the aforementioned fiscal years by program category. The amounts reflected in fiscal year 1998 assumes that we receive the full $130.16 million included in the General Operating Expenses account under Public Law 105–66.

Any deviations between the funds actually used and/or projected to be used by program category is minor. Funds actually used for each ITS program within the General Operating Expenses account will always fall within the 10 percent plus or minus variance historically allowed by the Committee.

INTELLIGENT TRANSPORTATION SYSTEMS ANALYSIS OF FUNDING—GENERAL OPERATING EXPENSES

[In thousands of dollars]

Program category	Fiscal year 1996 dollars in report	Actual oblig.[1]	Unoblig. 9/30/96	Fiscal year 1997 dollars in report	Actual oblig.[2]	Unoblig. 9/30/97	Fiscal year 1998 dollars in report	Proposed oblig.[3]	Est. unoblig. 9/30/98
Research and development	37,479	36,166	2,237	29,000	26,393	.....	31,500	31,500	.....
Operational tests	32,500	31,052	587	56,000	56,447	.....	83,900	83,900	.....
Commercial vehicle oper	14,500	13,750	435	.....	.....	.....	.....	.....	.....
Automated hwy. system	14,000	14,000	23	22,000	22,000	.....	.....	.....	.....
Adv. technology applic	.....	.....	.....	.....	.....	.....	.....	.....	.....
Corridors program	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deployment support	.....	.....	.....	.....	.....	.....	.....	.....	.....
Program and system support	11,300	10,034	1,096	8,000	8,326	355	7,760	7,760	.....
System architecture	.....	.....	.....	5,000	5,000	32	.....	.....	.....
Congested corridors	.....	.....	.....	.....	.....	.....	.....	.....	.....
Model deployment	.....	.....	.....	.....	.....	.....	.....	.....	.....
Evaluation	.....	.....	.....	2,000	1,999	.....	7,000	7,000	.....
Mainstreaming	.....	.....	.....	.....	193	.....	.....	.....	.....
Nat'l adv. driver sim. (NADS)	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	109,779	105,002	4,378	122,000	120,358	387	130,160	130,160	.....

[1] Fiscal year 1996 amounts exclude $4.777 in reductions associated with sec. 335 of Public Law 104–50.
[2] Fiscal year 1997 amounts exclude $1.642 million in ''accountwide savings'' (pg. 43 conf. rept. 104–785).
[3] Fiscal year 1998 amounts assume $130.16 million included in the appn. act will be made available to the ITS program.

Question. Please prepare a list of all of the operational tests that have not yet been completed. Please indicate their starting date, expected date of completion, expected submittal date of final evaluation, remaining unobligated balances, and remaining obligated balances.

Answer. With the exception of the remaining obligated balances, our response is provided in the tables below. In order to provide answers regarding unspent balances, we will have to work with our financial administrators both in Headquarters and in the various regional and division offices to search data bases and cross-reference accounting codes.

Please note that the "expected date of completion" and "expected date of submittal of final evaluation" are the same dates. Projects are not considered completed until the final, publicly available, evaluation report is submitted and approved.

There is currently no unobligated balance of ITS funds associated with any of these projects.

Project	Start Date	Expected Completion/ Final Report Date
ADVANCED TRAFFIC MANAGEMENT SYSTEMS (ATMS)		
FAST-TRAC	4/92	6/2000.
Integrated Ramp Metering/Adaptive Signal Control	9/93	3/99.
Mobile Communications System	5/94	6/98 (Current best estimate).
Montgomery County ATMS	7/94	9/99.
North Seattle ATMS	3/94	6/98.
San Antonio Transguide	8/93	11/98.
Satellite Communications Feasibility	10/92	6/98.
SCOOT Adaptive Control System	9/93	6/98.
Spread Spectrum Radio Traffic Interconnect	7/94	6/98.
ADVANCED TRAVELER INFORMATION SYSTEMS (ATIS)		
DIRECT	5/91	4/98.
Denver, CO Hogback Multi-Modal Transfer Center	5/93	9/98.
Railroad Crossing Vehicle Proximity Alert System, Phase II	10/97	11/98.
Railroad Highway Crossing-Long Island	7/95	9/98.
Seattle Wide-Area Information for Travelers	8/94	7/98.
Travinfo	4/93	12/98.
Trilogy	7/94	6/98.
ADVANCED PUBLIC TRANSPORTATION SYSTEM (APTS)		
LYNX Passenger Travel Planning System	1/96	9/98.
Miami Real-Time Passenger Information System	7/95	6/99.
Northern Virginia Regional Fare System	9/96	5/99.
Blacksburg Rural Traveler Information System	7/96	1/99.
Suburban Mobility Authority for Regional Trans (SMART)	12/93	6/98.
Winston-Salem Mobility Management, Phase II	6/96	8/99.
Houston Smart Commuter	2/93	10/99.
Ann Arbor Smart Intermodal	7/91	6/98.
CTA (Chicago) Smart Intermodal	7/91	5/98.
Delaware County Ridetracking	9/92	4/98.
Smart Flexroute Integrated Real-Time Enhancement System	1/94	5/98.
Dallas Area Rapid Transit Personalized Public Transit	9/94	8/98.
Denver RTD Passenger Information Display System	9/93	5/98.
Wilmington, Delaware Smart DART	7/94	5/99.
NY City MTA Travel Information System	9/94	9/98.
ADVANCED RURAL TRANSPORTATION SYSTEMS (ARTS)		
Travel-Aid	11/92	7/98.
Idaho Storm Warning System	6/93	8/98.
Advanced Rural Transportation Information and Coordination	7/94	8/98.
Advanced Transportation Weather Information System	5/95	8/98.
Herald En-Route Driver Advisory via AM Subcarrier	1/95	9/98.
Arizona I–40 Traveler and Tourist Information System	10/97	5/99.

Project	Start Date	Expected Completion/ Final Report Date
Branson, Missouri Trip (Travel and Recreational Information Project)	10/97	5/99.
Cape Cod Rural Advanced Intermodal Transportation System	10/97	6/99.
Foretell—Integrating ITS With Advanced Weather Prediction	10/97	3/2000.
Greater Yellowstone Rural ITS project	6/97	6/99.
North Florida Rural Transit Intelligent Transportation Systems	9/97	4/2000.
COMMERCIAL VEHICLE OPERATIONS (CVO)		
Dynamic Truck Speed Warning for Long Downgrades	6/93	10/98.
Electronic Clearance for International Borders	9/94	8/98.
MONY (Detroit, MI, Buffalo, NY)	11/96	3/98.
IBEX (Otay Mesa, CA)	9/94	4/98.
EPIC (Nogales, AZ)	9/94	8/98.
ITS/CVO Greenlight Project	10/94	4/2000.
National Institute for Environmental Renewal (NIER)	10/95	12/98.
Tranzit Xpress II	6/96	3/98.
Operation Respond	4/95	4/98.
ADVANCED VEHICLE CONTROL AND SAFETY SYSTEMS (AVCSS)		
Colorado Mayday System	10/94	8/98.
Automated Collision Notification System	9/95	10/98.
Intelligent Cruise Control	9/95	6/98.

Question. Please prepare a list of all of the model deployment tests that have not yet been completed. Please indicate their starting date, expected date of completion, expected date of submittal of final evaluation, remaining unobligated balances, and remaining obligated balances.

Answer. The selection of Seattle, Phoenix, San Antonio and New York/New Jersey/Connecticut area as metropolitan model deployments was announced in October, 1996. Seattle, Phoenix and San Antonio will be fully operational within the next few months, achieving the ambitious goal of deploying integrated, multimodal transportation management and traveler information systems within approximately 18 months of award of funds. A series of kick off events are planned to celebrate each site's success: Seattle on May 15, Phoenix the first week of June, and San Antonio in mid July. The New York/New Jersey/Connecticut model deployment is also progressing, with a kick off event to highlight their accomplishments tentatively scheduled for September. Data collection for the evaluation of the metropolitan model deployment projects will last approximately one year, and the final evaluation report is due in December, 1999. There are no unobligated balances. The Department does not monitor unspent balances. Determining the answer to this question will require a coordinated effort with our financial administrators to search databases and cross reference accounting codes.

For commercial vehicle operations; the CVISN model deployment states of California, Colorado, Connecticut, Kentucky, Michigan, Minnesota, Oregon, and Washington were announced in October, 1996 to be funded on an incremental basis. The incremental funding was planned to be awarded as states progressed with implementation of CVISN. The initial funding in fiscal year 1996 was $0.5 million per state, with a 50 percent match. In fiscal year 1997 an additional $0.5 million was provided to 7 of the 8 states, based upon specified achievements. Michigan was delayed in their planning. They hope to continue participation in fiscal year 1998. The actual cost of implementation of CVISN level one in the eight model deployment States was estimated at $6–8 million per State. Therefore, additional Federal funding of $2 to $3 million will be required to implement CVISN Level I in the model deployment States. If funding is available by September, 1998 the expected date of completion of CVISN model deployment level one is fiscal year 2000.

Question. Please specify on a contract-by-contract basis how the fiscal year 1996, fiscal year 1997 and the fiscal year 1998 program support monies were used or will be used. Please indicate the scope, nature, and amount of each contract.

Answer. There are two principal contractors that support the JPO staff; ITS America, and the Mitretek Corp. ITS America is the official advisory committee to the U.S. DOT on the ITS program, and organizes and staffs the national committees that address each major facet of the program. These committees are one of the formal forums to bring together technical expertise in specific areas to review the program, suggest research issues to be addressed, and provide a venue for policy dis-

cussions with the ITS community. In addition, there are specific tasks the U.S. DOT requests ITS America to perform that require access to their membership, or that they are uniquely qualified to provide. The U.S. DOT funding covers only these activities, and represents 35 percent million of the $10 million annual budget of ITS America.

The Mitretek Corp. provides the principal technical support function for the JPO. Mitretek's support can be categorized into in 7 general areas: Program planning and assessment; the rural program; system architecture and deployment; communications and frequency spectrum; safety technology research for NHTSA; AHS program; and incorporating ITS into the transportation planning process.

Mitretek is the technical arm of the JPO. As such, they review and/or generate all of the technical guidance, analyses, and research activities in which the JPO is engaged. Due to the small size of the JPO, the staff are each managing several areas of the program, and also provide the policy development options and rationale for senior management. The Mitretek staff is the support that allows the existence of a small JPO staff to accomplish these tasks. In 1997, the JPO developed and produced separate technical documents that encompassed technical guidance, results of research and deployment, outreach, and informational documents for use by cities and states across the country. Mitretek drafted many of these documents and provides the only entity that maintains in depth technical expertise in all facets of the ITS Program.

There are several small activities that provide support to the JPO in the areas of the development and testing of the ITS Management Information System, the computer network, the internet Web page, special support for conferences and workshops, and consultants for special issues that arise during the conduct of the program.

The obligations for program support fall into three major categories; ITS America, Mitretek, and miscellaneous support activities. Following is a table which displays funding (both contract authority and GOE funding) actually utilized for program support in fiscal years 1996 and 1997 and projected for fiscal year 1998.

[In millions of dollars]

Activity	Fiscal year—		
	1996	1997	1998
ITS America	2.8	2.6	2.7
Mitretek	5.5	5.6	5.3
Misc. Support	2.9	1.5	2.0
TOTAL	11.2	9.7	10.0

Question. For each of the contracts that have been signed to help develop standards, please provide extensive detail justifying these expenditures.

Answer. Each of the standards development organizations (SDO's) were contracted with to support the development of interface standards as defined by the ITS National Architecture. Multiple SDO's were contracted with because of the various expertises required in this task. The following provides a brief description of the primary interest area of each SDO and the standards products they are working on.

American Association of State Highway and Transportation Officials (AASHTO).—Development of standards relating to roadside infrastructure.

—Actuated Signal Controller Objects (NTCIP)
—Automatic Vehicle Identification (NTCIP)
—Class E Profile for Center to Center Communications (NTCIP)
—Dynamic Message Signs (NTCIP)
—Environmental Sensor Stations (NTCIP)
—Highway Advisory Radio—HAR (NTCIP)
—NTCIP Class B Profile
—NTCIP Global Object Definitions NTCIP Overview
—NTCIP Simple Transportation Management Framework Ramp Meters (NTCIP)
—NTCIP Transportation Sensor Systems
—Vehicle Classification Devices (NTCIP)
—Video Camera Control (NTCIP)
—Weigh-in-Motion (NTCIP)

American Society of Testing & Materials (ASTM).—Development of standards and test procedures for roadside dedicated short-range communications (DSRC) and equipment.

—DSRC Data Link Layer
—DSRC Physical Layer: 902–928 MHZ.

Institute of Electrical and Electronics Engineers (IEEE).—Development of standards relating to electronics and communications message sets and protocols.

—ITS Data Dictionaries Guidelines
—Message Sets for DSRC for ETTM and CVO
—Message Sets for Incident Management (EMS to TMC, E911)
—Standard for Data Dictionaries for ITS
—Standard for Message Set Template for ITS
—Survey of Communications Technologies.

Institute of Transportation Engineers (ITE).—Development of standards relating to traffic management and transportation planning systems.

—External TMC Communications Scoping and Requirements Study
—Advanced Traffic Management System Data Dictionary (TMDD)—Section 1 Links/Nodes)
—Advanced Traffic Management System Data Dictionary (TMDD)—Section 2 (Incidents)
—Advanced Traffic Management System Data Dictionary (TMDD)—Section 3 (Traffic Control)
—Advanced Traffic Management System Data Dictionary (TMDD)—Section 4 (DMS/Video/etc.)
—Advanced Transportation Controller (ATC) Application Program
—Advanced Transportation Controller (ATC) Cabinet Specification
—Advanced Transportation Controller (ATC) Functionality and Interface
—Message Set for External TMC Communication (MS/ETMCC)—Bundle A
—Message Set for External TMC Communication (MS/ETMCC)—Bundle B
—TCIP—Control Center Objects
—TCIP—Common Public Transportation Objects
—TCIP—Fare Collection Objects TCIP—Framework
—TCIP—Incident Management Objects
—TCIP—Onboard Objects
—TCIP—Passenger Information Objects
—TCIP—Scheduling/Runcutting Objects
—TCIP—Spatial Representation Objects
—TCIP—Traffic Management Objects.

Society of Automotive Engineers (SAE).—Development of standards for in-vehicle and traveler information systems.

—Adaptive Cruise Control MMI and Operating Characteristics
—Advanced Traveler Information System (ATIS) Core Message List
—Advanced Traveler Information System (ATIS) Data Dictionary
—ATIS Message Structure for High Speed FM Subcarrier
—Forward Collision Warning: Operating Characteristics and User Interface
—In-Vehicle Message Priority
—In-Vehicle Navigation System Communication Device Message Set
—ISP-Vehicle Location Referencing Standard
—ITS Data Bus Architecture Information
—ITS Data Bus Conformance Testing Standard
—ITS Data Bus Gateway Recommended Practice
—ITS Data Bus Physical Layer Standard SAE J2366/1
—ITS Data Bus Protocol—Application Layer
—ITS Data Bus Protocol Standard—Link Layer
—Location Referencing Standard—Field Test Analysis Information
—Location Referencing Standard—Stakeholder's Workshop Information Report
—Mayday Industry Survey Information
—National Location Referencing Information Report
—Navigation & Route Guidance Function Accessibility while Driving
—Navigation & Route Guidance Man-Machine Interface Transactions
—On-Board Land Vehicle Mayday Reporting Interface
—Visual Demand Management.

The following organizations are not part of the original 5 SDO's contracted with but are still receiving resource support from U.S. DOT and are, therefore, included in this listing.

American National Standards Institute (ANSI).—U.S. member of ISO with wide expertise in information technology standards.

—Commercial Vehicle Operations—Credential Application

—Commercial Vehicle Safety and Credentials Information Exchange
—Commercial Vehicle Safety Reports.
National Radio Systems Committee (NRSC).—Development of protocols and specifications for wide area communications.
—High Speed FM Subcarrier Layer 1.

To date, 15 standards have been produced with an additional 25 expected to be at the balloting stage by the end of the year. Each of the SDO's are working on multiple activities and in many cases, the SDO's are working in partnership to provide the varied expertise necessary to support particular standards and to provide consistency among the various standards.

Question. Have you designed a budget that only funds the most critical and cost beneficial investments? Please document your answer by providing evidence of the prioritization of investments.

Answer. In the fiscal year 1999 budget request, the Department has focused its efforts on several key strategies intended to facilitate the integration of ITS components in metropolitan and commercial vehicle operating settings, as well as expand our understanding of ITS as applied to rural transportation. This supports the Department's vision for an ITS infrastructure that can provide a truly integrated, seamless, intermodal, surface transportation system for the traveling public whether they use private, public, or commercial vehicles.

In addition, the Department has devoted a major portion of the ITS research budget to launching the Intelligent Vehicle Initiative. The IVI is aimed at accelerating the development, availability, and use of driving assistance and control intervention systems to reduce motor vehicle crashes. By integrating driving assistance and motorist information functions, IVI systems will help drivers process information, make decisions and operate vehicles more safety and effectively. The deployment of basic IVI elements into the private auto, transit, and commercial vehicle fleets is estimated to decrease the number of annual crashes by 17 percent, saving both lives and the societal costs associated with the loss of these lives.

To support these goals the Department has requested $100 million for the new Deployment Incentives Program and $150 million for research and technology transfer. The following briefly describe the Department's specific strategies and priorities and how they are reflected in the fiscal year 1999 budget request:

Deployment Incentives Program ($100 million) will provide funding incentives to state and local officials to integrate ITS infrastructure (and not pay for individual components) in metropolitan areas, to expand the CVISN infrastructure into additional States and implement several rural ITS deployments.

Research ($58.6 million) includes the launching of the Intelligent Vehicle Initiative and provides research into ongoing metropolitan and rural ITS applications such as weather information systems, fleet operations and maintenance schemes, and emergency services.

Operational Tests ($28.1 million) is still a major thrust of the program and involves the field testing of key ITS technology components. This includes rural tests such as a Weather Field Test, Tourism and Traveler Information systems, Rural Infrastructure and Fleet Operations and Maintenance; Advanced Public Transportation Systems tests such as Hybrid Bank Proximity Cards and Asynchronous Dial-A-Ride transit services; and IVI tests including various Collision Avoidance systems, Integrated Transit Vehicles and the Intelligent Vehicle Heavy Truck.

Mainstreaming ($21.5 million) emphasizes technical assistance to state and local partners in ITS applications. It includes training, particularly on ITS Architecture and Standards, technical guidance development, and the Peer-to-Peer program.

Architecture and Standards ($19.4 million) reflects an urgency to advance ITS standards through the testing and regulatory processes, and the need to revise and deepen the National ITS Architecture in key areas such as Rural ITS.

Evaluation and Program Assessment (12.4 million) includes providing independent evaluations for all operational tests, concludes the Model Deployment evaluations and collects outcome data for GPRA.

Program Support ($10 million) includes support for ITS America, continuing program management and technical analysis from contractors and technical support to FTA for the Advanced Public Transportation Systems Program.

Question. Please list the advanced traffic management systems now being developed in the R&D program, their expected completion date, amount of money invested in each to date, expected total project costs, and amount of cost sharing received and planned for the completion of each project.

Answer. Advanced traffic management systems (ATMS) are a complex mixture of many traffic control technologies such as surveillance and detection, ramp metering, signal control, incident detection and management and driver information. The Federal Highway Administration has budgeted funds yearly for technology develop-

ment, improvement of analysis tools, and ATMS research support facilities. The primary area of technology development is Adaptive Control Systems (formerly known as Real-Time, Traffic-Adaptive Control Systems, RT-TRACS). This is a signal control technology that adapts signal timings to respond to changing traffic patterns such as sharp, unexpected increases in traffic volumes and incident conditions.

In fiscal year 1996, approximately $1,500,000 was spent on the development and testing of the Adaptive Control Systems' logic. In fiscal year 1997, $6,000,000 was obligated for field testing at four sites. Field testing of four Adaptive Control Systems is scheduled to be completed in June 1999. The costs and dates for each are shown in the following table. Subsequent to the completion of the field tests we will begin enhancements to expand the applications to include integration with legacy equipment and transit priority. Approximately $750,000 is budgeted for these enhancements in fiscal year 1999.

Field Test Site Location	Expected Completion Date	Amount Invested to Date	Expected Total Project Cost	Amount of Cost Share [1]
Reston, VA	06/98	$2,049,000	$2,149,000	$100,000
Seattle, WA	06/99	1,525,000	1,525,000	.....
Chicago, IL	06/99	1,750,000	1,750,000	.....
Tucson, AZ	06/99	675,000	2,018,000	1,343,000

[1] Does not include state and city staff time.

Question. Please delineate all contract and GOE expenditures (active and planned) for fiscal year 1997 and fiscal year 1998 related to "outreach" and "mainstreaming" activities. What amount is planned for fiscal year 1999? From which source of monies?

Answer. The following table includes the requested data on "outreach" and "mainstreaming".

INTELLIGENT TRANSPORTATION SYSTEMS MAINSTREAMING ACTIVITIES—FISCAL YEAR 1997–1999

[In thousands of dollars]

Activity/project	Fiscal year—		
	1997 actual	1998 estimate [1]	1999 estimate [1]
MAINSTREAMING:			
COMMERCIAL VEHICLE OPERATIONS (CVO)	1,199	([2])	([2])
ADVANCED PUBLIC TRANSP. SYSTEMS (APTS)	450	([2])	([2])
TRAINING (Professional Capacity Building)	3,072	10,000	9,000
PLANNING/PROCESS GUIDANCE	1,000	4,000	4,000
DEPLOYMENT TECHNICAL ASSISTANCE	4,587	5,000	6,500
AWARENESS AND ADVOCACY	.....	3,000	2,000
GRAND TOTAL	10,308	22,000	21,500

Note: $193,000, $3 million, and $2.5 million in fiscal years 1997, 1998, and 1999 respectively, are from GOE funds; the remaining funding is from funds derived from contract authority.

[1] Fiscal year 1998 and fiscal year 1999 amounts are those included in the Congressional Budgets for those years; they assume full funding, i.e., that we will eventually receive all funds requested for those fiscal years; final spending plans for fiscal years 1998 and 1999 will not be completely formulated until after final Congressional action is taken on appropriation acts and substantive legislation for those years.

[2] No separate funding; merged into program categories below.

Question. Are you planning or conducting any research or operational tests to use ITS as a means of helping to notify police of possible impaired or aggressive drivers? Is this an avenue worth pursuing during fiscal year 1999? Do you plan on spending any fiscal year 1999 funds on this technological path?

Answer. We are already working in partnership with the Department of Maryland State Police (DMSP) to evaluate their "Aggressive Driver Imaging (ADI) and Enforcement Project." Participants in the project include the Federal Highway Administration, National Highway Traffic Safety Administration, Maryland State Highway Administration, and U.S. Army Aberdeen Test Center. In addition, the Federal Highway Administration has provided funds for an independent evaluation of this

deployment. An evaluation plan has already been developed and data are being collected. An evaluation report is expected within the next year.

We do envision a great deal of future capabilities which will be made possible through advances in detection and flow monitoring technologies, including potential use in detecting impaired driving. For example, machine vision (essentially using software techniques to analyze vehicle movements, which are usually provided by roadside video cameras) could detect certain aberrant behavior such as weaving, speeding, following too closely, and other erratic vehicle maneuvers.

We are actively working to improve detection capabilities, including use of machine vision techniques mentioned as an example in the previous question. As we improve our capabilities to extract information from deployed sensors, additional functions, such as impaired-driver detection, become feasible. We do not expect that this type of functionality will be available for some time, but we will raise this type of issue as part of our program planning discussions in coordination with appropriate U.S. DOT agencies such as FHWA and NHTSA. In addition to the technical feasibility, this application is hampered by substantial privacy issues. The privacy issues raised by this single application may hinder the overall deployment of ITS services. Our evaluation of the Maryland project includes an assessment of privacy issues.

Question. Which Federally-funded ITS projects are behind schedule and why? Which are over their original costs?

Answer. In the first quarter of 1995, the JPO commissioned a review of all ITS projects relative to their scope, schedule and budget. We found that with the exception of operational tests, ITS projects were being managed well within those parameters with changes well justified. However, virtually all operational tests had experienced schedule changes. Some were quite significant. Our analysis found that schedule changes were in large measure due to unrealistic expectations of all parties concerned in creating the original schedule. FHWA tended to assume that contracts could be signed within the same time frame as regular federal aid projects, when in fact we were often dealing with new partners (many of whom were private sector) and new procedures were often involved. Negotiations among the local partners took much longer than expected. Sometimes partners dropped out and had to be replaced. Once contracts and local agreements were signed, we encountered delays in negotiating evaluation plans, since some partners (especially those funded by earmarks) did not understand that the projects were designed to uncover new procedures and techniques; in short, lessons learned. These issues accounted for the vast majority of changes to the original schedule expectations.

Subsequent to the early CY 1995 review, we have rebaselined the projects and the majority are progressing within the revised management parameters. Projects encountering turbulence identified in the review were reported in the CY 1997 response to this question. As new projects are undertaken, or as older ones enter into later phases, they continue to encounter schedule changes resulting from a variety of causes which should be expected in endeavors exploring new technology applications and, more significantly, changing practices in contracting and partnering. These challenges include technology problems, software development and installation deficiencies, environmental impacts on data collection and recurring encounters in the area of institutional issues.

As new projects are undertaken, we have ensured that relevant lessons learned are incorporated in project selection criteria, schedule development and guidance provided to contract negotiators and partners.

The following section identifies projects which have encountered schedule changes and the associated causes.

The following projects have encountered delays associated with negotiation of agreements or memoranda of understanding among partnership members:

—HERALD EN-ROUTE DRIVER ADVISORY SYSTEM VIA AM SUBCARRIER (CO & IA)

—HOUSTON SMART COMMUTER (Houston, TX)

—INTEGRATED RAMP METERING/ADAPTIVE SIGNAL CONTROL (Orange Co., CA)

—Inability of public and private partners to reach consensus on written agreement.

—System-wide ramp metering failed to meet CALTRANS acceptance.

—NEW YORK CITY METROPOLITAN TRANSPORTATION AUTHORITY TRAVEL INFORMATION SYSTEM (New York, NY)

—SEATTLE WIDE-AREA INFORMATION FOR TRAVELERS (Seattle, WA)

—(See below under evaluation)

—SMART CALL BOX (San Diego, CA)

Some projects have incurred schedule adjustments to accommodate demands of data collection and evaluation. The following fall in this category:

—COLORADO MAYDAY SYSTEM (CO)
  —This project has experienced further turbulence due to the jurisdiction in which a full test was to occur demanding indemnification.
—DELAWARE COUNTY RIDETRACKING (Delaware Co., PA)
—IDAHO STORM WARNING SYSTEM (ID)
—TRANSCAL (San Francisco, CA)
—TRAVEL-AID (Seattle, WA)
—SEATTLE WIDE-AREA INFORMATION FOR TRAVELERS (Seattle, WA)

The following projects incurred schedule adjustments resulting from partnership members designated to provide key products deciding to withdraw from the project or modify their participation. These decisions necessitated searches for replacement partners, or rescoping project objectives with regard to evaluated technologies.

—DIRECT (DETROIT, MI)—In-vehicle equipment provider withdrew.
—GENESIS (Minneapolis-St. Paul, MN)—Withdrawal of Personal Communications Device provider required redefinition of phases and objectives.

Some projects have encountered schedule delays attributable to multiple causes. Included in this category are the following:

—NEW JERSEY TURNPIKE PROJECT (NJ)
  —Increase in scope to include weather surveillance.
  —Late start due to contract-related procedural difficulty.
—SMART CORRIDOR (CA)
  —Data collection delayed.
  —State-imposed moratorium delayed bringing evaluation contractor into the project by one year.
—DETROIT, MI AREAWIDE DEPLOYMENT OF ATMS/ATIS (Detroit, MI)
  —Delay in securing FCC license approval for microwave frequency transmissions.
  —Problems encountered in locating central towers.
—MOBILE COMMUNICATIONS SYSTEM (CA)
  —Contract and evaluation problems.
  —Weather delays (heavy moisture in CA during early 1998.)
—ADVANCED RURAL TRANSPORTATION INFORMATION AND COORDINATION (MN)—Delays caused by long lead times in obtaining authorization to start because of MOU negotiations. Technically unqualified respondents to requests for proposals required repeating the solicitation. Procurement-related delays associated with processing data collection proposals. The combined effect of these causes has required a revised procurement approach.
—DENVER, CO HOGBACK MULTI-MODAL TRANSFER CENTER (Denver, CO)—Problems with partnership negotiation and community resistance to use of proposed site.
—DYNAMIC TRUCK SPEED WARNING FOR LONG DOWNGRADES (CO)—Data collection delayed by road repairs/construction at detection equipment locations.
—IDAHO OUT OF SERVICE VERIFICATION OPERATIONAL TEST (ID)—Partnership problems causing delays in securing contractual arrangements satisfactory to all partners and technological challenges resulting from the need to tailor existing technology to meet the needs of the project.
—NEW JERSEY SIGNAL COMPUTERIZATION (NJ)
  —Increased funding.
  —Increase in scope of project.
  —Changes in requirements for bridge sign designs and signal mounting.
—NEW JERSEY POLICE COMMUNICATIONS CENTER (NJ)—Changes in state procurement process for equipment purchase.
—SCOOT ADAPTIVE TRAFFIC CONTROL SYSTEM (Anaheim, CA)
  —Delays in installation of City of Anaheim surveillance equipment.
  —Contract negotiation delays with the SCOOT contractor.
—SPREAD SPECTRUM RADIO TRAFFIC INTERCONNECT (Los Angeles, CA)
  —Difficulty in acquiring necessary hardware resulting from manufacturing problems has delayed equipment installation and system evaluation.
  —Delays in contract award.
—TRAVINFO (San Francisco, CA)
  —Contract/agreement delays.
  —Delays in operation start up due to system check out and testing problems.
  —Expanded evaluation requirements.
—TRANSCAL (CA) (also mentioned under evaluation)
  —Contract complications.

—Project management problems.

Some projects have experienced schedule delays from unique institutional or technological causes.

—I–287 SURVEILLANCE SYSTEM (NY)
—NY State Turnpike Authority Board of Directors delayed fund matching.
—CHICAGO SMART INTERMODAL SYSTEM (Chicago, IL)
—Software problems.
—SYRACUSE CONGESTION MANAGEMENT SYSTEM (Syracuse, NY)
—Construction delay due to utility relocation.
—PENNSYLVANIA TURNPIKE TRAVELER INFORMATION SYSTEM (PA)
—Delay in securing tri-party toll agreement in accordance USC Title 23.
—DALLAS AREA RAPID TRANSIT PERSONALIZED PUBLIC TRANSIT (Dallas, TX)—Expanded review time by Dallas Area Rapid Transit Authority.
—ELECTRONIC ONE-STOP SHOPPING OPERATION TESTS (CA, AZ, NM, IA, MN, NE, WI, KS, MO, IL, SD, CO, AR, TX)
—Deficiencies in credentials software.
—FAST-TRAC (MI) has been extended as a result of additional earmarked funding generating increases in scope and duration.
—MAGIC (NJ)—Changes in conduit trench design and redesign of variable message sign structures.
—MONTGOMERY COUNTY ADVANCED TRANSPORTATION MANAGEMENT SYSTEM (Montgomery Co., MD)
—Software development/installation problems.
—Processing of invoices.
—NORTH SEATTLE ADVANCED TRAFFIC MANAGEMENT SYSTEM (Seattle, WA)
—Delays due to software development problems.
—Further delay to accommodate integration with Seattle Model Deployment Initiative.
—SMART FLEXROUTE INTEGRATED REAL-TIME ENHANCEMENT SYSTEM (Northern VA)—Delays due to problems with software installation.
—WILMINGTON SMART DART (Wilmington, DE)—This project has encountered significant challenges from the state of flux in the "smart card" industry. Previously delayed by institutional issues in banking laws affecting the MasterCard "smart cash" card, SMART DART has been further impeded by MasterCard's sale of "SmartCash" and acquisition of MONDEX. MONDEX is an "electronic purse" system currently facing a variety of start up delays. This project is currently being reviewed for restructuring.

ITS Projects over their original costs are addressed below:

Some projects have requested funds to cover the costs incurred by having to expand the depth of the operational test evaluations necessitated in meeting requirements specified by FHWA in the Mitre Evaluation Guidelines. In most cases, the guidelines had not been published prior to submission of the proposals. The following projects were affected:

—SCOOT ADVANCED TRAFFIC CONTROL SYSTEM (Anaheim, CA)
—IDAHO STORM WARNING SYSTEM (ID)
—TRANSCAL (CA)
—TRAVINFO (CA)
—SAN ANTONIO TRANSGUIDE —"Before and After" study for Phase 2 added to project scope.
—NATIONAL INSTITUTE FOR ENVIRONMENTAL RENEWAL (PA)—Phase II of project was expanded to include the OPERATION RESPOND system and inter-modal movements at the Port of Los Angeles.
—ELECTRONIC ONE-STOP SHOPPING OPERATIONAL TESTS—Software development, testing and debugging.

Other projects incurring cost adjustments include:

—FAST-TRAC (MI)—Additional funding resulting from earmarked funds.
—BALTIMORE SMART VEHICLE (MD)—Local transit operator decision using Section 9 formula funds.
—ATLANTA DRIVER ADVISORY SYSTEM (GA)—Evaluation-related.
—TRAVTEK (FL)—FHWA requested more extensive evaluation documentation.
—EVALUATION SUPPORT FOR ITS OPERATIONAL TESTS (Various)—Additional effort added to scope of work to evaluate and perform case study of Atlanta ITS Olympic experience.
—NATIONAL AVIATION TRANSPORTATION CENTER (NY)—Additional earmarked funds.
—SYRACUSE CONGESTION MANAGEMENT SYSTEM—Earmarked funding

—INTELLIGENT CRUISE CONTROL FIELD OPERATIONAL TEST
—Increase in scope to assess platooning.
—Added sensors for increased maintainability and demonstration tasks.
—NEW YORK THRUWAY ELECTRONIC TOLL COLLECTION AND TRAFFIC MANAGEMENT
—Earmark to expand scope of project.
—NATIONAL AVIATION AND TRANSPORTATION CENTER
—Added earmarked funding.
—FUEL CONSUMPTION AND EMISSION VALUES FOR TRAFFIC MODELS
—Increase in scope.
—REAL-TIME TRAFFIC ADAPTIVE SIGNAL CONTROL FOR ITS
—Change in test site location.
—Hardware and software problems.
—DETROIT, MI AREAWIDE DEPLOYMENT OF ATMS/ATIS
—Transfer from FAST-TRAC to fund Traffic Operations Center-to-Traffic Management Center communication.
—VARIABLE DYNAMIC TEST VEHICLE DEVELOPMENT
—Increase in scope.

Question. During fiscal year 1997 or fiscal year 1998, which ITS projects required additional Federal funding to be added to the amounts specified in their original cooperative agreements? Why were these funds added?

Answer. Following is the requested; since only "interim" funding has been received for fiscal year 1998 all of the following data apply to fiscal year 1997.

Intelligent Cruise Control Field Operation Test

$294,000 to cover cost of additional sensors for increased maintainability and added demonstration tasks.

Funding increase of $79,940 to fund added tasks to study platooning.

New York Thruway Electronic Toll Collection and Traffic Management

$3,010,000 added as a fiscal year 1997 earmark incorporated to expand electronic toll collection to commercial vehicles and create a joint customer system.

National Aviation and Transportation Center

$1,539,250 additional earmarked funding.

Fuel Consumption and Emission Values for Traffic Models

$400,000 increase. Additional funding from Office of Environment Planning to collect emission and fuel consumption data on malfunctioning vehicles.

Real-Time Traffic Adaptive Signal Control for ITS

$850,000 increase.

Funding increase was needed to cover costs associated with two developments: Contract extension due to change in field test site from Atlanta, GA to Reston, Va. Delays in obtaining workable and proven 2070 traffic control hardware and software.

Detroit, MI Areawide Deployment of ATMS/ATIS

Increase of $3,000,000 from FAST-TRAC funding to establish communications link between MIDOT's Intelligent Transportation Systems Center and the Road Commission for Oakland County's Traffic Operations Center to allow real-time information exchange between centers.

Evaluation of Automated Collision Notification Operational Test

$97,213 added to cover an independent evaluation. Original project was completed within budget.

Variable Dynamic Test Vehicle Development

$300,000 increase to fund development of a bread board for anti lock brakes, yaw control and anti roll bar systems.

TRAVINFO

$2,572,000 added to cover extended evaluation period. $272,000 is accounted for by FHWA evaluation requirements not budgeted in initial phase.

Evaluation Support for ITS Operational Tests

$670,000 added to accommodate increased scope of work to evaluate and perform case study of Atlanta ITS Olympic experience.

Question. Please provide a detailed table showing any unobligated funds and funds that are obligated but not yet committee by year for any ITS projects specified in previous conference reports. What is the status of each of these projects?

Answer. The following table lists projects earmarked by the Congress to be funded from ITS funds together with obligations and unobligated balances for each. With the exception of the $4.02 million of unobligated ISTEA contract authority shown for #44, Johnson City, Tennessee ($2.52 million of fiscal year 1995 funds and $1.5 million of fiscal year 1996 funds), all other unobligated balances are fiscal year 1998 funds included in the General Operating Expenses account.

INTELLIGENT TRANSPORTATION SYSTEMS CONGRESSIONALLY EARMARKED PROJECTS

[In thousands of dollars]

NO	PROJECT	STATE	FISCAL YEAR—				RESCIS-SION	FISCAL YEAR—			TOTAL	OBLIGA-TIONS	UNOBLIG. BAL
			1992	1993	1994	1995		1996	1997	1998			
1	ADVANTAGE I–75		1,000	1,400							2,400	2,400	
2	Smart Corridor	Ca	1,000								1,000	1,000	
3	ADVANCE (Chicago)	Il	7,500	4,550	6,000						18,050	18,050	
4	HELP/Crescent	Various	2,000	525							2,525	2,525	
5	DIRECT (Detroit)	Mi	500								500	500	
6	Smart Commuter (Houston)	Tx	2,000							1,500	3,500	2,000	1,500
7	Philadelphia	Pa	2,000								2,000	2,000	
8	Miami	Fl	5,000								5,000	5,000	
9	Guidestar	Mn	10,000	8,750	6,000	6,825		2,000	3,600	6,000	43,175	37,175	6,000
10	Electric Vehicle	Ca	1,500								1,500	1,500	
11	FAST-TRAC (Oakland County)	Mi	10,000	10,500	20,000	15,000					55,500	55,500	
12	TRANSCOM	NJ/NY	3,000	2,400	2,200	2,625		1,500	2,250		13,975	13,975	
13	MAGIC	NJ/NY	4,000	6,280							10,280	10,280	
14	Toll Road ETTM	NJ	25,000	7,000	3,000						35,000	35,000	
15	Integrated Corridor Mgmt	NJ/Pa	6,000								6,000	6,000	
16	Signal Computerization	NJ	6,000	7,000							13,000	13,000	
17	Southern State Parkway	NY	20,000	14,000			−13,600				20,400	20,400	
18	Spellman Parkway	Md	300								300	300	
19	Maryland Arterials	Md	2,200								2,200	2,200	
20	Northeast Corridor	Various		10,500	1,000	7,500		3,500		1,000	23,500	22,500	1,000
21	Gary Corridor	Various		1,400	2,500						3,900	3,900	
22	Houston Corridor	Tx		3,105	2,000	2,250		2,200	2,000		11,555	11,555	
23	Anaheim Corridor	Ca		4,200							4,200	4,200	
24	Smart Corridor (Los Angeles)	Ca		4,900							4,900	4,900	
25	Chicago Corridor	IL		500							500	500	
26	Milwaukee Corridor	Wi		500						5,500	6,000	500	5,500
27	San Diego	Ca		2,100	5,000						7,100	7,100	
28	Miami/Ft. Lauderdale	Fl		2,240							2,240	2,240	
29	Seattle	Wa		3,500	1,500						5,000	5,000	
30	Detroit	Mi		700							700	700	
31	TravTek (Orlando)	Fl		500							500	500	
32	I–80 (CVO)	Various		700							700	700	
33	Sutter County	Ca		1,750							1,750	1,750	

34	Fairfax County	Va			5,250							5,250	5,250	
35	Police Communications Center	NJ			3,500							3,500	3,500	
36	New York State Thruway	NY			5,250	6,400			1,500	3,000		16,150	16,150	
37	George Mason University (GOE Funding)	Va			1,600							1,600	1,600	
38	Humphrey Institute (GOE Funding)	Mn			760							760	760	
39	Sandia Labs	NM				2,000						2,000	2,000	
40	Bronx/Northern Manhattan ATMS	NY				2,400	2,250					4,650	4,650	
41	Buffalo/Niagara Falls ATMS	NY				2,000						2,000	2,000	
42	CARAT (Charlotte)	NC				6,000	4,500					10,500	10,500	
43	George Mason University	Va				2,000						2,000	2,000	
44	Johnson City	Tn				2,500	3,750		1,500			7,750	3,730	4,020
45	Montgomery County	Md				1,000						1,000	1,000	
46	Southeast Michigan (SMART)	Mi				4,500	7,500					12,000	12,000	
47	Smart Bus—State Rt. 9	NJ				1,500						1,500	1,500	
48	Iowa CVO (GOE Funding)	Ia				2,000						2,000	2,000	
49	Humphrey Institute (GOE Funding)	Mn				950						950	950	
50	Lower Hudson Valley	NY					1,500					1,500	1,500	
51	Adv. Transp. Weather Info. Sys.(U of ND)	ND					750		1,000	1,000	775	3,525	2,750	775
52	Hazardous Materials Transp. Safety (NIER)	Pa?					1,500		2,500	2,000	1,000	7,000	6,000	1,000
53	Santa Teresa Border Crossing	NM					1,680		900		1,000	3,580	2,580	1,000
54	Syracuse Congestion Mgmt	NY					1,500		1,500		1,000	4,000	3,000	1,000
55	Brooklyn/Bronx/Queens Signalization	NY					3,750					3,750	3,750	
56	Nat'l. Transp. Ctr. (Oakdale)(Dowling Coll.)	NY					1,870		2,000	2,500		6,370	6,370	
57	Adv. Railroad/Hwy. Crossings	NY					2,625		1,250	2,000		5,875	5,875	
58	New Jersey Turnpike	NJ					2,625					2,625	2,625	
59	Green Light CVO Project	Or					6,000		7,000	7,000		20,000	20,000	
60	Paralympiad	Ga							1,000			1,000	1,000	
61	I–10 (Mobile) (Fog Detection System)	Al							3,000	2,000		5,000	5,000	
62	Capitol Beltway	Md/Va							4,000			4,000	4,000	
63	Texas Transp. Inst. (Texas A&M)	Tx							600	600	1,000	2,200	1,200	1,000
64	Western Transp. Inst. (Montana State Univ.)	Mt							1,000		1,000	2,000	1,000	1,000
65	I–675/SR844/Col. Glenn (Fairborn)	Oh							1,000			1,000	1,000	
66	Salt Lake City	Ut							2,000	5,000	3,500	10,500	7,000	3,500
67	Inglewood	Ca								1,000	500	1,500	1,000	500
68	Mobile Adv. Traf. Mgmt. Sys. (Montgomery)	Al								1,000		1,000	1,000	
69	Traffic Guidance System (Nashville)	Tn								1,000	750	1,750	1,000	750
70	Operation Respond	Md								1,000		1,000	1,000	
71	Pennsylvania Turnpike	Pa								3,000	6,000	9,000	3,000	6,000
72	Nat'l. Capitol Region Congest. Mitigation	Various								3,500	6,000	9,500	3,500	6,000
73	National Advanced Driver Simulator (NADS)	Ia								14,000		14,000	14,000	

INTELLIGENT TRANSPORTATION SYSTEMS CONGRESSIONALLY EARMARKED PROJECTS—Continued

[In thousands of dollars]

NO	PROJECT	STATE	FISCAL YEAR—				RESCISSION	FISCAL YEAR—			TOTAL	OBLIGATIONS	UNOBLIG. BAL
			1992	1993	1994	1995		1996	1997	1998			
74	Kansas City Region	Ks/Mo							2,500	1,000	3,500	2,500	1,000
75	US/Canada CVO	Wa							1,500		1,500	1,500	
76	Rochester Congestion Management	NY							1,500		1,500	1,500	
77	Urban Transp. Saf. Sys. Ctr. (Drexel Univ., Phila.)	Pa							500	250	750	500	250
78	Arizona Nat'l. Ctr. for Traffic & Logistics	Az								1,000	1,000		1,000
79	CVO, I–5 California	Ca								1,500	1,500		1,500
80	Cumberland Gap Tunnel	Ky								1,550	1,550		1,550
81	Dade County Expressway, Fla. Toll Collect. Sys	Fl								1,000	1,000		1,000
82	Franklin County Ma. Traveler Info. Sys	Ma								875	875		875
83	I–90/I–94 Rural ITS Corridor	Wi								1,700	1,700		1,700
84	Louisiana I–55, I–10 & 610 ITS Systems	La								5,500	5,500		5,500
85	Market St. & Pa. Convention Ctr. Info. Ctr	Pa								325	325		325
86	I–90 Connector, Rennselaer County, NY	NY								1,250	1,250		1,250
87	I–275, St. Petersburg, Fla	Fl								1,000	1,000		1,000
88	Rt. 236/I–495, Northern Va. ITS System	Va								500	500		500
89	Southeast Michigan Now & Ice Mgmt. (SEMSIS)	Mi								1,150	1,150		1,150
90	Reno ITS	Nv								1,875	1,875		1,875
91	Barboursville/Ona. Traffic Management	Wv								8,000	8,000		8,000
92	North Dakota State Univ. Adv. Traffic Anal. Ctr	ND								600	600		600
93	Sullivan Co., NY Emergency Weather System	NY								1,000	1,000		1,000
94	New York City toll plaza scanners	NY								1,100	1,100		1,100
95	Cleveland transit maintenance environ. Proj	Oh								1,000	1,000		1,000
96	Op. Respond Haz. Mat. Response Software	Tx								1,000	1,000		1,000
97	Wash. State Radio Comm. Emergency Call Boxes	Wa								750	750		750
98	Wash. State Roadway Weather Info. System	Wa								1,250	1,250		1,250
99	Colo. I–25 Truck Safety Improvements	Co								9,000	9,000		9,000
100	Tuscaloosa Traffic Integration and Flow Control	Al								2,200	2,200		2,200
101	Alaska Cold Weather ITS Sensing	Ak								1,000	1,000		1,000
	TOTALS		109,000	115,360	82,450	76,000	−13,600	40,950	63,450	83,900	557,510	469,590	87,920

Question. As requested on page 331 of the budget submittal, why is it necessary to spend money to investigate alternative approaches to setting mobility-based performance goals?

Answer. Performance goal setting is stimulated by the Government Performance and Results Act (GPRA), which promotes running government more like private enterprise. GPRA acknowledges that such a transition takes time and accommodates a phase-in over several years. Achieving GPRA goals in transportation is impeded more than for other Federal agencies because FHWA and FTA must motivate its public sector partners at State, transit authority, and Metropolitan Planning Organization levels to buy into the same GPRA goals. Values behind goal setting include better accountability and the use of feedback to adjust investment strategies. Alternative approaches to goal setting for achieving mobility can be top-down from management or bottom-up based on empirical data histories of improvements that might be expected. There are also alternative approaches for collecting data necessary to provide feedback to managers, e.g., implementing new data collection or trying to use or modify existing data collection procedures. Because the GPRA approach is still new to many, there are no clear cut approaches that provide the most cost effective way at goal setting. It is therefore necessary to spend money to investigate alternative approaches that would lead to ways to save money in the future.

Question. Please break down on a contract by contract basis the specific activities and associated amounts allocated in fiscal year 1996, fiscal year 1997, and thus far in fiscal year 1998 to conduct ITS policy assessments.

Answer. The following information.

ITS Program Assessment Support Contract DTFH61–96–C–00098

Fiscal year 1996 funds in the amount of $40,670 were allocated to support the Joint Program Office in defining critical procurement issues associated with deploying, operating, and maintaining ITS systems under regulations used for Federal Aid Projects. Methods to overcome the critical issues were to be defined and then reviewed in light of comments from appropriate FHWA procurement specialists. No additional funds were obligated to this contract for work in either fiscal year 1997 or fiscal year 1998.

ITS Program Assessment Support Contract DTFH61–96–C–00077

Fiscal year 1996 funds in the amount of $19,170 were assigned to develop supporting materials and documents to assist U.S. DOT's Joint Programs Office (JPO) in the Congressional hearings on the proposed fiscal 1998 budget for ITS. The goal was to undertake the necessary research to develop comparisons of the investments required for the ITS Program and other programs that share similar characteristics, and communicate the findings in an effective manner.

Fiscal year 1997 funds in the amount of $19,170 were assigned to develop a document to assist the U.S. DOT Joint Program Office in creating a program strategy to meet their Historically Black Colleges and Universities (HBCU's) and other Minority Institutions of Higher Education (MIHE's) participation goals, with particular information regarding student internship programs.

No funds have been obligated thus far in fiscal year 1998 for ITS policy assessment under this contract.

Contract with ITS America

No funds were expended in fiscal year 1996 for ITS policy assessment with this contract. In fiscal year 1997, $400,000 were obligated to this contract to support a macro-economic analysis of the benefits and costs of the ITS program. In fiscal year 1997, $50,000 were allocated to this contract to support a workshop on the topic of ITS as A Data Resource, to investigate policy implications for adding a new user service to the ITS architecture. No fiscal year 1998 funds have been allocated to this contract thus far for ITS policy assessment purposes.

Contract with John A. Volpe National Transportation Systems Center

The U.S. Department of Transportation's John A. Volpe National Transportation Systems Center in Cambridge, MA received $930,000 in funding in fiscal year 1996, $2,157,000 in funding in fiscal year 1997, and $100,000 in funding in fiscal year 1998 (to date) to support the ITS Joint Program Office in a variety of ITS policy analysis areas. A significant portion of this funding has been spent preparing reports requested by the Congress. It is estimated that costs for the annual ITS Program report to the Congress alone is between $800 thousand and $1 million.

Funding has been used to prepare issue papers and organize a conference on telecommunication's issues related to ITS deployment decision-making, a white paper on the role of ITS in freight intermodalism, and to continue the examination of the development of the ITS market and the emergence of ITS businesses. The Volpe

Center provided background information and policy position papers supporting the ITS program as needed on topics related to institutional issues impeding the successful deployment of ITS. The Volpe Center also continued work assessing issues impeding the deployment of ITS in metropolitan areas and states.

In fiscal year 1997 and fiscal year 1998, the Volpe Center also began to support the evaluation of the Metropolitan Model Deployment Initiative and CVISN sites. The Volpe Center has prepared reports on the institutional issues and benefits associated with the deployments, is providing the technical lead and staff support in the assessment of customer satisfaction and the benefits and costs of the deployments, and is examining the business models being followed by the private sector participants.

Question. Please provide an empirical basis justifying the need for the $3.7 million requested for ITS policy assessment studies.

Answer. The $3.7 million requested for fiscal year 1999 includes the following efforts: congressional reporting and policy analyses by the John A. Volpe National Transportation Systems Center at levels consistent with current outlays; new policy assessments on the effect of the requirement to link federal funding to architecture conformance and standards conformance; policy development and assessment for deployment of a rural ITS infrastructure to include definition of the infrastructure and stakeholder feedback as to the best ways to integrate the rural infrastructure with the ITS architecture.

Congressional report requirements consume a significant portion of the policy assessment resources. It is estimated that the cost of the annual report to Congress on the ITS program is between $800,000 and $1 million. It is anticipated that additional reporting requirements will be included as part of the reauthorization.

A new ITS user service for archived data users will also be forthcoming and will require a series of stakeholder meetings with architecture experts. This new service will include the broadest set of stakeholders in ITS architecture to date: highway transportation planners from state DOT's and metropolitan planning organizations; transit planners; traffic center operators; transportation system operators and maintainers; commercial vehicle and intermodal freight operators and planners; and, transportation safety officials. The potential for ITS to become a cost effective method for automatically obtaining certain data that could feed the Highway Performance Monitoring System (HPMS) is becoming realized as a possibility. Policy studies are needed to investigate how ITS can play a role in HPMS and in economic modeling of alternative investment strategies for reports to Congress.

Question. What is the status of each of the projects in the ITS program related to highway/rail grade crossings? For each project, please list accomplishments to date, purposes and objectives, amount obligated, amount planned to be spent, amount unobligated, scope and nature of the project, and expected date of completion. What has been achieved with past ITS investments in this area?

Answer. There are two ITS investments involving highway/rail intersections. Both have been earmarked projects. The first project involves the Vehicle Proximity Alert System (VPAS), managed by Federal Railroad Administration, and tested in Pueblo Colorado.

Section 1072 of the 1991 ISTEA required the testing of VPAS and comparable systems to determine their feasibility for use by priority vehicles as an effective highway-rail grade crossing safety device. VPAS is an in-vehicle device, mounted to the dashboard, that provides both an audible and visual warning to the driver of a priority vehicle (ambulance, school bus, police car, etc) that a train is approaching, or in, a grade crossing.

Total funding available to conduct this testing was $1 million, with $600,000 transferred from FHWA to FRA in fiscal year 1994 and $400,000 in fiscal year 1995.

Reliability testing of the prototype systems was conducted at the Transportation Technology Center (TTC) in Pueblo, Colorado. The prototypes were tested for their maximum range, reliability, ease of installation, etc. The reliability testing has been completed and the Final Test Report has been submitted. The Evaluation Report final draft should be finished by the end of March, 1998.

Based on (1) the conclusions of the evaluation report, (2) a comparison of the tested systems with the recently developed ITS User Service #30 element of the National ITS Architecture, (3) the final accounting of costs for the testing and evaluation work now being completed, and (4) the results of ongoing independent demonstrations of still other concepts in Minnesota and Illinois, a decision will be made whether or not to conduct further reliability or revenue-service testing of the prototype systems addressed in this project.

Three systems were tested:

3-point system—by SmartStops, Inc.—The original concept had a transceiver on the locomotive, one at the grade crossing and a receiver in the priority vehicle. The

locomotive-mounted transceiver would broadcast continuously, and as it approached a grade crossing the transceiver at the crossing would be activated, broadcasting a signal to any equipped priority vehicles in the area and also returning a message to the locomotive that the crossing system had been activated. This system worked reasonably well, although would require some modifications to reduce its activation range, temperature response, and so on, before any further testing or development were to occur. However, the manufacturer determined, after discussions with several railroads, that no railroad would allow the mounting of a transmitter for this purpose on their locomotives. As a result, they would have to modify their concept to use a wayside detector. They are in the process of modifying their system now, and would have to return to TTC to do basic reliability testing, should FRA determine that such further testing is advisable.

1-point system by EARS.—This system is a receiver mounted in the priority vehicle which is activated by the sound of the train horn. It is an outgrowth of a system used to help hearing-impaired drivers hear emergency sirens. However, this system did not perform well. It suffered from a lack of range and several other problems that lead to a large number of false alarms.

1-point system by Dynamic Vehicle Safety Systems.—This system is a receiver mounted in the priority vehicle that is activated by the train's Front/Rear End Device (FRED). The FRED is used to monitor air brake pressure and continuously updates via radio an indicator in the locomotive cab. This device is used on more than 85 percent of the freight trains in the country and has an FRA-approved usage and maintenance protocol. This system worked very well, although it had an excessive range problem, but the range should be reducible to minimize false alarms. However, the concept is not compatible with the ITS User Service #30. This system would need to be modified for purposes of any further testing.

A fourth system selected for testing, a 2-point system which used a transmitter on the locomotive and a receiver in the priority vehicle, was dropped from consideration because of the failure of the manufacturer, RF Solutions, to supply a prototype for testing.

The second project includes the development of a prototype integrated warning system for use at railroad/highway grade crossings. The purpose is to perform a demonstration of an integrated uniform time warning/ITS system on an electrified railroad. The demonstration will employ an Intelligent Grade Crossing System (IGC), working in concert with an Intelligent Traffic System (ITS) and a modified radio communications-based Automatic Train Control (ATC) system. It is being conducted by the New York State DOT under an earmark of $8,625,000 with a 20 percent match provided by General Railway Signal, the supplier of the train control system. The design of the overall system and hardware is nearing completion, software development is proceeding, and the system is scheduled for an initial demonstration in September, 1998. The system will then be field tested in "shadow mode," where the gates operate under the existing track circuits and a computer operates the new hardware to compare how traffic delays would be reduced were the new hardware controlling the gates. The "shadow" field testing and final evaluation of the system is expected to be complete by the first quarter in 2000.

The fiscal year 1998 funds requested in the Administrations budget, have not been allocated to any Highway/Rail grade crossing projects. The activities planned for fiscal year 1998 are primarily focused on the evaluation of GPS, full barrier systems and A 2nd train coming. A team within USDOT is now reviewing the earmarked projects of VPAS and LIRR to develop an ITS evaluation plan, to review lessons learned and to determine the next steps. Use of the VPAS technology is expected to be applied to other sites, but those sites have not been determined to date.

Since the contract authority funding requested in fiscal year 1998 was delayed, the time is being used to coordinate the project evaluations. When funding is available the evaluations are expected to continue as planned. In fiscal year 1999, the expectations are to establish projects for integrating railroad technology with ATMS, and for traffic signal preemption at crossings as well as health monitoring. The three projects included in the budget request are expected to cost $2.5 million.

Question. Please specify on a contract-by-contract basis how the fiscal year 1996, fiscal year 1997 and the fiscal year 1998 program support monies were used or will be used. Please indicate the scope, nature, and amount of each contract.

Answer. There are two principal contractors that support the JPO staff; ITS America, and the Mitretek Corp. ITS America is the official advisory committee to the U.S. DOT on the ITS program, and organizes and staffs the national committees that address each major facet of the program. These committees are one of the formal forums to bring together technical expertise in specific areas to review the program, suggest research issues to be addressed, and provide a venue for policy discussions with the ITS community. In addition, there are specific tasks the U.S. DOT

requests ITS America to perform that require access to their membership, or that they are uniquely qualified to provide. The U.S. DOT funding covers only these activities, and represents 35 percent of the $10 million annual budget of ITS America.

The Mitretek Corp. provides the principal technical support function for the JPO. Mitretek's support can be categorized into in 7 general areas: Program planning and assessment; the rural program; system architecture and deployment; communications and frequency spectrum; safety technology research for NHTSA; AHS program; and incorporating ITS into the transportation planning process.

Mitretek is the technical arm of the JPO. As such, they review and/or generate all of the technical guidance, analyses, and research activities in which the JPO is engaged. Most of the small JPO staff are each managing several areas of the program, and also provide the policy development options and rationale for senior management. The Mitretek staff is the support that allows the existence of a small JPO staff to accomplish these tasks. In 1997, the JPO developed and produced separate technical documents that encompassed technical guidance, results of research and deployment, outreach, and informational documents for use by cities and states across the country. Mitretek drafted many of these documents and provides the only entity that maintains in depth technical expertise in all facets of the ITS Program.

There are several small activities that provide support to the JPO in the areas of the development and testing of the ITS Management Information System, the computer network, the Internet Web page, special support for conferences and workshops, and consultants for special issues that arise during the conduct of the program.

The obligations for program support fall into three major categories; ITS America, Mitretek, and miscellaneous support activities. Following is a table which displays funding (both contract authority and GOE funding) actually utilized for program support in fiscal years 1996 and 1997 and projected for fiscal year 1998.

[In millions of dollars]

Activity	Fiscal year—		
	1996	1997	1998
ITS America	2.8	2.6	2.7
Mitretek	5.5	5.6	5.3
Misc. Support	2.9	1.5	2.0
TOTAL	11.2	9.7	10.0

Question. Why is it essential to use scarce ITS funds "to accelerate the institution of ITS across the surface transportation modal administrations within the U.S. Department of Transportation?"

Answer. The surface transportation system in the U.S. is undergoing large changes from building an interstate system to operating and maintaining it. The sooner more agencies understand the benefits of ITS for improving operations and maintenance and incorporate consideration of ITS into everyday routines, the faster these benefits can be realized by all traveling and non-traveling taxpayers.

COMMERCIAL VEHICLE OPERATIONS (CVO)

Question. Please provide a chart showing the amount spent on all CVO activities for each of the following fiscal years: 1995, 1996, 1997, and 1998 (assuming full authorization of appropriated amount), and 1999 (proposed). Please be certain that the table includes specific amounts for training, CVISN research, CVISN deployment, border projects, and amounts allocated to develop various information systems used by OMC.

Answer. The following table shows ITS funding obligated for CVO activities in fiscal years 1995, 1996, and 1997. This table also includes estimated fiscal year 1998 and fiscal year 1999 ITS funding projected to be allocated to CVO activities assuming full funding of the ITS program as included in FHWA's fiscal year 1998 and fiscal year 1999 budget respectively.

INTELLIGENT TRANSPORTATION SYSTEMS ACTUAL AND ESTIMATED ITS FUNDS FOR CVO

[In thousands of dollars]

	FISCAL YEAR—				
	1995 ACTUAL	1996 ACTUAL	1997 ACTUAL	1998 ESTIMATE	1999 ESTIMATE
RESEARCH AND DEVELOPMENT	10,806	14,260	6,891	7,500	9,000
TRAFFIC MANAGEMENT & CONTROL	.....	.....	.....	.....	.....
INTELLIGENT VEHICLE RESEARCH (FORMERLY AVCIS/AHS)	.....	.....	.....	.....	.....
ENABLING	.....	.....	.....	.....	.....
RURAL RESEARCH	.....	.....	.....	.....	.....
OTHER RESEARCH	.....	.....	.....	.....	.....
ADVANCED TRANSIT MANAGEMENT RESEARCH	.....	.....	.....	.....	.....
COMMERCIAL VEHICLE OPERATIONS	10,806	14,260	6,891	7,500	8,000
Safety Systems Deployment Support	.....	.....	.....	7,100	7,200
Advances in Roadside Inspection Technology	.....	.....	.....	.....	450
Automated Compliance Review	500	.....	500	400	350
Safer MCSAP Sites	.....	.....	5,100	.....	.....
Driver Monitoring and Industry Research and State Research	.....	.....	455	.....	.....
On-Board Safety Diagnostics/Monitoring	999	900	686	.....	.....
Dedicated Short Range Communications	.....	.....	150	.....	.....
SAFER/200 MCSAP Sites	3,979	4,660	.....	.....	.....
Electronic Credentials, Identifiers & Cross Reference	.....	800	.....	.....	.....
Intermodal Mobility	150	150	.....	.....	.....
Mexican Driver License	.....	300	.....	.....	.....
CVISN	.....	7,200	.....	.....	.....
International Operations Concept/Design	.....	250	.....	.....	.....
CVO System Design	1,900	.....	.....	.....	.....
Electronic Clearance	850	.....	.....	.....	.....
Automated Roadside Inspection	1,228	.....	.....	.....	.....
Hazardous Materials	350	.....	.....	.....	.....
Commercial Vehicle Info. System	850	.....	.....	.....	.....
HWY.-RAIL INTERSECTION INNOVATIVE DEV. RESEARCH	.....	.....	.....	.....	.....
INTERMODAL FREIGHT SUMMARY	.....	.....	.....	.....	1,000
OPERATIONAL TESTS	10,153	7,257	13,483	2,000	4,000
APTS	.....	.....	.....	.....	.....
INTELLIGENT VEHICLE (CRASH AVOIDANCE IN PY)	.....	.....	.....	.....	4,000
Integrated Transit Vehicle	.....	.....	.....	.....	.....
Rear End Collision Avoidance Systems	.....	.....	.....	.....	.....
Road Departure Crash Avoidance Systems	.....	.....	.....	.....	.....
Intelligent Vehicle Heavy Truck	.....	.....	.....	.....	4,000
RURAL	.....	.....	.....	.....	.....
CVO	10,153	7,257	13,483	2,000	.....
On-board Diagnostics	.....	.....	.....	2,000	.....
CVISN & Prototype Testing	.....	.....	9,218	.....	.....
Border Crossings	.....	.....	3,150	.....	.....
CVO Corridors	.....	.....	1,000	.....	.....
One Stop Shopping	157	.....	115	.....	.....
Advantage I–75	.....	1,024	.....	.....	.....
Otay Mesa Border Crossing	916	1,238	.....	.....	.....
Santa Teresa Border Crossing	1,680	900	.....	.....	.....
Model Deployment	.....	4,095	.....	.....	.....
Northern Border Crossing	3,200	.....	.....	.....	.....
Operational Test Evaluation	400	.....	.....	.....	.....
Nogales, Arizona Border Crossing	2,300	.....	.....	.....	.....
Hazardous Material Transportation Safety	1,500	.....	.....	.....	.....
EVALUATION/PROGRAM/POLICY ASSESSMENT	.....	.....	.....	350	.....
EVALUATIONS	.....	.....	.....	350	.....
Metropolitan Model Deployment	.....	.....	.....	.....	.....
CVISN Model Deployment	.....	.....	.....	.....	.....

INTELLIGENT TRANSPORTATION SYSTEMS ACTUAL AND ESTIMATED ITS FUNDS FOR CVO—Continued

[In thousands of dollars]

	FISCAL YEAR—				
	1995 ACTUAL	1996 ACTUAL	1997 ACTUAL	1998 ESTIMATE	1999 ESTIMATE
Field Operation Tests Cross-Cutting Analyses	.....	.....	.....	350	.....
Rural Field Operational Tests	.....	.....	.....	.....	.....
Intelligent Vehicle Operational Tests	.....	.....	.....	.....	.....
Intermodal Freight Evaluation	.....	.....	.....	.....	.....
APTS Field Operational Tests	.....	.....	.....	.....	.....
Highway-Rail Field Operational Tests	.....	.....	.....	.....	.....
ITS PROGRAM/POLICY ASSESSMENT	.....	.....	.....	.....	.....
ARCHITECTURE AND STANDARDS	.....	500	500	500	500
ARCHITECTURE	.....	.....	.....	.....	.....
STANDARDS	.....	500	500	500	500
Research and Development	.....	.....	.....	.....	.....
In-vehicle ICON Standards	.....	.....	.....	.....	.....
Standardization of ATIS Information Across Media	.....	.....	.....	.....	.....
Standards Development Activities	.....	500	500	500	500
Infrastructure and Safety	.....	.....	.....	.....	.....
Standards Support for CVO	.....	500	500	500	500
Transit	.....	.....	.....	.....	.....
Federal Rulemaking Support	.....	.....	.....	.....	.....
User Implementation Guides	.....	.....	.....	.....	.....
International Activity	.....	.....	.....	.....	.....
Testing and Integration	.....	.....	.....	.....	.....
Data Registration	.....	.....	.....	.....	.....
MAINSTREAMING	1,203	3,212	2,199	2,750	2,875
TECHNICAL ASSISTANCE	1,103	3,212	1,199	1,500	1,700
Information and Technology Transfer	.....	.....	.....	.....	.....
Transit Technical Assistance	.....	.....	.....	.....	.....
Commercial Vehicle Operations	1,103	3,212	1,199	1,500	1,700
State, Regional, Natl. Forums/Technical Guidance	.....	2,285	.....	1,000	1,060
Border Technical Guidance	.....	600	.....	250	500
Outreach	349	.....	1,199	250	140
Deployment Technical Assistance	.....	.....	.....	.....	.....
Institutional Issues	754	.....	.....	.....	.....
Exhibits, Videos, Seminars, etc	.....	327	.....	.....	.....
Technical Assistance for Rural ITS Planning	.....	.....	.....	.....	.....
PLANNING/POLICY	.....	.....	.....	.....	.....
TRAINING	100	.....	1,000	1,250	1,000
National ITS Training Initiative	.....	.....	.....	.....	.....
CVO Training	100	.....	1,000	1,250	1,000
Standards Training/Technology Transfer	.....	.....	.....	.....	.....
FTA Professional Capacity Building	.....	.....	.....	.....	.....
AWARENESS AND ADVOCACY	.....	.....	.....	.....	175
ITI Awareness Activities	.....	.....	.....	.....	75
Publications, Exhibits, etc	.....	.....	.....	.....	100
CORRIDORS	6,000	9,500	11,500	.....	.....
Operation Respond (Maryland)	.....	.....	1,000	.....	.....
Haz. Materials Intermodal Monitoring Sys. (NIER)	.....	2,500	2,000	.....	.....
Green Light CVO Proj. (Oregon)	6,000	7,000	7,000	.....	.....
US/Canada CVO	.....	.....	1,500	.....	.....
PROGRAM SUPPORT	.....	.....	.....	.....	.....
ITS DEPLOYMENT INCENTIVES PROGRAM	.....	.....	.....	25,000	25,000
GRAND TOTAL	28,162	34,729	34,573	38,100	41,375

Question. Would it be worthwhile to establish a third "mailbox" project? Would the southeastern States be an acceptable location for such an initiative?

Answer. It is not as worthwhile to expand into a third "mailbox" project as it is to expand regionally with the current states, and use the same mailbox for that expansion. The SAFER data mailbox project provides the opportunity for States to use state-of-the-art technology to provide State safety and enforcement officials at the roadside access to near real-time inspection information on commercial vehicles and their drivers that have been previously cited for out-of-service violations. Delaware, as well as the States of Maryland, New Jersey, New York, Pennsylvania, Virginia, and West Virginia, are among the first group of States to pilot test the SAFER data mailbox project. In addition, four western States (Nebraska, Nevada, Utah, and Wyoming) along a continuous corridor of I–80 have received funds to improve data communications for their roadside inspectors and use the ASPEN software to upload and retrieve inspection information from the mailbox.

All of these States are using the ASPEN software and are improving "land" communications (telephone) at fixed facilities or wireless communications (radio or cellular) for mobile inspectors. These communications will enable ASPEN to exchange data with SAFER and the data mailbox such that inspectors will be able to retrieve both carrier-level safety data and vehicle/driver-specific prior inspections.

As the capability, technology, and the communications protocols are established in these projects, additional States (including the southeastern States) will be able to use the same mailbox system. However, there would be a significant advantage to having States in the same region of the country implement this system, as reciprocal enforcement in each State will assist in creating safer road conditions in the other States.

Question. Please specify in detail the amounts that the CVO program has spent or plans to spend on outreach during fiscal year 1997, fiscal year 1998, and fiscal year 1999, specifying contract and GOE expenditures. What were the purposes of each activity? What was achieved? Please break down in detail your use of those monies on a project-by-project basis for fiscal year 1998.

Answer. Outreach is a necessary element of the ITS/CVO program and has been successful in a number of areas. Conducting media events of ITS/CVO technologies has heightened the awareness of the industry, as well as State and local government officials. Informational Focus Groups held around the nation for both industry and government representatives have informed front line users of ITS/CVO technology and provided feedback to the developers of the CVISN initiative. This feedback indicated a greater need for stakeholder participation in the development and deployment of CVISN and has been an impetus for the creation of a CVO policy subcommittee within ITS America. Through these outreach efforts, many thousands of stakeholders have been exposed to the program thus facilitating the deployment of ITS/CVO.

The fiscal year 1997 Senate Report 104–325 limited fiscal year 1997 outreach funds to $100,000. These funds were used to cover costs of completing products for the outreach tool kit to support the ITS/CVO Program through the following projects:

1. Design and production of color overheads on the A Technology Truck project for presentation to key decision-makers. Writing, editing and producing a video tape on the A Technology Truck which was reproduced and used to inform the appropriate audiences about the availability of the truck for exhibits, briefings and informational training sessions. Fiscal year 1997 amount: $35,000—Contract.

2. Participation in various outreach meetings conducted by partner or stakeholder organizations. This provided the representative with an opportunity to ensure that the ITS/CVO Program was adequately represented as partners and stakeholders developed their own ITS/CVO Program activities. Fiscal year 1997 Amount: $5,700—GOE.

3. Upgrade and add new material to a web-site and home page for the ITS/CVO Program. Creatively support the design and development of a standing exhibit on the ITS/CVO National Program. Fiscal year 1997 Amount: $39,000—Contract.

4. Completion of brochure and overhead slides to support the ITS/CVO Program. These materials were reproduced in large quantity and disseminated to the OMC region and division field staff, and also made available for various meetings, exhibits, briefings, and conferences throughout the year. Fiscal year 1997 Amount: $19,100—GOE.

5. Develop and maintain a database of current ITS/CVO stakeholder contacts and media contacts. Fiscal year 1997 Amount: $1,200 —GOE.

In fiscal year 1998, no money has been spent to date on CVO outreach. However, if money becomes available the following projects are anticipated to be funded:

1. Partnership and Technical Assistance to Safety Agencies. Funds would be used to support continued partnership program with state enforcement agencies to provide a maximum of 2 individuals (on loan for 1 year) to work at safety associations and with the ITS/CVO field and headquarters staff on Outreach-related activities and to provide technical assistance to their peers. Fiscal year 1998 amount: $100,000 —GOE.

2. Ribbon cutting activities. Funds would be used to support ribbon-cuttings activities/events involved in spotlighting successful ITS/CVO projects, deployment efforts, and program activities. This would include advance work as well as printing/graphic art requirements, banners, signs, posters, video production, photographic requirements, etc. for the event itself. Fiscal year 1998 amount: $60,000—GOE.

3. Speakers bureau. Funds would be used to support participation by requested/selected speakers who address a variety of groups regarding the ITS/CVO program, projects, cost/benefits, deployment efforts and partnership opportunities. Fiscal year 1998 amount: $10,000—GOE.

4. Newsletters/WWW page. Funds would be used to cover costs for continued maintenance and periodic upgrades of the WWW Page/Newsletter on the ITS/CVO program. Fiscal year 1998 amount: $20,000—GOE.

5. Marketing materials. Funds would be used to continue disseminating, developing and periodically updating materials, in a variety of multi media formats, to be used to inform and educate the targeted audiences on the benefits of participating in the ITS/CVO program. Fiscal year 1998 amount: $60,000—GOE.

In the proposed fiscal year 1999 ITS budget, $175,000 of GOE has been requested by CVO for Awareness and Advocacy. This money will be spent on general ITS/CVO awareness activities. In addition, funds will be used to support the production of various publications and presentation material to further promote the CVO activities.

The individual projects are as follows:

1. Partnership and Technical Assistance to Safety Agencies. Funds would be used to support continued partnership program with state enforcement agencies to provide a maximum of 2 individuals (on loan for 1 year) to work at safety associations and with the ITS/CVO field and headquarters staff on Outreach-related activities and to provide technical assistance to their peers. Fiscal year 1999 amount: $75,000—GOE.

2. Ribbon cutting activities. Funds would be used to support ribbon-cuttings activities/events involved in spotlighting successful ITS/CVO projects, deployment efforts, and program activities. This would include advance work as well as printing/graphic art requirements, banners, signs, posters, video production, photographic requirements, etc. for the event itself. Fiscal year 1998 amount: $20,000—GOE.

3. Newsletters/WWW page. Funds would be used to cover costs for continued maintenance and periodic upgrades of the WWW Page/Newsletter on the ITS/CVO program. Fiscal year 1998 amount: $20,000—GOE.

4. Marketing materials. Funds would be used to continue disseminating, developing and periodically updating materials, in a variety of multi media formats, to be used to inform and educate the targeted audiences on the benefits of participating in the ITS/CVO program. Fiscal year 1999 amount: $60,000—GOE.

Question. Funds are requested on-board diagnostic systems. Exactly how much of the fiscal year 1998 budget is likely to be allocated for that purpose? Explain how those efforts will help MCSAP inspectors conduct Level I inspections.

Answer. Funds requested in fiscal year 1998 for on-board diagnostic systems have been subsumed under the IVI program. The IVI program is a Department wide effort to coordinated existing and planned vehicle based research and operational test projects. For commercial vehicle operations, the IVI includes work not only in OMC, but also NHTSA and FHWA R&D. Currently $1,100,000 of the first half of fiscal year 1998 IVI budget is allocated for on-board diagnostic systems in the CVO platform. Major projects funded so far in fiscal year 1998 involve Drowsy Driver Detection Development, Brake Performance Evaluation and Testing, and Commercial Driver Behavior Analysis.

As part of the IVI effort, OMC is working on merging on and off-board performance-based technologies and diagnostics. The first activity is to develop software for inserting performance based test results into ASPEN, in support of OMC's brake testing program. This software will have the ability to translate performance-based brake test results into a dynamic pictorial representation of the as-is stopping capability of commercial vehicles being inspected by CVSA Certified Inspectors. In addition, the software will be non-proprietary to allow for communication path development to and from the vehicle. As on-board diagnostic technologies are operationally tested through the IVI program, this software will be flexible to allow for expansion and enhancements. This flexibility is necessary for the eventual need to download

and upload vehicle performance data, in order to provide CVSA Certified Inspectors with as much information as possible concerning the performance condition of the vehicle.

Question. Please break down exactly how FHWA intends to use the $4 million requested.

Answer. Within the Department's Intelligent Vehicle Initiative, $4,000,000 will be jointly managed by FHWA and NHTSA to build on technologies developed by the two agencies, which began in fiscal year 1995. We are targeting electronic braking, driver monitoring, on-board diagnostics (including black box/incident recorders) and human centered integration. In the budget we have allocated $1 million for evaluation of each of these issues. We are developing the details of how we will carry out these investigations in consultation with our stakeholders and the technical community. The implication is that we may be able to evaluate these issues in a single operational test or for technical and institutional reasons we may need to break it out to as many as four separate studies.

Question. Please break out in extensive detail how all of the CVO monies are being allocated in fiscal year 1998. Please provide three different tables showing that allocation—one table including interim funds only, one table showing the entire fiscal year 1998 allocation assuming full authorization of the appropriated amount, and one table showing the source of those monies including NHTSA/ITS or other NHTSA funds that have been combined with CVO/ITS monies.

Answer. For the purposes of responding to this question, CVO funds are those ITS dollar resources which are allocated to the Associate Administrator for Motor Carriers to implement the CVO portion of the ITS program. The following consolidates the requested information into only one table, which shows our best estimate of fiscal year 1998 funding which will be made available to the CVO program under an interim allocation of funds and assuming we receive funding as proposed in our fiscal year 1998 budget.

All funds shown are monies assumed to be made available to the Federal Highway Administration for the ITS program via both GOE and contract authority.

[In thousands of dollars]

	Interim fiscal year 1998 allocation	Total fiscal year 1998
Research and Development	6,175	7,500
Operational Tests	500	2,000
Evaluation and Program Assessment	.....	350
Architecture and Standards	250	500
Mainstreaming	1,180	2,750
ITS Deployment Incentives	.....	25,000
GRAND TOTAL	8,105	38,100

Question. Please provide comparable fiscal year 1999 tables for the last two tables requested in the previous question.

Answer. The following table reflects estimated fiscal year 1999 CVO funding assuming we receive dollar resources for the ITS program as proposed in our fiscal year 1999 budget.

(Dollars in thousands)

	Fiscal year 1999
Research and Development	$8,000
Operational Tests	4,000
Evaluation and Program Assessment	.....
Architecture and Standards	500
Mainstreaming	2,875
ITS Deployment Incentives	25,000
GRAND TOTAL	40,375

Question. Over the years, OMC has funded research on several devices aimed at measuring fatigue or rest. For example, you funded work on a similar (Arizona project), on a device worn on the wrist (Army project), and on a new device based

on the measurement of eye lid closure. What is the exact status of each of those technologies?

Answer. The three technologies accomplish three different things; all have potential application for improved CMV driver fatigue management. Two are currently the subject of active FHWA and NHTSA research.

The Arizona simulator project focused on fitness-for-duty testing involving the administration of a psychomotor test to drivers suspected of being fatigued. Fitness-for-duty testing was demonstrated to be potentially valid (i.e., performance correlated highly with driving performance) and feasible as a management aid involving periodic in-cab (but non-driving) testing. However, it was never deployed by Arizona as an enforcement tool. Related work to develop a device to identify those who should stop to take the in-cab fitness-for-duty test, utilizing a continuous lane-tracking device was not successful and is no longer being funded. OMC regards its past fitness-for-duty research as productive but we are not currently funding additional work on this application.

The Army project involves using a device called an actigraph. An actigraph is a miniature wrist-worn accelerometer and processor that measures and records arm movements which are highly correlated with the sleep-wakefulness cycle. The device scores sleep quantity and quality and predicts performance based on a sleep/performance model which factors in the amount and timing of sleep, time-of-day (as influenced by circadian rhythms), and number of hours awake. The actigraph is the most market-ready of fatigue management technologies. A planned OMC-funded operational test of fatigue management technologies, directed by the Congress as part of fiscal year 1998 R&T funding, will likely focus on the use of the actigraph as an aid to CMV driver fatigue management.

The third device measures eyelid closure. The recent ITS/CVO-funded and NHTSA-managed laboratory research at the University of Pennsylvania has confirmed the validity of an eyelid closure measure called APERCLOS as a gold standard measure of operator alertness. Current research at Carnegie Mellon Research Institute is further validating PERCLOS on-road in a real truck in relation to driving performance measures such as lane tracking. Carnegie Mellon is also developing a video image processing sensor for research, and potentially operational, applications. Continuous in-vehicle driver monitoring measures driving performance (e.g., steering wheel movements, lane tracking) and/or driver psychophysiology (e.g., eyelid droop) as an alertometer. This approach has the most far-reaching implications for CMV driver fatigue management. It is envisioned that alertometer readings will function as driver behavior/performance benchmarks used to directly ensure a specific criterion level of driver safety performance. The approach would be similar to speed monitoring or even brake monitoring; drivers would be responsible for achieving a criterion level of alertness and, therefore, alertness-related safety. We believe that this technology will be attractive to drivers if it is introduced in a positive manner which includes rewards such as increased schedule flexibility. There are many technical, practical, and policy issues to be addressed before the alertometer approach can be operationally fielded. However, FHWA/NHTSA research has demonstrated scientific proof-of-concept and we are now beginning to pursue the actual application of this concept to enhancing CMV fatigue management and hence safety.

Question. How much has been spent on each device to date?

Answer. Most of the funding has been spent for basic research, not devices, to establish valid measures of driver alertness and performance. The only device that is commercially available is the Army actigraph (device worn on the wrist). However, more research is needed to validate their use in motor carrier fleets before they have widespread commercial use. The amount of OMC research funds that have been spent to date are $1,428,565 on the Arizona simulator, and $1,206,574 on the Army actigraph. A total of $1,579,040 has been spent to date by OMC and NHTSA on the eye lid closure device.

Question. Are any of those technologies in use and contributing to motor carrier safety?

Answer. The Army's actigraph is available commercially but not yet validated for extensive carrier use. None of the other technologies are in commercial use. Two of these devices, the Army's actigraph and the eye lid closure device are part of OMC and NHTSA's research to enhance motor carrier safety. Their potential contributions to motor carrier safety will be demonstrated through results from the research projects described below.

The actigraphs are being worn by commercial motor vehicle (CMV) drivers for up to 21 days. This research will provide information concerning potential use of actigraphs to improve the management of CMV driver fatigue. The actigraph is a near-term technology that should be ready for widespread use in the CMV industry in 2–4 years.

The second technology, the eye lid closure device and associated driver performance measures, is expected to be tested jointly by OMC and NHTSA beginning in fiscal year 1999. It will likely become commercially available in 3–5 years.

Question. Are those likely to achieve such an objective? If so, when?

Answer. Yes, both the actigraph and eye lid closure devices are expected to contribute significantly to motor carrier safety.

Actigraphs are commercially available now, but near-term research and development is needed to validate effective procedures for their use in motor carrier fleets. Widespread commercial use is still probably 2–4 years away.

Continuous driver alertness monitoring (i.e., eye lid closure and associated performance decrements) has been proven in the laboratory and is currently being tested on the road. Further sensor development for real time processing, validation, and pilot testing of this application will begin in fiscal year 1999. Widespread commercialization is expected in 3–5 years.

Question. How many years will it take to develop the latest (eye closure) technology? What is the likelihood that its reliability could be validated? How likely is it that it would be upheld by the courts as an acceptable enforcement tool?

Answer. It will take two years to develop the latest (eye closure) technology, but it will be 3–5 years before it is commercially available. When we speak of eye closure technology, we mean a real-time system, which consists of a means of sensing eye closure, a basis for quantitatively predicting driver drowsiness based on eye closure, and a means of advising drivers of their state of drowsiness. A performance specification for such a drowsy driver detection and warning system will be available in fiscal year 2000. At the same time, the advanced engineering prototype used to develop this specification will be available for use in some commercial settings.

The likelihood that its reliability could be validated is excellent. Phase I laboratory studies in fiscal year 1997 showed that the percentage of eyelid closure over the pupil over time was a highly valid and reliable index of lapses in visual attention. This behavioral index (PERCLOS) was then successfully applied to driving performance data collected from Overnight Express truck drivers, providing a reliable performance-based model of drowsiness detection. Both behavioral and performance indices will be evaluated in the fielded system during Phase II development in fiscal year 1998.

The likelihood of it being upheld by the courts as an acceptable enforcement tool is uncertain. The use of this technology as an enforcement tool, as upheld by the courts, could not be estimated until the above research is completed, and until we fully understand the operational reliability and improvement in safety afforded by the system.

Question. Will it be ready for an operational test in fiscal year 1999? What is the basis of your answer?

Answer. Yes. An operational test is planned for mid fiscal year 1999. Second-phase engineering development in fiscal year 1998 is underway to produce a real-time ocular sensor. An initial second-phase prototype drowsy driver detection system will be available by May 1998 for use in a second laboratory-based experiment. By July 1998 we also plan to implement and test a commercial vehicle-based sensor. The lab study will provide initial information about how we would expect drivers to utilize this newly available information about their level of fatigue (operational reliability); i.e., will crashes be pushed further down the road? The lab study will also improve our understanding about the effectiveness of various alerting stimulation, once drowsiness is detected.

INTELLIGENT VEHICLE INITIATIVE

Question. What are the costs and benefits of allocating scarce funds on technology for highway maintenance vehicles to shadow other highway maintenance vehicles?

Answer. We have not included funding for highway maintenance shadow vehicle development in the fiscal year 1999 budget. Although some of the service development work being done for other platform types could in the future be applied to this application. Manned shadow vehicles are currently used by some highway maintenance operations use to protect employees working on highways, medians, and road shoulders in close proximity to moving traffic. The shadow vehicles present a physical barrier to separate workers from traffic and protect their safety. The costs of the heavy shadow vehicles and drivers are relatively high. The potential benefits of automating the shadow vehicles are reduced cost from removing the driver and using a relatively smaller shadow vehicle, and improved safety.

The feasibility of an automated shadow vehicle is still being investigated. There already are efforts underway to develop prototype automated shadow vehicles (the National Research Council's Strategic Highway Research Program and the Ad-

vanced Highway Maintenance and Construction Technologies Center). The costs of providing such automated shadow vehicles cannot reliably be determined at this time, though costs will clearly affect the acceptability of these vehicles to highway maintenance agencies.

Question. Why are you dividing the IVI funds among so many purposes? Are the synergistic benefits worth the splintering of this program?

Answer. The IVI program and its funds are focused on a single purpose: to accelerate the development, introduction, and commercialization of driver assistance products to reduce motor vehicle crashes. All activities that we undertake must feed this purpose. We expect to achieve our goals faster by judiciously funding activities over the four platform areas than if we focus solely on passenger cars. The 26 services are only a starting point. We will down-select to a list of specific services at the completion of fiscal year 1998. We expect to invest in services that apply to transit, commercial vehicles and specialty vehicles because the unique environments allow us to investigate services that would not be immediately practical on passenger cars due to the vehicle costs, driver training and operating environments.

Early crash avoidance systems are expected to be vehicle based. This line of research will be followed on passenger cars while more advanced capabilities which involve infrastructure or vehicle cooperation can be investigated on transit platforms. The advantages of transit are that the fleet operator specifies the vehicles capability whereas in the passenger car the manufacturer must wait for wide spread consumer demand to develop. The transit vehicle operates over a fixed course. This make cooperative infrastructure more attractive since it limits the deployment area. Drowsy driver research which is vehicle independent will be applied first in commercial vehicles. The unique operating and regulatory environment make this platform the most likely to be the first to widely deploy such a system. The intent of these examples, is to show how each platform will incrementally advance critical parts of the program while cross cutting activities such as architecture development ensure overall system compatibility.

Question. What, if any, is the relationship between the PNGV and the IVI?

Answer. There is no relationship between PNGV and IVI. PNGV is focused on fuel economy while IVI is focused on safety. The two programs will share different parts of participating organizations (NHTSA, Ford, GM and Chrysler). The technologies that each program is working on are different and do not overlap.

Question. How could those two activities be integrated?

Answer. We do not feel that there will be any benefit derived from integrating these two activities. The goals, activities and schedules of the two programs are mutually exclusive thereby cutting out any opportunities for synergisms. The PNGV is one of many good models for the public-private partnership that IVI will form. The Big 3 automotive manufacturers in their response to the IVI RFI specifically site the PNGV as an example of successful cooperation.

They recommend it be considered for a model but do not recommend that IVI be integrated into this program.

NATIONWIDE DIFFERENTIAL GLOBAL POSITIONING SYSTEM

Question. What is the total amount in the Department's budget for DGPS? In which accounts?

Answer. The following table details DGPS funding in the Department's budget by mode:

[Dollars in millions]

	Fiscal year—	
	1998 enacted	1999 estimate
Coast Guard	$4.2	.....
FHWA	.....	$5.5
FRA	.....	3.0
Total, DOT	4.2	8.5

Question. What is the total amount of federal monies likely to be needed to complete the nationwide DGPS? How long will it take to complete that objective?

Answer. The Department currently estimates that $30.3 million will be needed to complete the installation of nationwide DGPS. Under the current schedule, installa-

tion of the entire system would be completed in 2002. To meet the funding required, the Department is pursuing funding from other Federal agencies. Future capital funding, if any, for NDGPS, will be provided through contributions from federal agencies whose programs will benefit from the new technology. Future operational funding for the NDGPS system will come through fees on users or manufacturers of equipment.

Question. Which agency will be the lead administrative agency for the DGPS program?

Answer. FRA is serving as the lead agency for the expansion of the existing Coast Guard Maritime Differential GPS network (which is currently limited to coastal and navigable waterways).

Question. How much was in the original FHWA request for DGPS? Was an additional sum added? By whom? How much of this money can be reasonably spent during the next year? Why is this an immediate need that would require an outlay from the Federal Highway Trust Fund?

Answer. A multi-agency team, including FHWA and FRA, expects to install approximately 8 NDGPS sites, upgrade existing monitoring facilities to accommodate the additional sites in this network, and cover operations and maintenance costs in fiscal year 1999. Current estimates put this at approximately $8.5 million. The Administration request for fiscal year 1999 is $3 million for FRA and $5.5 million for FHWA.

While the FHWA has conducted the research studies behind this and will continue to support the effort, we also recognize the substantial benefits across many Federal agencies and to the general public in the deployment of this service.

Question. How will you ensure that the investment in DGPS is geographically correlated with ITS deployment?

Answer. Nationwide DGPS, in combination with the current U.S. Coast Guard DGPS network, will within four years provide redundant coverage everywhere in the continental United States and Alaska. The Nationwide DGPS network, once completed, by definition, will support all ITS deployments, and all other positioning/navigation applications.

Question. Will these expenditures be co-located with specific positive Train control projects that are planned or underway? Which projects?

Answer. There is, or will be DGPS coverage co-located with currently planned positive train control projects. The Illinois PTC project is already thoroughly covered by two U.S. Coast Guard stations (Rock Island, IL and St. Louis, MO) providing redundant DGPS signal coverage. CSX has contracted with Rockwell to develop a positive train control project on the 120 mile rail line between Spartanburg, NC and Augusta, GA. This area will be covered by NDGPS stations, utilizing GWEN towers, in Savannah, GA and Lexington, NC. Both of these installations are planned to be installed and on-the-air before the end of fiscal year 1998. The Michigan PTC project currently uses a special DGPS network developed specifically for the project. In the future, when the NDGPS network is operational, the Michigan PTC project will make use of it. The current NDGPS station at Appleton, WA will continue to support the Positive Train Separation project on the UP and BNSF railroads in the Pacific Northwest. When the Nationwide DGPS network is completed in four years, it will support any and all positive train control projects in the continental United States and Alaska.

INTERNATIONAL ACTIVITIES

Question. Please specify the number of planned and completed international scanning trips taken during fiscal year 1996, fiscal year 1997, and fiscal year 1998. Please specify the total costs of these trips for each year and specify which portion of the LGOE or contract monies paid for these trips.

Answer. The FHWA completed four international Scanning reviews in fiscal year 1996. The Scanning Study Program budget for fiscal year 1996 was approximately $400,000. It was funded through ISTEA Section 6005 funds. The studies were: Bridge Coating Issues; Traffic Management and Traveler Information Systems; Technology and Practices in the Republic of South Africa; and European Traffic Monitoring Programs and Technologies.

The FHWA completed five international Scanning reviews in fiscal year 1997. The Scanning Study Program budget for fiscal year 1997 was approximately $450,000. It was funded through ISTEA Section 6005 funds. The studies were: Repair/Rehabilitation of Bridges using Fiber-Reinforced Composite Materials Safety Audits; Transportation Agency Organization and Management Scanning Review; Bridge Structures Scanning Review; and Railroad-Highway Grade Crossing Protection Technology and Closing Programs Review.

The FHWA has four international Scanning reviews planned for fiscal year 1998 with an estimated fiscal year 1998 budget of $450,000 (pending reauthorization). Under the current law budget, these reviews are presently being funded by a combination of carry-over fiscal year 1997 ISTEA Section 6005 funds and fiscal year 1998 GOE funds. The reviews are: Innovative and Emerging Traffic Controls for Congestion and Safety; Winter Road Maintenance Practices; International Scanning Tour for Geotechnology—Canada and Europe; and Motor Carrier Safety Technologies.

Question. Please compare the amount of funds allocated to the Republic of South Africa with funds allocated to other countries.

Answer. The funding level for the South Africa program is comparable with funding levels for the FHWA's other international programs:

The FHWA's South Africa Program: Fiscal year 1996: $600,000 GOE and $200,000 International Outreach Program funds (GOE). Fiscal year 1997: $300,000 GOE. Fiscal year 1998: $300,000 GOE (planned estimate).

The FHWA's Russia Program: Fiscal year 1996: $400,000. Fiscal year 1997: $200,000. Fiscal year 1998: $200,000(planned).

The FHWA's Pan American Institute of Highways: Fiscal year 1996: $400,000. Fiscal year 1997: $275,000. Fiscal year 1998: $200,000 (planned).

The FHWA's Cooperative Program with Finland to transfer technology to the Baltic countries of Estonia, Latvia, and Lithuania: Fiscal year 1996: $36,800. Fiscal year 1997: $40,500. Fiscal year 1998: $30,000 (planned).

FHWA's Border Technology Exchange Program (allocated to U.S. border States for activities with Mexico and Canada): Fiscal year 1996: $400,000. Fiscal year 1997: $500,000. Fiscal year 1998: $500,000 (planned).

Question. What are the benefits to the United States of each of these allocations to foreign entities?

Answer. The benefit of these expenditures is that these countries receive information concerning U.S. transportation technology and practices which will allow them to more effectively construct and manage their transportation systems, thus supporting the U.S. foreign policy of encouraging economic development and democratization of newly independent and developing countries.

These expenditures have the added benefit of promoting U.S. highway related firms since the countries involved in technical exchange and assistance activities tend to develop a preference for U.S. standards and equipment. As it is the private sector in this country that designed and built this nation's highway projects, these programs highlight such contributions and commend the U.S. highway industry to our foreign counterparts. The benefits of these expenditures are already evident in two of the countries the FHWA has initiated activities with:

—The FHWA supported Hoffman International in its efforts to develop an equipment leasing joint venture in Russia. The venture has resulted in shipping over $15 million in U.S. equipment to Russia and training in U.S. asphaltic pavement construction techniques for over 80 Russian highway officials and contractors.

—The FHWA's support of the Russian Federal Highway Department's (RFHD) efforts to model its highway program after the U.S. highway program have resulted in commercial opportunities and design contracts for several U.S. firms. The RFHD has set aside a large design and construction project which would complete the last section of the trans-Siberian highway exclusively for U.S. firms.

—Due to the FHWA's technical program in the Baltic states, Estonia recently purchased a U.S. manufactured asphalt plant for use in their highway program.

Question. Please provide estimates for fiscal year 1997, fiscal year 1998 and fiscal year 1999 of the amounts of funds used or planned to be used to promote marketing by U.S. Companies of highway-related technologies abroad.

Answer. Estimated funding to promote by U.S. highway technologies abroad is difficult to separate out as a specific amount since these activities are usually incorporated as a larger part of a technical exchange or assistance program. The estimates are: Fiscal year 1997: $125,000. Fiscal year 1998: $125,000 (planned). Fiscal year 1999: $200,000 (planned).

Question. On a contract by contract basis, please show how the fiscal year 1997 funds were used, being certain to specify associated amounts with each contract. Please provide a table showing LGOE funds for all international activities.

Answer. The charts below contain the break downs for the requested funding. These charts include information for all of the Office of International Program's primary contracts. It also contains categories for other expenses which would have been too unwieldy to list here (i.e.—the cost of translating technical documents is listed as a category rather than by individual document). The FHWA's fiscal year

1997 funding for International Outreach Activities is $475,000, which is 3 year funding. Fiscal year 1997 funding for the Russian Technical Assistance is $200,000. These are also 3 year funds.

Description	*Cost*
Fiscal year 1997 International Outreach Program Funds:	
Contract for support of the FHWA's international Visitors Program and two PIH contract employees	$99,800.00
Contract for the FHWA's contract representative in Moscow, Russia (trade promotion-related activities)	129,717.89
Cooperative Agreement with the Finnish Road Administration for the FHWA's technical assistance program with the Baltic	40,500.00
Contract for an assessment study of the FHWA's Baltic Technology Transfer Centers	4,865.15
Equipment for the Technology Transfer Center the FHWA is supporting in Tanzania	15,073.73
Technology Exchange Activities with the Japanese Ministry of Construction	11,453.59
FHWA's participation with the International Road Federation, including participation in the IRF World Congress in Toronto	3,162.31
FHWA's participation with the World Road Administration (PIARC), including U.S. Government membership dues and the PIARC Executive Committee Meetings	45,590.69
Support of the FHWA's participation in the Latin American ITS Conference	5,800.00
Translations of technical documents and foreign correspondence	5,150.00
International Outreach Program publications, including brochures and other items	7,674.00
Finalization and printing of the FHWA's Trade Promotion Study	3,158.20
Support of FHWA Conference on Accessing Foreign Technical Information	766.00
FHWA hosting activities for international officials	2,696.23
General office support which includes printing supplies and film for international presentations, conversion of PAL format video tapes, an optical scanning unit, etc	8,688.63
Support of the European Commission conference on Intermodal Freight Transport	19,000.00
Technical exchange with the IRF as a part of the FHWA's Russian Technical Assistance Program	9,000.00
Publications	3,288.69
Registrations for international conferences on freight logistics, etc	1,932.06
Total	417,317.17
Fiscal year 1997 Russian Technical Assistance Program Description:	
Cost Contract with the FHWA's representative in Moscow, Russia	195,000.00
Cooperative activities with the IRF as a part of the Russian Technical Assistance Program	5,000.00
Total spent	200,000.00
Fiscal year 1997 LGOE Funds spent on International Activities Description:	
Cost Foreign Travel	345,000.00
Cooperative Agreement with the South African DOT in support of the FHWA's African Program	300,000.00
Total spent	645,000.00

NATIONAL RURAL DEVELOPMENT PROGRAM

Question. What have been the benefits of the President's rural initiative to the Department? Why is that request specified under GOE? Why isn't funding for that requested under the OST account?

Answer. The National Rural Development Partnership (NRDP), originally called the President's Rural Initiative, has benefited and continues to benefit the Department in a number of ways. It provided a unique and useful source of issues, ideas, and recommendations for rural-focused programs during the development of our surface transportation reauthorization proposal. This was particularly important be-

cause rural communities are not a constituency with which the Department has well-developed lines of communication. In addition, the NRDP will be a continuing source of information on rural issues in such DOT efforts as the development of a strategy for improving the non-metropolitan transportation planning process. Some of the State Rural Development Councils, which are supported through the NRDP, have taken up transportation issues—both specific, such as the appropriate design of rural transportation facilities, and the more general, such as rural concerns regarding reauthorization. An important factor in our involvement in the NRDP is that it provides a broad-based rural constituency that provides the Department with an organization focused clearly on the needs of the Nation's rural population.

The Partnership is proposed for funding under LGOE within the FHWA because the ongoing nature of the Department's support, and relatively small amount requested, fit most appropriately with activities funded out of LGOE. In addition, within the Department, FHWA is the mode involved most frequently on meeting rural transportation needs.

MOTOR CARRIER SAFETY ASSISTANCE PROGRAM AND PRISM

Question. Please break out in extensive detail how you would spend the $17 million requested under Information Systems and Analysis.

Answer. *Information systems ($5 million).*—These funds will be used to support expansion of the Federal/State motor carrier safety information systems. Motor carrier information systems provide the means to maintain an accurate carrier census and target unsafe carriers, prioritize carriers for audits, establish a motor carrier safety fitness rating and profile, manage program resources effectively, analyze programs and regulations, and track industry statistics and trends. Funds will benefit the States by providing national, compatible software and hardware as well as access to a national information system. Future development and deployment will emphasize unified information systems, including a complete motor carrier register involving the integration of ICC and DOT systems, on-line, roadside access of motor carrier information to guide the selection of vehicles and drivers for inspection based on prior safety history, and the expansion of national records to include intrastate carriers.

Motor Carrier Analysis ($3 million).—These funds will be used to continue and expand analysis of motor carrier census, crash and exposure data. The analysis function within OMC is an integral component in policy and program development and requires sound, statistically-based approaches. It provides the basis for evaluating program effectiveness and determining changes to program activities. Improved analysis will enable the FHWA and States to establish program benchmarks and evaluate program performance while meeting the requirements of the Government Performance and Results Act. Other projects include: studying truck crash causation, evaluating exposure data, and collecting information on the regulated population of motor carriers.

Nationwide implementation of PRISM/SafeStat ($6 million).—These funds will support the national implementation of a 5-State pilot program mandated by ISTEA. The PRISM pilot tested the feasibility of an information system linking safety fitness and State motor vehicle registration. The PRISM pilot project (Iowa, Colorado, Indiana, Minnesota and Oregon) tested the integration of Federal data systems with State motor vehicle registration systems and coupled the suspension denial of vehicle registration with a Federal determination of unsafe operations. The motor carrier industry was an active participant in the project. The system links State motor vehicle registration with carrier data, assigning the safety responsibility for each vehicle being registered to the appropriate motor carrier, identifies high-risk carriers, provides mechanisms for carriers to improve their performance, actively monitors safety progress, and improves enforcement by providing sanctions. The pilot project was highly successful and other States are now seeking to participate.

Driver programs including driver education, evaluation of driver performance, and licensing enhancements ($3 million).—Funds will be used to help States build their capacity to exchange driver information with courts within their State and with licensing agencies in other States. This will allow courts to make more informed adjudicatory decisions on commercial driver citations and ensure out-of-state convictions are transmitted to the State of licensure in a timely and accurate manner for placement on the driver record. These funds will also be used to support education for judges, prosecutors and law enforcement on enforcement and adjudication of commercial motor vehicle offenses, enhance the electronic administration of commercial driver's licensing tests by state licensing agencies, improve State driver examiner training, and provide licensing agencies with the support necessary to revise their

data systems to capture data on commercial driver license suspension and revocation actions. These activities are particularly crucial given the high level of driver contribution to crashes and the lack of Federal investment in driver programs since the implement of the Commercial Driver's License (CDL) in 1992.

Question. How many new States are participating in PRISM? What convincing evidence can you present that the PRISM effort needs a funding increase?

Answer. The PRISM pilot program officially ended September 30, 1997. In the seven months since the end of the pilot, Pennsylvania has joined the other five States in the PRISM program. In addition, OMC has received applications for participation from South Dakota and Maine. Further, 11 states have expressed an interest in participating. They are: Connecticut, Vermont, Virginia, Florida, Louisiana, Arkansas, Missouri, Arizona, California, Nevada and Washington. At an estimated start-up cost of $450,000 per State and with present appropriation levels limited to $3 million per year, PRISM participation can only increase by at most four to five States per year.

Question. Please provide a detailed breakdown on a project by project basis of the use of MCSAP administrative takedown funds for fiscal year 1997 and thus for fiscal year 1998. Please be certain to specify the amount spent on each activity.

Answer. See chart below.

	Amount
Fiscal year 1997 activity:	
National Training Center (State training and Associate travel)	$590,000
Performance-Based Workshop, St. Louis, MO	13,636
Performance-Based Workbook printing	230
Performance-Based Workshop Speaker	1,950
Performance-Based Workshop Contractor (ASTI)	72,000
Safetynet 2000 State Technical Workgroup (Kentucky)	20,000
Guardian Newsletter (CVSA)	18,000
TCC (Safetynet Contract)	32,000
Challenge '97 Supplies and electrical service	1,554
IACP Contract (Task #3, Techniques for Safe Commercial Vehicle Stops and Approaches)	29,492
RSIS Contract (feasibility of using risk assessment for roadside inspection selection)	38,500
Arrowhead, Inc. (Part-time staff program support)	6,688
HOS Peer Review State Participant Recognition (plaques)	950
Total	825,000
Fiscal year 1998 activity (thru 4/15/98):	
National Training Center (State training and Associate travel)	310,000
Performance-Based training and Instructor travel	20,000
New York travel funds for Judicial Outreach program conferences speakers	8,000
CVSA (State Strategic Plan)	7,000
MCSAP Office Program Supplies	710
Total	412,500

ADVANCED VEHICLE, COMPONENTS, AND INFRASTRUCTURE

Question. Why shouldn't this activity be funded solely by DOE?

Answer. One of the key principles for the reauthorization of the Intermodal Surface Transportation Efficiency Act is to encourage the development and deployment of new technologies. The Department strongly believes that advanced technology is critical to enhancing the safety, efficiency, capacity and longevity of our Nation's transportation systems as well as reducing travel times across all modes. We are also cognizant of the impacts of transportation on our local and global environments including air and water quality, wetlands, noise and other factors. Advanced technologies provide opportunities to significantly reduce some of these impacts while maintaining the Nation's demand for ever-increasing mobility. Given the broad implications of advanced technologies across all of the modes, DOT should play a leading role. This program marries the Department's responsibility for vehicular impact (safety, environmental, and vehicle movement enabled by infrastructure) with emerging technologies to improve the whole transportation system. Through a joint effort with the Department of Energy (DOE), the Department will be able to leverage advanced technology development efforts from the Department of Defense (DOD) and DOE to ensure that vehicle applications extend beyond just automobiles

and trucks and look for opportunities to apply technologies to transit, rail, maritime and aviation.

Question. How much is DOE spending during fiscal year 1998 on battery development, flywheels, alternative fuels and engines, and other activities relevant to the objectives of this program?

Answer. According to the fiscal year 1998 DOE budget, activities in the Transportation Sector included $198.3 million for programs related to the objectives of the proposed program (see breakdown in chart below). It is important to note that although the technology areas specified in this question are related to those of the proposed program, most activities currently conducted by DOE—Advanced Automotive Technologies—support the development of passenger automobiles or light-duty vehicles under the Partnership for a New Generation of Vehicles (PNGV) program. Only $25.6 million is directed towards heavy vehicle technologies. The proposed joint program (also referred to as "the Advanced Vehicle Program") will focus on medium and heavy-duty vehicles and serve a different sector of the transportation system. The program will involve partnering with the Department of Energy and seven regional consortia representing a broad mix of U.S. companies, public entities and research institutions.

	In millions
ADVANCED AUTOMOTIVE TECHNOLOGIES (automotive alternative fuels, advanced battery, high power energy storage, fuel cells)	$113.3
ADVANCED HEAVY VEHICLE TECHNOLOGIES (heavy vehicle alternative fuels, high efficiency diesel engine)	25.6
TRANSPORTATION MATERIALS TECHNOLOGIES (lightweight materials, propulsion materials)	35.0
TECHNOLOGY DEPLOYMENT (Clean Cities, vehicle field test/evaluation)	11.8
IMPLEMENTATION AND PROGRAM MANAGEMENT	7.6
TOTAL FISCAL YEAR 1998	193.3

Question. How much does DOE propose to spend during fiscal year 1999 on those technologies?

Answer. According to the fiscal year 1999 DOE budget request, activities in the Transportation Sector include $246 million for programs in related vehicle technologies (see breakdown in chart below). The $10 million requested by DOE specifically for the proposed Advanced Vehicle Program (AVP) is included in the category of Advanced Heavy Vehicle Technologies. As stated in the answer to the previous question, it is important to note that although the variety of technology areas included below are related to those of the proposed AVP, many activities proposed by DOE for fiscal year 1999 funding support the development of passenger automobiles or light-duty vehicles under the Partnership for a New Generation of Vehicles (PNGV) program. The proposed joint program, AVP, would serve a different sector of the transportation system. The proposal to develop vehicles, components, and infrastructure in partnership with the Department of Energy and with a consortia of private companies and public entities would serve vehicles categorized primarily as medium and heavy-duty. This program would involve partnering with a broad mix of U.S. companies, public entities and research institutions. In addition, some of DOE's programs pertaining to heavy vehicles will require a greater commitment of funds than would be available under the proposed program and/or a focus on technologies not necessarily within the scope of the proposed program (e.g., clean diesel technologies).

For fiscal year 1999 the DOE budget request in the Transportation Sector is:

	In millions
ADVANCED AUTOMOTIVE TECHNOLOGIES (automotive alternative fuels, advanced battery, high power energy storage, fuel cells)	$144.6
ADVANCED HEAVY VEHICLE TECHNOLOGIES (heavy vehicle alternative fuels, high efficiency diesel engine, AVP)	44.2
TRANSPORTATION MATERIALS TECHNOLOGIES (lightweight materials, propulsion materials)	31.8
TECHNOLOGY DEPLOYMENT (Clean Cities, vehicle field test/evaluation)	16.2
IMPLEMENTATION AND PROGRAM MANAGEMENT	9.2
TOTAL FISCAL YEAR 1999	246.0

Question. What is the empirical basis for the $10 million request? How will those funds be allocated?

Answer. The request for the proposed Advanced Vehicle Program is based on the funding history of the program as it currently exists, as the Electric and Hybrid Vehicle Program under the Defense Advanced Research Projects Agency (DARPA). This program has been funded at the $15 million level for the past several years, down from a high of $46 million during its second year. In anticipation of the transition of this program to DOT and DOE, each Department has requested $10 million in fiscal year 1999 to provide a slight increase for the continuation of this highly successful program. To maximize the value of the program, contracting partners are required to provide a minimum 50 percent cost share. This brings the total public and private investment to a value of approximately $40 million for fiscal year 1999.

The funds will be allocated using the current competitive process developed under the DARPA program. The government (DOE and DOT) will provide broad performance guidance on the program objectives, focus areas and selection criteria. Concept papers based on this guidance will be solicited from the eligible regional consortia. From a review of these concept papers by DOE and DOT, full proposals will be requested for those ranked high. Awards for funding will be made based on the full proposals submitted. Funding will be awarded through cooperative agreements and other transactions authority.

Question. Will those funds be used to help develop improved train engines? Improved marine engines? If so, why should those activities be funded out of the Federal Highway Trust Fund?

Answer. Funding under the proposed Advanced Vehicle Program will be used to develop, demonstrate and deploy advanced technologies for vehicles, components and infrastructure to improve fuel efficiency, reduce criteria pollutants and reduce greenhouse gas emissions. The program is not limited to specific technologies, but the emphasis will be on medium and heavy duty vehicles. This includes, but is not limited to, medium and heavy duty trucks and buses. Accordingly, the program could include projects addressing improved train and marine engine or propulsion technologies.

A number of the technologies funded under the AVP will have potential crossmodal applications and benefits. To the extent that these technologies are applicable to other modes and other vehicle platforms, DOT will ensure that the technologies are coordinated and widely disseminated among the DOT modal administrations and the transportation research community.

Even though its funding is being requested as part of the Federal Highway Trust Fund, the AVP has application across all modes. The transportation sector accounts for over 67 percent of the national petroleum consumption. The U.S. transportation sector itself is 97 percent dependent on petroleum. This translates into the transportation sector accounting for one-third of the CO_2 emissions with motor vehicles accounting for about 25 percent alone. Pollutants from motor vehicles are major contributors to problems with urban air quality. Technologies developed through this program could significantly increase the energy efficiency of vehicles and reduce emissions. In these ways, gains made in the efficiency or environmental benefits of one platform benefit the whole transportation system.

Question. How much is requested by FTA in fiscal year 1999 on similar R&D activities?

Answer. FTA has requested $5.5 million in fiscal year 1999 on similar R&D activities, particularly advanced bus propulsion. The work will have specific applications to transit buses and transit services. The proposed AVP program would not seek to duplicate these efforts, nor could the size of the AVP request accommodate this program and still meet the objectives for the variety of other projects needed in the greater transportation picture.

FTA's fiscal year 1999 budget request for similar R&D activities is a decrease from the fiscal year 1998 funding level of $8.5 million. This is a result of FTA's shift in its R&D focus to address other issues, such as transit security and communications-based signaling.

Question. How will this program be managed at DOT?

Answer. The Advanced Vehicle Program will be jointly managed by DOT and DOE. As currently envisioned, an Advanced Vehicle Program Executive Committee (AVPEC), consisting of a senior official from RSPA and a senior official from DOE's Office of Transportation Technologies, will be the central decision-making body and provide overall program direction. The AVPEC will: Define and approve program objectives and overall technology focus areas; Direct a joint DOE/DOT program office to administer the projects; Review and approve project proposals; and Identify appropriate funding source in DOT and DOE. The program will be managed by the joint DOE/DOT program office (Advanced Vehicle Program Office (AVPO)), which will be appointed by the AVPEC. The AVPO will consist of staff within DOE and DOT. The AVPO will solicit and conduct technical reviews of proposals from eligible

consortia on the development, demonstration and deployment of technology areas identified by the AVPEC. Contracts will be awarded based on a competitive, peer-reviewed selection process. DOT will utilize grants, interagency agreements, cooperative agreements and other transactions, as authorized by the legislation.

Question. Who will have ultimate authority—RSPA, FTA, or some other entity?

Answer. The Secretary of Transportation and the Secretary of Energy will exercise ultimate authority over the Advanced Vehicle Program. The Research and Special Programs Administration will be responsible for administration of the program within DOT.

Question. How much is FTA allocating towards similar activities during fiscal year 1998? Please break out specific projects and associated funding amounts.

Answer. Approximately $8.5 million is being obligated by FTA in fiscal year 1998 on related activities: $4 million—Fuel Cell Transit Bus Program; $2 million—Zinc-Air Battery Bus Demonstration; $1.5 million—Electric Vehicle Program-CALSTART; and $1 million—DUETS.

Question. What, if any, is the relationship among this initiative, the PNGV, and the National ITS Program?

Answer. Although the Advanced Vehicle Program (AVP) is similar to the Partnership for a New Generation of Vehicles (PNGV) in its efforts to develop advanced vehicle propulsion systems and related technologies, the AVP scope, focus, program management, structure, funding mechanisms, partners, and size are all different from that of PNGV. The AVP is unique in that it focuses on developing, demonstrating and deploying technologies for advanced vehicles, components and infrastructure for medium and heavy-duty vehicles. PNGV is focused on five-passenger sedan vehicles. The AVP will not seek to duplicate the PNGV effort. Similarly, the AVP will not duplicate the ITS focus on intelligent vehicle technologies and intelligent transportation infrastructure.

Nevertheless, we will coordinate with the PNGV and ITS programs on technologies developed under the AVP that demonstrate potential benefits to PNGV and ITS.

NATIONWIDE PERSONAL TRANSPORTATION SURVEY

Question. When was the last survey completed? How much did it cost?

Answer. The last survey was completed in July 1996. The cost of collecting the national sample of 21,120 households was $4,087,283.

Question. Why is this request not under the policy area?

Answer. The special effort and resources needed to develop a continuous Nationwide Personal Transportation Survey and to conduct a year 2000 survey in parallel with the Decennial Census will require resources beyond the normal budget. It also will be coordinated with the Bureau of Transportation Statistics, the National Highway Traffic Safety Administration, the Federal Transit Administration and other Federal Highway Administration offices as a multi modal survey to serve the whole department. It was felt that as a unique initiative, the research needed special identity and focus.

Question. Wasn't this initiative previously funded under policy research?

Answer. Forty-nine percent of the cost of collecting the national sample was from policy research. Twenty-two percent of the cost was funded by Federal Highway Administration resources other than through policy research, eighteen percent by the Bureau of Transportation Statistics, six percent by the National Highway Traffic Safety Administration, and five percent by the Federal Transit Administration.

OTHER ISSUES

Question. What criteria does the Secretary of Transportation/Office of the Administrator for FHWA use to decide which projects will receive discretionary funds? (a) Is this criteria different than the criteria FHWA staff use for project analysis? (b) How much weight does staff input carry in making the final selection?

Answer. The FHWA staff evaluate individual projects within the context of specific discretionary programs, and staff evaluations are an important input in the selection process. The Secretary/Office of the Administrator make decisions in the broadest context that considers not only staff evaluations but also includes consideration of geographic balance among all of the discretionary programs, as well as congressional direction, guidance and interest.

Question. Why doesn't the Office of the Administrator document its criteria and methodology for selecting projects? (a) How can the Office of the Administrator be accountable for its selections if it does not document the basis and justification for project selections?

Answer. The judgement involved in selecting this many projects across multiple funding categories does not lend itself to a documentable, scientific methodology. The Office of the Administrator uses the eligibility criteria and related factors as a starting point in the review of candidate projects. Many worthwhile projects compete for limited discretionary funds. In 1997, for example, 200 projects were selected for funding under eight major discretionary highway programs.

While a recent GAO review showed that the Office of the Administrator acted appropriately within the authority granted by Congress regarding the discretionary highway programs, a few members of Congress said they were troubled by some of the GAO's other findings about project selection. Because of the concerns expressed, the selection process is being reviewed to ensure that it is working well. Of course, reauthorization of ISTEA will determine the structure of the discretionary programs beyond fiscal year 1998.

Question. Why did the Office of the Administrator require staff to change the process that they used to evaluate and rank the candidate projects?

Answer. The earlier process only provided the Office of the Administrator with staff views on a relatively small subset of projects which staff recommended for available funding. It was the desire of the Office of the Administrator to have staff views on all submitted candidates, unconstrained by the amount of available funds. This then allowed the Office of the Administrator to select projects from a broad perspective with staff views on each project.

Question. In its November 1997 report entitled Transportation Infrastructure: Review of Project Selection Process for Five FHWA Discretionary Programs (GAO/RCED–98–14), GAO reported that under the current selection process, as compared with the prior selection process, the Office of the Administrator selected a declining proportion of projects from the highest priority categories. (a) What are the reasons for selecting a smaller proportion of staff priority projects? (b) In particular, what are the reasons that half of the public lands projects selected for fiscal year 1997 funding came from the "qualified" category when there were so many other projects in the higher priority categories of "most promising" and "promising?"

Answer. During recent years, the Office of the Administrator relied more on its discretion in selecting projects. As discussed, the Office of the Administrator takes into account additional criteria beyond those considered by the staff. For the public lands highways discretionary program, a broad range of activities are eligible for funding, and a large number of candidate projects are received. While the statutory guidance calls for giving preference to projects which are significantly impacted by Federal land and resource management activities in States which contain at least three percent of the nation's total public lands, there is no legislative guidance besides that. This results in more subjective evaluation by the staff, thus allowing the Office of the Administrator more discretion when selecting projects under this program.

Question. Did the selection of lower priority projects by the Office of the Administrator result in poor transportation investments?

Answer. None of the selected projects are poor transportation investments. All of the projects selected are qualified to receive the specific discretionary funds provided, and they all address important transportation needs.

FHWA REGIONAL OFFICE RESTRUCTURING

Question. What are the major differences between FHWA's current regional office responsibilities and the proposed resource centers?

Answer. Over the years in response to the evolving nature of the Federal-State relationship and changed operating conditions, such as completion of the Interstate System, the FHWA's regional offices have been shifting their emphasis from program oversight and involvement to a predominant role of providing advanced program and technical assistance to the division offices as well as to State Departments of Transportation and other customers. Nevertheless, the regional offices retained certain program and administrative approval actions that are shared with other DOT elements or involve legal or potentially controversial issues. These include certification of metropolitan transportation planning processes, approval of final environmental impact statements, initiation of motor carrier-related enforcement proceedings, approval of State motor carrier safety plans and grants, and approval of invitational travel.

With the pending establishment of Resource Centers, the program and administrative authorities currently retained in regional offices will be delegated to Division Administrators and Motor Carrier State Directors to the fullest extent possible. The delegations of authority are being issued in April 1998, as the first step in implementing our new field structure. With this action, the FHWA's state-level division

offices will be empowered to carry out their primary role of program delivery without the involvement of an intermediate level office in decisionmaking.

The resource centers will continue some of the existing functions of the regional offices, such as technical assistance, intermodal and interagency coordination, and training. However, there will be a much stronger emphasis on providing advanced levels of program and technical assistance. Under the resource center concept, the FHWA will be able to cluster its technical experts in a smaller number of offices, thus allowing for greater sharing of knowledge and experience among our Agency's technical experts. Specific roles and responsibilities envisioned for the resource centers are identified below:

—Provide technical and program assistance to division offices, metropolitan offices, other DOT modes, and State and local agencies.

—Promote technology deployment and adoption of best practices by State and local agencies.

—Provide training to division offices, metropolitan offices, State and local agencies, other Federal agencies, and industry partners.

—Provide leadership in strategic planning and implementation of quality improvements.

—Provide intermodal and interagency coordination with other Federal agencies.

In summary, resource centers will differ from regional offices in that (1) they will have virtually no programmatic decisionmaking authority and (2) they will focus on providing advanced levels of technical and program assistance in support of division offices.

Question. What are the estimated savings in terms of funding and staff reductions in establishing FHWA new resource centers?

Answer. In closing existing regional facilities, FHWA will achieve recurring savings in 2 primary categories: (1) office space, and (2) data communications. Of course, the Agency also plans significant productivity increases under the restructured concept. In addition, FHWA will experience one time costs for things such as the relocation of employees, severance pay and lump sum annual leave for employees who choose to leave FHWA rather than relocate, and logistical activities (e.g., movement of equipment/property, site preparation, telecommunications) related to the movement of employees, and recurring costs for things such as the acquisition of additional space at certain locations. At this juncture, however, final decisions on an implementation plan and schedule have not yet been made; therefore, it is not possible to determine, definitively, when and how much FHWA will ultimately save as a result of establishing resource centers.

Question. Has FHWA requested increased funding as a result of creating the new centers?

Answer. The FHWA will not be requesting additional funding for the operational costs of the new resource centers. FHWA will absorb these costs within current funding levels. However, in preparation for any transition activity that may be required during fiscal year 1999, our fiscal year 1999 budget included $2.4 million in personal change of station (PCS) funding. These funds are intended to cover costs of activities that may be necessary to begin the process of transitioning to a new organization.

Question. What are the differences between the newly established FHWA metropolitan centers and the resource centers?

Answer. The Department of Transportation's three existing metropolitan offices located in Los Angeles, Philadelphia, and Chicago, and a fourth office that is being established in New York City are actually small intermodal offices staffed by personnel from the Federal Transit Administration and the Federal Highway Administration. The FHWA staff of these office report to the respective division offices while the FTA staff report to their respective regional offices.

The purpose of the metropolitan offices is to provide intermodal service and one-stop shopping for the Department's customers in these metropolitan areas. The staff of the offices provide on-the-spot technical assistance to local officials in areas of planning, transit program delivery, transportation management, and intelligent transportation systems, thus enhancing customer service for the Department's significant customer base in these metropolitan areas.

Each of the proposed resource centers will support division offices and through them, the metropolitan offices, in their direct customer support and program delivery roles by making available expertise in key technical areas and by arranging for and providing training. They will also provide coordination with the regional offices of other DOT modes and Federal agencies.

Question. What is the value of creating resource centers if regional office responsibilities are delegated to FHWA division offices?

Answer. As indicated in the answer to the question above concerning the major differences between FHWA's current regional office responsibilities and the proposed resource centers, by clustering experts in related technical areas, the resource center concept will allow the FHWA to greatly strengthen its role of providing technical advice and assistance through the division offices to State and local governments and others. This role is greatly valued by our customers and partners.

IMPACT OF DELAYED ISTEA REAUTHORIZATION

Question. How much of the approximately $9.8 billion available for obligation through the extension legislation has been obligated to date?

Answer. See the following table, it lists the obligations to date of funds made available through the extension legislation.

Obligations of the $9.8 billion provided by the Surface Transportation Extension Act of 1997 (STEA) as of March 31, 1998

State	*Obligations*
Alabama	$118,397,949.31
Alaska	45,001,749.94
Arizona	76,272,850.47
Arkansas	89,445,838.00
California	561,582,604.51
Colorado	109,249,729.28
Connecticut	150,153,747.62
Delaware	15,003,816.06
District of Columbia	6,583,767.60
Florida	315,232,807.00
Georgia	166,936,254.71
Hawaii	6,765,889.60
Idaho	17,010,260.46
Illinois	210,412,051.72
Indiana	150,034,264.16
Iowa	73,181,939.72
Kansas	85,451,682.74
Kentucky	95,303,055.63
Louisiana	136,591,628.87
Maine	43,463,795.82
Maryland	97,792,024.83
Massachusetts	505,136,295.91
Michigan	197,116,061.52
Minnesota	73,600,250.89
Mississippi	98,991,439.91
Missouri	147,222,803.39
Montana	52,146,784.95
Nebraska	61,526,054.50
Nevada	42,646,686.94
New Hampshire	55,530,426.57
New Jersey	235,249,174.05
New Mexico	67,355,083.85
New York	307,091,977.00
North Carolina	178,139,893.00
North Dakota	48,290,036.79
Ohio	230,300,250.07
Oklahoma	88,219,186.19
Oregon	84,498,975.27
Pennsylvania	440,498,332.64
Rhode Island	30,306,665.39
South Carolina	107,398,224.84
South Dakota	49,278,592.69
Tennessee	144,630,252.27
Texas	540,081,490.58
Utah	51,602,424.83
Vermont	44,949,426.86
Virginia	167,531,517.96
Washington	175,958,985.14
West Virginia	106,288,550.27
Wisconsin	115,135,128.56
Wyoming	47,012,770.00

Obligations of the $9.8 billion provided by the Surface Transportation Extension Act of 1997 (STEA) as of March 31, 1998—Continued

State	*Obligations*
Puerto Rico	42,732,172.30
Total	7,106,333,623.18

Question. How do states obligation rates compare under the extension legislation, and what factors account for differences in states' use of available funds?

Answer. The following table summarizes State obligation rates under the Surface Transportation Extension Act (STEA) through March 31, 1998. It is fairly typical for States to have differing rates of obligation, not only in unusual years like fiscal year 1998 but also during "normal" years, because of their different strategies in the timing and use of Federal funds. Although there are currently wide differences in the percentage of available funds each State has used, we expect that by May 1 every State will have obligated the maximum amount allowable under the STEA.

STATUS OF FISCAL YEAR 1998 OBLIGATION LIMITATION AS OF MARCH 31, 1998

STATE	TOTAL FISCAL YEAR 1998 LIMITATION	OBLIGATIONS—OCTOBER 1, 1997 TO DATE		UNOBLIGATED LIMITATION	UNOBLIGATED FUNDS
		AMOUNT	PERCENT		
ALABAMA	$174,668,049.00	$118,397,949.31	68	$56,270,099.69	$134,257,429.85
ALASKA	100,305,891.00	45,001,749.94	45	55,304,141.06	112,346,312.81
ARIZONA	144,930,696.00	76,272,850.47	53	68,657,845.53	148,783,495.25
ARKANSAS	105,066,081.00	89,445,838.00	85	15,620,243.00	64,039,919.35
CALIFORNIA	816,974,800.00	561,582,604.51	69	255,392,195.49	753,439,847.06
COLORADO	117,865,089.00	109,249,729.28	93	8,615,359.72	71,747,822.86
CONNECTICUT	175,810,749.00	150,153,747.62	85	25,657,001.38	127,551,191.21
DELAWARE	54,181,340.00	15,003,816.06	28	39,177,523.94	64,027,085.21
DISTRICT OF COLUMBIA	58,160,323.00	6,583,767.60	11	51,576,555.40	98,723,053.45
FLORIDA	383,260,924.00	315,232,807.00	82	68,028,117.00	155,235,465.00
GEORGIA	293,587,590.00	166,936,254.71	57	126,651,335.29	303,968,649.42
HAWAII	88,529,048.00	6,765,889.60	8	81,763,158.40	169,778,455.91
IDAHO	53,075,128.00	17,010,260.46	32	36,064,867.54	67,117,039.46
ILLINOIS	325,954,690.00	210,412,051.72	65	115,542,638.28	253,189,484.15
INDIANA	201,936,469.00	150,034,264.16	74	51,902,204.84	160,007,324.61
IOWA	116,135,036.00	73,181,939.72	63	42,953,096.28	105,164,436.66
KANSAS	128,516,552.00	85,451,682.74	66	43,064,869.26	107,423,382.17
KENTUCKY	154,458,516.00	95,303,055.63	62	59,155,460.37	136,481,511.68
LOUISIANA	207,074,849.00	136,591,628.87	66	70,483,220.13	221,620,032.48
MAINE	49,088,131.00	43,463,795.82	89	5,624,335.18	29,956,896.96
MARYLAND	159,064,806.00	97,792,024.83	61	61,272,781.17	147,593,754.59
MASSACHUSETTS	528,928,828.00	505,136,295.91	96	23,792,532.09	511,753,891.89
MICHIGAN	260,973,140.00	197,116,061.52	76	63,857,078.48	186,281,095.32
MINNESOTA	178,933,350.00	73,600,250.89	41	105,333,099.11	184,237,336.85
MISSISSIPPI	103,789,240.00	98,991,439.91	95	4,797,800.09	69,180,671.02
MISSOURI	200,357,218.00	147,222,803.39	73	53,134,414.61	148,374,815.34
MONTANA	88,267,665.00	52,146,784.95	59	36,120,880.05	83,882,949.46
NEBRASKA	77,949,526.00	61,526,054.50	79	16,423,471.50	60,254,729.68
NEVADA	65,229,965.00	42,646,686.94	65	22,583,278.06	55,586,261.31

STATUS OF FISCAL YEAR 1998 OBLIGATION LIMITATION AS OF MARCH 31, 1998—Continued

STATE	TOTAL FISCAL YEAR 1998 LIMITATION	OBLIGATIONS—OCTOBER 1, 1997 TO DATE		UNOBLIGATED LIMITATION	UNOBLIGATED FUNDS
		AMOUNT	PERCENT		
NEW HAMPSHIRE	59,526,681.00	55,530,426.57	93	3,996,254.43	25,265,558.12
NEW JERSEY	274,282,161.00	235,249,174.05	86	39,032,986.95	191,826,131.11
NEW MEXICO	82,729,105.00	67,355,083.85	81	15,374,021.15	54,406,550.84
NEW YORK	517,517,530.00	307,091,977.00	59	210,425,553.00	501,380,719.81
NORTH CAROLINA	229,754,073.00	178,139,893.00	78	51,614,180.00	182,059,042.34
NORTH DAKOTA	51,671,563.00	48,290,036.79	93	3,381,526.21	34,348,798.39
OHIO	357,221,543.00	230,300,250.07	64	126,921,292.93	324,014,675.27
OKLAHOMA	159,481,633.00	88,219,186.19	55	71,262,446.81	155,679,963.38
OREGON	103,306,110.00	84,498,975.27	82	18,807,134.73	73,056,699.42
PENNSYLVANIA	457,120,982.00	440,498,332.64	96	16,622,649.36	239,018,852.02
RHODE ISLAND	63,023,614.00	30,306,665.39	48	32,716,948.61	61,846,556.76
SOUTH CAROLINA	179,323,388.00	107,398,224.84	60	71,925,163.16	147,654,807.03
SOUTH DAKOTA	69,864,831.00	49,278,592.69	71	20,586,238.31	55,639,126.61
TENNESSEE	196,832,206.00	144,630,252.27	73	52,201,953.73	174,267,162.59
TEXAS	620,263,467.00	540,081,490.58	87	80,181,976.42	475,214,802.39
UTAH	91,646,315.00	51,602,424.83	56	40,043,890.17	80,617,176.00
VERMONT	60,039,426.00	44,949,426.86	75	15,089,999.14	52,198,250.84
VIRGINIA	212,433,686.00	167,531,517.96	79	44,902,168.04	173,062,151.70
WASHINGTON	205,417,484.00	175,958,985.14	86	29,458,498.86	132,335,798.50
WEST VIRGINIA	120,248,732.00	106,288,550.27	88	13,960,181.73	84,634,595.87
WISCONSIN	172,787,606.00	115,135,128.56	67	57,652,477.44	157,776,661.24
WYOMING	55,438,844.00	47,012,770.00	85	8,426,074.00	41,776,806.68
PUERTO RICO	58,238,000.00	42,732,172.30	73	15,505,827.70	49,280,067.17
AMERICAN SAMOA	1,907,570.00	198,933.18	10	1,708,636.82	1,708,636.82
GUAM	7,630,280.00	161,511.60	2	7,791,791.60	7,791,791.60
NORTHERN MARIANAS	1,907,570.00	1,103,096.51	58	804,473.49	804,473.49
VIRGIN ISLANDS	7,630,279.00	214,176.79	3	7,416,102.21	7,416,102.21

TERRITORIES TOTAL	19,075,699.00	1,354,694.88	7	17,721,004.12	17,721,004.12
STATE TOTAL	9,830,318,368.00	7,107,688,318.06	72	2,722,630,049.94	8,217,086,299.21
HEADQUARTERS [1]	1,044,252.18	75,923.69	7	1,120,175.87	10,384,871.04
FEDERAL LANDS [1]	236,708,133.42	35,711,587.78	15	200,996,545.64	472,462,003.04
ADMINISTRATION	299,480,213.00	149,740,104.00	50	149,740,109.00	
UNALLOCATED	11,132,449,033.40			11,132,449,033.40	
TOTAL LIMITATION	21,500,000,000.00	7,293,064,086.15	34	14,206,935,913.85	8,702,954,468.29
EXEMPT PROGRAMS		511,388,110.87			
TOTAL OBLIGATIONS		7,804,452,197.02			

[1] SEE ATTACHED BREAKDOWN.

STATE	TOTAL FISCAL YEAR 1998 LIMITATION	OBLIGATIONS—OCTOBER 1, 1997 TO DATE		UNOBLIGATED LIMITATION	UNOBLIGATED FUNDS
		AMOUNT	PERCENT		
FEDERAL LANDS:					
DIVISION 15	$29,002,839.58	$3,660,243.82	13	$25,342,595.76	$57,743,421.74
DIVISION 16	20,915,275.46	5,782,329.14	28	15,132,946.32	52,082,341.41
DIVISION 17	33,272,853.38	5,033,496.01	15	28,239,357.37	47,943,978.13
SUBTOTAL	83,190,968.42	14,476,068.97	17	68,714,899.45	157,769,741.28
FOREST SERVICE	3,392,165.00	867,424.81	26	2,524,740.19	8,307,141.77
PARK SERVICE	13,000,000.00	2,388,295.00	18	10,611,705.00	79,344,384.62
BIA	136,775,000.00	18,020,736.00	13	118,754,264.00	224,019,440.37
BLM	350,000.00	40,937.00	12	390,937.00	3,021,295.00
SUBTOTAL	153,517,165.00	21,235,518.81	14	132,281,646.19	314,692,261.76
FEDERAL LANDS TOTAL	236,708,133.42	35,711,587.78	15	200,996,545.64	472,462,003.04

Question. To what extent are states transferring their unobligated balances between programs? What programs are temporarily gaining and losing funds through transfers of unobligated balances?

Answer. See the following chart.

TRANSFERS OF SURFACE TRANSPORTATION EXTENSION ACT OF 1997 (STEA)—FISCAL YEAR 1998 TO DATE

Date	Fiscal year of funds	State	From: Appn. code	To: Appn. code	Amount subject to restoration
04/06/98	1998	ALABAMA	Q21	Q24	$1,729,515.00
04/06/98	1998	ALABAMA	Q22	Q24	3,392,685.00
04/06/98	1998	ALABAMA	Q23–035	Q24	2,612,865.00
04/06/98	1998	ALABAMA	Q23–067	Q24	1,263,905.00
04/06/98	1998	ALABAMA	Q23–109	Q24	135,618.00
04/06/98	1998	ALABAMA	Q23–115	Q24	882,082.00
04/06/98	1998	ALABAMA	Q28	Q24	800,434.00
04/06/98	1998	ALABAMA	Q40	Q24	1,282,206.00
Total					12,099,310.00
01/08/98	1997	ALASKA	33D	81	1,908,823.00
02/12/98	1995	ARIZONA	33B	33D	4,946,623.00
02/12/98	1996	ARIZONA	33B	33D	5,609,155.00
02/12/98	1997	ARIZONA	33B	33D	1,444,222.00
04/20/98	1998	ARIZONA	Q01	33D	2,000,000.00
04/20/98	1998	ARIZONA	Q01	315	8,000,000.00
Total					22,000,000.00
04/22/98	1997	ARKANSAS	33B	118	7,308,708.00
04/22/98	1998	ARKANSAS	Q22	118	1,691,292.00
Total					9,000,000.00
03/25/98	1998	DIST. OF COLUMBIA	Q10	Q24	4,249,822.00
03/25/98	1998	DIST. OF COLUMBIA	Q40	Q24	1,287,972.00
03/25/98	1998	DIST. OF COLUMBIA	Q05	Q24	4,638,553.00
03/25/98	1998	DIST. OF COLUMBIA	Q21	Q22	397,542.00
03/25/98	1998	DIST. OF COLUMBIA	Q26	Q22	28,345.00
03/25/98	1998	DIST. OF COLUMBIA	Q27	Q22	28,345.00
03/25/98	1998	DIST. OF COLUMBIA	Q28	Q22	222,836.00
Total					10,853,415.00
02/19/98	1996	IDAHO	320	315	4,141,702.00
02/19/98	1997	IDAHO	320	315	1,881,442.00
Total					6,023,144.00
04/07/98	1998	ILLINOIS	Q24	04M	21,000,000.00
03/26/98	1995	INDIANA	320	33D	9,532,621.00
03/26/98	1996	INDIANA	320	33D	9,370,054.00
Total					18,902,675.00
04/13/98	1997	IOWA	118	33D	15,747,594.00

TRANSFERS OF SURFACE TRANSPORTATION EXTENSION ACT OF 1997 (STEA)—FISCAL YEAR 1998 TO DATE—Continued

Date	Fiscal year of funds	State	From: Appn. code	To: Appn. code	Amount subject to restoration
04/13/98	1996	IOWA	118	33D	4,252,406.00
Total					20,000,000.00
04/14/98	1997	KANSAS	33E	315	12,616,924.00
04/14/98	1996	KANSAS	33E	315	2,383,076.00
Total					15,000,000.00
02/12/98	1996	MAINE	33B	04M	757,733.00
02/12/98	1997	MAINE	33B	04M	3,242,267.00
02/12/98	1996	MAINE	320	315	2,220,467.00
02/12/98	1997	MAINE	320	315	4,779,533.00
Total					11,000,000.00
01/26/98	1998	MARYLAND	Q01	Q05	12,848,367.00
01/26/98	1998	MARYLAND	Q10	Q05	7,200,000.00
01/26/98	1998	MARYLAND	Q40	Q24	8,546,272.00
01/26/98	1998	MARYLAND	Q21	Q24	1,434,707.00
01/26/98	1998	MARYLAND	Q25	Q24	1,326,144.00
01/26/98	1998	MARYLAND	Q26	Q24	205,450.00
01/26/98	1998	MARYLAND	Q27	Q24	205,450.00
01/26/98	1998	MARYLAND	Q28	Q24	723,982.00
01/26/98	1998	MARYLAND	Q20	Q24	1,518,336.00
01/26/98	1998	MARYLAND	Q23–008	Q24	2,774,454.00
01/26/98	1998	MARYLAND	Q23–012	Q24	3,689,916.00
01/26/98	1998	MARYLAND	Q23–063	Q24	26,811.00
04/13/98	1997	MARYLAND	320	315	15,000,000.00
04/13/98	1997	MARYLAND	320	33D	14,000,000.00
Total					69,499,889.00
02/12/98	1997	MISSISSIPPI	33B	33D	7,000,000.00
02/12/98	1996	MISSISSIPPI	33B	33D	5,000,000.00
Total					12,000,000.00
03/31/98	1997	MISSOURI	320	04M	5,000,000.00
03/31/98	1997	MISSOURI	33B	33D	12,150,726.00
03/31/98	1996	MISSOURI	33B	33D	7,849,274.00
Total					25,000,000.00
03/31/98	1996	MONTANA	33B	315	1,366,832.00
03/31/98	1997	MONTANA	33B	315	5,133,168.00
03/31/98	1996	MONTANA	320	315	1,720,467.00
03/31/98	1997	MONTANA	320	315	4,779,533.00
03/31/98	1998	MONTANA	Q21	Q05	699,784.00
03/31/98	1998	MONTANA	Q22	Q05	1,518,150.00
03/31/98	1998	MONTANA	Q27	Q10	238,579.00
03/31/98	1998	MONTANA	Q40	Q10	1,416,464.00

TRANSFERS OF SURFACE TRANSPORTATION EXTENSION ACT OF 1997 (STEA)—FISCAL YEAR 1998 TO DATE—Continued

Date	Fiscal year of funds	State	From: Appn. code	To: Appn. code	Amount subject to restoration
Total					16,872,977.00
01/14/98	1997	NEW HAMPSHIRE	320	04M	3,263,481.66
02/23/98	1996	NEW HAMPSHIRE	320	315	3,483,949.00
02/23/98	1997	NEW HAMPSHIRE	320	315	1,516,051.00
Total					8,263,481.66.00
02/19/98	1998	NEW JERSEY	Q24	320	3,600,000.00
02/12/98	1998	NEW MEXICO	Q21	Q20	1,093,157.00
02/12/98	1998	NEW MEXICO	Q22	Q20	1,804,067.00
02/12/98	1998	NEW MEXICO	Q01	Q20	2,500,854.00
02/12/98	1998	NEW MEXICO	Q01	Q25	8,336,947.00
Total					13,735,025.00
01/14/98	1997	NO. DAKOTA	33B	04M	2,100,000.00
01/14/98	1996	NO. DAKOTA	33B	04M	2,700,000.00
01/14/98	1998	NO. DAKOTA	Q22	Q01	1,169,634.00
Total					5,969,634.00
01/14/98	1998	OKLAHOMA	Q01	Q05	10,001,790.00
01/14/98	1997	OKLAHOMA	04M	33D	15,500,000.00
01/14/98	1997	OKLAHOMA	33B	33D	8,000,000.00
Total					33,501,790.00
02/05/98	1996	PENNSYLVANIA	42	04M	40,000,000.00
02/05/98	1996	PENNSYLVANIA	42	315	60,000,000.00
02/05/98	1996	PENNSYLVANIA	42	33D	79,000,000.00
03/16/98	1996	PENNSYLVANIA	42	33D	60,000,000.00
Total					239,000,000.00
04/09/98	1997	RHODE ISLAND	117	315	1,886,590.00
04/09/98	1996	RHODE ISLAND	117	33D	1,600,440.00
04/09/98	1995	RHODE ISLAND	117	33D	2,418,936.00
04/09/98	1994	RHODE ISLAND	117	315	2,113,410.00
04/09/98	1997	RHODE ISLAND	320	315	3,000,000.00
04/09/98	1996	RHODE ISLAND	33E	33D	2,780,894.00
04/09/98	1997	RHODE ISLAND	33E	33D	3,199,729.00
Total					16,999,999.00
01/07/98	1998	TENNEESSEE	Q10	Q01	13,442,672.00
02/05/98	1997	TEXAS	320	33D	91,000,000.00
02/05/98	1997	TEXAS	33B	33D	41,000,000.00
02/05/98	1996	TEXAS	320	315	82,500,000.00
02/05/98	1996	TEXAS	33B	04M	29,000,000.00
02/05/98	1998	TEXAS	Q40	Q05	26,119,982.00

TRANSFERS OF SURFACE TRANSPORTATION EXTENSION ACT OF 1997 (STEA)—FISCAL YEAR 1998 TO DATE—Continued

Date	Fiscal year of funds	State	From: Appn. code	To: Appn. code	Amount subject to restoration
Total					269,619,982.00
01/08/98	1997	VIRGINIA	33B	33D	11,482,718.00
01/08/98	1996	VIRGINIA	33B	33D	1,017,282.00
02/19/98	1997	VIRGINIA	3AA	33D	4,428,959.00
02/19/98	1997	VIRGINIA	33P	33D	2,445,042.00
02/19/98	1997	VIRGINIA	33A	33D	3,733,825.00
02/19/98	1997	VIRGINIA	33M	33D	895,184.00
02/19/98	1997	VIRGINIA	33N	33D	645,497.00
02/19/98	1996	VIRGINIA	33P	33D	497,286.00
02/19/98	1996	VIRGINIA	33A	33D	578,922.00
02/19/98	1996	VIRGINIA	33M	33D	298,161.00
02/19/98	1996	VIRGINIA	33N	33D	1,365,602.00
02/19/98	1995	VIRGINIA	33N	33D	51,934.00
02/20/98	1997	VIRGINIA	320	315	12,100,000.00
Total					39,540,412.00
02/20/98	1997	WEST VIRGINIA	117	33D	7,368,000.00
02/20/98	1996	WEST VIRGINIA	117	118	6,163,418.00
02/20/98	1995	WEST VIRGINIA	117	33D	7,819,000.00
02/20/98	1994	WEST VIRGINIA	117	33D	7,990,000.00
02/20/98	1993	WEST VIRGINIA	117	118	8,604,794.00
Total					37,945,212.00
02/12/98	1995	WISCONSIN	320	114	5,386,757.00
02/12/98	1996	WISCONSIN	320	114	10,433,638.00
02/12/98	1997	WISCONSIN	320	114	5,179,605.00
02/12/98	1993	WISCONSIN	33B	33D	1,593,000.00
02/12/98	1994	WISCONSIN	33B	33D	10,891,000.00
02/12/98	1995	WISCONSIN	33B	33D	10,797,000.00
02/12/98	1996	WISCONSIN	33B	33D	10,624,000.00
02/12/98	1997	WISCONSIN	33B	33D	11,748,000.00
02/12/98	1997	WISCONSIN	33B	04M	1,000,000.00
02/12/98	1997	WISCONSIN	33B	33C–014	1,000,000.00
02/12/98	1997	WISCONSIN	33B	33E	1,000,000.00
02/12/98	1997	WISCONSIN	33B	118	1,000,000.00
Total					70,653,000.00
GRAND TOTAL					1,023,431,440.66

Question. Will states be able to obligate federal highway dollars after the extension legislation expires on May 1, 1998?

Answer. States will only be able to re-obligate previously obligated funds after May 1, 1998.

Section 2(e)(3)(A) of Public Law 105–130, the Surface Transportation Extension Act of 1997, prohibits states from obligating any funds for any Federal-aid highway program project after May 1, 1998. Subsection (B) provides the exception whereby a State may obligate previously obligated funds after May 1, 1998.

Question. What will be the impact on ongoing and planned highway construction after May 1, 1998, if no new federal highway authorization legislation is passed?

Answer. States are already limiting their programs for the year because of the lack of assured Federal funds. If obligations of Federal-aid highway funds are cut

off after May 1, as required by the Surface Transportation Extension Act, there will be profound impacts on the approaching construction season. The negative impacts would be especially severe in the Northeastern and upper Midwestern states because of their short construction seasons—some Northern States could lose an entire construction season.

According to AASHTO's "Survey on the Impacts of Delay in Renewing ISTEA," February 1998, any delay in reauthorization could have serious repercussions.

—In the third quarter, 1,402 projects valued at $2.539 billion will be affected. If no bill is enacted by July 1, an additional 1,451 projects valued at $2.686 billion will be affected.

—Although many States are using advance construction and State-only funding in the hopes of converting when funds become available, further delays may create serious cash-flow problems and impact more than transportation.

—Long term planning has been completely disrupted.

—Substantial reprogramming was necessary to advance ready-to-go projects to meet the May 1 deadline—construction projects shifted in order to complete as much work as possible. Some lower priority projects were advanced because they were ready to move, which may delay higher priority projects for another year.

The longer reauthorization is delayed, the more the situation will intensify, until there will not be time to use the entire $21.5 billion obligation limitation contained in the 1998 DOT Appropriations Act before it lapses on October 1.

By the end of July, administrative funds, which the FHWA has been stretching as far as possible, will run out. With the furlough of 3,600 FHWA employees across the country, FHWA will stop paying bills, and reimbursing States for Federal-aid projects. Construction contractors and their suppliers will suffer economic losses—smaller ones may be forced to declare bankruptcy.

Without FHWA staff, the program will be slowed beyond the immediate impact of no obligations, no project approvals, and no payments. Without FHWA staff, projects cannot continue to advance through the pipeline. Thus, even when funds are eventually made available, spending those funds will be relatively slow as FHWA catches up with the backlog of work related to project development.

FUNDING FLEXIBILITY

Question. Why has there been a relatively low rate of funds transferred among the NHS, Interstate Maintenance, and bridge programs?—Under ISTEA, three major programs—the National Highway System (NHS), the interstate maintenance program, and the highway bridge replacement and rehabilitation program—received about $48 billion, or 40 percent of the overall reauthorization. The states have the flexibility to transfer funds between these three programs, allowing them to respond better to their differing needs or priorities. From October 1, 1991, through June 30, 1997, GAO reported that states transferred a total of $3.4 billion, or only 8 percent of the funds they could have transferred, with the approval of the Secretary, from the three major highway programs.

Answer. We believe transferability has been relatively low for the following reasons. First, the needs for NHS, IM and Bridge project funding have been much greater than the resources available through these programs. States are reluctant to transfer from one category to another when there are demonstrated needs in all categories, unless they are placing more emphasis on a particular area to meet their current priorities. In those cases they make selected use of the transferability under Title 23. Second, current law permits a great deal of flexibility in the use of funds within program categories often making it unnecessary to shift funds from one category to another.

Question. Although the overall transfer rate is relatively low, how many states have elected to transfer funds among the NHS, Interstate Maintenance and bridge programs?

Answer. See the following chart.

TRANSFER AMONG THE NATIONAL HIGHWAY SYSTEMS, INTERSTATE MAINTENANCE AND BRIDGE PROGRAMS—FISCAL YEAR 1992 TO FISCAL YEAR 1998 AS OF APRIL 22, 1998

STATE	TRANSFER FROM:		TRANSFER TO:	
	INTERSTATE MAINTENANCE	BRIDGE REPL AND REHAB	NATIONAL HIGHWAY SYS	INTERSTATE MAINTENANCE
ALABAMA	$10,239,336.00		$10,239,336.00	

TRANSFER AMONG THE NATIONAL HIGHWAY SYSTEMS, INTERSTATE MAINTENANCE AND BRIDGE PROGRAMS—FISCAL YEAR 1992 TO FISCAL YEAR 1998 AS OF APRIL 22, 1998—Continued

STATE	TRANSFER FROM:		TRANSFER TO:	
	INTERSTATE MAINTENANCE	BRIDGE REPL AND REHAB	NATIONAL HIGHWAY SYS	INTERSTATE MAINTENANCE
ARIZONA	21,534,507.00	.....	21,534,507.00	.....
CALIFORNIA	138,221,845.00	.....	138,221,845.00	.....
DELAWARE	.....	$3,819,150.00	3,819,150.00	.....
HAWAII	5,469,619.00	.....	5,469,619.00	.....
MAINE	2,728,212.00	.....	2,728,212.00	.....
MARYLAND	29,598,367.00	28,675,000.00	58,273,367.00	.....
MASSACHUSETTS	.....	69,533,624.00	69,533,624.00	.....
MINNESOTA	10,515,814.00	.....	10,515,814.00	.....
MISSOURI	.....	33,364,786.00	33,364,786.00	.....
MONTANA	26,535,280.00	4,000,000.00	30,535,280.00	.....
NEW HAMPSHIRE	1,000,000.00	.....	1,000,000.00	.....
OKLAHOMA	10,001,790.00	.....	10,001,790.00	.....
OREGON	8,236,425.00	.....	8,236,425.00	.....
PENNSYLVANIA	.....	403,058,307.00	403,058,307.00	.....
RHODE ISLAND	6,293,693.00	9,855,777.00	16,149,470.00	.....
TENNESSEE	.....	13,442,672.00	.....	$13,442,672.00
TEXAS	283,818,190.49	.....	283,818,190.49	.....
VIRGINIA	12,756,758.00	.....	12,756,758.00	.....
WASHINGTON	11,706,000.00	.....	11,706,000.00	.....
PUERTO RICO	7,371,687.00	.....	7,371,687.00	.....
TOTAL	575,788,187.49	565,749,316.00	1,128,094,831.49	13,442,672.00
TOTAL TRANSFER	1,141,537,503.49		1,141,537,503.49	

STATE INFRASTRUCTURE BANKS

Question. How many states are SIB designees? Why did some states elect not to create a SIB?

Answer. There are thirty-nine States participating in the SIB pilot program. As a result of the November 1995 NHS Designation Act, the Secretary designated the first ten pilot States: Arizona, Florida, Ohio, Oklahoma, Oregon, South Carolina, Texas, Virginia, California and Missouri. As a result of the Fiscal Year 1997 DOT Appropriations Act, the Secretary was able to designate additional States. In June 1997, the additional twenty-nine States were announced: Alaska, Arkansas, Colorado, Delaware, Georgia, Illinois, Iowa, Indiana, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Nebraska, New Mexico, North Carolina, New Jersey, New York, North Dakota, Pennsylvania, Puerto Rico, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Washington, Wisconsin, and Wyoming. Since the pilot program was expanded, FHWA has been contacted by Hawaii, Idaho, Kansas, Maryland, Montana, and Nevada expressing their desire to join the pilot. Kansas is pursuing State enabling legislation. The SIB concept is a departure from traditional grant reimbursement and some States wanted to see the results of other States' SIB implementation before establishing a SIB themselves.

Question. How many states have operational SIB's that are currently financing transportation projects?

Answer. Six States have initiated loan activity: Arizona, Florida, Missouri, Ohio, and Texas. Thirty States have entered into cooperative agreements with FHWA and/or FTA and are establishing their banks' administrative structures.

Question. How many projects have received SIB financial assistance to date?

Answer. As of February 15, 1998, twenty-four projects had received loans or had executed loan agreements totaling $298 million supporting $1.8 billion in total project construction.

Question. What types of projects are being funded through SIB's, and how, if at all, do these project differ from typical grant financed highway projects?

Answer. That is one of the questions we are examining as the States implement this pilot. For a SIB to remain a viable financial entity, it must receive repayments

for the loans it provides. Of the twenty-four projects that are currently being assisted by SIB's, two projects are repaying their loans with tolls. The remaining twenty-two projects are repaying their loans with dedicated sales taxes, State and local gas taxes, and future Federal funds.

Question. What percentage of states highway projects are amenable to SIB financing?

Answer. That is one of the questions we are examining as the States implement this pilot. For a SIB to remain a viable financial entity it must receive repayments for the loans it provides. Of the twenty-one projects that are currently being assisted by SIB's, two projects are repaying their loans with tolls. The remaining nineteen projects are repaying their loans with dedicated sales taxes, State and local gas taxes, and future Federal funds.

Question. Why have states been slow to obligate their program funds to capitalize a SIB, but relatively quick to obligate the $150 million provided through the fiscal year 1997 appropriation for SIB's?

Answer. States obligated their SIB capitalization funds allocated as a result of the Fiscal Year 1997 DOT Appropriations Act relatively quickly because those general funds were outside of the obligation ceiling. The vast majority of SIB pilot States have indicated plans to obligate their regularly apportioned fiscal year 1996 and fiscal year 1997 Federal-aid highway funds for SIB capitalization, but have been slow to obligate those funds in fiscal year 1998 due to uncertainty regarding their overall Federal-aid highway funding. As of February 15, 1998, the amount of regular Federal-aid highway funds that have been obligated was $182 million and the amount of Fiscal Year 1997 DOT Appropriation Act general funds that have been obligated was $144 million (including amounts obligated for SIB highway accounts at $127 million and SIB transit accounts at $17 million).

ALAMEDA CORRIDOR PROJECT

Question. Will MTA be able to provide the project the funding it has promised? (a) If the project is not able to get MTA funding, what impact will it have on the (1) cost of the project, (2) schedule of the project and (3) the federal loan?

Answer. We have reviewed the funding agreement executed by LACMTA and the Alameda Corridor Transportation Authority (ACTA) and authorized by the boards of both organizations. This legally binding agreement requires LACMTA to make a capital contribution of $347.3 million for the Alameda Corridor project. The LACMTA is providing funds from the following sources: (1) $8.6 million committed via an MOU in January 1994 from local (Prop. C25) funds; (2) $80 million committed via an MOU in February 1996 from Regional Surface Transportation Program (RSTP) and State Transportation System Management (STSM) funds; (3) $40 million committed via an MCR Master Agreement in October 1996, from State Flexible Congestion Relief (FCR) funds; and (4) $218.7 million committed via an MTA Funding Agreement in September 1997 from local (Prop. C25) and State Long Range Plan funds.

A shortfall in LACMTA funding, in the unlikely event one were to occur, would probably not have a significant effect on the project cost, the project schedule, or the federal loan.

The local (Prop. C25) funds for preliminary design, as well as most of the RSTP, STSM, and FCR funds, have already been received by ACTA. The LACMTA plans to issue bonds backed by local (Prop. C25) sales tax revenues to fund the remaining $218.7 million commitment. If necessary, those funds could be supplemented with state and other contingent sources to cover any shortfall. In such a case, the federal loan would not be adversely affected.

Question. What is the outlook for obtaining the $866 million of revenue bonds through the financial markets?

Answer. ACTA's upcoming issuance of revenue bonds is scheduled for late 1998. While the exact amount and structure of the issuance have yet to be finalized, it is likely the bonds will have strong demand when offered. The project has been followed closely by the rating agencies, bond insurers, investment bankers, and institutional buyers. There have been a number of media articles and trade reports related to ACTA and the importance of the project. A recent unsolicited Credit Week report by Standard & Poor's, one of the three major rating agencies, highlights the strength and viability of the project. Another report, prepared by A.G. Edwards & Sons, Inc., a large regional brokerage firm, characterizes the national scope and benefit of the project and highlights the sound financial plan. When offered by ACTA's financing team, lead by PaineWebber with Goldman Sachs, the revenue bonds are expected to generate a great deal of interest and sell promptly.

Question. How is FHWA overseeing the Alameda Corridor project and the federal loan? (a) How is FHWA using this information to improve/change its program?

Answer. Delegations by the Secretary of Transportation and provisions of a Memorandum of Understanding between the Federal Highway Administration (FHWA) and the Federal Railroad Administration (FRA) have resulted in the following assignment of key responsibilities related to the administration of the Alameda Corridor loan:

FHWA, which negotiated and signed the loan agreement on behalf of the Department, is responsible for: (a) carrying out any loan modifications or other DOT approvals; (b) monitoring project status and ensuring compliance with the loan agreement; and (c) performing credit assessments and subsidy re-estimates as required under the Federal Credit Reform Act (FCRA) of 1990.

FRA, which received the subsidy appropriation that funded the loan, is responsible for: (a) carrying out cash flow transactions, including loan disbursements, loan repayments, and Treasury borrowings; and (b) performing budgeting and accounting as required under FCRA and relevant Office of Management and Budget (OMB) guidelines.

The FHWA California Division Office has primary responsibility for producing a semi-annual project status and credit assessment report. The purpose of this report is threefold: (1) to provide DOT with an oversight tool for ensuring compliance with the provisions of the loan agreement; (2) to monitor the overall status of the project; and (3) to allow DOT and OMB to periodically assess the sufficiency of the budget authority that was appropriated to cover the estimated capital charges (subsidy costs) of default risks and interest subsidies associated with the loan.

Since major projects of the scope of the Alameda Corridor typically involve various construction and financing challenges, and since the provision of credit assistance necessarily entails some measure of risk, we believe the delegations of modal responsibility and the periodic assessments of project status and credit risk are prudent oversight steps. Although these actions by themselves cannot guarantee ultimate project success or loan repayment, they will help ensure the security of the federal government's investment and the realization of anticipated public benefits.

The information will prove very useful in monitoring other high-profile, high-cost projects. FHWA is gaining valuable experience in administering non-traditional capital projects and financial assistance. The information contained in the semi-annual project status and credit assessment report is being used to help establish a process for reviewing financial plans of so-called mega projects costing over $1 billion.

Question. Have other projects requested federal loans from FHWA similar to the Alameda Corridor's $400 million loan, or similar to the lines of credit made available to other California toll projects? (a) If so, please describe these projects and their anticipated costs. If not, please indicate where FHWA expects such projects to develop.

Answer. Although a number of project sponsors have expressed interest in credit instruments, none has formally requested such assistance.

A recent report prepared for FHWA called Federal Credit for Surface Transportation: Exploring Concepts and Issues provides an illustrative list of surface transportation projects whose scale, financial structure, and economic importance are indicative of the types of projects that a federal credit program would be designed to serve. Project names, descriptions, locations, and total cost estimates were obtained from state agencies, industry sources, and transportation publications. All 50 states were contacted and given an opportunity to suggest projects for inclusion in the report. The report identifies a total of 31 projects collectively representing nearly $50 billion in capital investment. One potential example is the Woodrow Wilson Bridge project in Virginia and Maryland. Others include the Foothill-South Transportation Corridor toll road project in Southern California, the Florida Overland Express high-speed rail project, the Farley /Penn Station rail passenger terminal project in New York City, and t he Tacoma Narrows Bridge project in Washington State.

Question. What issues did the Alameda Corridor project loan and DOT's initial proposed Infrastructure Credit Enhancement Act raise from other parts of the federal government? How have these concerns impacted the possibility for giving similar loans in the future?

Answer. Concerns raised within the Administration over direct lending techniques are identified and discussed below:

Concern #1.—By making a direct loan, the federal government could have an implied guarantee on the project's capital markets debt (publicly-issued revenue bonds).

Discussion: Neither the ratings on the capital markets debt (generally BBB for start-up projects) nor the investors' credit analyses reflect any implicit federal guar-

antee. Under a direct loan program, both DOT and the capital markets investors would be creditors of the project.

Concern #2.—A federal credit program could result in additional tax-exempt debt issuance, which has a tax expenditure (revenue loss) associated with it.

Discussion: Most of the large projects that would qualify for assistance under a credit program probably would be financed in any event at some point (albeit perhaps more slowly and at greater cost) with 100 percent tax-exempt debt, so the marginal issuance would be minor. Also, having the federal government fund a direct loan for up to a third of project costs would actually reduce the amount of tax-exempt debt issued by a corresponding amount. Finally, in comparison to the existing Federal-aid highway grant program (in which states and localities commonly issue tax-exempt debt to provide matching funds), there is little evidence that a credit-based program would encourage or credit-enhance tax-exempt debt to any greater extent than similar grant-based programs.

Concern #3.—The federal government should not be subordinate to other lenders.

Discussion: Allowing payment deferrals (that accrue with interest) for at least the first 10 years or "ramp-up" of operation is essential if credit assistance such as the Alameda Corridor loan is to add value to the project's financial plan. A junior-lien loan provides the project with much-needed flexibility to deal with unexpected shortfalls in net revenues. And over the long-term, the risk of non-payment should not be appreciably higher. Fitch-IBCA, one of the major bond rating agencies, has concluded that for start-up toll road project finances, flexible junior-lien debt has the same likelihood of ultimate repayment over the long-term as senior debt. The federal government is uniquely positioned to be a patient, flexible investor in capital projects that will generate major public benefits.

Concern #4.—The credit risk is too difficult to assess on large-scale surface transportation projects.

Discussion: There is general agreement that each project's credit profile is unique and that credit evaluation can be complex. Under a direct federal lending program, the credit assessment should be out-source to recognized independent experts like the major bond rating agencies. The rating agencies would determine an indicative rating category (e.g., BBB) for each project, and then assess a loan loss reserve factor similar to the capital charges imposed on municipal bond insurers.

These concerns were addressed in DOT's NEXTEA reauthorization proposal. The proposed Transportation Infrastructure Credit Enhancement program mitigates these concerns by providing grants, not direct loans, to fund debt service reserve accounts to help enable projects to secure external debt financing.

TRANSPORTATION INFRASTRUCTURE CREDIT ENHANCEMENT PROGRAM

Question. Why did you decide to request funding for a grant program rather than a loan program?

Answer. Although the Administration recognizes that large projects of national significance require additional funding assistance, it acknowledges that direct federal credit assistance—such as proposed in the fiscal year 1998 budget—involves a number of technical issues. Of particular concern are: (1) how to accurately assess or score the budgetary or subsidy cost of credit assistance provided to large, one-of-a-kind, start-up transportation projects; and (2) whether a federal standby line of credit available to cover potential revenue shortfalls in the early years of project operation can be interpreted as an indirect federal guarantee of tax-exempt debt, which is prohibited under section 149(b) of the Internal Revenue Code.

Until some of those various budgetary and tax issues have been satisfactorily resolved, the Administration believes that a grant-based credit enhancement program would be a prudent first step in developing an effective funding mechanism for such national investments involving public-private partnerships.

DOT will continue to work with both public and private partners—including other federal agencies, state and local officials, and the private sector—to evaluate the effectiveness of existing funding tools and assess the potential of new funding tools, including direct federal credit assistance.

Question. How many large, nationally significant projects can a grant program realistically fund?

Answer. It depends on the leveraging factor, which is a function of project size, capital structure, and credit-worthiness. As envisioned in the Department's NEXTEA proposal and fiscal year 1999 budget request, the credit enhancement program would authorize the Secretary to make grants to project sponsors in order to capitalize "Revenue Stabilization Funds" in amounts up to 20 percent of project costs. The funds would represent debt service reserve accounts for debt-financed projects, and could be drawn upon if net project revenues were insufficient to meet

annual debt service. If the Revenue Stabilization Funds were used to secure junior-lien bonds financing 33 percent of project costs, and if the reserves equaled roughly 20 percent of the issue size, the program could feasibly achieve a 15:1 leveraging ratio in terms of capital investment induced to budgetary resources consumed. Thus, under these optimal assumptions, the proposed $100 million per year of grant funding could support up to $1.5 billion per year in capital investment. Assuming an average project size of $500 million would result in three major projects per year that could be supported by the grant program.

Question. Do you expect more applications for funds than available funds? (a) If so, who will make the final selection of the projects that will receive federal support under this program after a pool of projects have met the NEXTEA criteria?

Answer. Based on preliminary inquiries to DOT from the states and other potential participants, we do.

In order to receive assistance under the proposed credit enhancement program, projects must meet certain threshold criteria relating to project size ($100 million or 50 percent of a state's most recent annual federal-aid apportionment); access to user charges or other dedicated revenue streams; inclusion in a state's transportation improvement program; ability to provide benefits of national significance; and demonstrated need (i.e., it cannot otherwise obtain financing on reasonable terms).

Qualified projects meeting the initial threshold eligibility criteria would then be evaluated by the Secretary based on a qualitative analysis of their credit-worthiness, degree of leveraging private capital, use of innovative technologies, and other factors.

Question. How will this program differ from FHWA's existing discretionary programs?

Answer. The Transportation Infrastructure Credit Enhancement program would target only very large projects of national significance (costing at least $100 million or 50 percent of a state's most recent annual federal-aid apportionments) that otherwise might be delayed or not constructed because of cost or uncertainty over timing of revenues. Unlike other discretionary grants, grants made under this program (limited to 20 percent of project costs to fund debt service reserve accounts) would be used to secure external debt financing to support projects that have the potential to be self-supporting from user fees or other dedicated revenue streams and that involve public-private partnerships.

Question. One of the criteria listed in the NEXTEA proposal talks about the credit-worthiness of the Project. Could you explain that criteria?

Answer. Given the limited amount of grant money available, we want to try to ensure that the funding is leveraged to the greatest degree possible. This would tend to encourage projects that, based on their underlying credit-worthiness or ability to repay debt and generate returns, can arrange external financing with the minimum Revenue Stabilization Fund.

Question. This program had been explained as an innovative financing mechanism. Is this still an accurate characterization of the program now that its funding structure has changed to a grant program? If so, why?

Answer. DOT's innovative finance initiative was begun to respond to the shortfall in conventional public funding sources for transportation infrastructure by expanding the resource base and leveraging new sources of capital, thereby increasing strategic investment in the nation's transportation systems. The proposed Transportation Infrastructure Credit Enhancement program, like DOT's other grant-based initiatives, complements traditional financing techniques by continuing the effort to streamline administrative procedures and allow federal grant funding to participate in project financing in new, more flexible, and more cost-effective ways. The program would encourage more private sector and non-federal participation, address important public needs in a more budget-effective way, and take advantage of the public's willingness to pay user fees to receive the benefits and services of transportation infrastructure sooner than would be possible under traditional, pay-as-you-go grant reimbursements.

CENTRAL ARTERY/TUNNEL PROJECT

Question. Since what you predicted in 1995 regarding an overly optimistic cost estimate has come to pass, why do you oppose revising the cost goals now?

Answer. During the end of 1995 and the beginning of 1996, the Federal Highway Administration (FHWA) and the State of Massachusetts (State) agreed to appropriate cost indicators/goals to be used in the Central Artery/Tunnel (CA/T) Finance Plan. FHWA has been committed to work with the State to do everything in our power to achieve these aggressive cost containment goals. FHWA and the State have gone on record stressing the importance of maintaining these aggressive cost-

containment goals as continuing motivation to work hard in controlling costs. Part of the significant savings that have been realized to date can be attributed to the setting of these goals. In addition, certain trends such as that for cost growth during construction continue to show a downward slope. To relax or modify these goals, which have been and are continuing to prove effective in controlling costs, could result in a self-fulfilling situation where additional savings are not realized. Obviously if these goals are not reached, then costs will rise. However, FHWA is confident that, if there are increases in cost, these will not be large since the project design phase is virtually complete, tending to preclude changes in scope and scale. Since much of the work is already under contract, the potential for increases due to items such as inflation is further minimized.

Since the setting of these goals, the maintenance of budget has been generally successful. Given a number of external circumstances, there has been some increase in project cost, about 4 percent over the last two years, raising the total cost from $10.4 billion to $10.8 billion.

FHWA and the State over the last several years have identified over $0.5 billion of savings due to cost containment/value engineering programs. In addition, the State and FHWA are actively exploring other strategies for additional savings. Examples include: (1) alternative and less expensive traffic management plans, (2) additional savings achieved through investment strategies and safety programs in the Owner Controlled Insurance Program, (3) continued evaluation of scope and organizational staffing cuts, (4) alternative approaches for cost sharing in utility force accounts, and (5) maximization of savings due to a "zero-based" approach toward fulfilling regulatory requirements.

Question. Is the level of spending for Interstate Maintenance in the 6-year STIP adequate? If no, why did you approve the STIP?

Answer. For the Statewide program, FHWA's initial concern is that the State maintains its commitment to a $400 million (Federal + State funds) program; and that the projects selected by the State and locals are consistent with the processes required by ISTEA. These commitments are presently being met.

Regarding the amount of Federal funds programmed for the Interstate, FHWA's responsibility is to assure it is adequately maintained. However, this is done primarily on a "results basis", as opposed to a "level of effort" basis. That is, we look at the State's Interstate maintenance certification and condition data. The overall condition of Interstate pavements in Massachusetts has not deteriorated in the past years, and there was actually a slight improvement in recent years. The overall condition of Interstate bridges in Massachusetts has improved slightly over the past several years. Nevertheless, last year, FHWA did tell the State that we thought they may need to allocate more funds to the Interstate in the future, and they should reassess what is needed to maintain the condition of the Interstate. We do have to recognize that State funds, including those for basic maintenance, do not have to be in the STIP, and some are allocated on a more short term needs basis. Again the indicator is the actual condition achieved.

Question. What effect will the need to repay GAN's over an extended period of time do to other transportation needs in Massachusetts? Can Massachusetts maintain a balanced statewide transportation program in the face of this commitment?

Answer. Massachusetts' highway transportation program, Central Artery/Tunnel (CA/T) plus the "Statewide Program", for each Federal fiscal year (FFY) is represented in the State's current Statewide Improvement Program (STIP), which covers fiscal year 1998 through 2003. For Federal-aid funds through fiscal year 2002, the split is 71/29 percent between the CA/T and the Statewide Program respectively. After fiscal year 2002, the split is 50/50 percent between the CA/T and the Statewide Program respectively. The State's CA/T Finance Plan, October 1997 (as amended January 1998) and accepted by FHWA on February 5, 1998, indicates this 50/50 percent split is expected to be continued until the GAN's are paid off, which is estimated as 2009. While a STIP has not been formulated for the years after fiscal year 2003, FHWA has made it very clear, including making it a condition of all CA/T Finance Plan acceptances, that the State must maintain a balanced Statewide program. Annual GAN's repayment is expected to be dependent upon the level of Federal-aid highway funds available to Massachusetts. Also, please see the answer provided for the next question on the Central Artery/Tunnel Project on options for additional funding.

Question. If Massachusetts needs more money for the project, where will it come from?

Answer. FHWA supports appropriate contingency planning, which is one of the reasons FHWA requested the State to prepare a Finance Plan for the Central Artery/Tunnel (CA/T) Project, the first finance plan ever for a Federal-aid highway project.

To date, the State has satisfactorily addressed all changes in costs and funding. The State's passage of the Metropolitan Highway System (MHS) legislation set up a structure for funding the State's share of the project. This includes a cost center for constructing the CA/T Project and operating the major freeways, tunnels and bridges in the Boston area. This relies on contributions from several benefiting State agencies, backed by increased tolls, general revenues, and a portion of anticipated future Federal-aid highway funds.

The State and FHWA do not believe it is necessary to identify how each and every possible contingency will be addressed. However, the recently accepted CA/T Updated Finance Plan states that as changes occur, the State is prepared to demonstrate the methods that they will use to adjust for such changes. Having too specific contingency plans for increases in cost and/or reductions in funding could become self fulfilling, and therefore counterproductive to aggressively containing costs. That is, if those who are working hard to contain costs think extra funds would be available, they may not have the same incentive to find ways to continue to contain costs.

SALT LAKE CITY INTERSTATE 15 RECONSTRUCTION PROJECT

Question. Has FHWA examined Utah's request for special funding for Olympics-related highway projects?

Answer. Yes, the Utah Department of Transportation (UDOT) has provided FHWA a copy of its report, Utah Transportation Infrastructure Needs, 2002 Winter Olympics Volumes I and II, which identifies $5.7 billion of Olympic related transportation projects and requests $4.3 billion of Federal support, of which $2.1 billion is for highways, Intelligent Transportation Systems, intermodal centers and planning. The amounts requested are in addition to Utah's current Federal-aid apportionment levels. Utah officials expect to receive Federal support for highways in two ways: (1) higher apportioned funds for Utah under ISTEA reauthorization and (2) language in ISTEA reauthorization providing priority consideration for use of discretionary funds for sites hosting Olympic games. Utah's apportionment would increase under reauthorization proposals (compared to ISTEA); the House and Senate bills also include the provision emphasizing priority for use of discretionary funds for sites hosting Olympic games.

Question. In FHWA's view, is the proposed level of funding justified?

Answer. FHWA believes the UDOT's cost estimates are accurate and reliable based on what is known about the proposed projects, as several projects are in the planning phase. The estimates will become more refined as all of the projects are better defined and more is learned through project development, final design, and construction. UDOT views the funding requests for special funding as supporting the long term transportation needs for the State of Utah, in addition to the short term needs of the Olympic Games.

Utah's average annual apportionment under ISTEA was $128.3 million, compared to $174.9 million under NEXTEA or over $200 million under BESTEA and ISTEA II. Utah should view apportioned Federal-aid highway funds as the primary source of Federal funding for any Olympic related highway improvements. In general, FHWA does not support special funding for any particular State including Utah, although all States will have opportunities to apply for any discretionary program funds authorized by Congress. As already noted, the House and Senate reauthorization proposals would provide Utah, as an Olympic site, priority consideration for discretionary program funds.

On March 20, 1998, FHWA allocated Utah $1.77 million in discretionary bridge program (available from a fiscal year 1997 carry-over balance) for the replacement of one of its discretionary candidates, the Riverdale Road Bridges. These funds should help povide relief from the cash flow problems UDOT is currently experiencing in advancing Olympic related projects.

The Department is committed to working with the State and local officiasl to ensure they are ready for the Olympics.

Question. Can Utah complete the I–15 project without federal funds? If so, what would the effect be on other transportation projects in Utah?

Answer. Yes, UDOT can complete the I–15 project without Federal funds; UDOT has committed to completing it whether or not Federal funds materialize. A year ago, the Utah legislature formalized their commitment to fund a ten-year transportation program, including the I–15 project, for a total amount of $2.6 billion. The UDOT has certified that sufficient funds will be available to construct the I–15 project without any Federal funding. However, if no (or insufficient) additional Federal funds are made available, other projects planned for funding may have to be postponed or canceled, or additional revenue generated by the State.

LARGE-DOLLAR HIGHWAY PROJECTS

Question. If enacted, how will FHWA implement the proposed requirement that states submit finance plans for projects over $1 billion? (a) What information would states be required to provide? Would FHWA approve these plans? (b) What would such an approval convey?

Answer. The FHWA would require a State to provide information on project activity planned each year and the estimated amount of funds (and sources) needed for the project, highlighting those years with significant funding needs through the completion of construction or the finance period. Depending on the certainty of funding or the complexity of the finance mechanisms, FHWA would require a funding or financing schedule with detailed information on funding sources, cash flow projections, and repayment of debt.

FHWA would review and accept finance plans. Acceptance of a finance plan by FHWA would convey only that there is confidence in the investment of Federal-aid, given that adequate financial resources are committed to the project within a reasonable time period.

Question. If we're going to have finance plans, and if the federal government is to invest billions of dollars in large-dollar projects, does FHWA favor requiring states to prepare initial total project cost estimates to fully understand the extent of the proposed federal investment and the related financing requirements?

Answer. State and local officials develop cost estimates (regardless of a dollar threshold) at various points in the environmental, planning and project development process. For example, ISTEA requires that the Transportation Improvement Plan be financially constrained as a means of assuring that no project will begin without adequate funding to complete that project. State and local officials estimate the cost of project construction before advertising for bids.

Each estimate is reliable and accurate based on what is known about the proposed alternatives or project at the time. Estimates become more refined as the project is better defined and more is learned through project development, final design, and construction. Costs typically increase as project planners and engineers encounter and resolve the unknowns—mitigation of adverse impacts, hazardous wastes or archeological artifacts below the surface, or unstable soil conditions.

In this context, finance plans for projects estimated to cost $1,000,000,000 or more are based on the best information on the total project cost available at the time. The commitment of the project sponsors and acceptance of the financing plan by FHWA should help avoid finance-related surprises once construction is underway. With respect to the Federal interest, it clarifies to all from the outset that there is no implied burden on the Federal government to fund any shortfalls.

Question. Should FHWA require states to track cost growth on large-dollar federal-aid projects similar to what OMB requires federal agencies to do for its own large-dollar acquisitions?

Answer. For projects estimated to cost $1 billion or more, we believe it is important to establish (1) aggressive cost containment goals, (2) a schedule of project milestones, and (3) a systematic approach for tracking and monitoring the budget, costs, and cash flow in relation to achieving the cost containment goals and project milestone. With these basic precepts in mind, FHWA does not want to develop a one-size-fits-all approach. There needs to be latitude for FHWA and a State to agree how best to manage and monitor each particular large-dollar project including, establishing goals and milestones, developing appropriate cost containment strategies and tracking techniques, and deciding the frequency of reporting and progress meetings.

Question. Does it make sense to have DOT approve a large-dollar highway project in its totality at the outset of that project?

Answer. Review and acceptance of the finance plan probably is more critical than approval of the project in its totality. Through the finance plan, the project sponsors convey their commitment of current and future funding for the project. The commitment of the project sponsors and acceptance of the financing plan by FHWA should help avoid finance-related surprises once construction is underway. With respect to the Federal interest, it will clarify to all from the outset that there is no implied burden on the Federal government to fund any shortfalls. Depending on the scale of the project and the certainty of funding, the project sponsors may decide to stage construct the project in useable segments. High cost segments or elements primarily needed to serve future traffic could be constructed in later stage; such planning may be prudent particularly if there is less certainty about available funding in the out years.

NATIONAL TECHNOLOGY DEPLOYMENT INITIATIVE

Question. How will this program differ from FHWA's other technical assistance and deployment programs, such as the Local Technical Assistance Program and the ITS Deployment Incentives Program?

Answer. We believe the NTDI program will be in a unique position to directly support expanded implementation so that users will see the benefits of new technology "on the road." There is a strong, continuing need to support effective technology transfer programs such as the Local Technical Assistance Program (LTAP), direct technical assistance/demonstration, and training. At the same time, we are looking to grasp the opportunity to greatly extend the benefits of innovation through greater deployment, and we view the NTDI as very complementary to these programs. In this respect, the NTDI program can be viewed as falling between research and development and the proposed Intelligent Transportation Systems (ITS) deployment incentives program. The NTDI will address specific goals through expanded implementation of advanced technology, such as accelerating construction and maintenance operations, using advanced materials to improve the life cycle cost and extend the service life of the Nation's roadways and bridges, and improving the safety of driving during periods of inclement weather and/or reduced visibility. Conceptually, the NTDI is not a "research program" but a varied, technology-based "infrastructure program" geared toward "putting projects on the ground." We also see NTDI as a vehicle to accelerate the advancement of innovative technologies to practice. The proposed ITS deployment incentives program is aimed purely at integrating ITS infrastructure components already on the ground.

Question. Will ITS projects be eligible for funding under this program?

Answer. The focus of NTDI is not ITS technologies. However, to the extent that ITS technologies would be utilized to meet the defined goal areas of the NTDI, we believe that this would be appropriate. For instance, the Strategic Highway Research Program (SHRP) furthered the development of roadway-weather information systems (RWIS), which use sensors to detect icing and snow conditions on bridges and roadways to aid winter maintenance operations. These systems are described by many as "ITS projects" because of the use of sensors and communications; but they also would be expected to directly support NTDI goals areas such as, improving driving safety during inclement weather. While funding criteria for NTDI-supported projects has not yet been developed (and, is expected to vary depending upon the relative maturity of the technology in question); we do not expect to support full construction costs of projects with NTDI funds. We believe that NTDI funds directed toward a comprehensive set of implementation-support areas such as extensive technical assistance, costs of testing and evaluation, potential risk sharing, and targeted, fast-track development efforts will produce the most cost-effective program design. We believe NTDI is different from, and complementary to, the proposed ITS deployment incentives program in that the proposed ITS deployment incentives program is geared purely to integration, not implementation.

Question. Since the Initiative's goals are somewhat vague, please provide specific examples of the tangible benefits that would result from this Initiative.

Answer. It is clear that Congressional action on this proposed program may significantly affect final characteristics of the Program, including number of goal areas and degree of impact which can be expected. Therefore, we cannot be certain of the extent of anticipated benefits at this time. We remain very optimistic about the potential of this Program, however, and the Administration's NEXTEA proposal included seven possible goal areas which the NTDI might address, if funding is sufficient. Following are examples of benefits which might be expected in each of these areas:

Goal area 1: Reduced Delay and Improved Safety in Construction and Maintenance Work Areas.—New technologies, construction methods, and/or contracting practices can be applied to reduce the time required to complete construction and maintenance projects. Products such as model contract specifications to provide incentives for expedited delivery; improved safety hardware and practices to protect workers and prevent accidents; innovative detour systems; and enhanced communication with the traveling public to improve their driving and behavior through construction zones all can be deployed more aggressively to minimize the disruption of commercial and personal travel. In addition to improving work zone management, the use of new pavement materials with long service life will decrease the needed frequency of the work, thus greatly reducing overall impact on travelers and adjacent businesses.

Goal area 2: Extended Life of the Current Infrastructure.—Extending the life of pavements and structures has many benefits for taxpayers and travelers. More durable materials reduce the total life-cycle cost of pavements and bridges, because

there is a reduced need for repair and rehabilitation. The reduced need for maintenance and rehabilitation means fewer construction delays for travelers. Longer-lasting pavements have fewer potholes, cracks, and ruts, which means a smoother ride for all road users and improved operating efficiency for shippers and haulers.

Goal area 3: Increased System Durability and Life, Including Applications of High Performance Materials.—High performance materials can be deployed effectively for repair, rehabilitation, and strengthening of existing structures, as well as in the design and construction of new structures that are durable, capable of longer service, and has a lower life-cycle cost. The repair, rehabilitation, and strengthening applications will be immediately effective in extending the useful life of the existing infrastructure. The typical applications that are used include: Bridge deck replacement with composites or aluminum; steel/concrete beam strengthening with bonded fiber-reinforced polymer composite laminates; concrete deck strengthening with bonded fiber-reinforced polymer composite laminates; repair of deteriorated concrete elements with fiber-reinforced polymer composite wrapping; seismic retrofit and column wrapping (a few States are using this already); and external pre-stressing tendons for bridge strengthening.

Measurable benefits will result from: Extended service life before functional replacement because of load limits; lower initial construction cost, in many cases; more corrosion-resistant, durable structures; reduced future maintenance needs and less traffic disruption; ease of fabrication, construction, transportation, and handling reduced project delivery time; and lightweight materials to improve resistance to earthquake damages.

Goal area 4: Improved Safety of Driving at Night and Other Periods of Reduced Visibility.—The key benefits of technological advances in this area include reduced night-and-weather-related accident rates, improved highway safety, reduced social costs (vehicle and property damage, injury and death, lost time, etc.), and more efficient use of tax dollars through improved management systems. For instance, significant technology advances have occurred relatively recently in areas related to traffic signs and pavement markings:

—As a result of the interest of many of the States' in improved traffic signs and pavement markings, industry and manufacturers have developed better signing and marking materials and products.

—New technologies for measuring retroreflectivity have been introduced and are ready for deployment.

—Information processing technology has advanced to the point where more efficient management systems and data collection systems for traffic signs and pavement markings can be implemented. Several such systems are currently in development and will require technology transfer and deployment during the next 6 years.

—New opportunities are occurring to develop reliable control systems for detecting fog, smoke, and other adverse environmental conditions; however, considerable research and development must be completed before they can be implemented.

Goal area 5: Support and Enhancement of the Environment with Use of Innovative Technologies.—The use of innovative construction and maintenance techniques and materials can result in reduced potential impacts on human health, on air and water quality, on wildlife species and their habitats, and on wetlands and other elements of the natural and cultural environment. Certain advances also may produce appreciable cost savings through increased efficiency. Reductions in the amount of raw materials required for construction and maintenance activities will conserve natural resources and result in fewer materials entering the waste stream. Building upon current successes and developing further improvements in construction, operational, and maintenance techniques will produce immediate environmental benefits.

Goal area 6: Support of Community-Oriented Transportation and Sustainable Development.—This area is quite diverse and difficult to capture in a few topical areas. Some examples of technology applications and associated benefits include:

—Innovative bicycle and pedestrian facilities, such as paths built with recycled tires; and low-cost, high-security, easy-to-use bicycle racks. These would remove impediments to non-motorized travel.

—Real-time transit system information systems would allow transit patrons to better plan transit trips and to minimize the amount of wait time, especially during inclement weather. This improvement would be closely tied to the ITS program.

—Active speed management and traffic enforcement technology, such as radar-equipped speed trailers and red-light-running detection cameras would reinforce

responsible driving behavior and improve travel conditions and safety within communities.

—High-technology, low-cost graffiti removal systems. Graffiti on transportation facilities (noise walls, bridges, retaining walls) could be quickly and economically removed, and transportation agencies might be able to "give back" something to the community by lending out such equipment.

—Technology-enhanced public involvement. Improved communication and information-dissemination technology (for example, video conferencing, cable television, and the Internet) offers effective alternatives to traditional public meetings and hearings.

Goal area 7: Minimized Transportation System Closures, Constraints and Delay Caused by Snow and Ice.—Anticipated benefits include reductions in highway closures due to winter storms, earlier re-openings after extreme events, improved operation during storms, more effective use of resources (manpower, chemicals, equipment), and better communication with the public and highway users. Today more than ever, the continuous, effective operation of the Nation's highways is important to the productiveness of the American economy. By the year 2000, it is estimated more than 60 percent of industrial productivity will depend on "just-in-time delivery" of parts and components. Without a continuously reliable highway system during winter storm conditions, plants, shops, offices, and schools will shut down and production will wait for the opening of the highways. During the "Blizzard of 1996," the Northeast learned first-hand how much the Nation depends on reliable, continuous access to the transportation system. Estimates place the loss of economic productivity at $3 to $5 billion for each day major roadways were closed in the Northeast. This places the total loss at $15 to $25 billion for this single event. Keeping the transportation system open and operating efficiently are vitally important to personal and industrial life in this Nation.

AUTOMATED HIGHWAY SYSTEM PROGRAM

Question. How much has the Department spent to date on the AHS program? (a) What tangible benefits has the Department gained from those investments?

Answer. A total of $58.7 million was obligated through fiscal year 1998.

The primary goal of the AHS work plan was to develop the preferred AHS concept, prototyping that concept and development of the AHS system specification. Although this work plan was not completed, the department and the community made great improvements to our knowledge-base in vehicle-highway automation. These lessons learned will be applied to the Intelligent Vehicle Program.

The first stage of the AHS work plan was the concept identification phase. The system objectives and characteristics were defined. This allowed for the identification of the critical and enabling technologies. From this phase it was learned that AHS is feasible in the long term and with a high level of sustained investment. It was also learned that vehicle-highway automation could extend beyond full automated systems to a more evolutionary approach moving from autonomous systems in mixed traffic, to partial automation, to full control.

The second stage was concept evaluation. The principal findings of this period were that vehicle-infrastructure technologies can provide an effective solution in a wide variety of environments and for light, heavy and transit vehicles; applications may be tailored to meet local needs and still maintain national compatibility; the costs for dedicated lanes are likely to be similar to the cost of present day high occupancy vehicle lanes (HOV).

A key aspect of the AHS concepts evaluation process, site-specific case studies, engaged state and local transportation agencies in joint efforts to examine the potential of AHS for their particular needs. These case studies addressed issues for specific regions, corridors, or users, including the long range planning processes to assess the viability of AHS (to include automated bus/van transit operations) relative to other transportation alternatives; applicability of intermediate system approaches; possible institutional arrangements; potential impact on land use and urban form for the area; safety; individual benefits; and overall benefits and costs in transportation productivity. Preliminary case studies of transit automation (for Houston) and for rural automation applications (for the Yellowstone Corridor) were completed and documented. The case study for Houston provided encouraging results in that the capacity in people and vehicles, could be significantly increased through automation.

The third stage was Concept Refinement which focused on further defining the AHS and how it may evolve from today's vehicle-highway system and on resolving the major AHS issues. The concept work was restructured from parallel analysis of 3 concepts into the analysis of a single broad architecture. Five critical issues were

identified obstacle management, mixed traffic performance, driver role and acceptance, vehicle separation policy, and dedicated lanes. During this stage the government withdrew from the consortium and work stopped.

A workshop has been arranged to enable key AHS project staff to convey the final "lessons learned" to the government. This will include the NAHSC's research findings, perceptions of knowledge or technology gaps, and future research needs. The focus of the workshop will be a comparison of autonomous and cooperative (vehicle-vehicle and vehicle-infrastructure) automation concepts applicable to the IVI services.

The IVI will take advantage of the lessons learned through the AHS effort by improving the safety and efficiency of motor vehicle operations through an evolutionary approach. The IVI will bring technologies (and their benefits) to market in much nearer term that was envisioned in the AHS program. The IVI will build upon the research results of the AHS Program, as well as the NHTSA crash avoidance program.

Question. Given that JPO decided to refocus the AHS program long before the scheduled August 1997 demonstration in San Diego, why did the Department decide to continue with the demonstration? (a) How much had the JPO committed to the demonstration prior to its decision to refocus the program? (b) How much in total did the demonstration cost the federal government?

Answer. The AHS Demonstration was Congressionally-required as part of the ISTEA legislation. During the late fall of 1997, the confluence of five factors influenced the Department to reevaluate the AHS program. Those factors were: (1) the demonstration provided a timely opportunity to evaluate the program direction; (2) the NHTSA crash avoidance program had reached a level of maturity where it was in transition from research to operational testing; (3) the findings of both programs indicated that there was an opportunity to deliver near term benefits through driver-assistance application over the more long term vehicle-highway automation applications; (4) the National AHS Consortium had shifted from a revolutionary to an evolutionary deployment strategy; and (5) funding provided under the ISTEA extension was insufficient to fund the AHS program at the planned levels. This revaluation of the AHS program was started in March 1997 and completed with the delivery of the final report from the TRB review panel in March 1998. The decision to refocus AHS on the Intelligent vehicle program did not occur until after the demonstration.

The total Federal expenditures for the Demonstration was $18.4 million. The Federal share of 1997 AHS Demonstration prior to the decision to refocus the program was also $18.4 million since USDOT did not decide to refocus the program until after the demonstration.

Question. How does the Intelligent Vehicle Program differ from similar programs in NHTSA?

Answer. The Intelligent Vehicle Program combines the NHTSA Crash Avoidance program with other ITS vehicle-based research that was underway in the FHWA and FTA. The NHTSA program is the primary foundation for the IVI. All projects, contracts and program areas that were in place before the IVI have continued, with constraints on funding availability, without interruption. Plans for continuation of these projects and initiation of new ones and new operational tests of systems to provide specific safety benefits are underway as part of the IVI. The expectation is that this work will help us gain a full understanding of how these systems need to perform to be able to effectively provide specific safety benefits. This work will be the backbone of IVI for the next 2–3 years.

Question. What will be the roles of FHWA and NHTSA under this new Intelligent Vehicle Program?

Answer. Within the U.S. DOT, the Intelligent Vehicle Program will be a joint program of the FHWA, FTA, and NHTSA. The program has joint program managers from FHWA and NHTSA. The co-program managers report to a steering committee of the Directors from FHWA Office of Safety and Traffic Operations Research and Development, FHWA Office of Motor Carrier Safety and Technology, NHTSA Office of Crash Avoidance Research, and FTA Office of Mobility Innovation. The ITS Joint Program Office is responsible for coordination and budget oversight.

Working jointly with industry and other stakeholders, the U.S. DOT will develop performance guidelines, specifications, architectures and standards, test, and evaluate the most promising configurations to facilitate their deployment. A major focus of the IVI is to research and evaluate the benefits resulting from these systems, including the integration of driver information systems. These activities will be accomplished through the combined efforts of the U.S. DOT's modal administrations, the motor vehicle, trucking, and bus industries, state and local governments, and other stakeholders, working together under cooperative programs and partnerships to

plan for and facilitate the incremental deployment of both vehicle-based and cooperative vehicle-infrastructure-based driver assistance systems.

Question. Please prepare a side-by-side comparison that details all provisions in the House-passed and Senate-passed surface transportation reauthorization bills relating to flexible use of highway funds for passenger rail purposes. Please cite the bill language and prepare short section-by-section analyses for each of the relevant provisions. Make sure to include information regarding whether these funds can be used for capital and/or operating purposes.

Answer. There are no provisions in the House bill (H. 2400) providing for the use of highway funds for passenger rail purposes. The Senate bill (S. 1173) makes no provision for passenger rail operating costs, but expands eligibilities for capital improvements as follows:

National Highway System (NHS)

Capital improvements to publicly owned intercity passenger rail lines (including Amtrak) added as an eligible use for NHS funds. Projects must meet the same criteria that currently apply to transit and non-NHS highway projects (must be in an NHS corridor, improve level of service and traffic flow, and be more cost effective than an improvement to the highway). [§ 1234, proposed § 103(b)(5)(C)]

Also adds eligibility for publicly owned intercity or intracity passenger rail terminals (including those owned by Amtrak) located on or adjacent to the NHS. [§ 1234, proposed § 103(b)(5)(N)]

Adds eligibility for publicly owned components of MAGLEV transportation systems. [§ 1234, proposed § 103(b)(5)(Q)]

Surface Transportation Program (STP)

Amends eligibility for STP funds to include capital costs of public or private vehicles and facilities that are used to provide intercity rail passenger service (eligibility parallels the eligibility of such vehicles and facilities under chapter 53 of Title 49, as revised by S. 1173). [§ 1235(1), proposed § 133(b)(2)]

Amends safety improvement eligibility to include publicly owned passenger rail safety infrastructure improvements. [§ 1235(3), proposed § 133(b)(4)]

Also adds publicly owned intercity passenger rail infrastructure and vehicles (including Amtrak) to STP eligibility. [§ 1235(6), proposed § 133(b)(13&14)]

Adds eligibility for publicly owned components of MAGLEV transportation systems. [§ 1235(6), proposed § 133(b)(16)].

Question. Please break out the amounts allocated to the following programs in fiscal years 1997, 1998, and requested for 1999; Truman Hobbs Bridge; National Scenic Byways; Recreational Trails; Highway Use Tax Evasion Projects; Value Pricing Pilot program; Bureau of Transportation Statistics; and Research and Special Program Administration's Strategic Planning and Intermodal Research Initiative.

Answer. Based on 1997 actuals as included under ISTEA and the funding levels included in the Administration's reauthorization proposal for 1998 and 1999, the amounts allocated to the programs identified is as follows:

	1997	1998	1999
Truman Hobbs Bridge	.....	16	17
National Scenic Byways	14	15	15
Recreational Trails	15	7	7
Highway Use Tax Evasion	5	5	5
Value Pricing Pilot Program	.....	14	14
Bureau of Transportation Statistics	25	31	31
RSPA's Strat. Plng. & Inter. Research	.....	10	15
Total	59	98	104

Question. Does the takedown amount for these "other programs" remain constant regardless of the highway obligation ceiling level? Can obligation ceilings be set on these programs individually

Answer. Yes. Under current law as well as under the Administration's proposal, these programs have obligation limitation "set-aside" for them at an amount equal to the level authorized before any of the limitation is distributed to the States. Obligation ceilings could be set on these programs individually but there is not authority to do so under current law.

FEDERAL RAILROAD ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

FRA'S GPRA GOALS

Question. How has GPRA encouraged greater efficiency, effectiveness, and accountability at FRA's Offices of Safety and Railroad Development? What are your specific performance goals and plans for each of these Offices?

Answer.

Safety

Under GPRA, FRA's Office of Safety has established specific goals through the year 2002. In doing so, FRA has focused more clearly on the trend lines that have shaped these goals, and has developed methods and programs that emphasize efficiency and effectiveness, among several characteristics. By clearly listing performance goals in both the FRA and DOT Strategic Plans, FRA has demonstrated their willingness to be held accountable. The specific performance goals of the Office of Safety are the following:

—Reduce the rate of rail-related fatalities.
—Reduce the rate of passenger fatalities and injuries.
—Reduce the rate of employee fatalities, injuries, and illnesses.
—Reduce the rate of grade crossing collisions.
—Reduce the rate of trespasser fatalities.
—Reduce the rate of train accidents.
—Reduce the rate of hazardous materials released by rail mode.

FRA will continue to promote the Safety Assurance and Compliance Program (SACP), which requires a balanced approach between site-specific inspections and partnerships with rail labor and management to identify and correct safety concerns in the rail industry. Likewise, FRA will continue with the Rail Safety Advisory Committee (RSAC), which provides FRA with a continuing forum for advice and recommendations on the development of the railroad safety regulatory program. This collaborative rulemaking approach fully involves FRA's customers, including representatives of railroad labor and management, and makes the best use of resources to accommodate the rapidly evolving changes in the rail transportation industry.

Railroad Development

GPRA also has encouraged greater efficiency, effectiveness, and accountability by focusing the Amtrak's performance on those criteria that are broadly indicative of the relative success of Amtrak's efforts to improve the quality of its service.

Four performance goals have been identified for Amtrak; two under the Enhance Mobility area of the Department's strategic plan, and two under the Economic Growth and Trade area. Within Enhance Mobility, one goal will track the findings of regularly scheduled Amtrak customer surveys, the findings of which are expressed as a "Customer Satisfaction Index" (CSI). From an index baseline of 84 in 1997 it is expected that the CSI will improve to 87 by 1999. A second performance goal will track the efforts to increase, by 10 percent (365 trains per day), the number of trains (intercity and commuter) through the most congested segments of the Northeast Corridor in northern New Jersey by 2005. The cost to increase capacity will be shared by Amtrak and New Jersey Transit. Within Economic Growth and Trade, special attention will be focused on the system-wide on-time-performance of Amtrak trains. The goal for 1999 is 87 percent on-time from a baseline of 76 percent in 1995. The second goal in this area will track perhaps the single most important goal for the Corporation, trip time improvements between Boston and New York City, to measure the relative operational success of Amtrak's high-speed rail efforts. The average trip-time along this route in 1997 was 4 hours and 45 minutes and the target for 2000 is "under three hours".

Under the NDGPS program, FRA expects to reduce the frequency of train collisions and overspeed accidents by a factor of 100 on lines where PTC is installed. Specific outputs and outcomes are under development in conjunction with FHWA

and the US Coast Guard. The Coast Guard will serve as the lead agency for installing, operating, and maintaining the NDGPS network.

The Next Generation High-Speed Rail program goals include developing, demonstrating, and validating cost-effective high-speed (125–150 mph) passenger rail technology to operate on existing infrastructure in the US; reducing upgrade costs for high-speed to $2–3 million per mile; and making proven technology and methods available to States for HSR implementation. The program has been working towards these goals in three major areas. In the non-electric locomotive area, FRA will demonstrate a self-contained locomotive unit with acceleration capabilities comparable to electric locomotives and without substantially increasing track forces, noise or emissions levels over conventional fossil fuel units. In addressing grade crossing hazards, FRA will demonstrate high-speed passenger operations on existing corridors on which grade crossings remain in place, but at safety levels equal to or better than at present for conventional speeds. In Track and Structures, FRA will demonstrate construction at 75 percent or less of present construction costs and for the track structures to withstand both heavy freight and high-speed passenger usage with costs no higher than present conventional practice permits.

The Office of Research & Development goals address railroad safety. They support the FRA's Office of Safety in its safety rulemaking and safety enforcement activities, and also support other customers, including the railroad industry, the railroad supply industry, railroad unions, and railroad passengers and shippers, through the development of new technologies to improve railroad safety. The Office has encouraged greater efficiency and accountability by undertaking both peer and customer reviews to insure that the program is addressing priority topics, tracking the degree to which research projects support scheduled rulemaking actions and assessing the timely dissemination of research results.

GPRA OUTCOMES

Question. What are the outcomes or outputs that FRA is measuring and why were these selected?

Answer. FRA's Office of Safety is measuring the following outcomes:

—Rail-related fatalities.
—Rail passenger fatalities and injuries.
—Rail employee fatalities, injuries, and illnesses.
—Grade-crossing collisions.
—Trespasser fatalities.
—Train accidents.
—Hazardous materials released by rail mode.

These safety outcomes were selected because they represent the broad spectrum of the rail environment. Two of the outcomes—namely grade-crossing collisions and trespassing on rail property—are the leading causes of rail-related fatalities (approximately 90 percent). Additionally, FRA has an accident/incident database that has been providing timely and reliable data on these outcomes.

The Amtrak program is measuring customer satisfaction, on time performance, and capacity improvement on one of the most congested segments of Amtrak's Northeast Corridor. These outcomes reflect Amtrak's progress towards improving service quality. Amtrak's long-term financial viability is tied to its ability to attract and retain customers and the outcomes being measured will help judge the success of Amtrak's efforts to make its service more attractive.

Under the NDGPS program, specific outputs and outcomes have been developed in conjunction with FHWA and the US Coast Guard and directly support the goals of the program. While the long term outcome of the project is to reduce the frequency of train collisions and overspeed accidents by a factor of 100 on lines where PTC is installed, interim project output include the acquisition of DGPS receivers and the installation of PTC on 5,000 miles of track by 2003.

The Research and Development program is tied directly to the safety outputs.

The outcome of the Next Generation High-Speed Rail program will be to develop and demonstrate cost-effective high-speed (125–150 mph) passenger rail technology operating on existing infrastructure in the US. The objective is to provide service compatible to that which is currently only possible with electrification networks, without the very high infrastructure investment required to operate electrically.

GPRA AND COLLABORATIVE MANAGEMENT

Question. How are you focusing on collaborative management with the staff under GPRA?

Answer. At FRA, internal management accountability tools have been modified to include the performance goals and measures that were developed in order to comply

with GPRA. For example, the Administrator meets regularly with the Deputy Secretary to review progress on a number of projects that are included in her Performance Agreement with the Secretary. Embedded in this agreement are the critical elements of what is being tracked by GPRA. Managers must update the entries in the Performance Agreement for which they have specific responsibility, giving the current status of all projects and discuss any issues that stand in the way of achieving goals. This collaborative approach to the management of the Performance Agreement ensures that no item covered by GPRA escapes the close scrutiny of Associate Administrators and the Administrator herself.

In addition, FRA developed collaborative teams in updating its Strategic Plan (its first under GPRA requirements) over the past year. In doing so, a broad range of ideas and viewpoints were solicited from all segments of the agency—both headquarters and field offices, supervisory and non-supervisory. The teams were responsible for producing a plan that committed the agency to achieving specific performance goals in a variety of areas in the rail environment. This plan is the basis for FRA's input into the Department of Transportation's broader Strategic Plan. FRA will continue this collaborative team concept on an on-going basis.

TIMING OF RAILROAD SAFETY USER FEES

Question. Are the railroad safety user fees described in Sec. 331 of the bill language in the fiscal year 1999 Budget Appendix to be imposed and collected beginning in fiscal year 1999? Why is this proposed in appropriations legislation, when the rail safety program is up for reauthorization in 1998?

Answer. Yes, our railroad user fee proposal envisions collection of railroad user fees in fiscal year 1999. Congress originally established the railroad user fee program for a five-year term in the 1990 Budget Reconciliation Act. The Administration believes the Congress should reauthorize the program this year and could do so either through the rail safety program reauthorization or, due to its close relationship to the Department's overall funding, through the fiscal year 1999 DOT Appropriations Act. Accordingly, FRA has included enabling language for the program as part of the proposed 1999 DOT appropriations bill language.

BASE FOR RAILROAD SAFETY USER FEES

Question. The budget justification states that the base upon which the proposed user fees are calculated is broadened to include all costs attributable to the Safety Office and to the safety-related functions of the Research and Development program (total estimated for fiscal year 1999 is $82.1 million). How has the base been broadened? Who will be assessed these fees, and for what purposes? Has FRA developed a fee schedule? If so, please provide it for the record.

Answer. The railroad user fee program in effect from 1990–1995 (established by the Congress in the 1990 Budget Reconciliation Act) required the railroad industry to reimburse the Federal Government for costs incurred by the FRA in administering the Federal Railroad Safety Act of 1970 but did not cover FRA's costs incurred in administering the Hours of Service Act or the Hazardous Materials Transportation Act, or safety-related functions of the Research and Development program. The fiscal year 1999 proposal provides for industry reimbursement for these costs. The proposed fees would be assessed upon the entire railroad industry. FRA has not developed a fee schedule for the proposed fees. The original fee schedule was established through the rulemaking process and any revisions to that schedule would also have to be adopted through agency rulemaking.

USER FEES

Question. What are the responses from the railroad industry to the user fee proposal?

Answer. The railroad industry has consistently opposed railroad safety user fees. The industry considers these fees to be an inequitable financial burden which affects the ability to compete with other transportation modes.

OPERATION RESPOND

Question. FRA's fiscal year 1999 budget request has transferred $103,000 in costs associated with Operation Respond, formerly funded from the Office of the Administrator, to the Office of Railroad Safety. What are the costs, benefits, and current status of FRA's involvement in the Operation Respond project? Please specify fiscal year 1996, fiscal year 1997, and fiscal year 1998 funding, and the fiscal year 1999 request. How much longer is it anticipated that FRA will help finance this project?

What is the total amount of the fiscal year 1999 Department of Transportation request for Operation Respond, including requests from other agencies?

Answer. Saving lives in hazardous material or passenger rail accidents is the primary safety benefit of Operation Respond. Operation Respond assists states, local responders and railroads to respond to these accidents in a rapid and coordinated manner. Funding for Operation Respond is as follows:

[Dollars in thousands]

Fiscal year	
1996:	
FRA	$53
FHWA	190
RSPA	120
Total	363
1997:	
FRA	53
FHWA	[1] 1,000
Total	1,053
1998:	
FRA	103
FHWA	[1] 1,000
Total	1,103
1999: FRA	103

[1] Earmarked by Congress.

FRA plans to continue its funding of Operation Respond until fiscal year 2002, at which time the demonstration project will be a fully developed and self sufficient national system.

The fiscal year 1999 funds will be used to enhance the Operation Respond Emergency Information System (OREIS) to include short line and regional railroads in the system. While many short line and regional carriers handle a wide variety of hazardous materials, they often do not possess the centralized computer capabilities or linkages to shipper car location message systems of those of larger railroads. Operation Respond and FRA will work with these carriers to introduce and install OREIS on their system.

SAFETY FISCAL YEAR 1997–1999 FUNDING

Question. Please prepare a comparative funding table for the Office of Safety for fiscal years 1997–1999, broken out in the following manner:

Federal Enforcement Program
- Program Costs
- PC&B
- Number of Staff (headquarters and regional/field offices)

Automated Track Inspection Program
- Program Costs
- PC&B
- Number of Staff (headquarters and regional/field offices)

Safety Regulation and Program Administration
- Program Costs
- PC&B
- Number of Staff (headquarters and regional/field offices)

Answer. The information follows.

	Fiscal year—		
	1997 actual	1998 estimate	1999 estimate
Federal Enforcement Program:			
Program Costs	8,798	8,476	10,738
PC&B	30,077	32,503	35,871

	Fiscal year—		
	1997 actual	1998 estimate	1999 estimate
Number of staff: (FTE's) (Field)	439	456	472
Automated Track Inspection Program:			
Program Costs	1,196	4,220	2,500
PC&B	.....	.....	.....
Number of staff	.....	.....	.....
Safety Regulation and Program Administration:			
Program Costs	4,269	4,434	4,893
PC&B and Support Costs	6,983	7,417	7,957
Number of staff: (FTE's) (Headquarters)	81	90	90

STATUS OF NTSB RECOMMENDATIONS

Question. What are the remaining open NTSB recommendations, and what is FRA doing to respond to each one? Please list all NTSB recommendations for the last three years that have been addressed and closed, indicating whether or not NTSB was satisfied.

Answer. As of April 9, 1998, there are 66 open NTSB Safety Recommendations that have been addressed to FRA. Of these, 61 have been classified by NTSB as being in "Open-Acceptable Action" status. The remaining 5 open recommendations have been classified by NTSB as being in "Open-Unacceptable Action" status. A brief summary of each of these open recommendations follows, with an explanation of FRA's action toward achieving acceptable action by the Board.

During the past three years, twenty-two NTSB Safety Recommendations have been addressed and closed. Eighteen of these recommendations were closed with satisfactory action from NTSB's perspective. One recommendation was closed for reason be being reconsidered by the Board. The remaining 3 were found to be unacceptable by the Board. A listing of each of these recommendations also follows.

OPEN NTSB SAFETY RECOMMENDATIONS ADDRESSED TO FRA

R–87–16. Train Control System—"Promulgate Federal standards to require the installation and operation of a train control system on mainline tracks which will provide for positive separation of all trains."

On August 24, 1994, FRA provided update to NTSB indicating the "Rail Safety Enforcement and Review Act" of 1992 required FRA to report to Congress on the prospects of installation of a positive train control (PTC) system to prevent train collisions. FRA forwarded copy to Congress on July 8, 1994, and also provided one to NTSB. FRA indicated in its update to NTSB that the report addresses all the NTSB recommendations on a train control system, and provides for a time line for deployment on the system on high priority locations. FRA requested this recommendation be closed.

NTSB responded under date of September 18, 1995, in part reiterating the need for PCS following the June 8, 1994 collision at Thedford, NE., on BN, which claimed the lives of two crewmembers.

On January 23, 1998, FRA Administrator Jolene Molitoris and DOT Secretary Rodney Slater met with the Board of Directors of the AAR. In that meeting, AAR agreed to join with FRA and the Illinois DOT in a partnership to develop and demonstrate positive train control (PTC) on a portion of the Chicago—St. Louis rail corridor. AAR voted to invest $20 million for the project which will be matched by $15 million from FRA and IDOT. PTC is a lifesaving train control system that can prevent collisions, overspeed derailments and casualties among roadway workers by linking new train control systems with computer aided dispatching systems, automatic equipment identification systems and other information technologies.

Current Status.—The current project indicated above is ongoing. NTSB's present classification for this recommendation is "Open—Acceptable Response."

R–87–23. Locomotive Cabs—"Promptly require locomotive operating compartments to be designed to provide crash protection for occupants of locomotive cabs."

In September 1989, the AAR adopted Locomotive Crashworthiness Requirements, Standard S–580, for new road type locomotives built after August 1, 1990. The requirements include anti-climbers, collision posts and stronger hoods on short hood locomotives.

NTSB responded by letter on January 4, 1995 noting this accomplishment, and that research is underway in response to the Rail Safety Enforcement and Review Act (Public Law 102–365), which requires full-scale locomotive crash testing that should yield significant data for analysis of current and proposed crashworthiness features. NTSB indicated they expect prompt regulatory action once this analysis is complete. NTSB also noted that another factor that needs resolution is the features that should be incorporated when locomotives are rebuilt. NTSB classified this Safety Recommendation as "Open—Acceptable Response."

RSAC accepted as TASK 97–1 on 6/24/97. Working Group met 9/8 and 9/9, 1997.

FRA provided response to NTSB' Chairman Hall in letter dated October 10, 1997. In essence, FRA indicated it had referred the important issue of locomotive crashworthiness to the Railroad Safety Advisory Committee (RSAC) for consideration. A Locomotive Crew Safety Planning Group has been established (with NTSB representation) to review the report to Congress—specifically, each of the individual issues noted above, and recommend to the full RSAC which tasks should be routed to rulemaking, which should be referred for further research and development, and which are more appropriately addressed through voluntary action (or no action). The first meeting of this planning group was held on January 23, 1997. FRA requested Safety Recommendation R–87–23 remain "Open-Acceptable Response" and that NTSB concurrently close Safety Recommendation R–92–10 regarding the improved design of locomotive fuel tanks, as this will be addressed in conjunction with the other crashworthiness features through the systems approach outlined above.

Current Status.—This project continues to be progressed by the Locomotive Crashworthiness Working Group of RSAC, with last meeting conducted in February 1998. NTSB's current classification for this recommendation is "Open—Acceptable Response."

R–87–66. Train Dispatchers-Selection/Training—"Conduct a thorough study of the selection process, training, duties, and responsibilities of train dispatchers to determine if the workload is beyond the normal job stress level and determine what selection and training standards are used for train dispatchers. In addition, establish selection and training standards and workload limits for dispatchers."

Subsequent to the issuance of this recommendation, Congress passed in 1992, the Rail Safety Enforcement and Review Act. Section 17 of the Act required the Secretary of Transportation to review the train dispatcher work environment and report the results to Congress. FRA performed this review and rendered report to Congress in January 1995, providing a copy to NTSB with reply on December 15, 1995.

NTSB advised December 20, 1995, of their disappointment that FRA had not specifically addressed several of NTSB's concerns in the recommendations. NTSB indicated they would be reassured if the FRA's recommendations dealt more precisely with the shortcomings and concerns cited in the study. NTSB further cautioned FRA against emphasizing the value of technological advances or increased training, and asked FRA to keep them informed of activities in response to this recommendation.

Current Status.—FRA continues to work toward the implementation of the contents of the Board's recommendation. NTSB's current classification of this Safety Recommendation as "Open—Acceptable Response."

R–88–20. Locomotive Sill Heights—"Modify 49 CFR Part 229 to require compatible main frame sill height standards."

FRA provided initial response to NTSB in letter dated March 10, 1989, indicating essentially that FRA could not justify a uniform sill height regulation. Another update provided by FRA on May 21, 1990 requested this recommendation be classified as "Open—Acceptable Action."

NTSB advised in letter dated March 4, 1991 that their Safety Recommendation R–88–20 addresses Federal regulations to require compatible mainframe sill height standards. This safety recommendation, as well as related outstanding safety recommendations, will be discussed in a separate letter concerning locomotive crashworthiness.

FRA provided response to NTSB' Chairman Hall in letter dated October 10, 1997. FRA indicated the issue of locomotive crashworthiness had been referred to the RSAC for consideration. A Locomotive Crew Safety Planning Group has been established (with NTSB representation), and met on January 23, 1997, to formulate recommendations to be forwarded to the full RSAC regarding appropriate future actions with respect to improvements in locomotive crashworthiness, to specifically include methods to eliminate override in the event of collision. Given that current research and relevant accident history clearly indicate that compatible sill heights alone have not demonstrated the ability to provide additional crashworthiness protection in the event of a collision, and acknowledging the proactive approach being pursued by FRA in conjunction with the railroad industry through the RSAC proc-

ess, FRA requested that NTSB classify Safety Recommendation R–88–20 as "Closed—Acceptable Action."

Current Status.—NTSB has not as yet responded to FRA's October 10, 1997 reply. NTSB's current classification of this recommendation is "Open—Unacceptable Action."

R–89–48. Closure fittings on tank cars—"Amending Title 49 CFR Part 179 to require that closure fittings on hazardous materials rail tanks be designed to maintain their integrity in accidents that are typically survivable by the rail tank.

FRA advised NTSB on March 25, 1997, that the Agency is continuing to work with the AAR Tank Car Committee to incorporate new standards to improve the design and integrity of hinged manways and other fittings and closures on tank cars. AAR adopted new standards in January 1996 to enhance the design and integrity of manway covers on nonpressure tank cars.

Current Status.—FRA provided written update in letter dated March 25, 1997. NTSB advised on August 15, 1997, that standards that address the integrity and design of safety relief valves and all other closure fittings on the tank car are also needed. While recognizing FRA is continuing to work with AAR's Tank Car Committee, NTSB is concerned that nearly 8 years after issuing the recommendation, only standards for manways have been adopted. NTSB encourages FRA to work expeditiously with AAR to complete and implement similar standards for safety relief valves and other fittings. Pending FRA's response, NTSB has classified this Safety Recommendation as "Open—Acceptable Response."

R–89–51. Shelf Couplers on Locomotives—"Promulgate regulations requiring that locomotives be equipped with shelf couplers compatible in strength with the main frame sill of the locomotive."

FRA responded March 30, 1990, indicating FRA does not contemplate promulgating regulations requiring that locomotives be equipped with shelf couplers. Supporting data is not available to justify a rulemaking. In addition, all locomotives built after August 1, 1990, must be equipped with anticlimb devices, on short hood ends, which eliminates the need for shelf couplers. FRA requested NTSB consider this recommendation as "Closed—Acceptable Alternative Action."

FRA provided response to NTSB' Chairman Hall in letter dated October 10, 1997. In essence, indicated FRA has referred the issue of locomotive crashworthiness to the RSAC for consideration. A Locomotive Crew Safety Planning Group has been established (with NTSB representation), and met on January 23, 1997, to formulate recommendations to be forwarded to the full RSAC regarding appropriate future actions with respect to improvements in locomotive crashworthiness, to specifically include methods to eliminate override in the event of collision. FRA requested that Safety Recommendation R–89–51 be classified as "Open—Acceptable Response" as the specific issue of shelf couplers on locomotives will be addressed in this working group.

Current Status.—This project is continuing to be progressed by the Locomotive Crashworthiness Working Group of RSAC, with the last meeting conducted in February 1998. NTSB has not as yet responded to FRA's October 10, 1997 reply. NTSB's current classification of this recommendation is "Open—Initial Response."

R–89–81. Brake Tests (Cold Weather)—"Amend the Road Train and Intermediate Terminal Train Air Brake Tests, 49 CFR 232.13, to require additional testing of a train airbrake system when operating in extreme cold weather, especially when the feed valve setting is changed and the train will be operated in mountain grade territory."

FRA responded to NTSB May 10, 1991, indicating that during the current calendar year, an Advance Notice of Proposed Rulemaking (ANPRM) would be issued for general revision of the Power Brake regulations. NTSB responded under date of June 24, 1991, indicating the Board was pleased with FRA's intention to issue an ANPRM for the general revision of the Power Brake Regulation. NTSB then classified this Safety Recommendation as "Open—Acceptable Response."

Because of considerable opposition from rail management and rail labor to provisions within the ANPRM, this issue of revision of the Power Brake regulations was tasked to the Railway Safety Advisory Committee. After much discussion, consensus could not be reached in that forum. FRA has withdrawn this task from the RSAC, and will formulate a Notice of Proposed Rules on Power Brake regulation revision.

Current Status.—NTSB currently has this recommendation classified as "Open—Acceptable Response."

R–90–23. Dynamic Brakes—Indicator—"Study, in conjunction with the AAR, the feasibility of developing a positive method to indicate to the operating engineer in the cab of the controlling locomotive unit the condition of the dynamic brakes on all units in the train."

FRA provided initial response to NTSB in letter dated November 30, 1990, indicating FRA has not formulated a plan to study the feasibility of developing a positive method to indicate to the operating engineer the condition of the dynamic brake on all locomotives in a consist of locomotives hauling a train. The reason is that such a study will be contingent upon FRA's decision related to Safety Recommendation R–90–24. NTSB replied under date of February 21, 1991, that it views its Safety Recommendations as separate issues and FRA should not tie them together. NTSB classified as "Open—Unacceptable Response."

FRA responded to NTSB in letter dated May 10, 1991, indicating the ANPRM on the Power Brake Regulation would also address Safety Recommendations R–90–23 and R–90–24.

Later, because of considerable opposition from rail management and rail labor to provisions within the ANPRM, this issue of revision of the Power Brake regulations was tasked to the Railway Safety Advisory Committee. After much discussion, consensus could not be reached in that forum. FRA has withdrawn this task from the RSAC, and will formulate a Notice of Proposed Rules on Power Brake regulation revision.

Current Status.—NTSB currently has this recommendation classified as "Open—Unacceptable Response."

R–90–24. Dynamic Brakes—Functional—"Revise regulations to require that if a locomotive unit is equipped with dynamic brakes that the dynamic brakes function."

FRA provided initial response to NTSB in letter dated November 30, 1990, indicating FRA is reviewing the issue of regulations pertaining to dynamic brakes on locomotives. Upon completion of our action, we will provide a definitive response to their recommendation. NTSB replied under date of February 21, 1991, indicating essentially that FRA did not provide any indication of what action, if any, is contemplated. NTSB classified this Safety Recommendation as "Open—Await Response."

FRA responded to NTSB in letter dated May 10, 1991, indicating the ANPRM on the Power Brake Regulation would also address Safety Recommendations R–90–23 and R–90–24.

Later, because of considerable opposition from rail management and rail labor to provisions within the ANPRM, this issue of revision of the Power Brake regulations was tasked to the Railway Safety Advisory Committee. After much discussion, consensus could not be reached in that forum. FRA has withdrawn this task from the RSAC, and will formulate a Notice of Proposed Rules on Power Brake regulation revision.

Current Status.—NTSB currently has this recommendation classified as "Open-Await Response."

R–91–51. Special Use Equipment-Inspection—"Require that carriers inspect special-use rail equipment, such as heavy-capacity flatcars, before those cars are offered for service and thereafter at a frequency to be determined by FRA."

FRA provided initial response in letter dated June 22, 1993. FRA indicated that thorough inspection requirements for all freight cars are contained in 49 CFR Part 215. This regulation requires that at each location where a freight car is placed in a train, the freight car shall be inspected before the train departs. However, a full inspection is not required under circumstances where only train crews are on duty for this purpose. We agree that there is merit to the proposal that qualified mechanical personnel inspect special-use cars, particularly when they are offered under load. We will include this concept in our next review of the Freight Car Safety Standards. However, given our extremely heavy regulatory workload, we are not able to project when that review can commence.

NTSB provided response in letter dated August 23, 1993. NTSB indicated that the Board notes that FRA agrees that the recommendation has merit and plans to include the issue in its next review of the Freight Car Safety Standards.

Current Status.—Pending the results of this review, NTSB classified this Safety Recommendation as "Open—Acceptable Response."

R–91–52. Special Use Equipment-Derailment Notice—"Require that carriers immediately notify the shipper and car owner about a derailment involving a special-use, heavy-capacity flatcar."

FRA provided initial response in letter dated June 22, 1993. FRA indicated we agree that car owners should have a good record of derailments, damage and repairs to these cars. This is an operating procedures matter that can best be addressed by the AAR which received a similar recommendation. We anticipate the AAR's response will resolve this recommendation. Should that not be the case, we will include this issue in the regulatory review referred to above.

NTSB provided response in letter dated August 23, 1993. NTSB indicated they were pleased that FRA agrees that owners of special-use, heavy-capacity flatcars

should be informed of derailments and that the AAR may be able to address the intent of this recommendation.

Current Status.—NTSB has classified this recommendation as "Open—Acceptable Response."

R–91–53. Special Use Equipment—Reporting—"Require that carriers report derailments involving special-use, heavy-capacity flatcars to the AAR, which will maintain a record of the derailment history of all such cars."

FRA provided initial response in letter dated June 22, 1993. FRA indicated this recommendation is similar to the previous one, in that it deals with AAR reporting procedures. FRA indicated it agrees with the recommendation and looks to the AAR for resolution and the provision of appropriate information to the Board. Again, should the AAR fail to act, we would include this issue in the regulatory review process.

NTSB provided response in letter dated August 23, 1993. NTSB indicated the Board understands that FRA agrees with the intent of this recommendation and expects the AAR to act on this matter.

Current Status.—Pending further action by the AAR or FRA, the Board has classified this Safety Recommendation as "Open—Acceptable Response."

R–91–54. Special Use Equipment—Hazardous Materials—"Determine, using owner' records of derailments for special-use, heavy-capacity flatcars under load, whether handling of such equipment should be restricted in trains that include tank cars or hopper cars transporting hazardous materials and cars carrying shipments of Class A and B explosives."

FRA provided initial response in letter dated June 22, 1993. FRA indicated that the issue of placement of hazardous materials cars is being addressed in an Advanced Notice of Proposed Rulemaking to be issued under Docket HM–201A by the Research and Special Programs Administration. The special-use, heavy-capacity flatcar issue will be considered in this proceeding.

NTSB provided a response in letter dated August 23, 1993. NTSB indicated the Board notes this issue will be considered in proposed rulemaking by RSPA. NTSB asked that FRA keep them informed of actions in determining whether these cars should be restricted.

Current Status.—NTSB classified this Safety Recommendation as "Open—Acceptable Response."

R–91–65. Review Track Standards—"Conduct a review of track safety standards to include as a minimum an evaluation of procedures associated with maintaining and installing continuous welded rail and its attendant structure."

FRA provided initial response to NTSB in letter dated May 18, 1992. FRA advised it plans to initiate a regulatory proceeding that will specifically address the problem of track stability when continuous welded rail is incorporated as part of the track structure.

NTSB provided response in letter dated July 8, 1992, indicating that pending satisfactory completion of the evaluation, NTSB has classified this Safety Recommendation as "Open—Acceptable Response," and asked to be kept informed of FRA's progress.

NPRM on revised 49 CFR Part 213, Track Safety Standards, published in Federal Register July 3, 1997. The comment period is closed on revisions to Track

Safety Standards, and FRA is preparing the final rule. Likely issuance expected in mid-1998. Section 213.343 addresses "Continuous welded rail (CWR)", essentially that each track owner with track constructed of CWR shall have in effect written procedures which address the installation, adjustment, maintenance and inspection of CWR, and a training program for the application of those procedures, which shall be submitted to FRA within six months following the effective date of the final rule."

Current Status.—NTSB has classified this Safety Recommendation as "Open—Acceptable Response."

R–91–66. CWR Standards—"Continue funding for on-going research development and prototype testing for a reliable device that can be used to determine actual longitudinal rail stress and predict when excessive longitudinal rail stress will occur, and upon adoption and implementation of such a device, assist railroads to implement and/or modify continuous welded rail standards to more effectively prevent track buckling."

FRA provided initial response to NTSB in letter dated May 18, 1992. FRA advise we would continue to provide funding for on-going research development and prototype testing for a reliable device that can be used to determine actual longitudinal rail stress and predict when it will occur, and upon adoption and implementation of such a device, assist railroads to implement and/or modify continuous welded rail standards to more effectively prevent track buckling.

NTSB provided response in letter dated July 8, 1992, indicating the Board was pleased at FRA's action to pledge funds to continued research as recommended, and asked to be kept informed of FRA's progress and resulting developments.

FRA's Research & Development received an unsolicited proposal from the National Institute of Standards and Technology, concerning Electro-Magnetic Acoustic Testing (EMAT), and is presently evaluating this proposal.

Current Status.—Based on FRA's response, NTSB has classified this Safety Recommendation as "Open—Acceptable Response."

R–92–10. Research Locomotive Fuel Tanks—"Conduct, in conjunction with the AAR, General Electric, and the Electro-Motive Division of General Motors, research to determine if the locomotive fuel tank car be improved to withstand forces encountered in the more severe locomotive derailment accidents or if fuel containment can be improved to reduce the rate of fuel leakage and fuel ignition. Consideration should be given to crash or simulated testing and evaluation of recent and proposed design modifications to the locomotive fuel tank, including increasing the structural strength of end and side wall plates, raising the tank higher above the rail, and using internal tank bladders and foam inserts."

FRA provided its initial response in letter dated February 10, 1993. FRA indicated its concurrence with NTSB's observation that the proximity of locomotive fuel tank's position to the rail places them in a vulnerable position during an accident. FRA indicated further it had scheduled a meeting for February 2, 1993, with the AAR, GE and GM to discuss their willingness to co-operate in a joint locomotive fuel tank research program. Due to funding constraints within these organizations, cooperative research or analysis may be limited in scope.

NTSB responded in letter dated March 23, 1993. NTSB requested more details concerning the meeting held on February 2, 1993. NTSB again wrote to FRA in letter dated October 17, 1995, indicating the Board is aware that AAR recently adopted a recommended practice to provide basic performance requirements for locomotive fuel tanks on four- and six-axle diesel electric locomotives, built after July 1, 1995. The Board has concerns about locomotives built before that date that will remain in service for several years. The Board concluded this was a positive step. NTSB requested FRA provide an update on its efforts in this area. Although FRA's report on locomotive crashworthiness released in June 1995 addresses equipment to deter post collision entry of flammable liquids into the operation compartment, it does not address specifically fuel tank integrity. Pending a further response on this issue, NTSB classified this Safety Recommendation as "Open—Acceptable Response."

FRA provided update in letter dated December 18, 1995. FRA indicated it is continuing to collect and evaluate accident investigation data on fuel tank damage, fuel spills, etc., and will maintain close contact with railroads conducting tests of alternate fueled locomotives and fuel tenders. FRA indicated since we have completed our work, requested this item be closed.

FRA provided response to NTSB' Chairman Hall in letter dated October 10, 1997. In essence, indicated FRA has referred the important issue to the RSAC for consideration. A Locomotive Crew Safety Planning Group has been established (with NTSB representation), and met on January 23, 1997 to formulate recommendations to be forwarded to the full RSAC regarding appropriate future actions with respect to improvement in fuel tank design. Given the proactive approach being pursued by FRA in conjunction with the railroad industry, along with the continuing efforts of the industry detailed earlier, FRA requested that NTSB classify Safety Recommendation R–92–10 as "Closed—Acceptable Action."

Current Status.—This project is continuing to be progressed by the Locomotive Crashworthiness Working Group of RSAC, with the last meeting conducted in February 1998. NTSB has not as yet responded to FRA's October 10, 1997 letter. NTSB's current classification is "Open—Acceptable Action."

R–92–22. Develop Tank Car Testing Requirements—"Develop and promulgate, with the Research and Special Programs Administration, requirements for the periodic testing and inspection of rail tank cars that help to ensure the detection of cracks before they propagate to critical length by establishing inspection intervals that are based on the defect size detectable by the inspection method muse, the stress level, and the crack propagation characteristics of the structural component (requirements based on a damage-tolerance approach)."

FRA provided NTSB written update of progress in letter dated March 25, 1997. NTSB advised in letter dated August 13, 1997, that they recognize that regulations published under docket HM–201 on September 21, 1995, permit as an option inspection intervals and procedures based on a damage-tolerance fatigue evaluation. However, NTSB indicated the required inspection intervals established under these reg-

ulations are based on average mileage rates, rather than on a damage-tolerance approach.

Current Status.—The Board noted that since FRA is continuing to work with AAR, tank car manufacturers, and other industry groups to develop an inspection and testing program based on damage-tolerance principles, and because progress continues to be made, this Safety Recommendation remains classified as "Open—Acceptable Action."

R–93–12. Dates for ATCS—"In conjunction with the AAR and the Railway Progress Institute, establish a firm timetable that includes, at a minimum, dates for final development of required Advanced Train Control System hardware, dates for implementation of a fully developed Advanced Train Control System, and a commitment to a date for having the Advanced Train Control System ready for installation on the general railroad system."

On August 24, 1994, FRA provided update to NTSB indicating the "Rail Safety Enforcement and Review Act" of 1992 required FRA to report to Congress on the prospects of installation of a positive train control (PTC) system to prevent train collisions. FRA forwarded copy to Congress on July 8, 1994, and also provided one to NTSB. FRA indicated in its update to NTSB that the report addresses all the NTSB recommendations on a train control system, and provides for a time line for deployment on the system on high priority locations. FRA requested this recommendation be closed.

NTSB responded under date of September 18, 1995, in part reiterating the need for PCS following the August 30, 1991 collision at Ledger, MT., and the June 8, 1994 collision at Thedford, NE., both on BN.

FRA has since advised that this recommendation is a part of the task that has been assigned to the Positive Train Control Working Group within the Railroad Safety Advisory Committee (RSAC).

Current Status.—NTSB's current classification of this Safety Recommendation is "Open—Acceptable Response."

R–93–16. Passenger Train Brake Inspections—"Amend the power brake regulations, 49 CFR 232.12, to provide appropriate guidelines for inspecting brake equipment on modern passenger cars."

FRA provided initial response in letter dated September 16, 1993. FRA indicated that in response to the "Rail Safety Enforcement and Review Act,", Public Law 102–365 (September 3, 1992) FRA is currently reviewing and rewriting the Power Brake regulations, and that Safety Recommendation R–93–16 will be considered during this procedure.

NTSB responded in letter dated November 12, 1993, indicating the Board is pleased that FRA will consider the recommendation during the rewriting of the power brake regulation.

Subsequently, the issue of passenger train brake inspections was considered in the rulemaking for Passenger Equipment Safety Standards. This recommendation was submitted to the Railroad Safety Advisory Committee (RSAC), and was tasked to the Passenger Equipment Safety Standards Working Group. As a result of these efforts, FRA published in the Federal Register on September 23, 1997, an NPRM for Passenger Equipment Safety Standards which addresses this recommendation.

Current Status.—The comment period on the NPRM ended November 24, 1997, and FRA intends to conduct hearings before issuing the final rule. Until the new regulations are published, NTSB classified this Safety Recommendation as "Open—Acceptable Response."

R–93–24. Passenger Car Corner Posts—"In cooperation with the Federal Transit Administration and the American Public Transit Association, study the feasibility of providing car body corner post structures on all self-propelled passenger cars and control cab locomotives to afford occupant protection during corner collisions. If feasible, amend the locomotive safety standards accordingly."

FRA provided initial response in letter dated March 3, 1994. FRA indicated it shares NTSB's concern about the adequacy of the corner post structure on self-propelled passenger cars. FRA's concern extends beyond the corner post structure to the overall crashworthiness of this equipment. FRA indicated Section 10 of the Rail Safety Enforcement and Review Act of 1992 requires FRA to conduct extensive research and analysis on the crashworthiness of locomotive cabs. The approach FRA is taking is to consider self-propelled and control cab passenger equipment to be locomotives. FRA held a public meeting on June 21, 1993, to solicit information and comments from the industry, to include FTA and APTA. Another meeting was held on February 3, 1994, and FRA will keep NTSB informed.

NTSB provided written response on April 22, 1994. NTSB indicated it was pleased to learn that FRA shares the Board's concern about the adequacy of corner post structure, and notes FRA's willingness to cooperate with FTA and APTA.

Subsequently, this recommendation was submitted to the Railroad Safety Advisory Committee (RSAC), and was tasked to the Passenger Equipment Safety Standards Working Group. As a result of these efforts, FRA published in the Federal Register on September 23, 1997, an NPRM for Passenger Equipment Safety Standards which addresses this recommendation.

Current Status.—The comment period on the NPRM ended November 24, 1997, and FRA intends to conduct hearings before issuing the final rule. NTSB presently has this recommendation classified as "Open—Acceptable Response."

R–94–13. Train Control—Identify Benefits—"Identify and evaluate all potential safety and business benefits of the positive train control system currently proposed for the northwest region of the United States, and, consider the value of these benefits in your overall assessment of the system."

FRA's Press Release issued August 21, 1995, announced a grant of $750,000 to the Washington State Department of Transportation to help develop high-speed train control technology. As a part of this project, General Electric-Harris-Railway Electronics will develop a computer model to simulate the dense northwest U.S. rail corridor. The model will be used as an assessment tool to determine potential costs and benefits of using positive train separation and the effect of adding high-speed passenger traffic on existing corridor freight traffic flow.

NTSB responded November 13, 1995, indicating it was pleased to learn of this computer model to be used as a tool to determine potential costs and benefits of using PTS. NTSB indicated the computer model satisfies the Board that their recommended action is underway, and asked FRA to keep the Board informed of the progress on the computer model.

Current Status.—NTSB's current classification of this Safety Recommendation is "Open—Acceptable Response."

R–94–14. Train Control—Cost Benefit Analysis—"Identify and evaluate all of the potential benefits of positive train control separation and include them in any cost benefit analysis conducted on positive train separation control systems."

FRA advised NTSB on March 24, 1995, that it would be FRA's opinion that we should not become the arbiter of Positive Train Control business benefits across the national system. As was explained in the Report to Congress (pages 61–63) the business benefits may vary from railroad to railroad. The analysis of value of any investment must be undertaken within the context of the prevailing business strategy.

NTSB responded November 13, 1995, that once the computer model referenced in 94–13 has been developed, the Board expects FRA and AAR to evaluate the potential benefits, and asked that NTSB be kept informed on development progress of the model.

Current Status.—NTSB has classified this Safety Recommendation as "Open—Acceptable Response."

R–95–01. Passenger Car Wheels—"Prohibit the replacement of any tread-braked passenger railroad car with rim-stamped, straight-plate wheels."

FRA provided its initial reply in letter dated June 1, 1995. FRA indicated its agreement with NTSB that rim-stamping of straight-plate wheels can lead to catastrophic failure of the wheel when subjected to head from tread braking. Rim-stamping was banned by AAR in 1978, and none are being used by Amtrak or commuter railroads. Those remaining are a limited number of tourist railroads. FRA indicated it did not view this as a national safety threat, and it will be completely eliminated in the years ahead. In addition, Public Law 103–440 directs the Secretary of Transportation to prescribe minimum standards for railroad passenger cars. FRA is preparing an ANPRM on Rail Passenger Equipment Regulations. This recommendation will be considered during these proceedings. FRA requested this Safety Recommendation be closed.

NTSB provided response in letter dated August 10, 1995. NTSB indicated pending completion of rulemaking pertaining to the subject wheels, NTSB has classified this Safety Recommendation as "Open-Acceptable Response."

Current Status.—Provisions in NPRM, "Passenger Equipment Safety Standards", Title 49 CFR Part 216, published in Federal Register, Tuesday, September 23, 1997, indicate: (a) On or after 1–1–98, no railroad shall place in service any vehicle equipped with a rim-stamped straight-plate wheel, except for a private car, and, (b) A rim-stamped straight-plate wheel shall not be used as a replacement wheel on a private car operated in a passenger train. Comment period ended November 24, 1997. FRA intends to hold public hearings prior to issuance of final rule. NTSB's current classification is "Open Acceptable Response."

R–95–09. Tank Car Interiors—"Evaluate, with the assistance of the

Railway Progress Institute and the AAR, the failure rate and the mode of failure of bowl-shaped sumps and education pipe bracing systems in tank cars transporting hazardous materials, and based on the results of this evaluation, require repairs or

modifications to prevent mechanical damage to coatings or linings and subsequently to the tanks from misaligned components of the reduction pipe systems in tank cars.''

Current Status.—Based upon FRA's March 25, 1997 written update to NTSB, the Board responded under date of August 13, 1997. NTSB indicated they note FRA is working with RPI and AAR and that a task group evaluating the performance of the bowl-shaped sumps is scheduled to present its formal proposal to the committee by July 1997. Because of this progress, Safety Recommendation R–95–9 remains classified as ''Open—Acceptable Response.''

R–95–21. Trailer on Flat Car (TOFC)/Container on Flat Car (COFC)—There were seven parts to this recommendations: ''(1) Establish a uniform minimum set of training requirements; (2) Establishment of written standard operating procedures; (3) Conduct of post-loading, pre-departure inspections of all loaded TOFC/COFC equipment; (4) Initiate effective TOFC/COFC securement system preventative maintenance intervals; (5) Discontinue the practice with flat cars with defective hitches of dropping the defective hitch and loading the car with container; (6) Review of design standards for trailers and containers to be loaded on TOFC/COFC equipment; and, (7) Determine and promote ''Best Practices'' for TOFC/COFC loading safety.''

FRA provided initial reply to NTSB in letter dated May 4, 1995, indicating its intention to assess voluntary actions taken by the railroad industry during the last quarter of 1995.

NTSB provided response in letter dated August 1, 1995, indicating the Board is placed to note FRA intends to assess voluntary actions taken by the railroad industry during the last quarter of 1995.

FRA has since advised the Board that this follow-up effort continues at various locations within the Nation.

Current Status.—The Board indicated that pending results of that follow-up survey, NTSB has classified this Safety Recommendation as ''Open—Acceptable Response.''

R–96–07. Commuter-Rail Emergency Exits—''Inspect all commuter rail equipment to determine whether it has: (1) easily accessible interior emergency quick-release mechanisms adjacent to exterior passageway doors; (2) removable windows or kick panels in interior and exterior passageway doors; and, (3) prominently displayed retro reflective signage marking all interior and exterior emergency exists. If any commuter equipment lacks one or more of these features, take appropriate emergency measures to ensure corrective action until these measures are incorporated into minimum passenger car safety standards.''

FRA provided initial response to NTSB in letter dated June 6, 1996. FRA indicated it had performed such inspections and provided detailed results. Further, FRA indicated it had convened a joint meeting of the RSAC Working Groups (Passenger Equipment Safety Standards and the Passenger Emergency Preparedness groups) on March 26, 1996. The remainder of FRA's response addressed contemplated action on each of the above three items.

NTSB responded in letter dated March 12, 1997. NTSB indicated the Board had classified the first part of this recommendation, i.e., (1) easily accessible interior emergency quick-release mechanisms adjacent to exterior passageway doors, as ''Open—Acceptable Response'', and asked FRA to provide more specific information. The Board classified the second part of the recommendation, i.e., (2) removable windows or kick panels in interior and exterior passageway doors, as ''Open—Acceptable Response'', and asked that FRA keep the Board informed of progress in this area. The Board indicated its agreement with FRA that it might be better to mark emergency exits inside cars with luminescent, rather than retro reflective material. Consequently, the Board has classified the third part of this recommendation, i.e., (3) prominently displayed retro reflective signage marking all interior and exterior emergency exists, as ''Open—Acceptable Alternate Response.'' NTSB further advised FRA should develop and issue interim standard to the commuter rail industry as quickly as possible.

Current Status.—FRA published in the Federal Register on September 23, 1997, an NPRM for Passenger Equipment Safety Standards which addresses this recommendation. The comment period on the NPRM ended November 24, 1997, and FRA intends to conduct hearings before issuing the final rule. NTSB presently has this recommendation classified as ''Open—Acceptable Action.''

R–96–13. Research—Flat Rail Heads—''Conduct appropriate research and develop a data base that can be used to assess the risk posed by flattened rail heads.''

FRA advised NTSB on October 17, 1996, that FRA has requested the AAR, ASLRA and APTA to poll their members to determine frequency at which train derailments related to flattened head rails have occurred over the past several years. When these data are available, it will then be possible to judge the severity

of the problem. Additionally, a Working Group was created within the RSAC for the purpose of recommending specific revisions of the track safety standards, set up a team to derive model regulatory language to support rulemaking should that become necessary. FRA indicated we would advise NTSB further as our work progresses.

Current Status.—NPRM on revised 49 CFR Part 213, Track Safety Standards, published in Federal Register July 3, 1997. The comment period is closed on revisions to Track Safety Standards, and FRA is preparing the final rule. Likely issuance expected in early 1998. Based upon FRA's response, NTSB has classified this Safety Recommendation as "Open—Acceptable Response."

R–96–14. Regulation—Flat Rail Heads—"Develop guidelines, using the data compiled about the risk of flattened rail heads, for track inspectors to use in identifying flattened rail heads that may be hazardous to train operations and also regulations to ensure that corrective action is taken when such flattened rail head conditions have been identified."

FRA advised NTSB on October 17, 1996, that FRA has created a Working Group within the RSAC for the purpose of recommending specific revisions of the track safety standards, set up a team to derive model regulatory language to support rulemaking should that become necessary. FRA indicated we would advise NTSB further as our work progresses.

FRA issued NPRM on revised 49 CFR Part 213, Track Safety Standards, published in Federal Register July 3, 1997. The comment period is closed on revisions to Track Safety Standards, and FRA is preparing the final rule. Likely issuance expected in early 1998. Section 213.337, "Defective rails", contains new references to and definition of "flattened rails", and the specifications to indicate when to be considered as defective rail.

Current Status.—Based upon FRA's action and response, NTSB has classified this Safety Recommendation as "Open—Acceptable Response."

R–96–50. Grade Crossing Inventory—"Review and modify the existing parameters of the National Highway-Rail Crossing Inventory to ensure that it meets the needs of both railroad and highway users. Include, as a minimum, information on highway-rail grade crossings having preemptive or interconnected signals. Once modified, review and update the information annually."

FRA responded that this effort would be completed by June 1997, and requested this recommendation be closed.

Current Status.—NTSB responded August 6, 1997, indicating it was pleased to learn that FRA is modifying the inventory as requested by this recommendation and plans to finish by the middle of the year. Pending completion of this modification, NTSB classified this Safety Recommendation as "Open—Acceptable Response."

R–96–53. Steam Locomotives—Water Glass Column—"Update Title 49 CFR Part 230 to require that each operating steam locomotive have either a water column or a water glass in addition to the water glass and three gage cocks that are already required."

This issue was accepted by the RSAC as TASK No. 96–5. Task force of the Tourist & Historic Working Group held final meeting week of 5/19/97 and completed agreement on rule text. The full working group has reviewed the rule text, and efforts are being made to resolve remaining details so that NPRM can be presented to RSAC on 9/30/97.

FRA provided initial response to NTSB under date of July 8, 1997. In that response, it was indicated that FRA has tasked the Tourist and Historic Working Group (THWG) of the RSAC with the formal revision of the regulations contained in 49 CFR Part 230. The Steam Standards Task Force of the THWG will submit its recommendations for changes to 49 CFR Part 230 to THWG, which will either approve them and send them to RSAC, or return them to the Steam Standards Task Force for additional considerations. With respect to this specific NTSB recommendation, the Steam Standards Task Force expressed support for this recommendation.

Current Status.—NTSB responded under date of March 24, 1998, indicating the Board noted FRA's response proposes to revise 49 CFR Part 230 and require a steam locomotive to have a minimum of two sight glasses or a sight glass and a water column, and that if it has gage cocks, the gage cocks must be maintained. The Board has classified this Safety Recommendation as "Open—Acceptable Response."

R–96–54. Steam Locomotives—Water Treatment—"Require steam-locomotive operators to have a documented water-treatment program."

This issue was accepted by the full RSAC as TASK No. 96–5. Task force of the Tourist & Historic Working Group held final meeting week of 5/19/97 and completed agreement on rule text. The full working group reviewed the rule text, and efforts

were made to resolve remaining details so that NPRM could be presented to RSAC on 9/30/97.

FRA provided initial response to NTSB under date of July 8, 1997, indicating that FRA has tasked the Tourist and Historic Working Group (THWG) of the RSAC with the formal revision of the regulations contained in 49 CFR Part 230. The Steam Standards Task Force of the THWG will submit its recommendations for changes to 49 CFR Part 230 to THWG, which will either approve them and send them to RSAC, or return them to the Steam Standards Task Force for additional considerations. With respect to this specific NTSB recommendation, the Steam Standards Task Force did not expressed support for this recommendation.

Current Status.—NTSB responded under date of March 24, 1998, indicating the Board is disappointed that the FRA has rejected this recommendation. While mentioning some agreement with FRA's points, the Board asserts that a documented water treatment program does not necessarily have to be expensive, rigid, or burdensome. The intent of the recommendation is simply to ensure that steam locomotive operators document their water-treatment activities. The Board also believes that an FRA regulation is the most effective way to ensure that water-treatment is documented. Pending further discussion, NTSB has classified this Safety Recommendation as "Open—Unacceptable Response."

R–96–55. Steam Locomotives—Basic Responsibilities—"Describe basic responsibilities and procedures for functions required by regulation, such as blowing down the water glass and washing the boiler."

This issue was accepted by the full RSAC on as TASK No. 96–5. Task force of the Tourist & Historic Working Group held final meeting week of 5/19/97 and completed agreement on rule text. The full working group has reviewed the rule text, and efforts are being made to resolve remaining details so that NPRM can be presented to RSAC on 9/30/97.

FRA provided initial response to NTSB under date of July 8, 1997. In that response, it was indicated that FRA has tasked the Tourist and Historic Working Group (THWG) of the RSAC with the formal revision of the regulations contained in 49 CFR Part 230. The Steam Standards Task Force of the THWG will submit its recommendations for changes to 49 CFR Part 230 to THWG, which will either approve them and send them to RSAC, or return them to the Steam Standards Task Force for additional considerations. With respect to this specific NTSB recommendation, the Steam Standards Task Force did express support for this recommendation.

Current Status.—NTSB responded under date of March 24, 1998, indicating the Board was pleased to learn that the FRA intends to clearly delineate basic responsibilities and procedures in the revised CFR. The Board also noted that the Volpe Center has been tasked to produce a training video that will be given to each steam locomotive operator. Pending revision of the applicable regulation, the Board has classified this Safety Recommendation as "Open—Acceptable Response."

R–96–56. Hours of Service—Tourist Railroads—"In cooperation with Tourist Railway Association, Inc., promote awareness of and compliance with the Hours of Service Act."

FRA provided initial response to NTSB under date of July 8, 1997. In that response, it was indicated that FRA has tasked the Tourist and Historic Working Group (THWG) of the RSAC with the formal revision of the regulations contained in 49 CFR Part 230. The Steam Standards Task Force of the THWG will submit its recommendations for changes to 49 CFR Part 230 to THWG, which will either approve them and send them to RSAC, or return them to the Steam Standards Task Force for additional considerations. With respect to this specific NTSB recommendation. The Steam Standards Task Force did expressed support for this recommendation, and support for FRA's working in tandem with the Tourist Railway Association to promote awareness of the Hours of Service Act.

Current Status.—NTSB responded under date of March 24, 1998, indicating the Board was pleased to learn that industry members support FRA's involvement in this effort. Pending an opportunity for the Board to evaluate FRA's response to this recommendation, NTSB has classified this recommendation as "Open—Acceptable Response."

R–96–57. Steam Locomotives—Crown Stay Feature—"Explore the feasibility of requiring a progressive crown-stay feature in steam locomotives."

This issue was accepted by the full RSAC as TASK No. 96–5. Task force of the Tourist & Historic Working Group held final meeting week of 5/19/97 and completed agreement on rule text. The full working group has reviewed the rule text, and efforts are being made to resolve remaining details so that NPRM can be presented to RSAC on 9/30/97.

FRA provided initial response to NTSB under date of July 8, 1997. In that response, it was indicated that FRA has tasked the Tourist and Historic Working

Group (THWG) of the RSAC with the formal revision of the regulations contained in 49 CFR Part 230. The Steam Standards Task Force of the THWG will submit its recommendations for changes to 49 CFR Part 230 to THWG, which will either approve them and send them to RSAC, or return them to the Steam Standards Task Force for additional considerations.

Current Status.—NTSB responded under date of March 24, 1998, indicating the Board was disappointed that the FRA will not address this issue in the CFR revision. Pending future work on this recommendation, NTSB has classified this recommendation as "Open—Unacceptable Response."

R–96–58. Steam Locomotives—Certification of Operators—"Develop certification criteria and require that steam-locomotive operators and maintenance personnel be periodically certified to operate and/or maintain a steam locomotive."

This issue was accepted by the full RSAC as TASK No. 96–5. Task force of the Tourist & Historic Working Group held final meeting week of 5/19/97 and completed agreement on rule text. The full working group has reviewed the rule text, and efforts are being made to resolve remaining details so that NPRM can be presented to RSAC on 9/30/97.

FRA provided initial response to NTSB under date of July 8, 1997. In that response, it was indicated that FRA has tasked the Tourist and Historic Working Group (THWG) of the RSAC with the formal revision of the regulations contained in 49 CFR Part 230. The Steam Standards Task Force of the THWG will submit its recommendations for changes to 49 CFR Part 230 to THWG, which will either approve them and send them to RSAC, or return them to the Steam Standards Task Force for additional considerations. With respect to this specific NTSB recommendation, the Steam Standards Task Force expressed support for this recommendation and are investigating the feasibility of developing certification criteria for several classes of employees or volunteers involved in assessing job and task requirements.

Current Status.—NTSB responded under date of March 24, 1998, indicating the Board is very concerned that FRA prefers a voluntary certification program. The Board indicated they believe the FRA should develop certification criteria that apply to the steam-locomotive industry and simply require that steam locomotive operators and maintenance personnel be certified at a level that ensures competence and safety. Therefore, the Safety Board believes that certification should cover all steam locomotive engineers, irrespective of location or connections. Pending a review of the proposed certification program, the NTSB classified this recommendation as "Open—Unacceptable Response."

R–96–59. Steam Locomotives—Modern Techniques. "FRA, in cooperation with the National Board of Boiler and Pressure Vessel Inspectors (NBBPVI) and TRAIN should: Update 49 CFR Part 230 to take advantage of accepted practical modern boiler-inspection techniques and technologies, to minimize interpretation based on empirical experience, and to maximize the use of objective measurable standards."

This issue was accepted by the full RSAC as TASK No. 96–5. Task force of the Tourist & Historic Working Group held final meeting week of 5/19/97 and completed agreement on rule text. The full working group has reviewed the rule text, and efforts are being made to resolve remaining details so that NPRM can be presented to RSAC on 9/30/97.

FRA provided initial response to NTSB under date of July 8, 1997. In that response, it was indicated that FRA has tasked the Tourist and Historic Working Group (THWG) of the RSAC with the formal revision of the regulations contained in 49 CFR Part 230. The Steam Standards Task Force of the THWG will submit its recommendations for changes to 49 CFR Part 230 to THWG, which will either approve them and send them to RSAC, or return them to the Steam Standards Task Force for additional considerations. With respect to this specific NTSB recommendation, the Steam Standards Task Force expressed support for this recommendation, and are accomplishing this through its partnership with FRA on the RSAC/THWG task force.

Current Status.—NTSB responded under date of March 24, 1998, indicating the Board was pleased to learn that the industry supports this recommendation. NTSB has classified this recommendation as "Open—Acceptable Response."

R–96–70. Event Recorder Testing—"Revise 49 CFR 229.25(e)(2) to require that event recorders, including microprocessor-based event recorders that are equipped with a self-test function, be tested during the quarterly inspections of the locomotive in such a manner that the entire event recording system, including sensors, transducers, and wiring, is evaluated. Such testing should include, at a minimum, a review of the data recorded during actual operation of the locomotive to verify parameter functionality as well as cycling all required recording parameters and determining the full range of each parameter by reading out recorded data."

FRA responded to NTSB under date of August 15, 1997, indicating this recommendation has been referred to the RSAC committee for handling.

Current Status.—NTSB responded September 30, 1997, indicating the Board agrees that the RSAC may develop acceptable event recorder crashworthiness standards, other technical standards and long-term policy. Therefore, NTSB classified this recommendation as "Open—Acceptable Response."

R–96–71. Event Recorder Inspections—"Develop and implement a program that specifically addresses carrier compliance with 49 CFR 229.25(e)(5)."

FRA responded to NTSB under date of August 15, 1997, indicating this recommendation has been referred to the RSAC committee for handling.

Current Status.—NTSB responded on September 30, 1997, indicating that as a minimum, the FRA should require that all event recorders (including microprocessor-based, self-testing recorders) be read out during the quarterly inspection to verify their functionality, until the RSAC can develop detailed inspection procedures for evaluating the entire recording system. The need to properly inspect, test and maintain the entire event recording system is an ongoing requirement. Therefore, NTSB classified this recommendation as "Open—Unacceptable Response."

R–96–72. Event Recorder Inspection Form—"Revise your form F6180–49A to include event recorders in the other items to be inspected section on the form."

FRA responded to NTSB under date of August 15, 1997, indicating this recommendation has been referred to the RSAC committee for handling.

Current Status.—NTSB responded on September 30, 1997, indicating the Board was disappointed with FRA's decision to refer the safety recommendation to a working group of RSAC. NTSB stated that because recorder inspections are now required, it seems logical to list the recorder on the form as an item to be inspected. The form was last revised in 1985, and the requirement that event recording be inspection during a locomotive's quarterly inspection went into effect in 1995. Until the FRA has taken the recommended action, NTSB classified this recommendation as "Open—Unacceptable Response."

R–96–73. Event Recorder Lead Locomotive—"Inform the industry that the placement of event recorders other than in the lead locomotive will not record the required data as though the event recorders were in the lead locomotive, and ensure compliance with 49 CFR 229.135(a)."

FRA responded to NTSB under date of August 15, 1997, indicating this recommendation has been referred to the RSAC committee for handling.

Current Status.—NTSB responded on September 30, 1997, indicating NTSB's position that this recommendation does not require that the RSAC participate in the process. NTSB indicated that informing the industry is the responsibility of the FRA, not the RSAC. Until the FRA has taken the recommended action, the Board classified this recommendation as "Open—Unacceptable Response."

R–97–01. Color Vision Testing—Engineers—"Revise the current color vision testing requirements for locomotive engineers to specify, based on expert guidance, the test to be used, testing procedures, scoring criteria, and qualification standards."

This issue was accepted by the full RSAC on 10/31/96 as TASK No. 96–6. First working group meeting held 1/7 thru 1/9, 1997. Meeting to review NPRM language scheduled 10/7/97. Expected consensus approval and submission to full RSAC by 10/15/97.

FRA advised NTSB that a working group within RSAC is developing a notice of proposed rulemaking (NPRM) to revise the locomotive engineer certification regulation to address this recommendation.

Current Status.—NTSB advised October 9, 1997, pending a successful rulemaking in response to this recommendation, this Safety Recommendation has been classified as "Open—Acceptable Response."

R–97–02. Engineer Certification Requirements—"Require as a condition of certification that no person may act as an engineer with a known medical deficiency, or increase of a known medical deficiency, that would make that person unable to meet medical certification requirements."

This issue was accepted by the full RSAC on 10/31/96 as TASK No. 96–6. First working group meeting held 1/7 thru 1/9, 1997. Meeting to review NPRM language scheduled 10/7/97. Expect consensus approval and submission to full RSAC by 10/15/97.

FRA advised NTSB that a working group within RSAC is developing a notice of proposed rulemaking (NPRM) to revise the locomotive engineer certification regulation to address this recommendation.

Current Status.—NTSB on October 9, 1997, advised pending a successful rulemaking in response to this recommendation, this Safety Recommendation has been classified as "Open—Acceptable Response."

R–97–09. Recording of Crew Voice Communications—"Amend 49 CFR Part 229 to require the recording of train crewmembers' voice communications for exclusive use in accident investigations and with appropriate limitations on the public release of such recordings."

FRA responded to the Board on February 28, 1998, indicating FRA is continuing to review this recommendation and expects to be able to report a substantive response within the next 60 days. FRA's preliminary assessment is as follows.

This is a new recommendation in the rail mode and appears to stem from a single accident. Although the discussion in the Silver Spring Accident Report points to the unavailability of information concerning the conversations in the control compartment prior to the accident, it is not clear from the Report what specifically what—apart from confirming the clear implications of the Report narrative—would have been gained from documenting those conversations. In what ways would the public response likely have varied?

Unlike event recorders, which have value in determining rules compliance prior to an accident, use of voice recorder information would, as suggested by the recommendation, be limited exclusively to use in an accident investigation. Other uses would be viewed as inappropriate electronic monitoring of employees' conversations in the workplace, whether or not work related.

Capturing voice recordings in a locomotive cab presents practical issues not encountered in aviation. Headsets with intercom capability are the exception, rather than the rule, in locomotive cabs. Significant inter-relationships exist between efforts to limit occupational noise exposure in cabs and the effective recording of conversations. Issues of comfort have also been raised by employees and their representatives when use of headsets has been proposed, given 8–12 hour shifts and varying environmental conditions in locomotive cabs.

Release of voice recordings subsequent to an accident present additional issues. As the NTSB is well aware, a special statutory exception has been required in the aviation context to prevent inappropriate use of voice recordings following events drawing significant notoriety. Enacting fully effective regulations in the absence of special-purpose legislation thus does not appear to be feasible. The Board has not yet utilized the power conferred under its charter statute to recommend such legislation.

Despite these reservations, FRA continues to evaluate this recommendation with a view toward offering a more fully considered response. FRA's review would be aided by clarification of the Board's intent. Is it desired that all locomotives, including freight locomotives, be equipped with voice recorders? It is intended that passenger locomotives typically operated by a single employee be included, even if the locomotive cab is inaccessible to other crew members required to be stationed in the occupied passenger coaches (as if often the case in intercity service)? From the point of view of the Board's objectives for accident investigation, would a recording of 2 hours' duration be sufficient, as apparently suggested by the Report narrative at page 51–52?

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–10. Failure Modes and Effects Analyses—"Require comprehensive failure modes and effects analyses, including a human factors analysis, for all signal system modifications."

FRA responded to the Board on February 28, 1998, and agrees with the need to conduct sound analysis in the design of any method of operation. (In rail parlance, a "method of operation" includes both the physical infrastructure and the pertinent rules that govern train movements.) We believe that such analysis should be conducted at the system level, considering the attributes of the signal or train control system, the associated operating rules, and the known data concerning human performance under similar conditions. This should be contrasted with potentially ad hoc analysis conducted in an attempt to analyze the variable effects of minor changes in a method of operation at a particular location. FRA doubts that such methods could succeed due to the absence of meaningful input data bearing on the degree of risk posed by potential failure modes.

The Safety Board's discussion of this issue in the Silver Spring Report suggests that, had the recommended analyses been conducted when the subject traffic control system was installed on the line in question, the accident may have been prevented by one of several means. The Board references adoption of a delayed-in-block rule change as one of the alternative steps that might have been taken (Report at 53), along with placement of an exit signal at the station, implementation of a cab signal system, or implementation of a new positive train separation system. Among these options, only the placement of the exit signal would have constituted a site-specific response, and even in that case there would have been implications for other loca-

tions (see discussion below). For instance, installation of a cab signal system would hardly be a proportional response to the possibility of an engineer forgetting an approach signal because of an unscheduled stop at a passenger station. Taken as a problem occurring in a single location, no action at all would likely have been supported by any form of analysis, unless it is assumed that the analysts were imbued with extraordinary powers to discern how the following factors would in fact correspond in time at that location within the useful life of the signal system:

—Light passenger load permitting the train crew to linger in the control compartment.
—Unusual environmental conditions.
—The requirement to stop for passengers who had boarded the wrong train.
—The recent dovetailing of seniority rosters, leading to possible preoccupation by at least one crewmember with matters other safety operations.
—Distraction associated with broken communications as two trains passed at the location where defect detectors were positioned.

It is clear that issues broader than modification of the signal system in the vicinity of the Kensington Station on the Brunswick line are implicated in the Board's concerns. Broad, rather than narrow actions are in fact indicated by those concerns. In fact, FRA has taken emergency action to address the weakness in the method of operation which led to the Silver Spring accident. That improvement is in effect across the rail system—not just at a few locations where signals are relocated or other modifications are made during any calendar period.

FRA conducted a sampling of commuter, intercity, and Amtrak passenger lines, not equipped with cab signals, to establish a cross section for the nation of passenger stations which have exit signals. The FRA determined that only a small number of passenger stations are equipped with exit signals. Many of the signals that are visible upon the exit of a station are located there solely due to the braking distance and spacing requirements of 49 CFR §236.24. This regulation requires each roadway signal to be located with respect to the next signal or signals which govern train movements in the same direction to provide proper distances for reducing speeds or stopping by means of a brake application, other than an emergency application, before reaching the point where reduced speed or stopping is required. A reduced speed aspect requires spacing adequate to slow to prescribed speed before reaching the next signal. An aspect requiring a stop at the next signal requires spacing adequate to stop without an emergency brake application before reaching the next signal.

The following examples are representative of the data that was gathered by FRA field personnel:

—The Norfolk Southern Piedmont Division is a two-track main line signaled for traffic in both directions (TCS). Amtrak runs on this line from Lynchburg, Virginia, milepost 172.5 to milepost 15.0 near Springfield, Virginia. Virginia Railway Express also runs on this line from milepost 35.9 to milepost 15.0. There are 17 passenger stations used by Amtrak and VRE on this line. All signals are spaced for braking distance with only the Lynchburg and the BRU-VRE-Yard stations located where the signals are used for station exit.
—Trains operating on the "SamTrans" Peninsula Line in are governed by signal indications displayed by wayside signals that are spaced braking distance apart. There are 46 passenger stations on this line between San Francisco and San Jose, California. None of the stations have passenger station sidings or use exit signals.

These and other findings confirm that there is no established practice in the industry to place distant signals for interlockings and control points at locations exiting stations. Obviously, many locations exist where distant signals are placed between stations and the next home signal or control point; however, this placement is governed by required stopping distances, not the objective of reminding the engineer of the signal indication following the station stop. Issuance of E.O. 20 has addressed a common hazard at each of these locations where a delayed in block rule was not already applicable.

FRA and FTA have previously noted their commitment to examination of safety issues related to transit grant proposals affecting commuter rail service. This focus will be useful over the coming years to promote a migration to more secure train control systems. Again, the objective should be initiatives of significant scope that have the potential to address safety risks that are common to a variety of physical locations.

FRA agrees that FMEA and other analytical techniques are useful means of structuring the debate over appropriate signal and train control technology for various types of operations. This type of analysis is particularly appropriate for use in development of a new type of train control system. However, FRA believes that applica-

tion of FMEA on a case-by-case basis to every situation where signals may be altered or relocated would, in practice, become a highly subjective exercise dependent on the judgment of the individual analyst. The behavior of human operators is powerfully influenced by the operating environment (vehicles, control systems, grades and curvatures, sight distances, weather), human interactions (crew resource management, public interface), and characteristics of the individual operator (age, experience, training, health, alertness, etc.) Serial, microscopic focus on one element of this complex at a single location is unlikely to produce a balanced allocation of resources for safety optimization. Decisions concerning signal arrangements and railroad operating rules should be based on the best data available and should provide guidance that is useful across one or more classes of common situations, recognizing opportunities for broader improvements than would be possible with a highly situational orientation.

As noted above, the delayed in block provision of E.O. 20 addresses the particular issue placed in sharp focus by the Silver Spring accident. The broader issue of engineers failing to heed approach signals in a wide variety of circumstances is addressed daily through operational tests, certificate actions under the Locomotive Engineer Certification rules, and a variety of other ways, including a recent safety directive that addresses these issues across a broad front (62 FR 35330; June 30, 1997). However, ultimately positive train control (PTC) systems capable of maintaining train separation and enforcing other movement restrictions should be our objective.

Through the Railroad Safety Advisory Committee (RSAC), FRA has initiated a review of Positive Train Control technology that will include development of performance standards for such systems. Safety Board staff are assigned as advisors to the RSAC working group. This effort will include a strong emphasis on integration of railroad operating rules and the train control apparatus into a secure method of operation. In response to the Board's recommendations, FRA will urge inclusion of FMEA techniques as part of the safety acceptance procedure for new methods of operation.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–11. Separate Records for Passenger Operations—"Develop and maintain separate identifiable data records for commuter and intercity rail passenger operations."

FRA accomplished these improvements in automated data format for all reports filed on or after January 1, 1997. FRA appreciates the support of the Safety Board in accomplishing these improvements in our data system.

The issued referred to in the Board's recommendations concerns the ability to accomplish machine sorts of accident/incident data specific to individual passenger rail operations. The FRA has been collecting accident, incident and operational data from most major commuter railroads directly, and analysis of that data has not been a problem. However, data for railroads using Amtrak to provide service as a contract operator have been included in Amtrak reports, along with intercity results. Difficulties have also existed where freight railroads serve as contract operator. In July 1995, the Federal Railroad Administration sent a letter to the commuter railroads using Amtrak to provide service. The letter requested that beginning January 1996 these railroads were to report injuries, accidents and operation data (train miles, passenger miles, etc.) under their own reporting initials. The commuters could request Amtrak to report for them, but Amtrak could not aggregate the commuters' data into the Amtrak reports. Due to logistical problems and Amtrak software problems this request could not be fulfilled in 1996.

In the interim the FRA issued revisions to the Railroad Accident Reporting Rule that mandated a number of changes in reporting. A second letter was sent in February 1997 to commuter railroads instructing them to comply with the Federal Regulations on accident reporting. Data for these railroads are now being reported to FRA in a format that permits clear identification of the entity on whose behalf the service is provided. For 1997 and subsequent years, the FRA will be able to report frequency and rates of accidents and casualties by intercity service, commuter service and rail freight. Again, FRA appreciates the Safety Board's initiative and support in accomplishing this improvement in our data systems.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–12. Redundant Systems-Passenger Trains—"Require, in the interim of a positive train separation control system being available, the installation of cab signals, automatic train stop, automatic train control, or other similar redundant systems for all trains where commuter and intercity passenger railroads operate."

FRA responded to the Board on February 28, 1998, indicating the presence of passenger service, particularly relatively dense passenger service, has been a leading criterion in the installation of automatic cab signals (ACS), automatic train stop (ATS) or automatic train control (ATC) throughout the modern history of American railroading. Current regulations create incentives for installation of these systems by authorizing higher train speeds. However, signal-based technology is expensive, and passenger operators cannot achieve significant increases in safety on the lines that they utilize absent parallel investments by freight operators (which are often the owners and/or dominant users of the lines on which passenger trains operate). The answer to this problem is more affordable technology and commitments for joint action by freight and passenger service providers. It is important that we avoid any burden on passenger service providers that would result in service cutbacks and diversion of passengers to less safe forms of transportation.

Fortunately, innovative train control approaches are emerging that can meet the safety needs identified by the Board in its recommendations. Importantly, freight and passenger operators need to implement positive train control systems that are interoperable, so that maximum benefits are achieved. In the electrified environment of northeastern railroading, Amtrak's Advanced Civil Speed Enforcement System provides a strategy that can both support the safety of high-speed operations and provide a platform for innovative automatic train stop strategies (under implementation on New Jersey Transit).Outside the northeast, communication-based approaches using differential correction of Global Positioning System location data bear great promise.

In short, FRA concurs that implementation of more capable train control systems can contribute significantly to the safety of passenger rail service. In fact, in general where collision risk would otherwise be very high, appropriate systems are already in place. This accounts for the excellent safety record of passenger railroads.

FRA is pressing for implementation of PTC and similar systems in ways that are reasonable taking into consideration the mix of traffic, division of benefits flowing from the systems, opportunities for interoperability of onboard equipment, and the readiness of available technology. To bring about PTC, FRA has set out to—Assess risk on rail corridors that could be reduced by PTC systems; Update and refine cost-benefit analyses; Demonstrate and evaluate PTC technologies; Invest in enhanced train control on the Northeast Corridor; Promote interoperability of PTC systems; Facilitate introduction of new technology through regulatory action; and Support Federal policies necessary for successful PTC systems.

The first step in determining priority safety needs and opportunities is to better define risk. The corridor risk study that was discussed with the Railroad Safety Advisory Committee on June 24 provides an important tool that we have asked RSAC to refine and apply in analyzing this issue. Passenger service is a prominent factor in this analysis.

FRA is also taking concrete steps to demonstrate and deploy positive train control systems. On the Northeast Corridor, the Nation's most heavily utilized passenger line, FRA is supporting installation of an Advanced Civil Speed Enforcement System (ACSES), complementing the existing ACS/ATC system. See Notice of Proposed Order at 62 FR 62097 (11/20/97). FRA and the Federal Transit Administration have also been encouraging passenger railroads to consider investments in PTC systems. New Jersey Transit Rail Operations has significant plans to use its version of the ACSES system to achieve intermittent train stop capabilities on their lines off the NEC.

Through a grant to the State of Michigan, FRA is funding development of an Incremental Train Control System with capabilities superior to ACS or ATS, and that system should be cut in for revenue service in 1998. A grant to the State of Illinois for development of high-speed PTC will also support passenger rail safety as a primary objective, and we are working to promote appropriate participation by the host freight railroad.

FRA has been working actively with the BNSF /Union Pacific Positive Train Separation test program and has been in active conversation with these railroads regarding their future plans for even more capable systems. At the same time, we have sought to create opportunities through the States of Washington and Oregon for consideration of passenger safety needs.

On September 30, 1997, FRA asked the RSAC to take on three related tasks that explore the future of positive train control. These tasks address costs and benefits of PTC (including business benefits), the readiness of available technology, and possible timetables for making interoperable PTC a reality on major rail lines. The RSAC has formed a working group that includes advisors from the Board's staff. This group will met for the first time in mid-November, and FRA has asked the

group to provide a status report with milestones at the next meeting of the full Committee on January 27, 1998.

An early product of the RSAC effort will be a proposed revision to current signal and train control regulations, recognizing and creating a predictable environment for new forms of train control that can accomplish positive train separation and other safety functions at reduced cost, permitting more wide-scale application.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–13. Positive Train Separation-Passenger Trains—"Require the implementation of positive train separation control systems for all trains where commuter and intercity passenger railroads operate."

FRA responded to the Board on February 28, 1998, indicating the same response as given for R–97–12 above.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–14. Passenger Car Interior Quick-Release Mechanisms—"Require all passenger cars to have easily accessible interior emergency quick-release mechanisms adjacent to exterior passageway doors and take appropriate emergency measures to ensure corrective action until these measures are incorporated into minimum passenger car safety standards."

FRA responded to the Board on February 28, 1998, indicating that the Board is aware, a majority of passenger cars are equipped as suggested in the recommendation. FRA has taken action under Emergency Order No. 20 to improve emergency egress from rail passenger cars. In addition, as an interim action the Safety Board and FRA have worked with two passenger railroads to eliminate the requirement for use of special tools to access the emergency quick release mechanism, and those actions are completed (on MARC and SEPTA). In response to the Board's earlier recommendations, FRA has issued proposed rules to require the relocation of manual release mechanisms to a position adjacent to the exterior door (62 FR 49728, 49807; Sept. 23, 1997). This Notice of Proposed Rulemaking (NPRM) on Passenger Equipment Safety Standards proposes to require a retrofit of remaining cars, within 2 years of the effective date of the final rule (vice 10–15 years as proposed by the commuter authorities). FRA will endeavor to resolve this issue expeditiously following conclusion of the public comment period.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–15. Passenger Car—Emergency Exiting—"Require all passenger cars to have either removable windows, kick panels, or other suitable means for emergency exiting through the interior and exterior passageway doors where the door could impede passengers exiting in an emergency and take appropriate emergency measures to ensure corrective action until these measures are incorporated into minimum passenger car safety standards."

FRA responded to the Board on February 28, 1998, indicating action has already been take to improve emergency egress and is exploring other options to ensure adequate egress capacity under all emergency scenarios, including those suggested by the Board. However, neither kick panels nor removable windows in doors has been satisfactorily demonstrated as to feasibility, and either is capable of increasing safety risk if misapplied to exterior doors.

Emergency windows are provided under current regulations to provide reliable egress in the exceptional case where doors are inoperative, are blocked by accident debris, or lead to areas that are unacceptable as evacuation routes for other reasons. FRA has taken emergency action to ensure that emergency windows are operative and properly marked, and the Passenger Train Emergency Preparedness NPRM includes a requirement for periodic inspection into the future. The Passenger Equipment Safety Standards Working Group has evaluated kick panels in exterior doors as unacceptable for passenger safety reasons.

The Working Group agreed that new passenger cars be required to have manual releases capable of opening car body side doors from both inside and outside the cars. The Working Group further agreed that persons be able to easily access and utilize the manual releases without the use of special tools or implements. Additionally, the Working Group agreed to strengthen existing emergency window exit requirements by specifically directing that each bi-level car have four window exits on each level and that each sleeper car have an emergency window exit in each sleeping compartment. These proposals are contained in the NPRM referenced above.

Removable windows in doors may be feasible, but the available dimensions for these installations in current door designs are not encouraging. Existing door windows claimed to be usable for egress are generally vertical in their longest dimen-

sion and are located well above the center of gravity of the average person, severely limiting their utility for high capacity and rapid egress. The degree of responsiveness of the glazing to blows designed to remove the window is also open to serious question. Accordingly, the American Public Transit Association task force on Passenger Rail Equipment Safety Standards is examining the full range of options for kick panels and removable windows. In addition the Volpe National Transportation Systems Center is evaluating egress capacity on a systems level. These complementary efforts will be brought together as the second NPRM for Passenger Safety Standards is developed in 1998.

The first practical application of the NTSB suggestion will be made under the Tier II standards in the Passenger Equipment Safety Standards, which requires a kick-out panel or window. Under design drawings, Amtrak is incorporating an elongated window in its passageway doors. This problem is relatively simple for a high-speed trainset in which the end door on the car always leads to another passenger car, so the degree of risk (collateral safety risk and cost) associated with the innovation is small. FRA appreciates the leadership of the Board in calling attention to this opportunity.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–16. Passenger Car—Emergency Exit Marking—"Issue interim standards for the use of luminescent or retro reflective material or both to mark all interior and exterior emergency exits in all passenger cars as soon as possible and incorporate the interim standards into minimum passenger car safety standards."

FRA responded to the Board on February 28, 1998, indicating FRA ordered interim improvements in emergency signage in February of 1996 under Emergency Order No. 20. FRA is preparing a final rule for Passenger Train Emergency Preparedness based upon a February 1997 proposal that includes use of luminescent and retro reflective materials as recommended.

Temporary marking and instruction requirements were contained in Emergency Order No. 20 (Notice No. 1, 61 FR 6876; February 22, 1996) (Notice No. 2, 61 FR 8703; March 5, 1996). Railroads have complied with those requirements. In a joint meeting of working groups supporting the development of NPRM's for Passenger Equipment Safety Standards and Passenger Train Emergency Preparedness held on March 26, 1996, it was agreed that future marking should be luminescent on the inside (where no light source may be available under worst case conditions) and retro reflective on the outside (to respond to portable lighting used by emergency responders).

FRA published the Notice of Proposed Rulemaking on Passenger Train Emergency Preparedness on February 24, 1997 (62 FR 8330), and the comment period closed on April 25. Comments from the National Transportation Safety Board dated June 2, 1997, generally support the NPRM. The NPRM provides, at section 239.107, for luminescent marking of door exits and retro reflective marking of doors designated for emergency rescue access. Similar provisions are made for window egress and access in a proposed amendment to section 223.9. FRA has reviewed the docket and has discussed the remaining issues in the proceeding with the Working Group, which includes an advisor from the staff of the NTSB. FRA is preparing a final rule for issuance at the earliest possible date.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–17. Passenger Car—Independent Power Sources—"Require all passenger cars to contain reliable emergency lighting fixtures that are each fitted with a self-contained independent power source and incorporate the requirements into minimum passenger car safety standards."

FRA responded to the Board on February 28, 1998, indicating the proposed passenger equipment safety standards address emergency lighting, but would permit continued use of battery power common to all emergency lighting circuits in the particular car. The concept of a power source at each fixture, as a regulatory requirement, is novel and was introduced by the Board well after the NPRM entered clearance. Accordingly, FRA had only limited opportunity to evaluate this suggestion in cooperation with the Passenger Equipment Safety Standards Working Group.

FRA findings in recent accidents support the Safety Board's implied concern that placement of electrical conduits and battery packs below the floor of passenger coaches can result in damage that leads to the unavailability of emergency lights precisely at the time they are most needed. However, from initial investigation it is not certain whether current "ballast" technology provides illumination of sufficient quality with reliable maintainability. FRA will work with the PRESS task force to determine appropriate action. FRA would appreciate any technical advice

that the Board staff may be able to offer regarding successful strategies employed by in other transportation modes.

FRA has already presented this issue to the Passenger Equipment Safety Standards Working Group and will aggressively pursue this option for more reliable emergency illumination.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–18. Passenger Car—Inspection & Maintenance—"Provide promptly a prescribed inspection and maintenance test cycle to ensure the proper operation of all emergency exit windows as well as provide that the 180-day inspection and maintenance test cycle is prescribed in the final rule."

FRA responded to the Board on February 28, 1998, indicating Passenger railroads completed emergency window inspections under E.O. 20 by April 20, 1996. Most railroads have continued to include these inspections in periodic inspections of the equipment. FRA is preparing final rules based on proposals for regular inspection at a 180-day cycle. FRA may take interim action pending the effective date of the final rule, if necessary by amending the emergency order.

As further information, we are advised that commuter railroads are voluntarily including checks of emergency windows in their periodic maintenance programs.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–19. Passenger Car—Functionality Exterior Door—"Require that all exterior emergency door release mechanisms on passenger cars be functional before a passenger car is placed in revenue service, that the emergency door release mechanism be placed in a readily accessible position and marked for easy identification in emergencies and derailments, and that these requirements be incorporated into minimum passenger car safety standards."

FRA responded to the Board on February 28, 1998, indicating the RSAC Passenger Equipment Safety Standards Working Group agreed that easily accessible exterior emergency door release mechanisms be required on new passenger cars. See NPRM on Passenger Equipment Safety Standards (62 FR 49728, 49807; Sept. 23, 1997). The NPRM on Passenger Train Emergency Preparedness would apply marking/instruction requirements to all cars so equipped, including the present fleet (62 FR 8330, 8358; February 24, 1997).

Unlike discussions concerning interior emergency door release mechanisms intended for quick use by passengers to exit a train in a life-threatening situation, however, there was no strong advocacy within the Working Group to retrofit existing passenger cars with emergency door release mechanisms on car exteriors. Such exterior mechanisms would principally be used by emergency-response personnel to gain access to passenger cars and rescue individuals unable to exit the train on their own either through a door or an emergency window exit. In response to the recommendation, FRA and the Working Group will further evaluate implementing this requirement on existing cars in the second phase of the rulemaking. FRA will advise the Working Group of this issue as the initial final rule is crafted, and railroads impacted by the relocation of the interior release can evaluate whether to include the exterior release in their program.

FRA agrees that existing exterior releases should be maintained in functional condition and will seek agreement to ensure that periodic inspection requirements included in the initial final rule include specific attention to this issue (although arguably the matter is covered by the language already proposed).

Despite our regulatory proposal and lack of active opposition, FRA continues to have concerns with respect to marking the exterior releases and providing instructions for their use on the outside of the vehicle. This is a difficult issue, since prominent markings and instructions to operate a simple pull ring or lever constitute an open invitation for vandalism (which can result, among other things, in undetected loss of emergency equipment). Incidents of vandalism might necessitate separate locking of out-of-service equipment, and we would certainly want assurance that the locking was disengaged at each door location before the equipment was placed in service. Should this not be done, passengers might be unable to exit trains and rescuers would not be able to enter, at least at the subject door locations. An alternate approach is appropriate training for emergency responders with respect to entry into passenger equipment. Training of emergency responders was a key point of discussion for finalization of the rule on Passenger Train Emergency Preparedness. There was broad agreement that access to equipment should be a key element of training that passenger railroads should make available.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–20. Passenger Car—Flammability—"Require that a comprehensive inspection of all commuter passenger cars be performed to independently verify that the interior materials in these cars meet the expected performance requirements for flammability and smoke emissions characteristics."

FRA responded to the Board on February 28, 1998, indicating FRA altered the Passenger Equipment Safety Standards NPRM after it had entered clearance to address fire safety for existing equipment. Section 238.105 of the proposed rule (62 FR 49728, 49800) would require railroads to conduct tiered fire safety analyses to identify vulnerabilities in the various series of the existing passenger car fleet and to take responsive action as indicated.

FRA believes that this approach addresses the intent of the concerns raised in the Board's report on the Silver Spring accident. As noted in the Board's report, "Had the materials [in the cab car] met current [FRA] performance criteria . . . the outcome would not have been any different because of the presence of diesel fuel as an ignition source. The fire would have spread quickly whether the interior materials of the MARC passenger cars had met current performance criteria regarding flammability and smoke emissions characteristics. . . ."

NTSB–RAR–97/02 at 63–64. Further, the Board took strong exception to the adequacy of the current criteria, stating that they are "not useful in predicting the safety of the interior environment of a passenger car in a fire." Id. We assume therefore, that the Board intended a review of fire safety in existing cars that both considers the discrete hazards of materials that might vary widely from criteria in existing rail and transit guidelines and the likelihood that those hazards might combine to create unacceptable fire safety risks. The analysis called for the NPRM would require that, to extent practicable given available knowledge, these issues be fully considered.

In addition, FRA has consulted with the Office of the Secretary of Transportation and other Department of Transportation modal administrations with respect to the status of fire safety standards and research. The Office of the Secretary is responding to the Board regarding our intermodal coordination. Please note that FRA is continuing its contract research through the National Institute for Standards and Technology to improve the quality and replicability of materials testing criteria and methods and is also maintaining liaison with efforts of the transit industry and the National Fire Protection Association to work toward a better-integrated systems approach to fire safety.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–21. Train Dispatcher Record of Train Movements—"Update 49 CFR Part 228.17, Train Dispatcher's Record of Train Movements, to include the same parameters for electronic recordkeeping of the dispatcher's record of train movements."

FRA responded to the Board on February 28, 1998, indicating that Section 228.17 states information collection requirements that are equally applicable, whether the record of train movements is maintained in hard copy or electronic format. At the CSXT operations center in Jacksonville, some of this data loads automatically to the sheet from other computer systems, while other data must be manually entered by the dispatcher. During routine inspections, FRA has worked to ensure that the computer-based train sheet is capable of receiving all pertinent fields of information (as it has been for several years) and that dispatchers routinely enter that information (which sometimes is not done in the wake of an accident due to distraction by other tasks). In addition, FRA has encouraged the railroad to provide for automatic data transfer of weather information.

FRA will continue to work with the railroad at Jacksonville, and with other carriers, to promote sound record keeping in compliance with 49 CFR Part 228. However, for the present this is a compliance issue that must be handled with all of the dispatcher desks at Jacksonville with respect to each of the 1,400 train sheets generated daily. We are not aware of any regulatory change that could simplify this quality control task, but would certainly be willing to discuss any specific suggestions.

Without question, use of electronic record keeping should enhance the information available for safety purposes, and we believe that is very much the case presently when all pertinent systems are utilized. Retrievable data in a contemporary dispatching center is normally far more extensive and historically reliable than data derived from a traditional hand-written train sheet. Centralized traffic control system records (signal event logs) provide detailed information that can be analyzed to determine train movements. Dispatcher voice tapes and computer-aided dispatching systems document authorities and information conveyed to train crews. Weather information is separately maintained in electronic or hard copy format following electronic delivery from a commercial service that provides very detailed data and

forecasts. This wealth of information is available for accident investigation and other purposes. Future revisions to Part 228 could include inputs to the "train sheet" from sources not presently tapped. However, it would be important to clearly identify our core objectives and the safety results that we would expect to achieve before proceeding. Whether or not technically associated with the "train sheet," this data is useful today for a variety of purposes.

Current Status.—NTSB has not as yet responded to FRA's initial response. NTSB's current classification is "Open—Initial Response."

R–97–55. Traction Motor Current—"Inform the railroad industry that traction motor current is not a valid indicator of throttle position, and the requirement to record throttle position contained in 49 CFR Part 229.5(g) cannot be met by recording traction motor current. Ensure that all operators currently using traction motor current as a substitute for throttle position modify their event recording systems to monitor and record throttle position directly."

Current Status.—This Safety Recommendation received January 6, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by April 30, 1998. NTSB's current classification is "Open—Await Response."

R–97–56—Tests and Inspections Event Recorders—"Pending the results of your Railroad Safety Advisory Committee Event Recorder Working Group and your implementation of suitable requirements concerning event recorder system maintenance, require that microprocessor-based event records equipped to perform self-tests be subject to the testing and inspection procedures currently applicable to all other types of event recorders."

Current Status.—This Safety Recommendation just received January 6, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by April 30, 1998. NTSB's current classification is "Open—Await Response."

R–97–57. Movable Miter Rails—"Expand the scope of your track safety standards to include special trackwork such as movable miter rails and ensure that the condition and operation of special trackwork are included, when appropriate, in all Federal Railroad Administration track inspections."

Current Status.—This Safety Recommendation received January 6, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by April 30, 1998. NTSB's current classification is "Open—Await Response."

R–97–58. Survey of Movable Bridges—"Provide, in full or summary form, the results of the Federal Railroad Administration Movable Bridges Survey to all railroads and rail rapid transit agencies."

Current Status.—This Safety Recommendation was received January 6, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by April 30, 1998. NTSB's current classification is "Open—Await Response."

R–98–01. Controls and Switches in Locomotives—"Alert Locomotive Manufacturers and Railroad Operators about the dangers posed by improperly located safety significant controls and switches in locomotives."

Current Status.—This Safety Recommendation was received February 25, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by May 15, 1998. NTSB's current classification is "Open—Await Response."

R–98–02. Loaded Weight Information—"Require railroads to ensure that the actual loaded weights of cars in a train are provided to the train crewmembers or, if the loaded weights are unknown, to implement a method to ensure that the maximum loaded weight is assigned."

Current Status.—This Safety Recommendation was received February 25, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by May 15, 1998. NTSB's current classification is "Open—Await Response."

R–98–03. Review Train Handling Practices—"Require Railroads to review steep-grade train-handling practices and, if necessary, make changes that will preserve a margin of stopping ability should a dynamic braking system fail."

Current Status.—This Safety Recommendation was received February 25, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by May 15, 1998. NTSB's current classification is "Open—Await Response." NTSB's current classification is "Open—Await Response."

R–98–04. Research Maximum Speed based on weights—"Carry out research, investigation and analysis to determine maximum authorized train speed for safe operation of trains of all weights, using speed-based margins of safety that can be easily measured by train crewmembers."

Current Status.—This Safety Recommendation was received February 25, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by May 15, 1998. NTSB's current classification is "Open—Await Response."

R–98–05. Dynamic Brake Requirements—"Separate the Dynamic Brake Requirements from the Power Brake Law Rulemaking and immediately conclude rulemaking to require that railroads verify that the dynamic braking systems on all locomotive equipped with dynamic brakes are functioning properly before trains are dispatched."

Current Status.—This Safety Recommendation was received February 25, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by May 15, 1998. NTSB's current classification is "Open—Await Response."

R–98–06. Dynamic Brake Indicator in Controlling Locomotive—"Require railroads to ensure that all locomotives with dynamic braking be equipped with a device in the cab of the controlling locomotive unit to indicate to the operating engineer that the real-time condition of the dynamic brakes on each trailing unit."

Current Status.—This Safety Recommendation was received February 25, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by May 15, 1998. NTSB's current classification is "Open—Await Response."

R–98–07. Formal Training for Retainer Settings—"Require railroads to implement formal training on correct retainer setting and use procedures for train crewmembers who may set or use air brake retainer valves.

Current Status.—This Safety Recommendation was received February 25, 1998. FRA is reviewing this recommendation and expects to be able to prepare a substantive response by May 15, 1998. NTSB's current classification is "Open—Await Response."

LISTING OF ALL NTSB SAFETY RECOMMENDATIONS TO FRA FOR THE LAST THREE YEARS THAT HAVE BEEN ADDRESSED AND CLOSED, INDICATING WHETHER OR NOT NTSB WAS SATISFIED

(FROM MAY 1, 1995 TO PRESENT)

R–88–58. Heat-Resistant Gaskets—"Establish performance standards for determining the acceptability of heat-resistant gaskets required to be used on tank cars."

FRA, in cooperation with the Research and Special Programs Administration (RSPA), issued final rules on June 5, 1996, under Docket HM–216. These new regulations require that each tank car used for the transportation of anhydrous ammonia, flammable gases, and gases that are poisonous by inhalation, must have gaskets designed to create a positive seal so that a release of the material to the environment will not occur under normal transportation conditions. The regulations also require that specific factors, such as the temperature of the lading, compatibility of the gasket with the lading, pressure, and size of the manway, must be considered in the design of the gasket. The new regulations published also prohibit the use of sealants to install these gaskets.

Current Status.—NTSB advised on February 10, 1997, that because the new regulations meet the intent of the Board's recommended action, Safety Recommendation R–88–58 is classified as "Closed—Acceptable Action."

R–88–59. Tank Car Manway Openings. "Prohibit from Hazardous Materials service the use of tank cars that have a manway opening located below the level of the liquid being transported."

The Research and Special Programs Administration (RSPA), in cooperation with FRA, issued two final rules under Dockets HM–175A and HM–201 on September 21, 1995. Among other issues addressed, these final rules require full tank head protection for new and existing tank cars constructed of aluminum and nickel.

Current Status.—NTSB advised on January 23, 1996, that the Board recognizes that the new regulations issued on September 21, 1995, prohibit the transportation of hazardous materials in tank cars that have manway openings below the liquid level of the lading in the tank cars, as was recommended. Accordingly, NTSB classified this recommendation as "Closed—Acceptable Action."

R–88–60. Heat Resistance of Sealants—"Evaluate the effect on gasket compatibility and heat resistance performance of sealants used for installing gaskets on tank cars, and if the use of sealants is allowed. Establish performance criteria to determine which sealants are acceptable and the conditions for their use."

FRA, in cooperation with the Research and Special Programs Administration (RSPA), issued final rules on June 5, 1996, under Docket HM–216. These new regu-

lations require that each tank car used for the transportation of anhydrous ammonia, flammable gases, and gases that are poisonous by inhalation, must have gaskets designed to create a positive seal so that a release of the material to the environment will not occur under normal transportation conditions. The regulations also require that specific factors, such as the temperature of the lading, compatibility of the gasket with the lading, pressure, and size of the manway, must be considered in the design of the gasket. The new regulations published also prohibit the use of sealants to install these gaskets.

Current Status.—NTSB advised on February 10, 1997, that because the new regulations meet the intent of the Board's recommended action, Safety Recommendation R–88–60 is classified as "Closed—Acceptable Action."

R–88–61. Affix information on tank cars—"Where special procedures or material specifications or dimensions are required for maintaining the integrity of tank cars, require such information to be permanently and conspicuously affixed to the tank car."

The Research and Special Programs Administration (RSPA), in cooperation with FRA, issued two final rules under Dockets HM–175A and HM–201 on September 21, 1995. Among other issues addressed, these final rules each facility where tank cars are constructed, repaired, or modified must have an Association of American Railroads (AAR)-approved quality assurance program, including written procedures to ensure that work performed on a tank car conforms to approved designs. The new regulations also require that designated design plans, repair and inspection records, and construction certificates be retained by the tank car owner and transferred when ownership of the tank car changes.

Current Status.—NTSB responded on January 23, 1996, stating the Safety Board previously indicated that this approach would be an acceptable alternative response to the recommendation. However, the Safety Board also expressed concern about the need for periodic audits to ensure that the quality assurance programs were effective. Although audits of quality assurance programs are not specifically addressed in the newly issued regulations, the AAR-approved quality assurance programs required under these rules are subject to an accreditation process and annual audits by the AAR. By requiring tank car facilities to have AAR-approved quality assurance programs that are subject to periodic audits, the newly issued regulations satisfactorily address the Board's previous concern. Therefore, NTSB classified this recommendation as "Closed—Acceptable Alternative Action."

R–88–63. Quality Control for Tank Car Shops—"Establish quality control requirements for tank car manufacturers and tank car repair shops sufficient to ensure that actions taken comply with Federal regulations and with any conditions established in the Association of American Railroad's approvals for manufacture, repair, or modification of rail tank cars."

The Research and Special Programs Administration (RSPA), in cooperation with FRA, issued two final rules under Dockets HM–175A and HM–201 on September 21, 1995. Among other issues addressed, these final rules each facility where tank cars are constructed, repaired, or modified must have an Association of American Railroads (AAR)-approved quality assurance program, including written procedures to ensure that work performed on a tank car conforms to approved designs. The new regulations also require that designated design plans, repair and inspection records, and construction certificates be retained by the tank car owner and transferred when ownership of the tank car changes.

Current Status.—NTSB responded on January 23, 1996, stating the Safety Board noted that the regulations issued on September 21, 1995, require each facility involved in the manufacture, repair, or modification of rail tank cars to have a written quality assurance program approved by the AAR. The AAR's requirements and accreditation process for its quality assurance programs satisfactorily address both Safety Recommendations R–88–63 and R–88–64. Therefore, NTSB classified this recommendation as "Closed—Acceptable Action."

R–88–64. Training and Written Procedures—"Require that tank car repair shops develop and maintain current written procedures to guide their employees in performing work on tank cars and that their employees be trained on those procedures."

The Research and Special Programs Administration (RSPA), in cooperation with FRA, issued two final rules under Dockets HM–175A and HM–201 on September 21, 1995. Among other issues addressed, these final rules each facility where tank cars are constructed, repaired, or modified must have an Association of American Railroads (AAR)-approved quality assurance program, including written procedures to ensure that work performed on a tank car conforms to approved designs. The new regulations also require that designated design plans, repair and inspection records,

and construction certificates be retained by the tank car owner and transferred when ownership of the tank car changes.

Current Status.—NTSB responded on January 23, 1996, stating the Safety Board noted that the regulations issued on September 21, 1995, require each facility involved in the manufacture, repair, or modification of rail tank cars to have a written quality assurance program approved by the AAR. The AAR's requirements and accreditation process for its quality assurance programs satisfactorily address both Safety Recommendations R–88–63 and R–88–64. Therefore, NTSB classified this recommendation as "Closed—Acceptable Action."

R–89–49. Specifications for Securing Closure Fittings—"Assist and cooperate with the Research and Special Programs Administration in amending 49 CFR Part 179 to require that specifications for securing closure fittings, such as minimum torque values for sealing bolted closures and gasket specifications, be determined and provided by tank car designers and manufacturers."

FRA working in cooperation with the AAR, jointly developed new sections to the AAR tank car manual. These new sections incorporate procedures and standards for inspecting, cleaning, replacing, and testing manway covers; for selecting gaskets based on the gasket material and dimensions; and for maintaining and tightening eyebolts and nuts on the manway assembly. In addition RSPA, with assistance from the FRA, published new regulations on September 21, 1995, (under Dockets HM–175A and HM–201) that establish performance standards requiring that all closure fittings on tank cars be properly tightened in place.

Current Status.—NTSB advised on August 13, 1997, that the Board found that the new regulations supplement the AAR standards and, together, satisfy the intent and objective of this recommendation. Therefore, NTSB classified this recommendation as "Closed—Acceptable Action."

R–90–38. Hazardous Material Train Lists—"Revise 49 CFR 174.26(b) to require the train crew to maintain, at all times, a document reflecting the current position of hazardous materials cars in the train."

FRA advised that working with the Research and Special Programs Administration, published new regulations under Docket HM–206 on January 8, 1997. These regulations include a revision to 49 CFR 174.26, which now requires a train crew to document the current position of each rail car containing a hazardous material. Further, the crew must also update the document to indicate changes in the placement of the rail car within the train.

Current Status.—NTSB advised on August 13, 1997, that the Board found that the revised regulation satisfied this Safety Recommendation. Therefore, NTSB classified this recommendation as "Closed—Acceptable Action."

R–91–26. Alerters—"In conjunction with the study of fatigue of train crewmembers, explore the parameters of an optimum alerter system for locomotives."

FRA's initial written response, dated June 28, 1993, indicated that FRA had awarded two contracts to develop proposals to modify the existing alerter systems so they cannot be reset by reflex action. Reports were due in July that will provide information on development of a model. We anticipate significant progress on this recommendation before the end of 1993. FRA requested an "Open-Acceptable Response" status. NTSB provide written response in letter dated September 16, 1993, indicating the Board classified this Safety Recommendation as "Open—Acceptable Action."

FRA provided written update to NTSB under date of August 12, 1997. Therein, FRA indicated that after approval of funding for prototype construction of an alerter meeting the objectives, the contractor advised FRA there was not a sufficient market for the device to justify its further development. Therefore, the contractor withdrew their proposal. Because the accident in question involved fatigue and train control issues, FRA indicated action in both of those areas would address the core issues in the 1990 accident. FRA indicated it had decided not to allocate further scarce resources to this project, and requested NTSB to close it based on our alternative action.

Current Status.—NTSB responded on November 4, 1997, indicating the Board's disappointment to learn that the FRA plans to take no further action on this recommendation. The Board mentioned their approval of FRA's rail labor and management project concerning fatigue , the Board continues to believe that a successful countermeasure to fatigue is an optimum alerter system that cannot be reset by reflex action. Since the FRA has declined to act on this recommendation and requested closure, the Safety Board has classified this recommendation as "Closed—Unacceptable Action."

R–91–39. Work-Record Data—"Develop a Uniform Simplified Format for Work-Record Data Collected by the Rail Carriers."

FRA advised NTSB on August 9, 1995, that recent evolutions in data capture have allowed the possibility for a uniform national simplified format for electronic data entry of hours of service purposes. Because our present hours of service record-keeping regulations require "signatures", FRA is encouraging all railroads to apply for waivers to facilitate their development of this electronic format for capturing this data in a simplified and uniform manner. FRA has published an electronic record-keeping guide containing a recommended format for hours of duty reports produced by an automated system. CSX Transportation, Inc. was the first railroad to achieve waiver approval for its electronic system. At present, three other railroads have requested waiver approval with several others expressing interest.

Current Status.—NTSB advised on November 21, 1995, that the Board hopes that the suggested format will be adopted. However, should this not be the case, the Board will revisit this issue at some point in the future. NTSB therefore classified this recommendation as "Closed—Acceptable Action."

R92–01. Training and Evaluation-Locomotive Engineers—"Seek and include other input, such as comments about the quality of railroad training programs, from both instructing locomotive engineers and apprentice engineers in the programs for which approval is being sought and include such input in the evaluation process."

FRA advised NTSB on August 21, 1992, that FRA plans to implement a two-phase, in-depth review process of railroad training programs for locomotive engineers. FRA field inspectors have been instructed to establish "listening posts" during the course of their daily inspections.

FRA further advised NTSB on August 3, 1995, that in addition to the listening posts that have been conducted since 1995, FRA has developed an audit plan for use during the review of each railroad's training program which will capture student and instructor comments for use in the evaluation of the program. FRA also advised that all Class I and Class II railroads had been reviewed, and of the ongoing process for evaluating all railroad training programs. Additionally, the American Short Line Railroad Association (ASLRA) in conjunction with FRA, has developed a generic training program for the approximate 570 ASLRA members.

Current Status.—NTSB advised on November 15, 1995, that based on FRA's action, this recommendation is classified as "Closed—Acceptable Action."

R–92–11. Minimum Standards-Locomotive Fuel Tanks—"Establish, if warranted, minimum performance standards for locomotive fuel tanks based on the research called for in NTSB's Safety Recommendation R–92–10."

FRA advised NTSB on February 10, 1993, that FRA conducted a meeting on February 2, 1993, with the American Association of Railroads (AAR), General Motors Electro-motive Division and General Electric to discuss their willingness to cooperate in a joint locomotive fuel tank research program. Due to funding constraints within these organizations, cooperative research or analysis may be limited in scope.

Subsequently, AAR working in cooperation with FRA, adopted a recommended practice to provide basic performance requirements for locomotive fuel tanks on four- and six-axle diesel-locomotives. This practice, which incorporates the results of individual railroad efforts to develop and test candidate fuel containment modifications under service conditions, is effective for all freight locomotives built after July 1, 1995.

Current Status.—NTSB advised on October 17, 1995, the Board has some concerns about locomotives built before July 1, 1995, because they will remain in service for several years. However, the Board will address that issue in future pertinent accident investigations. Nevertheless, the Board believes that the adoption of the recommended practice is a positive step and, as a result, no longer sees the need at this time to pursue Federal regulations to establish minimum performance standards for locomotive fuel tanks. NTSB therefore classified this recommendation as "Closed—No Longer Applicable."

R–92–12. Accident Data Collection-Locomotive Fuel Tanks—"Instruct Field Personnel to Obtain from Accident Investigations Locomotive Fuel Tank Size and, to the extent practicable, the duration and severity of locomotive fuel tank fires in conjunction with the agency's ongoing efforts to improve the recording of data pertaining to post-crash fires involving locomotives."

FRA advised NTSB on February 10, 1993, that as a part of a larger effort to comply with Public Law 102–365, FRA field personnel will collect data on fuel tank capacity and the severity of locomotive fuel fires during accident investigations. A copy of the instructions issued and the data collection forms to be used was enclosed.

Subsequently, FRA revised its "FRA Guide for Preparing Accident/Incident Reports" to provide instructions to all railroads to indicate this information of the narrative for each reportable rail equipment accident/incident.

Current Status.—NTSB advised on October 17, 1995, that as a result of these revisions, fuel tank data are now routinely collected, including data on locomotive

units involved, amount of fuel released, capacity of fuel tanks, and consequences of fire. Therefore, NTSB classified this recommendation as "Closed—Acceptable Action."

R–92–13. Alternative Fuels—"Develop, in conjunction with the Association of American Railroads, a formal methodology for reviewing the use of alternative fuels and fuel tenders in the railroad industry."

FRA advised NTSB on February 10, 1993, that the railroads and equipment manufacturers that are pursuing alternative fuel development programs recognize the need to fully involve the FRA in the early stages of these programs. FRA has met with representatives of the railroads and manufacturers to offer advice on design considerations and test parameters to ensure safe use in rail transportation. FRA believes the current informal cooperative process is adequate at the present time. A more formal process can be determined after the development programs are analysed and the industry has specific plans and proposals for normal revenue service use of alternative fuels technology.

Current Status.—NTSB advised FRA on October 17, 1995, given that the use of liquid natural gas fuel tenders continues to be limited to a very few railroads, that the FRA continues to monitor and assess industry's limited use of alternative fuels and fuel tenders, and that there has been no Safety Board accident experience with alternative fuels or fuel tenders, the Board reclassified this safety recommendation as "Closed—Reconsidered."

R–92–21. Nondestructive Testing of Tank Cars—"Evaluate, with the cooperation and assistance of the Association of American Railroads, the Railway Progress Institute, and the Chlorine Institute, nondestructive testing techniques and determine how such techniques can best be applied for period testing and inspection of all tank cars that transport hazardous materials."

FRA advised NTSB that several research projects to evaluate various nondestructive techniques were in progress, and that this research will continue over several years and evolve as new nondestructive technologies emerge, and tank car design and construction changes. In addition, the new rules issued on September 21, 1995, require the use of specific nondestructive techniques to inspect designated welds on the bottom of tank cars.

Current Status.—NTSB responded on January 23, 1996, that the Board considers the research under way, and the new regulations requiring the use of nondestructive testing for the inspection of tank cars meet the intent of the recommendation. Therefore, NTSB classified this recommendation as "Closed—Acceptable Action."

R–94–01. Inspection Methods-Rail Shelling—"Research and develop, with the assistance of the Association of American Railroads, inspection methods that will identify internal defects in rail that has significant shelling and other surface conditions."

FRA advised the Board that research to detect transverse head defects regardless of rail head surface conditions is being pursued by the contract defect detection community. A prototype system is expected to be deployed for debugging in 1996. Given this accomplishment, FRA does not see a need to invest in government sponsored research that could lead to a product eventually competing with the private sector. FRA is promoting an investigation of electro-magnetic transduction technology as a potential improvement over current systems.

Current Status.—NTSB responded on April 9, 1996, indicating the Board is aware of research by the manufacturers of rail defect detection equipment, and while these efforts offer the possibility of advancements, the Board continues to believe the presence of severe surface conditions prevent an effective inspection of the rail head. Because FRA has expressed no willingness to sponsor or encourage research and development of new inspection methods capable of identifying internal defects in rail with significant head surface conditions, NTSB classified this recommendation as "Closed—Unacceptable Action." Note: FRA has since addressed this recommendation in the NPRM revising its Track Safety Standards.

R–94–02. Research and Standards Rail Surface Conditions—"Perform the necessary research and develop standards that: (1) provide defined limits of allowable rail surface conditions (such as shelling) that can hinder the identification of internal defects, and (2) require remedial action for rail with surface conditions that exceed defined limits."

FRA advised NTSB that given the myriad combination of sizes, shapes and locations in which rail surface conditions can exist and the rarity with which an actual obscured defect progresses to failure, we regard the chances of producing a useful outcome from such research effort is highly doubtful considering the resources to which we have access. Since a technique for rail flaw inspection that is not inhibited by any combination of rail surface conditions is being developed currently in the pri-

vate sector, we see no need to apply scarce resources to research a goal that we view as impractical and which has a good probability of being unnecessary. In developing track safety standards, we are considering requiring a substantial speed restriction for rails where signal loss indicates a ''nontest.''

NTSB responded on April 9, 1996, indicating FRA's reply has the potential of being an alternate means of satisfying this recommendation. However, the Board noted that nearly 2 years have passed since this Safety Recommendation was issued, and FRA provided no indication of possible future time frame when the Track Safety Standards might be revised. Because of the long time between issuance of this recommendation, and the uncertainty that any action taken would satisfy this recommendation, NTSB classified this recommendation as ''Closed—Unacceptable Action.'' Note: FRA has since addressed this recommendation in the NPRM revising its Track Safety Standards.

R–94–15. Conduct Study-Positive Train Separation—''Identify possible uses for Positive Train Separation Control Systems data and information and conduct a study to identify ways in which this information can be used to enhance grade crossing safety.

FRA advised NTSB on March 24, 1995, that FRA supports the exploration of all options for integration of PTC systems with technologies that may enhance safety at highway-rail grade crossings, and cited various potential applications. In some cases, existing signal-based technologies may offer more secure and cost-effective solutions than alternatives with little or no service history. In other cases, advanced electronics coupled with radio frequency communication paths may offer excellent solutions that would not otherwise be affordable. FRA and the Federal Highway Administration are working to identify possible linkages that might improve safety at highway-rail grade crossings, and are presently evaluating a ''Vehicle Priority Alerting System'' at the Department of Transportation's Test Center near Pueblo, Colorado. Additionally, FRA is exploring with the Union Pacific and Burlington Northern Railroads the possible demonstration of one or more grade crossing technologies in connection with the Positive Train Separation project.

Current Status.—NTSB advised FRA on November 8, 1995, that the Board was pleased to note FRA's intention to identify candidate technology for field trails, and requested FRA to provide periodic updates as to progress. NTSB therefore classified this recommendation as ''Closed—Acceptable Action.''

R–95–010. Hazardous Materials—Corrosive Products—''Require, in cooperation with RSPA, that the shipper or party using a tank car to transport materials corrosive to the tank determine the periodic inspection interval and testing technique for linings and coatings, and require that this information be provided to parties responsible for the inspection and testing of tank cars.''

FRA advised NTSB that this agency's agreement with this recommendation, which supported the efforts of the FRA and the Research and Special Projects Administration's proposed standards under Docket HM–201. These proposals would require the owner of a lined or coated tank car transporting a material corrosive to the tank to determine the periodic inspection and test interval and testing technique for the material used.

On September 20, 1996, FRA advised NTSB that the Research and Special Program Administration, in cooperation with FRA, recently published three final rules that will greatly enhance the safe transportation of hazardous materials in tank cars by railroads. These final rules were based on several recommendations issued by the NTSB, petitions for rulemaking, and RSPA's and FRA's own initiative. RSPA, on September 21, 1995, published a final rule that requires the owner of the lining or coating to determine the inspection interval and test techniques for the lining or coating. On June 26, 1996, RSPA published a correction document under Dockets HM–175A and HM–201, that required the owner of a lining or coating to provide the periodic inspection interval, test technique and acceptance criteria for the lining or coating to the person responsible for qualifying the lining or coating.

Current Status.—NTSB advised February 10, 1997, that the Board notes that RSPA, with the cooperation of FRA, published on June 26, 1996, a correction document under Dockets HM–175A and HM–201, that requires the owner of lining or coating to provide the periodic inspection interval, test technique, acceptance criteria for the lining or coating to the person responsible for qualifying the lining or coating. NTSB indicated this satisfies the concerns earlier expressed by the Board. Therefore, the Board classified this safety recommendation as ''Closed—Acceptable Action.''

R–95–044. Two-Way End-of-Train Device—''Separate the Two-Way End-of-Train Requirement from the Power Brake Law Notice of Proposed Rulemaking, and Immediately Conclude the End-of-Train Device Rulemaking so as to require the use of two-way end-of-train telemetry devices on all cabooseless trains.''

FRA published on January 2, 1997, the final rule setting minimum performance and operational standards for two-way end-of-train devices and required their use on a variety of freight trains. This regulation was effective on July 1, 1997.

Current Status.—NTSB advised June 30, 1997, that the Board understands that the FRA has completed the rulemaking requested by this recommendation and therefore has classified this safety recommendation as "Closed—Acceptable Action."

R–95–045. Determine Highway-Rail Crossings with Preemption—"Cooperate with the State Directors of Transportation and the Federal Highway Administration to determine, at those Highway-Rail Grade Crossings where control of a highway traffic signal is preempted by train movements to determine if the preemption allow sufficient time for vehicles to safely clear the crossing. Until corrective action has been taken, take appropriate steps for those crossings determined to have insufficient time for vehicles to safely clear."

FRA advised that the Secretary of Transportation directed the formation of a grade crossing safety task force. As one of the task force's initiatives, all states would be apprised of the availability of both the FRA and FHWA to provide cooperative assistance. Prior to receipt of NTSB's recommendation, FRA had already requested railroads to start necessary processes to determine how many and which of their crossings should be reviewed. The FRA also became prepared to accept from the states lists, by crossing number, on diskette, of crossings with preemption circuitry and to enter this information into the U.S. DOT/AAR National Highway-Rail Crossing Inventory. This action allow for the ability to provide all concerned a permanent record of the identified crossings. FRA will develop procedures for states and railroads to routinely update this information in the future. Finally, states have been advised of FRA's ability to provide them lists of crossings at which railroads have reported accidents that have occurred at crossings having warning devices interconnected with highway signals.

Current Status.—NTSB advised on February 19, 1997, that the Board commends the FRA for cooperating with the State Directors of Transportation and the FHWA in identifying and inspecting more than 3,000 highway-rail grade crossings nationwide where control of the highway traffic signal is preempted by train movements. Based on these efforts, the Board classified this safety recommendation as "Closed—Acceptable Action."

R–96–012. Technical Bulletin—Flattened Rail Head Conditions—"Develop not later than 12/31/96, an interim Technical Bulletin authorizing track inspectors to take corrective action to prevent the potential hazard of flattened rail head conditions to train operations."

FRA referred this recommendation to the Track Working Group of the RSAC. From this participative effort, FRA issued Technical Bulletin T–97–01, dated February 6, 1997, to all Federal and State Track Inspectors. This document contained a discussion of the August 3, 1994 derailment of Amtrak Train No. 49 at Batavia, New York, conclusions, and guidelines for inspectors to follow in event similar rail conditions are found.

Current Status.—NTSB advised on April 11, 1997, that the Board was pleased to receive a copy of the requested Technical Bulletin dated February 6, 1997. Therefore, NTSB classified this recommendation as "Closed—Acceptable Action."

SAFETY IMPROVEMENTS FISCAL YEARS 1993–96

Question. In your fiscal year 1999 justification (page 9), under the general statement—priorities, a number of safety improvement statistics are cited. Please restate them completely, including time frame measured, and absolute numbers that drive the percentage decreases.

Answer.

Performance measures	1993	1994	1995	1996	Percent change 1993–96
Rail-Related Fatalities	1,279	1,226	1,146	1,039	−18.8
Employee-On-Duty Casualties	15,410	13,111	10,811	9,232	−40.1
Train Accident Rate	4.54	4.07	3.91	3.85	−15.2
Grade Crossing Collision Rate	3.47	3.22	2.85	2.56	−26.2

NEED FOR ADDITIONAL SAFETY POSITIONS

Question. FRA is requesting an increase of 32 positions for the railroad safety program. Given the fact that safety has improved in the railroad industry during the last five years, why is it critical to increase the number of positions at this time?

Answer. FRA believes the requested number of field positions is the minimum number required to respond to the needs of its safety program given the dramatic changes and increasing safety challenges affecting the railroad industry. To meet the growing safety challenges, the 32 positions will be used in the field to bolster FRA's Safety Assurance and Compliance Program (SACP), the site inspection program, and the grade crossing safety and trespasser prevention program.

Recent railroad mergers have created mega-carriers, the largest of which employ more than 56,000 employees and traverse two-thirds of the country. At the same time, shortline spinoffs have resulted in the emergence of nearly 700 separate railroads; there are now more railroads in the United States than there are people in FRA's Office of Safety. Also, sharply diverging trends in rail traffic and employment continue unabated. As rail traffic continues to rise to record high levels, straining the capacity of the nation's rail network, employment has declined to the lowest level in this century, eliminating safety redundancy and greatly diminishing the margin for error. Furthermore, increasing rail traffic density and the encroachment of urban and suburban communities along railroad rights-of-way has caused increasing rail related deaths and injuries among pedestrians.

To meet these growing safety challenges FRA seeks 32 additional field positions. The agency intends to further leverage the effectiveness of these positions by utilizing their efforts in support of the SACP. By building safety partnerships with rail labor and management and conducting coordinated multi-regional team based safety audits that focus on the identification and mitigation of the root causes of systemic safety concerns, FRA maximizes the safety in the growing rail industry in the most efficient manner possible.

These positions will also be used to meet the growing needs of the site inspection program, many of which result from important Congressional safety mandates, including the Grade Crossing Signal Safety Standards, Two Way End-of-Train Device Regulations, Roadway Worker Protection Rule and the pending revisions to the Track Safety Standards and Power Brake Regulations.

Specifically, FRA intends to establish eight Principal Inspectors (PI's) positions, one per FRA region, who will plan, coordinate and participate in SACP safety audits and shortline railroad inspections. Sixteen Safety Inspectors will be distributed throughout selected regional offices to perform site-specific inspections, participate in SACP audits, and act in advisory capacities in the Railroad Safety Advisory Committee and Technical Resolution Committees.

The final eight positions will be assigned (one per Region) to assist Regional Crossing Managers and Regional Administrators primarily to enhance FRA's Trespasser Prevention Program It is in this area that the greatest number of rail-related fatalities occur. In 1997, preliminary data show that trespasser fatalities for the first time clearly eclipsed highway-rail crossing fatalities as the largest single component of fatalities in railroad operations, rising from 471 reported in 1996 to 530 in 1997, based on current projections. FRA believes that improvements in this area will occur through requested staffing augmentation in the grade crossing and trespass prevention area. These positions will also support the Highway-Rail Grade Crossing Safety Program and will assist Regional intermodal, intra departmental, State, Metropolitan Planning Organizations, city and local government liaison activities.

SAFETY INCREASES

Question. Please prioritize each of the requested increases in the Office of Safety budget. Which two aspects of the requested increase are most important and why?

Answer. FRA's fiscal year 1999 request for the Office of Safety reflects an increase of $4,909,000 over fiscal year 1998 and includes the following increases in the priority order: $3.068M to maintain current services; $1.691M to support 32 additional positions; $.100M for RSAC; and $.050M for Planning & Evaluation Project.

FRA cannot absorb non-discretionary increases, especially in the Office of Safety. Funding is essential and any decreases below current services will result in a reduction in personnel or a reduction in work—which will only exacerbate the number of issues Safety will not be able to address.

Staffing

The request of $1.691 million supports 32 additional safety employees. All 32 safety employees will be assigned to field offices. Given the large growth in rail traffic

which has strained rail network capacity, the steady decline in rail employment which has greatly reduced the margin for error, the emergence of huge mega-carriers and the proliferation of shortline railroads; FRA believes the requested number of field positions is the minimum number needed to respond to the needs of its safety program.

Particularly for 24 positions, (eight Principal Inspectors and 16 Safety Inspectors), FRA intends to leverage their effectiveness by utilizing their efforts in support of the SACP. These positions are needed to build labor/management safety partnerships and to conduct and participate in coordinated team based safety audits to maximize the safety of the growing rail industry in the most efficient manner possible. Furthermore, these positions are essential to meet the growing needs of the site inspection programs, many of which result from important Congressional and statutory safety mandates, such as Passenger Train Emergency Preparedness, Passenger Equipment Safety Standards, revised Track Safety Standards, Power Brake Regulations and Radio Communication Standards.

The eight remaining positions are needed to assist Regional Crossing Managers and Regional Administrators, primarily to bolster FRA's Trespasser Prevention Program. It is in this area that the greatest number of rail-related fatalities occur. They are also needed to help coordinate agency support and coordinate intermodal, intra departmental, State, Metropolitan Planning Organizations, city and local government liaison activities.

RSAC

The Railroad Safety Advisory Committee (RSAC) provides FRA with advice and recommendations on the development of safety standards and other important issues facing the federal railroad safety regulatory program. This process shifts the focus of FRA's regulatory program to one of greater collaboration with the regulated community in arriving at mutually satisfactory solutions. RSAC produces consensus on underlying factual issues, the range of options, and the recommended solutions. By harnessing the combined wisdom, resources and experience of railroad industry experts who have the greatest knowledge and interest in promoting rail safety, FRA is able to leverage its resources to simultaneously conduct a number of major rulemakings, often much more quickly than can be accomplished under the traditional approach. RSAC is undertaking some of FRA's toughest, most controversial regulatory challenges.

The RSAC structure consists of voting representatives from 27 organizations representing large and small railroads, rail labor organizations, state associations, rail passenger representatives, suppliers, other interested parties, and two associate representatives from agencies with rail responsibilities in Canada and Mexico. Initial funding levels did not anticipate the overwhelming industry embracement of this process. Railroad labor and management are dedicating significant resources to the success of this collaborative rulemaking process. Since RSAC was chartered on March 25, 1996, an estimated 500 full Committee, Working Group and Task Force members and alternates have participated in more than 75 meetings to address 13 issues such as track safety standards and positive train control. The magnitude of the resources dedicated is reflective of the participants' commitment to the success of this process.

The additional $100,000 requested would support the fiscal year 1999 RSAC activities at an optimum level for reducing FRA's regulatory backlog. Railroad labor and management are dedicating significant resources to the success of this rulemaking process. Funding below the requested level would severely impact the effectiveness of this process and the resulting critical contributions to public safety envisioned by all parties dedicated to the success of collaborative rulemaking.

Planning and Evaluation Project

Funding for the planning and evaluation project will provide FRA with the means to provide the best allocation of inspectors to railroad sites of greatest risk. This project provides a geographical information mapping system, with linkages to human resources, railroad accident rates, traffic volumes, emergency response needs, passenger volumes, and hazardous material concentrations. Without this tool, FRA will not be as effective as it could be in directing its limited inspector resources to locations where inspectors can have the greatest impact on achieving FRA's GPRA safety goals.

SAFETY STAFF BY REGION

Question. Please list, by region, the current safety inspection field offices and number of personnel at each field office. Please indicate how the additional person-

nel associated with the fiscal year 1999 increase will be allocated within this regional/field office framework.

Answer. The information follows:

Region/Field Office	Fiscal year—		Difference
	1998	1999	
Northeastern Region:			
Cambridge	22	26	4
Buffalo	5	5	.....
Clifton Park	7	7	.....
Newark	14	14	.....
Bangor [1]	1	1	.....
Eastern Region:			
Lester	25	29	4
Pittsburgh	11	11	.....
Charleston [1]	5	5	.....
Cincinnati	4	4	.....
Cleveland	4	4	.....
Columbus [1]	3	3	.....
Hanover	7	7	.....
Harrisburg [1]	2	2	.....
Norfolk	4	4	.....
Roanoke [1]	4	4	.....
Toledo	1	1	.....
Southern Region:			
Atlanta	22	26	4
Birmingham	6	6	.....
Charlotte	8	8	.....
Jacksonville	9	9	.....
Knoxville [1]	1	1	.....
Louisville [1]	7	7	.....
Memphis [1]	4	4	.....
Nashville	4	4	.....
Mobile	5	5	.....
Central Region:			
Chicago	34	38	4
Detroit	6	6	.....
Indianapolis	9	9	.....
Ft. Snelling	8	8	.....
Peoria [1]	2	2	.....
Southwestern Region:			
Hurst	27	31	4
Houston	12	12	.....
El Paso	4	4	.....
Little Rock	5	5	.....
New Orleans	8	8	.....
Oklahoma City	4	4	.....
San Antonio [1]	4	4	.....
Shreveport	3	3	.....
Midwestern Region:			
Kansas City	24	28	4
Des Moines	3	3	.....
Lakewood	11	11	.....
Omaha	8	8	.....
St. Louis	8	8	.....
Wichita [1]	2	2	.....
Western Region:			
Sacramento	23	27	4
Riverside	10	10	.....

Region/Field Office	Fiscal year— 1998	1999	Difference
Salt Lake City	6	6	.....
Northwestern Region:			
Vancouver	23	27	4
Billings	8	8	.....
Bismarck	5	5	.....
Pocatello	5	5	.....
Seattle [1]	5	5	.....
Spokane [1]	4	4	.....
Total	456	488	32

[1] Office closed; all employees telecommute.

FIELD OFFICE CLOSINGS

Question. What, if anything, has FRA done to reduce the number of small field offices during the last year? Are any cost savings reflected in the budget? How many field offices have been closed during the last three years (please name locations)? Have any new offices been established during this period.

Answer. FRA is currently implementing the final phase of its telecommuting project, which began in fiscal year 1996. This project has been extended to allow eligible employees in all regions the opportunity to work at home or telecommute. Under this project, FRA plans to close a total of 15 offices, including 13 that have already been closed. In addition, by the end of the project, FRA will have reduced overall facility space in 8 offices.

No new field offices have been established since fiscal year 1996. The chart below lists offices that have been closed or had space reductions as a result of the telecommuting project over the last three years.

FRA projects that fiscal year 1998 closings will result in an annual savings of approximately $57,000, which was incorporated into FRA's fiscal year 1999 rent request. No closings are planned for fiscal year 1999. It should be noted that while the rent line item decreased due to these changes, other costs increased. Office closings and telecommuting require additional funds in communications, information technology, space management, and other support costs, especially in the year of the transactions.

Fiscal year	Offices closed	Offices with reductions in space
1996	Bangor, ME	Oklahoma City, OK.
	Memphis, TN	Salt Lake City, UT.
	Knoxville, TN	
	Tampa, FL	
	Shreveport, LA	
	San Antonio, TX	
	Spokane, WA	
1997	Peoria, IL	Birmingham, AL.
	Wichita, KS	Nashville, TN.
	Roanoke, VA	Mobile, AL.
	Seattle, WA	
	Louisville, KY	
1998	Columbus, OH	Houston, TX.[1]
	Harrisburg, PA [1]	Jacksonville, FL.[1]
	Charleston, WV [1]	Charlotte, NC.[1]

[1] Planned closings/space reductions.

TELECOMMUTING

Question. How many Office of Safety employees have elected to telecommute since the National Partnership Council implemented Phase I of the telecommuting proc-

ess in September 1995 (please break out by fiscal year 1997 and 1998)? When will this process be complete?

Answer. FRA is currently implementing the final phase of its telecommuting project, which has been extended to allow eligible employees in all regions the opportunity to work at home or telecommute. There are currently 161 full-time telecommuters working out of their homes. It is anticipated that could increase by approximately 20 employees for a total of 181 telecommuters. On September, 1997, there were 135 full-time telecommuters.

BALANCE OF PC&B FUNDS IN FISCAL YEARS 1996–97

Question. What was the remaining amount of PC&B in fiscal year 1996 and fiscal year 1997 that was not used for this purpose? To which areas were these funds reallocated?

Answer. Funds were not appropriated at the PC&B level, therefore, there were no "remaining" PC&B funds. An object class table for the Safety appropriation was included in the budget request and reflected an ESTIMATE on how funds would be spent based on funding decisions at the time the budget was developed. Congressional actions, emergencies such as the UP and CSX accidents, absorption of unfunded costs, and other policy actions change these decisions and FRA acts accordingly.

FRA works very hard to develop sound estimates at the object class level. However, FRA, within the parameters of the appropriation and approved reprogramming guidelines, reallocates resources at the object class level to fund high priority needs. This is good budgeting and ensures that funds are not only spent in line with Congressional intent, but are leveraged to maximize safety.

INSPECTION DATA 1995–97

Question. How many miles of track, freight cars, locomotives, and track miles with signal and train control systems were inspected last year? Please compare this level of inspection activity with that achieved during the two preceding years. How were these activities focused on high-risk railroads and shippers?

Answer.

INSPECTION DATA

	1995	1996	1997[1]
Track:			
Number of inspections	12,668	11,539	11,193
Miles inspected	272,476	260,543	246,748
Records inspected	132,420	132,992	108,751
Defects recorded	69,817	65,788	62,697
Signal:			
Number of inspections	5,391	5,383	5,045
Units inspected	55,414	51,801	45,184
Records inspected	66,823	84,057	72,134
Defects recorded	22,169	19,261	26,440
Motive Power and Equipment:			
Number of inspections	15,579	14,838	13,534
Locomotives inspected	29,916	24,345	21,927
Cars inspected	700,838	624,069	547,654
Defects recorded	123,078	108,076	99,782
Operating Practices:			
Number of inspections	13,501	12,936	12,755
Complaints received	1,519	1,383	1,522
Defects recorded	35,880	16,975	33,228
Hazardous Materials:			
Number of inspections	10,461	10,483	9,633
Tank cars inspected	77,992	76,718	70,547
Defects recorded	21,649	18,139	16,216

[1] Preliminary data.

FRA's inspection activities are data-driven. FRA's databases show a railroad's historical accident profile, prior inspection activities, the amount of tonnage hauled by

the railroad and over what routes, the number of highway-rail grade crossings, whether hazardous materials are transported, and the amount of interaction between freight and passenger traffic. Inspection activities are usually focused on railroads and shippers that pose the highest risk in terms of these factors.

EFFECTIVENESS OF CIVIL PENALTY PROGRAM

Question. What is the relationship, if any, between FRA's civil penalty enforcement program and industry's compliance with the safety regulations and crash reduction? How do you measure this relationship?

Answer. Each of FRA's substantive safety regulations is designed to reduce the likelihood of accidents, injuries and other undesirable consequences related to the subject of the rule. For example, FRA's rule on control of alcohol and drug abuse is designed to reduce the incidence of impairment on the part of safety-sensitive employees. Since its issuance in 1985, the percentage of employees testing positive for alcohol or drugs has declined enormously. Serious accidents caused by impaired employees have declined accordingly. These improvements are presumably largely the product of compliance with the rules. The same analysis can be made of nearly all of FRA's substantive rules. Their implementation leads to an improvement in the relevant safety category.

An important part of that implementation is enforcement. It is not currently possible to trace specific penalty actions (of which FRA completed 1,500 to 2,000 per year) to specific reductions in accident rates. However, FRA's experience teaches that, if compliance were voluntary, compliance levels would be significantly lower. Were the civil penalty process not available to help induce improved compliance, the number of violations would no doubt increase and lead to accidents or injuries in some percentage of the cases.

FRA's daily experience with the civil penalty process demonstrates that it affects safety behavior very positively. FRA and state inspectors generally recommend the assessment of civil penalties when that step seems necessary to help encourage compliance. Inspectors ordinarily use the civil penalty tool as a way of signaling displeasure with the current level of compliance on the part of a particular railroad, shipper, or individual. Sometimes, the civil penalty is recommended even for a somewhat isolated violation because of its severity. In cases involving defective track, signals, or equipment, a railroad that has been reluctant to cooperate generally remedies the defects shortly after receiving the initial notice from the inspector of his or her intention to recommend a penalty. In fact, FRA's rules require that a report of remedial action be submitted to FRA in such cases. Where violations involve a completed action that cannot specifically be remedied (such as an hours of service violation), remedial action reports are not required. However, railroads and shippers investigate all violations and, at the time the initial civil penalty assessment is discussed in a settlement conference, they nearly always indicate that violations have been corrected and/or remedial actions have been taken to reduce the chance of a recurrence. Accordingly, civil penalty assessments generally result in correction of the immediate defects and/or measures to avoid repeated violations of the same nature.

FRA is making a concerted effort to concentrate its limited enforcement resources on the types of violations most likely to cause accidents and injuries. This "focused enforcement" approach, as it becomes fully implemented, promises to focus railroad corrective action where it is most needed to avoid accidents and injuries.

HOLDING OF PENALTIES DURING SACP

Question. How is the process of holding penalties in abeyance affecting the effort to promote safety and regulatory compliance?

Answer. The reduction in train accidents, train accident rates, rail-related fatalities, and employee-on-duty casualties over the last five years is convincing evidence that FRA's Safety Assurance and Compliance Program (SACP) is achieving desired safety results. Between 1993 and 1997, train accidents decreased 10 percent, train accident rates decreased 18 percent, rail-related fatalities decreased 18 percent and employee-on-duty casualties decreased 46 percent.

SACP is an outgrowth of President Clinton's directive to Federal regulatory agencies that their inspection and enforcement programs be designed to focus on safety results and regulatory compliance, not just collect fines. FRA suspends the assessment of most civil penalties concerning matters covered by a SACP safety audit. Through the collaborative efforts of rail management, rail labor, and FRA, the railroad submits a Safety Action Plan to FRA. The Safety Action Plan describes intended actions to correct systemic safety defects, or areas of non-compliance with agency regulations. Except in egregious cases, civil penalties are held in abeyance

as long as the railroad is carrying-out system-wide improvements/corrections, as specified in the Safety Action Plan.

CONSIDERATION OF ABILITY TO PAY A PENALTY

Question. In assessing penalties, how does FRA adequately consider the ability of a railroad to pay a penalty and the impact on the railroad's financial stability after paying a financial penalty?

Answer. The railroad safety statutes require that, in determining the amount that the agency might accept in compromise in a civil penalty case, FRA consider "the ability to pay, and any effect on the ability to continue in business." The penalties are currently subject to a maximum of $22,000 per violation per day, but the assessment for a single violation is ordinarily far less than the maximum, which is reserved for the most serious violations that have caused an imminent hazard of serious injury or death. Civil penalty negotiations with major railroads usually involve many different violations, and the total aggregate assessment can be in the hundreds of thousands, and sometimes millions, of dollars. Negotiations with small railroads usually entail only one or a few violations. The largest fines are generally assessed against the largest railroads, and the smallest railroads are not frequently fined, and are hardly ever fined large amounts.

FRA invites all railroads to address all of the statutory compromise considerations in negotiations. However, railroads hardly ever argue that they lack the ability to pay a particular fine or that it will affect their ability to continue in business. When they do, FRA asks for supporting information on the railroad's financial condition, and assesses whether that information establishes a real inability to pay or possible effect on continued business. FRA construes the statutory criteria quite literally, and looks for information demonstrating an actual inability to pay and/or effect on the continuation of the business. On the extremely rare occasions where such information is submitted and supports the claims made by the railroad, FRA makes sufficient allowances (e.g., reducing the penalty further and/or permitting installment payments). It should be noted that FRA's policy is to take into account the special circumstances of small businesses in deciding whether to take enforcement action in the first place, and FRA makes a special effort to ensure that such enforcement actions are focused on the most important safety issues.

CURRENT LEVEL OF CIVIL PENALTIES

Question. Does the current level of civil penalties send the appropriate message to industry that FRA will "get tough" when necessary?

Answer. So far in this decade (through fiscal year 1997), FRA has collected $72 million in civil penalties. In fiscal year 1997, the figure was $3.8 million. FRA thinks these numbers send the message that FRA will use its civil penalty authority when necessary. However, more important than aggregate penalty levels is the need to impress on those who commit the most serious violations that such behavior will have a cost. This is what FRA is attempting to do through "focused enforcement."

PROCESSING ENFORCEMENT CASES

Question. How could FRA's enforcement case backlog be more efficiently processed? How could industry be more effectively informed of pending cases? What is the current backlog and how does it compare with the backlog for each of the last three years?

Answer. FRA has an efficient system for processing enforcement cases. In 1997, the Office of Chief Counsel initiated enforcement cases, on average, within 60 days of having received the violation report from the region. (Some years ago, when the safety legal staff was smaller and FRA had not computerized its document preparation for these cases, it was taking nearly two years to transmit them.) The promptness of the current process ensures that the industry is effectively informed of pending violations on a timely basis. (Of course, a railroad also receives notice roughly contemporaneously with an inspection that the inspector intends to recommend a civil penalty because the inspector checks a box on the inspection report given to the railroad to show that civil penalty will be recommended.) With regard to major railroads, the process has also become very efficient in bringing these cases to resolution. FRA holds a settlement conference to close all pending cases on at least an annual basis with the largest railroads.

The major area of difficulty now is finding sufficient time to settle cases against small railroads and shippers. Each case requires separate attention and the settlements, which are often handled through mail and phone calls rather than meetings, lack the economies of scale present in the large railroad settlements. FRA attorneys can pursue these settlements only as the press of other priorities (e.g., large railroad

settlements, regulatory projects, engineer certification cases) permits. At any given time, FRA always has a number of open cases awaiting settlement. The figures below show the number of such cases pending now and the total initial penalty demand on those cases, with similar figures as of March during each of the last three years. The number of cases and amount of the total penalty demand have declined substantially since March 1995. FRA does not consider these total amounts to be "backlogs" because only a portion of them involves cases older than a year. Generally, those older cases are the small railroad and shipper cases for which it is so difficult to find sufficient time.

Time period	Number of open cases	Penalty amount
March:		
1995	2,710	$20,515,500
1996	2,552	19,420,800
1997	1,796	12,543,950
1998	1,506	11,304,050

SACP AUDITS OF CLASS I AND II RAILROADS

Question. Under the SACP, how many Class I and Class II railroads have been analyzed by FRA so far? How often are you able to return to these railroads? How many additional railroads need to be reviewed?

Answer. FRA has examined more than 55 railroads under SACP including all ten Class I railroads, more than half of the approximate 27 Class II railroads, seven of the nine commuter rail authorities, and many of the largest switching and terminal railroads (according to Surface Transportation Board railroad revenue classifications, all switching and terminal railroads are Class III, regardless of revenue levels). SACP audits are considered an ongoing process—once a SACP audit begins at a railroad, it will be continuously monitored by FRA inspectors through employee listening post sessions and formal FRA/Management/Labor meetings. FRA cannot extend SACP audits to the more than 700 U.S. railroads. However, the agency intends to place under SACP review the largest freight, all passenger, and all other freight railroads having significant amounts of hazardous material shipments, or interface with passenger service.

DETERMINATION FOR SACP AUDITS

Question. Please describe how FRA determines which railroads are included in the SACP process.

Answer. SACP safety audits are the most efficient method of examining the largest railroads, which operate in multiple States and across several of FRA's regional field offices. All Class I freight and passenger railroads are undergoing the open-ended SACP safety audits. In addition, most commuter rail authorities and the largest Class II freight and Class III Switching and Terminal Railroads are undergoing SACP safety audits. To confirm the accuracy of the selection process and to assess other candidates to under go SACP safety audits, FRA uses an Annual Allocation Analysis Model (AAAM). The AAAM focuses on high risk rail movements. The model data is arranged by inspection discipline, region, and railroad. Railroads are divided into three class size groupings: large railroads with annual employee hours greater than 400,000, small railroads with total train miles times annual employee hours greater than 100 million, and small railroads with total train miles times annual employee hours less than 100 million.

For large railroads, AAAM uses seven risk factors: inspection reports, accidents, fatalities and serious injuries, hazardous material tons, total tons, passenger traffic, and inspection defects. AAAM also uses seven risk factors for both categories of small railroads. Hazardous material tons and total tons are obtained from the Surface Transportation Board's Carload Waybill Sample. However, the Carload Waybill Sample of railroad freight traffic does not accurately track hazardous material traffic flows on small railroads. Consequently, "train miles" and "annual employee hours" are substituted for "hazardous material tons," and "total tons." AAAM is a model of reasonable risk factors, which can suggest the need for site specific examinations, or suggest an area for examination under Safety Assurance and Compliance Program (SACP) safety audits.

ASSESSMENT AND FUNDING NEEDS OF SACP

Question. Please provide an overall assessment of the SACP process, indicating remaining challenges, improvements needed, and constraints. How does your fiscal year 1999 budget address these remaining challenges?

Answer. SACP identifies and addresses systemic problems that have railroad-wide or railroad-industry-wide implications. Often, these issues cut across inspection territories and disciplinary lines. For example, the recent Burlington Northern/Santa Fe (BNSF) and Union Pacific (UP)/Southern Pacific (SP) mergers and the proposed acquisition of Consolidated Rail Corporation (Conrail) by Norfolk Southern and CSX Transportation (CSXT) all pose issues of how safety is affected by such things as the blending of different corporate cultures and reconciliation of different operating rules and practices.

FRA's safety programs require a balanced approach of inspections coupled with partnerships, which enlist the cooperation of rail labor and management to identify and correct safety concerns in the railroad industry. Site-specific inspections remain as a vital component of FRA's rail safety program; however, site inspections are not always beneficial in identifying systemic problems nor ensuring railroad cooperation and participation in correcting safety violations.

One of the most significant challenges facing the SACP is building effective labor/management safety partnerships at the local level. Both labor and management have sought out FRA to help establish safety committees between rank-and-file railroad workers and first line supervisors and managers. The eight Principle Inspectors and 16 Safety Inspectors will play a significant role in addressing this critical SACP need.

While FRA is leveraging its resources through SACP and site-specific inspection duties, there is still a significant amount of work that is not being addressed. Grade crossing, bridge inspection, regulatory analysis, and state liaison are just some of the areas that are vulnerable due to limited resources. The 32 positions requested by FRA are intended to help address these safety issues as well.

SUCCESS OF SACP

Question. Is your cooperative strategy working? How do you document this? Please provide several examples of how this cooperative approach has been effective, and outline how the compliance levels have improved with this approach versus FRA's more traditional enforcement approach.

Answer. The singular goal of the Safety Assurance and Compliance Program (SACP) and FRA's existing site-based inspection and enforcement program is to improve rail safety by reducing systemic hazards in rail facilities, equipment, rolling stock and operations. The following statistics document that since 1993, FRA's cooperative strategy approach is working:

Performance measures	1993	1994	1995	1996	Prelim 1997	Percent change 1993–97
Rail-Related Fatalities	1,279	1,226	1,146	1,039	1,048	−18.1
Employee-On-Duty Casualties	15,410	13,111	10,811	9,232	8,239	−46.5
Train Accident Rate	4.54	4.07	3.91	3.85	3.47	−23.6
Grade Crossing Collision Rate	3.47	3.22	2.85	2.56	2.22	−36.0

SACP initiatives complement FRA's existing enforcement program. Team and individual inspector-based inspections still comprise about 70 percent of FRA's safety program. The traditional approach to safety allows FRA to enter and examine rail facilities, equipment, rolling stock, operations and pertinent records to ensure compliance with railroad safety regulation. Civil penalties, which FRA can assess against any entity (including individuals) that violates safety laws, continue to serve as strong tools to ensure the railroad industry adheres to rail safety regulations. However, FRA is making a greater effort than ever on focusing enforcement actions on the most serious violations and safety concerns. Examples of the effectiveness of SACP safety audits follow:

The Burlington Northern Santa Fe (BNSF) has worked with FRA and its labor organizations to pioneer SACP techniques. In January 1997, a joint labor/management/FRA SACP Task Force was formed to: (1) identify and recommend solutions to cultural issues which affect safety; (2) identify and recommend solutions to systemic safety issues; and (3) open lines of communication between labor organizations and senior railroad management. SACP initiatives which began January 1,

1997 on the BNSF have resulted in an improved Grade Crossing Safety Program, a System-Wide Signal Software Upgrade, greater Employee Safety Empowerment, an Improved Discipline Policy, increased Fatigue Countermeasures, and Improved Accident/Incident Reporting throughout the entire BNSF system. The following are select highlights of the results to date:

Grade Crossing Safety Program.—BNSF, in conjunction with FRA, developed a 10-year comprehensive "Highway-Railroad Grade Crossing and Trespasser Prevention Program." The program focuses on crossing closure, public education and enhanced law enforcement.

System-Wide Signal Software Upgrade.—Concerns regarding faulty signals in Montana (identified by labor and pursued by FRA) resulted in the correction of software at the BNSF Operations Center. This prevented a potentially serious signal failure in over 400 signals. A follow-up analysis by BNSF revealed a manufacturing signal system defect, which has been corrected by the manufacturer on a nationwide basis for all railroads. This is the magnitude of increased safety that SACP can provide.

Employee Safety Empowerment.—A comprehensive "Employee Empowerment Safety Policy" and a "Fear and Intimidation" complaint resolution process, both authored by the SACP Task Force, were implemented system-wide in 1997. Combined, these programs allow employees to challenge and resolve work place safety issues while maintaining "whistle blower" type protections. Since harassment and intimidation are chronic employee complaints and difficult to eliminate by regulation, this SACP achievement is extraordinarily important.

Improved Discipline Policy.—Working with the SACP Task Force, BNSF established a new employee discipline policy. The railroad now focuses on individual behavior modification using coaching, counselling, and training, rather than punishment for safety-related and other types of infractions. In addition, all cases of significant discipline, i.e., suspensions and dismissals, are reviewed by senior management. This approach emphasizes to management and employees that rules compliance is about preventing injuries and property damage, not just finding fault afterwards.

Fatigue Countermeasures Program.—Working with the SACP Task Force, BNSF has developed the most advanced "Fatigue Countermeasures Program" in the industry. The carrier has instituted a "strategic napping policy," a "10-hour rest period," and pilot programs for "assigned days off" and "calling windows." As these approaches succeed, employees will be empowered to take responsibility for their own fitness and have better tools to meet their safety responsibilities.

Improved Accident/Injury Reporting.—A comprehensive "Accident/Injury Reporting" audit conducted by FRA during the SACP process resulted in a defect reporting rate error on BNSF of less than 1 percent. This verified defect ratio reflects the sharp focus that the railroad has placed on improvement of reporting practices and is a true achievement. A quarterly review process has been established to monitor continued compliance with reporting requirements.

Highlights of the enhanced SACP initiative, which began on the Union Pacific Railroad Company (UP) in late August 1997, have thus far resulted in an improved Supervisor Program, increased staffing, increased fatigue countermeasures, a revised and refined dispatching program, and the development of an electronic system enabling the UP to comply with Federal record keeping requirements involving about 20,000 train and engine employees. Following two years during which the Union Pacific consummated large mergers, 1997 became the year in which America's largest railroad discovered its own limitations.

From a safety standpoint, the UP had become less than the sum of its parts. As some Union Pacific managers admit, with the benefit of hindsight, they did not make the preparations necessary to integrate the system and maintain adequate traffic flows. Changes that were instituted were often too rapid or involved cuts that went too deep. This resulted in a variety of ills, including heavy stresses on employees and physical assets, distraction and dislocation of first-line managers, and more changes in the way the business was run than could be accommodated in that supercharged environment.

In response to FRA's SACP review, six "working groups," consisting of representatives from FRA and from UP labor and management, began working to identify the causes of, and solutions to, systemic safety problems. The six working groups are: (1) Crew Management System, (2) Train Dispatching, (3) Fatigue, (4) Training, (5) Culture, and (6) Inspections and Testing. The following are select highlights of the results to date:

Supervision.—A SACP Working Group found that supervisors' workloads prevented them from effectively monitoring and evaluating their employees' perform-

ance, particularly in train and engine service. UP hired 134 supervisory personnel and identified additional supervisory positions to be filled.

Staffing.—An analysis of staffing levels by a SACP Working Group provided evidence that the number of employees is not adequate to handle current and projected levels of traffic. As a result, the UP began hiring 1,000 employees to correct this issue.

Fatigue.—A SACP Working Group is studying and recommending solutions to fatigue-related issues. These include: napping, lodging, uninterrupted rest periods, education, improved crew utilization and scheduling. Staffing and contract preparations have been made, and employee education and awareness efforts begin this coming month. UP is also engaged in a hiring program to augment staffing in key crafts.

Dispatching Facilities.—A SACP Working Group has developed an Action Plan to improve dispatching operations, and implementation and refining of the plan is in progress. A revised dispatcher training program is in place, and the first class has completed the training. Workload and territory adjustments have been made on twelve dispatching desks at Omaha, and further realignments are planned.

Hours of Duty Record Keeping.—A SACP Working Group is monitoring the development of an electronic system to enable the UP to comply with Federal record keeping requirements (49 CFR Part 228) involving about 20,000 train and engine employees. The new system is designed to replace the manual system currently in use, which is of little help in planning for compliance with the requirements of the hours of services laws. Implementation of the program will be subject to FRA's approval and resolution of any additional labor concerns.

CSX Transportation (CSXT) has achieved significant improvements in train accidents and employee casualty rates over the past few years. However, following a series of five high-profile accidents in 1997, FRA conducted a comprehensive, multidisciplinary SACP field inspection of the CSXT system. As a result of the SACP process, CSXT established joint labor/management/FRA "Functional Oversight Teams" to address safety issues for each railroad discipline. The Functional Oversight Teams report findings and recommendations to a joint labor/management/FRA "Executive Committee," which takes final corrective action.

The FRA is closely examining the BNSF, UP/SP, CSXT, and Conrail to assure that safety is maintained and to look for opportunities to improve it. Similarly, current trends indicate continuing consolidation of steadily increasing amounts to railroad traffic, including transportation of hazardous materials and passengers, on a network of high-density lines. These kinds of developments call for new approaches and continuing innovation. The following are select highlights of the results to date:

Discipline policy.—Working with the SACP Task Force, CSXT is reviewing its discipline policy with a view toward a more remedial and less punitive approach.

Locomotive Engineer Mentor Program.—The Brotherhood of Locomotive Engineers (BLE) and CSXT have joined forces to develop a mentor program (SENSE Program). Experienced locomotive engineers become mentors for new and inexperienced train service employees to inculcate safe work habits. Lack of experience in handling heavy trains and unusual situations is a prominent factor in many derailments and collisions.

Signal and Train Control Improvement Program.—Working with the SACP Task Force, CSXT will hire an additional 250 signal employees during 1998 and spend $66 million to improve signal system maintenance. Included are plans to eliminate outdated pole lines, a major SACP safety concern, and defects to numerous Grade Crossing Warning Devices identified in the FRA safety audit report (e.g., lamp voltage, visibility of flashing lights, upgrades in battery supply and cable size).

1–800 Crossing Hazard Call-In-Program.—As part of an agreement with FRA, CSXT is installing emergency information signs at all public highway-rail grade crossings. The signs list a toll-free telephone and highway-rail grade crossing identification numbers, where motorists may report stalled vehicles and malfunctioning warning devices.

IMPACT OF SACP—FISCAL YEARS 1995–97

Question. Please prepare quantitative measures showing the impact of SACP on railroad safety, using numerous measures of safety performance for each of the last three years.

Answer.

CASUALTIES IN ACCIDENTS/INCIDENTS

Year	Fatalities	Injuries	Total casualties
1995	1,146	14,440	15,586
1996	1,039	12,558	13,597
1997 [1]	1,054	11,647	12,701

ACCIDENTS/INCIDENTS

Year	Train accidents	Train incidents	Nontrain incidents	Hwy-rail Xing impacts	Total accidents/incidents
1995	2,459	2,267	10,236	4,663	19,625
1996	2,443	2,156	8,836	4,257	17,692
1997 [1]	2,338	1,982	8,082	3,926	16,328

ACCIDENTS/PROPERTY DAMAGE

Year	Train accidents	Total train accident damage	Accidents/million train-miles
1995	2,459	$189,224,000	3.67
1996	2,443	212,314,000	3.64
1997 [1]	2,338	265,504,000	3.45

HIGHWAY-RAIL CASUALTIES

Year	Deaths	Injuries	Total casualties
1995	579	1,894	2,473
1996	488	1,610	2,098
1997 [1]	452	1,575	2,027

HIGHWAY-RAIL ACCIDENTS/INCIDENTS

Year	Accidents/incidents	Accidents/million train-miles
1995	4,663	6.96
1996	4,257	6.34
1997 [1]	3,926	5.80

CASUALTY RATES FOR EMPLOYEES ON DUTY

Year	Total casualties	Casualties/ 200,000 work-hours rate
1995	10,811	4.24
1996	9,232	3.66
1997 [1]	8,330	3.27

TOTAL TRESPASSER CASUALTIES (EXCLUDING HIGHWAY-RAIL CROSSINGS)

Year	Deaths	Injuries	Total casualties
1995	494	461	955
1996	471	474	945
1997 [1]	530	501	1,031

[1] Preliminary data.

UP/SP ACCIDENTS AND THE SACP PROCESS

Question. The National Transportation Safety Board cited 15 accidents on Union Pacific/Southern Pacific property between October 1996 and October 1997, with which a total of 37 injuries and 7 deaths were associated. How, if at all, do these statistics reflect on FRA's SACP process?

Answer. One of FRA's earliest SACP safety audits occurred on the Union Pacific Railroad Company (UP) in 1995. The UP of 1995 was a much smaller system then; neither the Chicago and North Western Transportation Company nor the Southern Pacific Transportation Company were yet a part of that system.

FRA identified issues of regulatory compliance that were essentially regional in character and its inspection program proved successful at the time. For example, train accident rates were on the decline and the UP followed the trend that characterized the rail industry in general: traffic was rising, the size of the work force and amount of infrastructure was declining, and safety was showing steady improvement. Between 1995 and 1997, inclusive, the train accident rate on the combined UP system dropped from 3.88 to 3.36 (10 months data) while the total number of train accidents fell from 694 to 476 (10 months data). The trend held true for every major accident cause factor over this period: human factor-caused accidents declined 39 percent; track-caused accidents fell 24 percent.

Even in Texas, where four major train collisions occurred in 1997, the overall number of train accidents on the combined UP system fell by 25 percent (10 months data) and the number of human factor accidents fell by 13 percent in 1997. Safety progress was evident until an eight-week period beginning June 22, 1997, when five major train collisions caused the deaths of five employees and two trespassers. These tragic collisions of mid-summer marked a sharp reversal of the positive safety trends that the UP had experienced.

Commencing August 23, 1997, FRA sent the largest single force of inspectors ever used on a single property to the UP. Twenty-five percent of FRA's inspection force was used to find a solution to stop the deadly series of collisions. More than 85 Federal and State safety inspectors conduced a two-week, 24-hour-a-day team inspection across the UP system. This "sweep" was followed-up by a five-day, system-wide team inspection involving 87 inspectors starting on November 3, 1997. Based on the information developed through FRA's accident investigations and intensified SACP activities, the agency issued a series of Safety Advisories to immediately address several safety critical topics. These include: 97–1, Recommended safety practices for certain locomotives equipped with emergency MU fuel line cut off; 97–2, Safety practices to reduce the risk of casualties from runaway locomotives, cars, and trains caused by a failure to properly secure unattended rolling equipment left on sidings; and 97–3, Safety Practices to reduce the risk of accidents arising from the authorization of train movements past stop indications of absolute signals.

Furthermore, beginning in September, joint labor/management/FRA safety committees were formed to address the issues being identified by FRA through the SACP process. As FRA crystallized its findings and recommendations, the agency remained in close contact with labor and management representatives who were actively seeking solutions to the identified problems. Four interrelated problems seemed to stand out and permeate many areas of safety on the UP: (1) Under staffing; (2) Fatigue; (3) Insufficient levels of supervision; and (4) Dispatching deficiencies. FRA would not have been able to reach these findings if it had limited its activities to site specific inspections.

On February 24, 1998, FRA conducted a Senior Management Meeting with senior representatives from the UP, rail labor, and FRA. Discussed were the root causes of the safety problems that led to the collisions and derailments of the previous six months. The UP formally presented its Safety Action Plan, developed with the input of rail labor and FRA's guidance, detailing both long-term and interim measures to prevent the recurrence of these problems. The results of UP's actions are significant. Under the plan, staffing levels are being increased at a rate three to four times

greater than in previous years. The UP projects hiring more than 4,300 railroad workers this year, at least 1,200 of which are train and engine service personnel. Even more significant, the UP has formed a team to evaluate staffing needs and assumptions through the year 2015, and it has invited labor representatives to review its staffing plans as a sort of "reality check." To address the critical shortage of safety supervisors, the UP has hired, or is in the process of hiring, approximately 134 supervisors.

In addition, the UP has hired a leading fatigue management expert, Dr. Mark Rosekind, who was formerly a fatigue consultant to the National Aeronautics and Space Administration. With this expert guidance, the UP plans to develop and implement a comprehensive fatigue management program addressing a broad spectrum of fatigue mitigation measures, including work rest cycles that permit time off, "call-in" windows, a napping policy, improved work assignment predictability, improved rest facilities, and reduced "dead head" time.

The SACP safety audit of the UP is a good example of why site-specific inspections of large railroad systems are not sufficient and why SACP system reviews are needed. The SACP examination of the UP has provided FRA the opportunity to address issues unprecedented in this industry. FRA is aware that Safety Action Plans, in and of themselves, cannot make the UP safer. The Plans must be fully implemented in a timely manner before FRA can expect to bring about the cultural change that the railroad requires. FRA is fully committed to ensuring that a sufficient follow-up is conducted of the UP Safety Action Plan to monitor the Plan's implementation and effectiveness.

WARNING LETTERS

Question. Since last year, how have you strengthened the systematic reinspection procedure of monitoring or revisiting either rail management or labor employees who received warning letters from the FRA? How many enforcement actions against individuals who received FRA warning letters has the agency taken during each of the last three years? What types of actions were taken?

Answer. FRA does not single out individuals who have received warning letters for special attention in monitoring or reinspection activities. The warning letter itself is a method of enforcement. It is used only where FRA believes that the letter itself will have the desired effect in bringing a situation into compliance with the applicable safety regulations. Of course, if FRA finds a continuing pattern of noncompliance by a warning letter recipient, other more severe enforcement actions will be taken as necessary, but this has seldom occurred.

During the past three years, FRA issued warning letters to individuals as follows: 1995 (17), 1996 (23), and 1997 (17). In that time, FRA has not found it necessary to take any additional enforcement actions against the recipients of warning letters.

SAFETY ASSURANCE AND COMPLIANCE PROGRAM

Question. Please provide a list of railroads that have successfully completed safety actions plans, and those railroads that have open or unresolved actions plans.

Answer. Railroads that have successfully completed safety action plans and those that are still open follow:

	Completed	Open or unresolved
1. Chicago Northwestern	X	
2. Southern Pacific	X	
3. Iowa Interstate	X	
4. Conrail		X
5. Kansas City Southern	X	
6. Union Pacific	X	
7. Tri-County Commuter Rail	X	
8. Montana Rail Link	X	
9. CSXT	X	
10. Dakota, Minnesota and Eastern	X	
11. SEPTA (Southeastern Pennsylvania)		X
12. Long Island		X
13. Springfield Terminal		X
14. Beltway Railway of Chicago		X
15. Norfolk Southern	X	

	Completed	Open or unresolved
16. RailTex	X	
17. Elgin, Joliet & Eastern	X	
18. Amtrak		X
19. Canadian Pacific (Soo Line)		X
20. New Orleans Public Belt		X
21. New York and Lake Erie		X
21. Duluth, Missabe and Iron Range		X
22. Arizona & California		X
23. Illinois Central		X
24. Wheeling & Lake Erie		X
25. Reading Blue Mountain & Northern		X
26. Gateway Western	X	

The resolution of some issues often requires a long-term commitment of funding, staffing, and operational considerations. An ''open or unresolved'' designation indicates that one or more action issues have not been fully implemented. For example, Amtrak Action Item OP No. 2, cites the need to improve record keeping and evaluation documentation procedures in support of locomotive engineer certification and operational testing programs. While Amtrak has funded a capital appropriation request of $250,000 for the development of an Integrated Regulatory Information System for fiscal year 1998 to satisfy the documentation requirement, this Action Item is still ''open'' until satisfactory results are achieved. ''Unresolved issues'' pertain to FRA's acceptance of a carrier's Safety Action Plan in response to our findings and recommendations. A carrier is granted a reasonable period of time to prepare its response—approximately 45 days. Since the inception of the Safety Assurance and Compliance Program (SACP), there have been no instances where a carrier and FRA have not been able to agree to a satisfactory solution to a systemic safety issue. However, until an agreement is reached, this Action Item will be designated ''unresolved.''

SACP is evolving into a continuous ongoing process. FRA is now maintaining a continued presence on a carrier's property after ''completing'' the initial SACP safety audit. FRA is presently in open-ended partnerships with the UP, CSXT, Norfolk Southern, and others to address and resolve safety concerns.

In addition to the carriers listed above, other railroads have received SACP safety audits. However, a determination was made that either systemic problems did not exist, or that resolutions could be achieved without the requirement of a Safety Action Plan. In general, these carriers have a narrow scope of operations (i.e., switching and terminal), and employ a small work force.

FAILURE TO IMPLEMENT ACTION PLAN

Question. Please share with the Committee all instances where FRA has determined that a railroad with an agreed-upon action plan has not made a good-faith effort to execute the action plan. In each of these instances, did FRA process civil penalties that would have been held in abeyance had the railroad been making a good-faith effort to implement the plan?

Answer. Two examples of railroad failures to carry-out agreed-upon actions, which occurred early in FRA's Safety Assurance and Compliance Program, follow: Tonawanda Island Railroad. In response to concerns raised by the New York State Department of Transportation, FRA inspected and found an unsafe bridge on the Tonawanda Island Railroad system. The railroad agreed not to operate over the bridge until it was properly repaired and inspected by FRA. When the railroad resumed operations over the bridge without making repairs, FRA issued Emergency Order (EO) 19 on February 12, 1996. Until rescinded, EO 19 directs the railroad to discontinue operations over the bridge.

Southern Pacific Transportation Company. During a listening session with the Brotherhood of Railway Carmen at West Colton, California, FRA attention was directed to a Southern Pacific Railroad (SP) practice of allowing defective freight cars to be released from the yard at West Colton. A team of FRA motive power and equipment personnel was assembled and made inspections. Numerous defective cars were observed being permitted to leave the yard. SP was requested to submit a Safety Action Plan (SAP). FRA performed follow-up inspections after the action plan had been implemented and found that the problem had not been corrected. FRA is

now pursuing vigorous enforcement actions, including violations, against the SP and SP personnel who allowed these practices to continue.

FRA has not encountered any current circumstances where railroads have failed to make a good-faith effort to carry-out SAP's. There have been circumstances where SAP's were not implemented in exact accordance with agreed-upon terms, e.g., milestones and target dates. However, these circumstances were related to operational considerations, staffing limitations, financial restraints, severe weather conditions, and other factors. When the SAP execution is altered, FRA closely monitors the railroad's progress until satisfactory action has been achieved. As partners in the Safety Assurance and Compliance Program, rail labor participates in any significant revisions to a carrier's SAP.

SACP OF NORFOLK SOUTHERN

Question. Has the Norfolk Southern Railroad indicated a willingness to participate in the Safety Assurance and Compliance Program? If not, what action does FRA plan to take in this regard?

Answer. FRA conducted a limited SACP assessment of the Norfolk Southern in 1996 in order to identify specific safety concerns at that time. Following the application of CSX Transportation (CSXT) and Norfolk Southern Railroad (NS) to purchase Consolidated Rail Corporation, both carriers submitted Safety Implementation Plans (SIP's) to the Surface Transportation Board as part of the merger application process. As a result of NS's SIP, the carrier expressed a willingness to participate in a SACP safety audit. In April 1998, FRA initiated a comprehensive assessment of NS covering the following issues: (1) train dispatching operations, (2) accident/incident reporting, (3) fatigue, (4) staffing levels, (5) long noise forward operations, and (6) mechanical concerns, such as pre-departure and track repairs. Currently, outreach efforts are underway to ensure the participation of rail labor as partners in this assessment.

NUMBER OF SITE-SPECIFIC INSPECTIONS BY REGION 1994–97

Question. The SACP has shifted some of FRA's resources away from site-specific inspections. Please prepare a table showing the number of inspections conducted in 1994, 1995, 1996 and 1997, by region and in aggregate, and showing the percentage of decline for each year. What do you believe will be the long-term effect of these declines in site-specific inspections on railroad safety?

Answer. The number of inspection reports filed by region during 1994–1997 and the year-to-year percentage change follows:

SUMMARY OF INSPECTION REPORTS FILED

Region	1994	1995	1995 vs. 1994 (percent)	1996	1996 vs. 1995 (percent)	1997	1997 vs. 1996 (percent)
1	6,319	5,096	−19.4	5,059	−0.7	4,608	−8.9
2	12,929	11,065	−14.4	9,004	−18.6	8,479	−5.8
3	11,423	9,118	−20.2	8,812	−3.4	8,203	−6.9
4	9,696	7,959	−17.9	7,581	−4.7	7,155	−5.6
5	9,677	7,170	−25.9	6,667	−7.0	6,047	−9.3
6	5,939	3,849	−35.2	3,701	−3.8	3,679	−0.6
7	6,819	5,258	−22.9	5,758	+9.5	5,336	−7.3
8	5,382	4,020	−25.3	4,184	+4.1	4,003	−4.3
Totals	68,202	53,535	−21.5	50,766	−5.2	47,516	−6.4

FRA believes that the key to achieving an effective rail safety program is to strike the optimum balance between safety partnership initiatives and site specific inspections. The 32 additional positions being sought by FRA are intended to help maintain that balance. As long as the SACP approach is yielding positive results, safety inspectors may continue to conduct fewer site specific inspections as a percentage of their total safety activities. However, safety partnership activities like the Safety Assurance and Compliance program must be augmented by site inspections; therefore inspection levels must not be allowed to drop precipitously. FRA is concerned that the proper balance be maintained between the two approaches.

Trends since 1993 clearly demonstrate the effectiveness of the new way of doing business. Thus far, there has been no long-term detrimental effect on railroad safety as a result of declines in site-specific inspections, because they are being replaced by more effective comprehensive safety audits at the largest railroads. The 32 new positions being sought by FRA will help ensure that the proper balance is maintained between FRA's new partnership programs and its traditional inspection programs.

GUIDANCE ON FOCUSED ENFORCEMENT

Question. Please provide the Committee a copy of the April 1997 guidance to FRA regional offices that explains the concept of "focused enforcement."

Answer. See attached report.

FRA'S GOAL FOR INSPECTION

Question. Is it FRA's stated goal to inspect all railroads at least once a year? Please provide a table showing the number of railroads that underwent no FRA inspections for calendar years 1992–1997.

Answer. FRA's long-term goal is to visit each active railroad annually, assuming adequate inspector resources are available. FRA's stated objective also is to visit each new railroad at initial start-up.

ACTIVE RAILROADS NOT INSPECTED

Year	Active railroads	Active railroads not inspected
1992	635	77
1993	668	88
1994	688	92
1995	679	115
1996	704	124
1997	679	144

SAFETY INFORMATION SYSTEMS

Question. How generally helpful have you found FRA headquarters information systems?

Answer. FRA's information systems provide extensive data on each railroad's safety record. The Office of Safety managers use this information to allocate resources to locations of greatest risk. Information systems are used by inspectors when planning inspection activities. With limited resources, FRA has found its information systems extremely valuable for traditional site specific inspections, planning highway-rail grade crossing and trespass prevention programs, formulating Safety Assurance and Compliance Program (SACP), and determining Railroad Safety Advisory Committee (RSAC) rulemaking initiatives.

SACP, which brings together rail labor, railroad management and FRA to determine the root causes of systemic railroad safety problems, has repeatedly depended on FRA's information systems to establish action plans.

Railroads operating in multiple States and across several of FRA's regional field offices are best monitored using SACP safety audit methods. SACP's have been successful because FRA and its partners have had an extensive information system to use as a justification for actions planned. Information systems have been used for an Annual Allocation Analysis Model (AAAM). The AAAM aids in field inspection focus on high risk rail movements. The model data is arranged by inspection discipline, region, and railroad. Railroads are divided into three class size groupings: large railroads with annual employee hours greater than 400,000, small railroads with total train miles times annual employee hours greater than 100 million, and small railroads with total train miles times annual employee hours less than 100 million.

For large railroads, AAAM uses seven risk factors: inspection reports, accidents, fatalities and serious injuries, hazardous material tons, total tons, passenger traffic, and inspection defects. AAAM also uses seven risk factors for both categories of small railroads. Hazardous material tons and total tons are obtained from the Surface Transportation Board's Carload Waybill Sample. However, the Carload Waybill Sample of railroad freight traffic does not accurately track hazardous material traffic flows on small railroads. Consequently, "train miles" and "annual employee

hours'' are substituted for ''hazardous material tons,'' and ''total tons.'' AAAM is a model clearly show how valuable FRA's current information systems have been for determining reasonable risk factors, which can suggest the need for site specific examinations, or suggest an area for examination under Safety Assurance and Compliance Program (SACP) safety audits.

A greater dependency on the use of FRA's Headquarters Information Systems is an outgrowth of President Clinton's directive to Federal regulatory agencies that their inspection and enforcement programs be designed to focus on safety results, not just collect fines. FRA also depends on Headquarters Information Systems to carry-out the mandate of the Government Performance and Results Act to identify specific indicators that measure the overall success of the program.

STATE INSPECTORS AND SACP

Question. How are State inspectors adequately represented in the SACP process?

Answer. FRA has made a concerted effort to ensure that States are adequately represented in the SACP Process. At the SACP development level, State Program Directors have been invited to attend and have participated in SACP oversight meetings. The Directors of the two largest State programs, Texas and California attended the initial Union Pacific (UP) SACP Meeting. These States are slated to participate in all future oversight meetings. The Texas Director also has attended Burlington Northern Santa Fe (BNSF) SACP oversight meetings.

Most State Program Directors do not have the ability to travel outside of State boundaries. To ensure that these States are apprised of SACP initiatives, FRA Regions and the FRA State liaison work together to disseminate status reports and issue briefings from SACP oversight meetings. Near the outset of the Union Pacific service/safety crisis, FRA's Associate Administrator for Safety conducted a lengthy conference call with Safety Program Directors of all affected States to provide an update on the SACP process and solicit State questions or concerns.

There is a two-way exchange of information on the SACP process with States. State inspectors are encouraged to identify SACP safety issues. These issues are evaluated within the context of the SACP process for local or systemic implications. Whenever possible, inspection teams created to address SACP safety concerns have State inspectors as members or team leaders. Focus groups that interact with local management and union officials include State inspectors.

States and FRA have also agreed to initiate an annual Communications/Work plan to ensure coordination on all aspects of the joint safety program. This structured communications protocol specifically addresses SACP programs and will help define specific SACP roles for State inspectors.

Another venue for ensuring that States are full participants in the SACP process is the annual State Program Manager's meeting sponsored by FRA. At last year's meeting, State Directors received a complete update on the BNSF SACP from the BNSF Project Manager, a major union official, and the BNSF President. This year's State Program Director's meeting will include an assessment of the SACP processes currently underway.

FOLLOW UP ON SAFETY ACTION PLANS

Question. After a railroad submits its safety action plan, how do FRA's procedures effectively ensure adequate follow-up and periodic reinspection?

Answer. FRA's guidelines for Safety Action Plans require follow-up and periodic reinspection by safety inspectors. Safety Action Plans direct safety inspectors to the particular areas where the safety audit compliance is concentrated. FRA's publication, The Safety Assurance and Compliance Program: Guidance on Inspection and Enforcement—April 1997, outlines the procedures for effectively ensuring adequate follow-up and periodic reinspection. Also, the continuous analysis of safety factors in FRA's databases, e.g., accidents, incidents, defect ratios, signal and train control malfunctions, helps FRA's Safety Staff to identify additional areas requiring immediate inspection activity.

FRA is constantly reviewing and refining SACP to promote and/or facilitate safer operating procedures and practices in the railroad industry. Currently, a comprehensive review of the SACP is underway. FRA anticipates issuing revised SACP guidelines prior to fiscal year 1999. A major emphasis during this review is evaluating the effectiveness and responsiveness of FRA's audit process while monitoring a carrier's Safety Action Plan.

APPROVAL PROCESS OF SACP PLANS

Question. Does FRA require that safety profiles, action plans, and follow-up audit plans prepared by the field receive approval by FRA headquarters? If not, at what level are these items approved?

Answer. The level of organizational approval that is necessary for Safety Assurance and Compliance Program (SACP) safety profiles, action plans and follow-up audit plans is based on a number of factors related to carrier size, scope and complexity of operations, and overall safety record history. Regardless of the organizational approval level, all carriers' action plans are forwarded to FRA Headquarters for review. In general, Headquarters approval is required for SACP activities involving Class I carriers and for issues that have railroad system-wide consequences. In most other instances, approval is delegated to the SACP Program Manager and/or a Regional Administrator.

INSPECTOR PARTICIPATION IN PENALTY NEGOTIATIONS

Question. How involved in the violation negotiations process are the FRA safety inspectors who actually wrote up these violations?

Answer. FRA conducts settlement conferences on civil penalty cases with the major railroads on at least an annual basis. FRA tries to schedule as many of these conferences as possible outside of Washington to facilitate attendance by FRA and state enforcement personnel. Of course, it is not possible to involve every inspector who wrote a violation report in every settlement conference in which it is discussed. Inspectors write up violations against many railroads and cannot invest the time needed to participate in several major settlement conferences. Even if they could, limited travel budgets and the space limitations of conference rooms require that attendance be restricted. As a result, only a few inspectors and regional specialists attend each conference. Their role is to participate in discussion of particular sets of facts, compliance problems, or policies, and to advise FRA counsel on strengths and weaknesses of the agency's cases and the railroad's defenses. Inspectors and regional personnel invariably say that this participation is enormously useful because it gives them a new perspective on how to write stronger violation reports, what kinds of factors can be offered as defenses and mitigating factors, and how reasoned compromise of the penalties encourages compliance. FRA attorneys benefit from the insights provided by the enforcement personnel. With regard to small railroad and shipper cases, such direct involvement in settlement discussion by field personnel is rare. Those cases are usually handled by correspondence or telephone. Occasionally, the volume of pending cases or seriousness of the violations will warrant a conference with a small railroad or shipper, and field personnel are generally invited.

In none of these situations, however, do the enforcement personnel engage in negotiations to the extent of discussing the amount of a dollar settlement directly with the railroad. FRA believes that it is better from the program integrity perspective to insulate front line enforcement personnel from such direct negotiations on the penalties resulting from their recommendations. Their direct involvement in penalty negotiations would raise questions of consistency of treatment and could expose the inspectors to an unnecessary vulnerability to fraud and abuse. Their current level of involvement seems to work well for all concerned.

WRITTEN GUIDELINES FOR SACP

Question. What are the written guidelines regarding the procedures for the SACP? How are these guidelines fair to both labor and management?

Answer. The following guidelines and publications which outline procedures for SACP have been issued: (1) Safety Assurance and Compliance Process—Initial Senior Management Meetings; (2) Federal Railroad Administration—Safety Assurance and Compliance Program—Summary Report; (3) Enhancing Rail Safety Now and Into the 21st Century: The Federal Railroad Administration's Safety Programs and Initiatives (A Report to Congress); and (4) The Safety Assurance and Compliance Program: Guidance on Inspection and Enforcement—April 1997.

SACP establishes partnerships between rail labor, railroad management, and FRA to identify and address safety concerns. All participants in the SACP, regardless of their affiliation, have equal standing in recommending measures for alleviating safety concerns.

Due to the evolutionary changes in the SACP, a task force has been established to review existing guidelines and make recommendations for possible change or modifications.

STANDARDS FOR SACP

Question. Has FRA developed standards and criteria for carrying out SACP to ensure that the program is applied uniformly? What SACP training is provided to FRA management and inspection staff?

Answer. FRA has developed standards and criteria for ensuring consistency in the interpretation of rules and regulations pertaining to compliance and enforcement activities. These same standards and criteria are applied in the course of developing findings and recommendations during a SACP safety audit and are the "measurements" for determining a carrier's performance in adequately addressing safety discipline-related concerns. FRA is in the process of revising SACP. Under consideration are providing more definitive guidelines regarding the identification and utilization of quantitative measures during the assessment of a carrier.

Training for the inspector force on the SACP is provided annually at FRA's Multi-Regional Conferences and, as appropriate, during meetings of various Technical Resolution Committees.

SACP AND SMALLER RAILROADS

Question. What is FRA's experience with the SACP for smaller railroads? Is SACP effective for smaller railroads, considering that the intended purpose of SACP is to identify systemic safety problems? Are the SACP procedures the same for smaller railroads as for large railroads?

Answer. SACP uses a rail labor/management/FRA partnership approach to identifying and solving safety concerns within the railroad industry. The difference between a SACP safety audit of a Class I carrier versus that of a smaller carrier is one of magnitude—the size of each entity's operations determines the amount of effort to be used in the process. Nevertheless, the procedures followed are identical—safety profile/action plan/follow-up audit. A systemic safety problem may exist on any carrier's property. However, the size of the carrier does not affect the effectiveness of the procedures or process.

ADDITIONAL FUNDING FOR RSAC

Question. FRA has requested additional funding for the Railroad Safety Advisory Committee (RSAC). Please break down all associated spending, justifying the requested increase to support the RSAC, including facilities, mailings, equipment, contract support, and the "other" support costs. Please further specify exactly how fiscal year 1997 and fiscal year 1998 monies were used for RSAC.

Answer. The Railroad Safety Advisory Committee (RSAC) provides FRA with advice and recommendations on the development of safety standards and other important issues facing the federal railroad safety regulatory program. This process shifts the focus of FRA's regulatory program to one of greater collaboration with the regulated community in arriving at mutually satisfactory solutions. RSAC produces consensus on underlying factual issues, the range of options, and the recommended solutions. By harnessing the combined wisdom, resources and experience of railroad industry experts who have the greatest knowledge and interest in promoting rail safety, FRA is able to leverage its resources to simultaneously conduct a number of major rulemakings, often much more quickly than can be accomplished under the traditional approach. RSAC is undertaking some of FRA's toughest, most controversial regulatory challenges.

The RSAC structure consists of voting representatives from 27 organizations representing large and small railroads, rail labor organizations, state associations, rail passenger representatives, suppliers, other interested parties, and two associate representatives from agencies with rail responsibilities in Canada and Mexico. Initial funding levels did not anticipate the overwhelming industry embracement of this process. Railroad labor and management are dedicating significant resources to the success of this collaborative rulemaking process. Since RSAC was chartered on March 25, 1996, an estimated 500 full Committee, Working Group and Task Force members and alternates have participated in more than 75 meetings to address 13 issues such as track safety standards and positive train control. The magnitude of the resources dedicated is reflective of the participants' commitment to the success of this process.

Based the number of regulatory issues being undertaken by RSAC, the intensive committee work necessary to achieve RSAC's collaborative purposes, and the fact that the committee is in a necessary growth phase in terms of the number of its tasks, we believe our request for funding is reasonable.

The additional $100,000 requested would support the fiscal year 1999 RSAC activities at an optimum level for reducing FRA's regulatory backlog. Railroad labor

and management are dedicating significant resources to the success of this rulemaking process. Funding below the requested level would severely impact the effectiveness of this process and the resulting critical contributions to public safety envisioned by all parties dedicated to the success of collaborative rulemaking. The additional funding would be allocated as follows:

Travel funds are required ($20,000) for invitational travel for state organizational employees who serve as Committee, Working Group, and Task Force members. Their participation in the RSAC process is essential to ensuring representation of interests other than railroad management and labor which are directly affected by FRA's safety regulatory program.

Facilitation service funding ($25,000) is essential to the success of the negotiated rulemaking process. The demands placed on the limited number of in-house facilitators necessitates the use of professional facilitators. Professional facilitators are crucial to avert delay in the negotiated rulemaking process.

Support for contractual services for specialized data collection and analyses and other technical and administrative requirements in support of Committee, Working Group and Task Force activities ($45,000). These services are a critical requirement to supplement existing staff and address an escalating workload without increasing staffing levels. Meetings of working groups and task forces will have to accommodate the needs of members in order to elicit continued rail labor and management support and participation in the process. Locations outside of FRA headquarters or regional areas will require contractual support to meet the administrative requirements for these meetings. Specialized data collection and analyses will be required to support the work of the task forces. Absent these services, the burden that will be imposed upon existing safety resources will further strain limited resources and continue to divert and dilute efforts being directed to other critical functions.

Funding for training ($10,000) provides requisite interest-based negotiation training for Committee, Working Group and Task Force members to ensure effective participation in this consensual rulemaking process.

These funds will supplement the $100,000 that is in FRA's base for RSAC, which would be allocated as follows:

Funding for meeting space and accompanying audio/visual requirements for the full Committee, Working Groups and Task Forces ($55,000) to accommodate meeting space requirements based on the number of participants required to be seated at the table, attendance by members of the general public and additional space necessary for essential caucus and task force activities. Federal agency space available to accommodate these requirements is extremely limited and in great demand in the Washington D.C. area. Further constraints for RSAC meetings are restrictions on entrances to many federal buildings. The majority of RSAC members and other attendees are not federal government employees and the meetings are open to the general public. Meetings are conducted at locations outside of the Washington area to facilitate member participation and availability and to equitably distribute the burden of travel time and costs for members. This funding will also provide necessary audio-visual support for these meetings.

Funding for supplies, printing and mailing services ($42,000) are essential to support the meetings and work of the full Committee, the Working Groups and Task Forces. Adequate funding to support processing and dissemination of information and data crucial to the ongoing regulatory tasks and the extensive coordination involved, will ensure the effectiveness of this extremely significant undertaking is not compromised.

Funding for interpreter services ($3,000) is requested to address the requirements of the Federal Advisory Committee Act and the Americans with Disabilities Act.

The $50,000 Congress authorized for RSAC in fiscal year 1997 was utilized primarily in support of costs associated with supplies, printing, mailing costs, meeting space, and accompanying audio/visual requirements for three full Committee meetings and an estimated 36 working group and task force meetings.

The $100,000 funding level for fiscal year 1998 will continue to support costs associated with supplies, printing, mailing costs, and meeting space and associated requirements for meetings of the full Committee, working groups, and task forces.

RSAC RULEMAKING ACHIEVEMENT

Question. Please assess the costs, benefits, challenges, and successes or accomplishments of the RSAC.

Answer. RSAC provides FRA with a continuing forum for advice and recommendations on the development of the railroad safety regulatory program. This collaborative rulemaking approach fully involves FRA's customers, including representatives of railroad labor and management, and makes the best use of resources

to accommodate the rapidly evolving changes in the rail transportation industry. Because the final rule is based on consent, acceptance and understanding are widespread and compliance is at high levels from the start. Railroad management and railroad labor are dedicating significant resources to the success of this collaborative process.

Since RSAC was chartered on March 25, 1996, an estimated 800 full Committee, Working Group and Task Force members and alternates have participated in more than 80 meetings addressing such issues as track safety standards, railroad communications, locomotive crew safety, locomotive engineer certification, event recorders, tourist and historic railroads, and positive train control.

The Committee has been working on some of FRA's toughest, most controversial regulatory challenges. The 13 tasks which have been referred to, and accepted by the RSAC to date, are highlighted in the next question and answer. Through the collaborative efforts of RSAC, the following regulatory achievements to date are:

Revision of Track Safety Standards.—The RSAC accepted the task of preparing an NPRM on April 1, 1996. The NPRM was published on July 3, 1997. A public hearing was held on September 4, 1997, and the final rule is in review and clearance and will be issued in the near future.

A significant issue in the Congressional mandate for revising the Track Safety Standards was the protection of roadway workers. FRA issued a final rule on roadway worker safety, which became effective on January 15, 1997. This rule was the product of FRA's first negotiated rulemaking and represents the collaborative efforts of all major segments of the railroad industry.

Railroad Communications.—The RSAC accepted the task of preparing an NPRM on April 1, 1996. The NPRM was issued on June 11, 1997. The final rule is nearing completion and it is expected to be issued within the coming months.

Recently, the Committee approved the first proposed revision to steam locomotive rules in half a century. The NPRM will be published within the next few weeks. This effort, which deals with historic locomotives still used in scenic and excursion service, involved collaboration among representatives of the small railroads that own those locomotives and FRA. The Committee is presently voting on a consensus revision of the regulations for Locomotive Engineer Qualification and Certification.

RULEMAKING TASKS TO RSAC

Question. How many rulemaking tasks has FRA referred to the RSAC? How long had FRA been working on each of these rulemaking tasks prior to referring them to the RSAC? For the tasks referred to the committee, how many had FRA already missed the congressional mandate to issue final rules? Has the Administrator withdrawn any of the tasks referred to the committee? If so, what were the reasons for withdrawing tasks referred to the RSAC?

Answer. Since RSAC was chartered on March 25, 1996, 15 tasks have been referred to, and accepted by, the Committee.

See the attached list detailing how long FRA had been working on each of these rulemakings prior to referring them to RSAC.

Although FRA is making good progress in reducing a regulatory backlog that arose against a background of successive statutory mandates, the issuance of final rules addressing all elements of the revision of track safety standards and the power brake rules have not met statutory deadlines.

The extended statutory deadline for revision of the track safety standards was September 1, 1995. FRA published an ANPRM on November 6, 1992. The RSAC accepted the task of preparing an NPRM on April 2, 1996. FRA published an NPRM on July 3, 1997, and a final rule is in review and clearance.

The statutory deadline for revision of the power brake rules was December 31, 1993. An NPRM was published on September 16, 1994. Based on differences between passenger and freight operations, passenger equipment power brake standards were separated from freight and included in the Passenger Equipment Standards NPRM published September 23, 1997. FRA is preparing the final rule. Two-way end-of-train rules were separated from the balance of freight issues and a final rule was published January 2, 1997. Railroads agreed to an expedited schedule and trains were equipped ahead of the statutory deadline.

The general revision of the freight power brake rules were tasked to the RSAC on April 1, 1996. After a period of over a year of intense efforts, a consensus between railroad labor and management could not be reached on several contentious issues and FRA formally withdrew the task on June 24, 1997. FRA is proceeding with the issuance of a second NPRM reflective of what FRA has learned through the collaborative process.

HISTORY OF RULEMAKINGS REFERRED TO RSAC

Revision of Freight Power Brake Regulations.—The 1992 Rail Safety Enforcement and Review Act of 1992 required FRA to revise the power brake regulations. FRA did complete the portion of the rule involving two-way end-of train devices (EOT's) and it became effective on July 1, 1997. FRA published a Notice of Proposed Rulemaking (NPRM) on September 16, 1994, and conducted six days of public hearings. Additional options were requested from passenger interests and freight interests. Passenger power brake provisions were included in the Passenger Equipment Standards NPRM published September 23, 1997, and a final rule is in preparation. Revision of the freight power brake regulations was tasked to RSAC on April 1, 1996. After a period of over a year of intense efforts, a consensus between railroad labor and management could not be reached on several contentious issues. FRA formally withdrew the freight power brake task at the June 24, 1997, RSAC meeting, and FRA is proceeding with the issuance of an NPRM reflective of what FRA has learned through the collaborative process.

Revision of Track Safety Standards.—The 1992 safety authorization act required FRA to issue revised track rules. FRA published an Advanced Notice of Proposed Rulemaking (ANPRM) on November 6, 1992, and conducted workshops during the period January-March 1993. The RSAC accepted the task of preparing an NPRM on April 2, 1996. In November 1996, the RSAC voted to recommend issuance of the NPRM and FRA published an NPRM on July 3, 1997. A public hearing was held on September 4, 1997, with comments due by December 22, 1997. A final rule is in review and clearance.

Railroad Communications.—FRA, in submitting a report to Congress on Railroad Communications and Train Control on July 13, 1994, noted the need to revise existing Federal standards for radio communications in concert with railroads and employee representatives. The RSAC accepted the task of preparing an NPRM, including consideration of communication capabilities required in railroad operations, on April 1, 1996. The RSAC voted to recommend issuance of an NPRM. The NPRM was issued on June 11, 1997. The comment period closed on August 25, 1997, and FRA is nearing completion of the final rule.

Tourist, Excursion, Scenic and Historic Service.—The Swift Railroad Development Act of 1994 required FRA to submit a report to Congress regarding FRA's actions to recognize the unique factors associated with these generally small passenger operations that often utilize historic equipment. The report was submitted to the Congress on June 10, 1996. The RSAC authorized formation of a working group on Tourist and Historic Railroads on April 1, 1996, to promote the safe operation of tourist and historic rail operations. The working group is currently monitoring completion of the steam locomotive regulations task.

Revision of Steam-Powered Locomotive Inspection Standards.—A committee of steam locomotive experts from tourist and historic railroads have sought a partnership with FRA to revise the steam locomotive regulations. Revision of the regulations was tasked to the RSAC on July 24, 1996. The working group on Tourist and Historic Railroads created a task force to address this task. The task force's proposed recommendations were accepted by the working group and forwarded to the RSAC. The RSAC voted to recommend issuance of an NPRM and FRA is finalizing the regulatory analysis to accompany publication of the NPRM.

Revision of Qualification and Certification of Locomotive Engineer Regulations.—The final rule for locomotive engineer certification became effective in 1991, but certain issues were left unresolved. Experience under the rule has also raised additional issues. An interim final rule amendment was published on October 12, 1995. The RSAC accepted a task to revise the regulations on October 31, 1996. It is expected that the working group will submit a proposed NPRM to the RSAC at its next meeting on May 14, 1998.

Safety Standards for Track Motor Vehicles and Self Propelled Roadway Equipment.—During deliberations of the working group on Track Safety Standards, the issue of proposing standards relating to the safety of persons riding or operating maintenance-of-way equipment was raised. On October 31, 1996, the RSAC accepted a task of drafting proposed rules for safety of this equipment. A task force was formed to address the issue and the task force reached a consensus agreement in principle on what should be included in the proposed rule. FRA is preparing rule text and preamble language to be presented to the RSAC at its next meeting on May 14, 1998.

Locomotive Crashworthiness and Working Conditions Planning Task.—The Rail Safety Enforcement and Review Act of 1992 required FRA to conduct a proceeding regarding locomotive crashworthiness and working conditions and issue regulations or submit a report. FRA conducted research, outreach, and a survey of locomotive

conditions and finalized a report to the Congress entitled Locomotive Crashworthiness & Working Conditions, transmitted by letter of September 18, 1996. The report conveyed data and information developed by FRA to date, closed out those areas of investigation for which further action is not warranted, and defined issues that should be pursued further in concert with industry parties, either for voluntary or regulatory action. The RSAC accepted a planning task on October 31, 1996, to evaluate the need for action responsive to recommendations contained in the report. A planning group reviewed the report and grouped issues into categories. FRA presented a task statement addressing locomotive crashworthiness and a task statement addressing cab working conditions to the RSAC on June 24, 1997.

Locomotive Crashworthiness.—On October 31, 1996, the RSAC voted to accept a task addressing locomotive crashworthiness issues. The working group on Locomotive Crashworthiness established a task force on engineering issues that is actively reviewing collision history and design options.

Locomotive Cab Working Conditions.—On October 31, 1996, the RSAC voted to accept a task addressing cab working conditions issues. The working group on Cab Working Conditions established task forces on noise and temperature, which are working actively.

Revision of Event Recorder Requirements.—In issuing final rules for event recorders which became effective May 5, 1995, FRA noted the need to provide more refined technical standards. The National Transportation Safety Board (NTSB) noted the loss of data from event recorders in several accidents due to fire, water and mechanical damage. NTSB proposed performance standards and agreed to serve as co-chair for an industry/government working group that would define technical standards for next-generation railroad event recorders. FRA conducted a meeting of an informal working group comprised of railroad labor and management and co-chaired by NTSB on December 7, 1995, to consider development of technical standards. At the July 24–25, 1996, RSAC meeting, the Association of American Railroads (AAR) agreed to continue the inquiry and on November 1, 1996, reported the status of work on proposed industry standards to the RSAC. On March 5, 1997, the NTSB issued recommendations regarding testing and maintenance of event recorders as a result of finding in the investigation of an accident on February 1, 1996, at Cajon Pass, California. On March 24, 1997, the RSAC indicated its desire to receive a task to consider the NTSB recommendations with respect to crash survivability, testing and maintenance. A task was presented to, and accepted by, the RSAC on June 24, 1997. An Event Recorder working group was formed and a task force established. The working group and task force are actively conducting meetings.

Positive Train Control (PTC) Systems.—The Swift Rail Development Act of 1994 required FRA to submit a status report on the implementation of positive train control as a follow-up to the July 1994 report entitled Railroad Communications and Train Control. FRA has provided testimony to the committees of jurisdiction reporting the status of efforts to promote implementation of positive train control. The report is under review and clearance.

On September 30, 1997, the RSAC accepted two tasks involving defining PTC functionalities, describing available technologies, evaluating costs and benefit of potential systems, and considering implementation opportunities and challenges, including demonstration and deployment. A third task accepted by the RSAC requires revising various regulations to address the safety implications of processor-based signal and train control technologies, including communications-based operating systems. A working group was convened to address the tasks and two task forces were established, a Standards task force and an Data and Implementation task force. The working group and task forces are active and FRA is preparing an ANPRM to provide public notice of the ongoing tasks and solicit public comment.

Definition of Reportable "Train Accident".—FRA identified the need to comprehensively revise the regulations governing accident/incident reporting, which had not been revised since 1974. FRA issued an NPRM on August 19, 1994, and a final rule on May 30, 1996. Technical amendments were published on November 22, 1996, and the FRA Administrator signed final rule amendments on December 16, 1996. The final rule became effective on January 1, 1997. On June 24, 1997, the RSAC reviewed a request by an RSAC member to clarify the means used by railroads to estimate railroad property damage and improve the consistency of reporting. The RSAC accepted the task on September 30, 1997, limited to determination of damages qualifying an event as a reportable train accident. A working group is being formed to address this task.

TRACK SAFETY STANDARDS

Question. By the time FRA referred the Track Safety Standards rulemaking to the RSAC in April 1996, the agency had already been working on revising the Track Safety Standards for more than three years. The committee developed a recommendation on the standards within 7 months, and FRA issued a Notice of Proposed Rulemaking on July 3, 1997. When does FRA anticipate issuing a final rule?

Answer. The final rule on the revised Track Safety Standards has been completed and is pending clearance within the Administration. FRA expects to issue the final rule in the near future. In the interim, the industry is operating under rules that have long been in place and ensure a very high degree of track safety.

The following points should be noted:

—Congress specifically directed FRA to consider the protection of roadway workers. FRA issued a final rule on the protection of these workers which became effective on January 15, 1997, with a high degree of commitment to compliance by workers and railroads. This rule was the product of the first negotiated rulemaking and represents the collaborative efforts of all major segments of the railroad industry.

—The final rule currently under review is based almost entirely on the consensus recommendations of the RSAC. While it took time to develop that consensus and reduce it to regulatory form, FRA believes the final rule will be worth the effort.

COMPLETED RULEMAKINGS IN FISCAL YEAR 1997

Question. Please list all final regulations, ANPRM's, NPRM's and any new regulatory projects issued or pursued since last year.

Answer. FRA completed the following rulemakings in fiscal year 1997:

—The final rule on Two-Way End-of-Train Devices was published on January 2, 1997.

—The final rule on Roadway Worker Safety became effective on January 15, 1997.

—The final rule on Accident/Incident Reporting became effective on January 1, 1997.

FRA currently has a substantial number of rulemakings at various stages of development. The following regulatory-related actions also were accomplished in the last year:

—A proposed rule on Passenger Equipment Safety Standards was published on September 23, 1997.

—A proposed rule on Passenger Train Emergency Preparedness was published on February 24, 1997.

—A proposed rule revising the Track Safety Standards, which was based on consensus recommendations of the RSAC, was published on July 3, 1997.

—A proposed rule revising the existing standards for radio communications and based on consensus recommendations of the RSAC, was issued on June 11, 1997.

—A proposed rule was issued on December 12, 1997, in response to a petition for a rule of particular applicability for operations over a new high-speed railroad between Miami and Tampa via Orlando. The State of Florida has established a dedicated funding stream of $70 million per year towards creation of this new private/public partnership.

—A Notice of Proposed Order for the new signal and train control system authorizing speeds to 150 miles per hour on portions of the Northeast Corridor was published on November 20, 1997.

STATUS OF REGULATORY BACKLOG

Question. What is the current regulatory backlog? What are the nature and status of each of these projects?

Answer. FRA is making good progress in reducing a regulatory backlog that arose against a background of successive statutory mandates and limited resources.

FRA has addressed the backlog with hard work and new collaborative approaches designed to find solutions that are based on good data and responsive to cost/benefit concerns.

In some cases, research has been necessary to lay the foundation for regulatory action. Research costs money, and acquiring funding takes time.

Major overdue rules—

Requirement (date enacted)	Statutory deadline	Status; comment
Power brake rules, revise (9/3/92)	12/31/93 ...	2-way EOT rules were final and trains were equipped in 1997, ahead of 12/31/97 statutory deadline. Passenger power brake provisions were included in Passenger Equipment St'ds NPRM published 9/23/97—preparing final rule. General revision of freight power brake rules—second NPRM this summer.
Track safety standards (9/3/92)	9/1/95 (as extended 11/2/94).	NPRM based on RSAC recommendation published 7/3/97; final rule in review and clearance.
Whistle bans (11/2/94, amended 10/9/96).	11/2/96	NPRM based on extensive public outreach is in review and clearance.
Passenger safety standards (initial) (11/2/94).	11/2/97	Passenger Train Emergency Preparedness final rule based on working group consensus is in review and clearance. Passenger Equipment Safety Standards NPRM was issued 9/23/97; consultations completed 1/6/98; final rule in preparation.

STATUTORILY MANDATED REGULATIONS

Question. Which are the regulatory projects that are statutorily mandated, and when were these due for final issuance? What is the status of each?

Answer. Although FRA is making good progress in reducing a regulatory backlog that arose against a background of successive statutory mandates, the issuance of final rules addressing all elements of the revision of the power brake rules and revision of the track safety standards have not met statutory deadlines.

Track Safety Standards.—The revision of existing regulations includes, among other things, the review of excepted track and standards for high-speed service. A proposed rule based on consensus recommendations of the RSAC was published on July 3, 1997. A public hearing was held on September 4, 1997, and additional comment was invited regarding certain high-speed track geometry issues. FRA has prepared a final rule which is pending clearance. FRA expects the final rule to be issued in the very near future.

Passenger Equipment Safety Standards.—The Federal Railroad Safety Authorization Act of 1994, which was enacted on November 2, 1994, requires FRA to issue initial passenger safety standards within three years and complete standards within five years. Congress authorized FRA to consult with industry parties outside the Federal Advisory Committee Act, making it possible to conduct an informal negotiated rulemaking. FRA is conducting this regulatory mandate in two separate rulemakings, one on passenger equipment standards, and the other on emergency preparedness. A proposed rule on Passenger Equipment Safety Standards was published on September 23, 1997, and a public hearing was conducted on November 21, 1997. FRA is preparing the final rule for the first phase of the rulemaking. Following issuance of the "initial" final rule, work will begin on additional passenger safety regulations.

Passenger Train Emergency Preparedness.—The final rule was issued on May 4, 1998 and has a effective date of July 6,1998. The rule requires the preparation, adoption, and implementation of emergency preparedness plans by railroads connected with the operation of passenger trains, includinge all railroads hosting the operations of rail passenger service. The plans must address such subjects as communication, employee training, joint operations, tunnel safety, liaison with emergency responders, on-board emergency equipment, and passenger safety information. The plan will be subject to formal review and approval by FRA.

Power Brakes.—In response to a 1992 statutory mandate, the various recommendations and petitions for rulemaking, and due to its own determination that the power brake regulations were in need of revision, FRA published a Notice of Proposed Rulemaking (NPRM) regarding revisions to the power brake regulation on September 16, 1994. Due to the strong objections raised by a large number of commenters at these public hearings, FRA announced in early 1995 that it would defer action on the NPRM and permit the submission of additional comments prior to

making a determination as to how it would proceed in this matter. Beginning in mid-1995, while continuing to receive comments on the 1994 power brake NPRM, FRA internally committed to the process of establishing the Rail Safety Advisory Committee (RSAC). At the Committee's inaugural meeting on April 1–2, 1996, the RSAC officially accepted the task of assisting FRA in development of revisions to the regulations governing power brake systems for freight equipment.

In the interim, FRA proceeded with the revision of other portions of the power brake regulations through other processes. FRA decided to separate passenger equipment power brake standards from freight equipment power brake standards. In late–1995 it was determined that the passenger equipment safety standards working group would assist FRA in developing a second NPRM covering passenger equipment power brake standards. On September 23, 1997, FRA published an NPRM on passenger equipment safety standards which contained proposed power brake standards for passenger trains and equipment. A final rule on passenger operations is currently being prepared. Furthermore, in early–1996 FRA determined that it would separate the issues related to two-way EOT's from both the passenger and freight issues, address them in a public regulatory conference, and issue a final rule on the subject as soon as practicable. A final rule on two-way EOT's was issued on December 27, 1996. The final rule's effective date was July 1, 1997, six months ahead of the statutory mandate requiring the use of such devices.

Beginning in May of 1996 and continuing through May of 1997, the Freight Power Brake Working Group, assembled by the RSAC Committee, held numerous meetings and small group discussions. Although the Working Group discussed, debated, and attempted to reach consensus on various issues related to freight power brakes, consensus could not be reached. Consequently, FRA withdrew the freight power brake task from the Working Group on June 24, 1997 and informed the members of RSAC that FRA would proceed unilaterally in the drafting of a freight power brake NPRM. Since that time, FRA has been exhaustively developing another NPRM dealing exclusively with freight power brakes and is currently in the process of finishing its internal review of the document and will submit the document for administration review in the very near future. In developing the NPRM, FRA has carefully considered the information, data, and proposals developed by the Freight Power Brake Working Group as well as all the oral and written comments offered by various parties regarding the 1994 NPRM on power brakes.

Grade Crossing Whistle Bans.—This rulemaking would require the sounding of locomotive whistles at all crossings unless alternate safety measures compensate for their absence as a warning to motorists. A Federal rule would preempt many state and local whistle bans. A proposed rule addressing the first phase of this rulemaking has been prepared and reviewed within the administration. As a result of this review, it has been concluded that a full Environmental Impact Statement (EIS) is required. Necessary data collection and analysis has begun. FRA now anticipates a simultaneous release of an NPRM and a draft EIS in late 1998. FRA has done and continues to do extensive outreach across the country to explain to local communities how the delicate balance between the interests of safety and quiet communities can be reached. FRA's proposed rule will strive to achieve the law's important safety objectives in a way that will provide communities maximum flexibility and ample opportunity to maintain quiet.

PERFORMANCE BASED REGULATIONS

Question. How is FRA moving towards more performance-based regulations?

Answer. Risk assessment is the key to establishing performance-oriented regulations. FRA is using risk assessment to evaluate rail corridors, which may become candidates for the installation of Positive Train Control Systems. The Agency foresees increasing use of this technique in the future. But creating the climate for performance-oriented regulation requires building confidence among critical constituent groups. In addition, it is essential that any new regulatory approach considered by FRA provides a constructive means of engaging the railroads. This can best be accomplished by developing performance standards that address discrete areas of concern, implementing those standards successfully, and moving toward more flexible approaches as experience is acquired. The Railroad Safety Advisory Committee (RSAC) and other collaborative rulemaking forums provide venues for moving this evolution forward at a pace that is realistic in light of available technical knowledge and all relevant externalities. FRA is subject to a significant list of legislative mandates requiring specific types of technology and practice. FRA is not at liberty to set these priorities aside in favor of a top-to-bottom rewrite of its regulations. System safety planning and risk analysis are important tools and are increasingly critical as technology presents new challenges. However, safety is earned through daily,

sustained effort across a broad front of activities. There is no experience of which we are aware that would warrant wholesale abandonment of safety strategies that work. Prescriptive regulations work well in some contexts without inhibiting innovation (e.g., specific operating rules and restrictions on alcohol/drug use), and some performance standards prove difficult to enforce over time (e.g., verifying the current functioning of high temperature thermal protection for tank cars). Rather, a process of transition and growth must be initiated and tended at whatever pace it can be appropriately sustained.

The field of high-speed rail is one in which FRA has been most aggressive in utilizing system safety and risk assessment techniques to fashion a regulatory approach. Our forthcoming notices of proposed rulemaking for passenger equipment safety and for the Florida Overland Express strongly emphasize system safety planning. FRA believes that this effort can provide the beginning of a template for dedicated operations. However, the reality confronted by a regulatory agency in evaluating an entirely new service involves many complex issues. Benchmark criteria are needed for systems, subsystems and critical components in order to evaluate the nature and magnitude of technical risk before system risk can be fairly estimated.

The complexity of the effort is certainly no reason not to implement the system safety concept. FRA's Safety Assurance and Compliance Program shifts the Agency's routine safety monitoring from a site-specific to a systems assessment approach. However, system safety is a process and discipline that must be internalized by the entity actually operating the service. Prior audits of entities that have prepared system safety plans have sometimes found that planning documents have become stale and were not well integrated into the actual operation of the service. FRA seeks to foster meaningful system safety planning that becomes an essential element in the way the system is actually operated. To the extent this safety focus is established and maintained, reinforcement can be provided through allowance for much greater flexibility with respect to the manner in which safety objectives are achieved. Arriving at this state of maturity will not come quickly, and it cannot be forced through an administrative timetable.

With respect to railroad safety regulation specifically, FRA is scrutinized daily by the National Transportation Safety Board (NTSB), the Office of the Inspector General, the General Accounting Office, various offices within the Office of the Secretary of Transportation, congressional committees, and the full range of external agency customers. FRA rulemakings are subject to Executive Branch and Departmental review and clearance procedures that are identical to those employed for the Federal Aviation Administration, the National Highway Traffic Safety Administration and other DOT agencies. The issues and challenges regarding the manner in which regulations are crafted can be clearly discerned by those who spend time working within the process, though the appropriate way of resolving many of these will remain in dispute.

FRA finds that component standards may still be needed in many cases. For example, a standard for wheel/rail interaction is optimal if there is just one wheel design using the track. Since there are many, the rail specification may need to reflect "worst case."

The proposed high-speed track standards feature performance standards for wheel/rail interaction, which are based on extensive research and experience internationally. FRA does not specify wheel metallurgy, wheel profile, rail head profile, truck design, etc. That same document, however, addresses other issues in a more directive manner. Gage and other geometry constants are provided so that a variety of equipment manufacturers will know how to achieve the desired wheel/rail interaction. Other component standards have been proposed where constituent groups engaged in the RSAC negotiation felt that they were necessary (and railroad representatives assented) or where use of performance criteria would really be impractical. Many benefits flow from this pragmatic approach.

In virtually all areas of regulation, further research will certainly be appropriate to broaden our knowledge base so that we can more confidently fashion performance standards (e.g., research into the thermal tolerances of wheels and discs), but where this learning is not available, more traditional standards will have to serve.

HAZMAT ACCIDENTS

Question. Please chronicle all major hazmat-involved rail accidents in calendar year 1997, noting date, location, railroad, type of hazmat, any fatalities, injuries, evacuations or other complications, and the estimated cost of damage and loss for each. Please also summarize the probable cause of each accident

Answer. The following major rail accidents involving the release of a hazardous material are summarized below:

Date: 01–22–97
Location: Appleby, Texas
Railroad: BNSF
Type of hazmat: Sodium Hydroxide Solution
Fatalities: 0
Injuries: 0
Evacuations or other complications: One family
Estimated cost of railroad damage: $1,700,000
Probable cause: Broken Rail

Date: 04–21–97
Location: Sandusky, Ohio
Railroad: Conrail
Type of hazmat: Residue/Sodium Hydroxide
Fatalities: 0
Injuries: 0
Evacuations or other complications: 150 residents
Estimated cost of railroad damage: $1,167,800
Probable cause: Excessive draft and buff slack action due to train handling

Date: 05–30–97
Location: Schuyler, New York (Herkimer)
Railroad: Conrail
Type of hazmat: Hydrochloric Acid
Fatalities: 0
Injuries: 0
Evacuations or other complications: 60 residents
Estimated cost of railroad damage: $559,875
Probable cause: Excessive draft force causing draw bar to be pulled out of the 36th car

Date: 06–04–97
Location: Marianna, Florida
Railroad: CSX
Type of hazmat: Hydrogen Peroxide and Hydroxide
Fatalities: 0
Injuries: 0
Evacuations or other complications: 20 residents
Estimated cost of railroad damage: $1,607,500
Probable cause: Broken rail

Date: 06–07–97
Location: St. Albans, West Virginia
Railroad: CSX
Type of hazmat: Sulfuric Acid
Fatalities: 0
Injuries: 0
Evacuations or other complications: 150 residents
Estimated cost of railroad damage: $851,952
Probable cause: Operation failure by locomotive engineer

Date: 07–12–97
Location: Lawrenceville, Illinois
Railroad: CSX
Type of hazmat: Acrylate, Inhabited
Fatalities: 0
Injuries: 0
Evacuations or other complications: 6 Residents
Estimated cost of railroad damage: $130,000
Probable cause: Shifted load which was not properly secured

IMPROVEMENTS TO HAZMAT PROGRAM

Question. What improvements to FRA's hazmat program have been made since last year.

Answer. During the past year, all FRA and State hazardous materials (hazmat) inspectors received training to educate and update skills on new hazmat rules published by the Research and Special Programs Administration (RSPA). In addition, hazmat seminars were presented to all Federal and State inspectors at FRA's annual multi-regional conferences. The focus of the training has been to reinforce hazmat inspector knowledge of computation skills for determining the allowable fill-

ing densities of tank cars for the various hazardous materials transported by rail and to update computer skills in this rapidly changing environment.

In addition, FRA field forces are being alerted to recently published hazmat notices and rules issued by RSPA through FRA's Internet system. This makes important information, including effectives dates of notices, available to hazmat inspectors in a timely manner. This electronic system is being expanded to FRA's State partners.

Finally, FRA has been leveraging its limited hazmat inspector resources through Safety Assurance and Compliance Program (SACP) safety audits of all major freight and passenger carriers. Under SACP safety audits, hazmat inspectors, look for systemic violations involving hazmat exposures, which may have railroad-wide, or railroad-industry-wide significance. Since 1993, the rate of hazmat releases per billion hazmat ton-miles has declined 33 percent—from 17.19 in 1993 to 11.53 in 1996.

HAZARDOUS MATERIALS COMPLIANCE PROGRAM

Question. Previously, FRA promised that FRA inspectors would direct adequate focus on high risk hazmat shippers. How is this now done? How are high risk shippers identified?

Answer. FRA uses an Annual Allocation Analysis Model (AAAM), which aids in field inspection focus on high risk hazmat rail movements. The model data is arranged by inspection discipline, region, and railroad. Railroads are divided into three class size groupings: large railroads with annual employee hours greater than 400,000, small railroads with total train miles times annual employee hours greater than 100 million, and small railroads with total train miles times annual employee hours less than 100 million.

For large railroads, AAAM uses seven risk factors: inspection reports, accidents, fatalities and serious injuries, hazardous material tons, total tons, passenger traffic, and inspection defects. AAAM also uses seven risk factors for both categories of small railroads. Hazardous material tons and total tons are obtained from the Surface Transportation Board's Carload Waybill Sample. However, the Carload Waybill Sample of railroad freight traffic does not accurately track hazardous material traffic flows on small railroads. Consequently, "train miles" and "annual employee hours" are substituted for "hazardous material tons," and "total tons." AAAM is a model of reasonable risk factors, which can suggest the need for site specific examinations, or suggest an area for examination under Safety Assurance and Compliance Program (SACP) safety audits.

Nearing completion is another model, which contains risk factors that will help identify and focus FRA's attention on high-risk hazmat shippers.

INSPECTOR TRAINING PROGRAM

Question. Please provide information on the success of the inspector trainee program and the retention rate for all individuals who have entered this program since its inception. How many individuals who entered the inspector trainee program now serve as FRA inspectors in the field? How much of the fiscal year 1999 request pertains to this program? Please compare this amount with amounts spent during each of the preceding three years.

Answer. The FRA Inspector Trainee Program has been very successful. The inspector trainees have brought new and creative thinking to complex safety issues with their varied and exceptional educational backgrounds. Significant benefits have been gained by the public and the railroad industry as the trainees become a part of FRA's inspector work force. The input from the trainees has been significant in helping to bring FRA's inspector program to a fact-based cooperative approach to safety.

Since the inception of the FRA inspector trainee program in fiscal year 1991, the retention rate has fallen within the range of 88 percent in fiscal year 1997, to 97 percent in both fiscal year 1993 and fiscal year 1996.

FRA's inspection work force includes 29 safety inspectors who were initially hired through the FRA Trainee Program. Another employee who came on board as a trainee works in FRA's Office of Safety Headquarters. Currently, there are 7 employees in the trainee program.

The fiscal year 1999 request includes $1.206 million to continue this program. The budgeted amount for fiscal year 1998 is $1.191 million, for fiscal year 1997 it was $1.826 million, and for fiscal year 1996 it was $1.734 million.

TRAINING BUDGET

Question. Please prepare a chart of your training budget for each of the last four fiscal years (including the fiscal year 1999 request), specifying separately the amounts spent on Federal and State inspectors.

Answer.

FEDERAL TRAINING PROGRAM

[Dollars in thousands]

	Fiscal year—			
	1996 actual	1997 actual	1998 estimate	1999 estimate
State Inspectors	$210	$240	$247	$260
Federal Inspectors	1,310	1,484	1,372	1,520
Total Budget	1,520	1,724	1,619	1,780

FISCAL YEAR 1999 ATIP FUNDING

Question. Please provide a detailed break-out of the $2,500,000 ATIP request for fiscal year 1999. Is FRA's effort to replace the T–10 track geometry inspection vehicle now complete? If not, please provide a cost schedule for the completion of this replacement project.

Answer. FRA's new track geometry car is scheduled to begin service in the fourth quarter of fiscal year 1999. The $2.5 million ATIP request for fiscal year 1999 consists of: $1.7 million for normal, annual program operating expenses involving the existing T–10 track geometry car; $0.4 million for the Miscellaneous Obligation Account, which covers daily operating expenses on individual railroad properties, T–10 fuel suppliers, and emergency repairs; $0.372 million for the operation of the new track geometry car in the last quarter of fiscal year 1999; and $0.028 million for inflation adjustments.

USE OF ATIP IN SAFETY PROGRAM

Question. Please explain how FRA has incorporated data produced through the ATIP program into its overall strategy of ensuring the safety of the nation's railroad systems.

Answer. ATIP provides a cost-effective means of examining over 27,000 miles of track per year to ensure compliance with the Federal Track Safety Standards (FTSS) with primary focus on lines that carry passengers and hazardous materials. The FTSS are undergoing revision, which will likely place greater emphasis on automated inspections rather than manual, visual inspections. Also, within the next few years, passenger trains will be operated at speeds well above current speeds. FRA must be able to monitor compliance with high-speed track standards. FRA's track geometry car measures track geometry at an interval of once per foot under loaded conditions and at track speed. An onboard FRA inspector and railroad representative use the results of the inspection—data charts and reports—to assess track conditions. ATIP was initiated at a time when the railroad industry was experiencing a dramatic increase in track related accidents. The introduction of FRA's track geometry car, along with the increase in field inspectors armed with the data provided from this source, made a clear improvement in the accident rate. ATIP provides not only a means of detecting geometry defects and helps direct critical repair to prevent track-related accidents, but it also provides a means for the FRA inspectors to plan inspections based on historical trends. Routes followed by FRA's track geometry car during its annual tour through the country are jointly developed yearly by Headquarters and Regional personnel and are set up to include tracks over which large volumes of hazardous materials move, Amtrak passenger trains are scheduled, Department of Energy nuclear wastes are transported and over tracks, which have exhibited a higher than normal recent history of track related derailments. Qualitative data, produced by the track geometry car from these high risk sources for track, enable Federal and State safety inspectors promptly recognize the most severe track defects and to arrange for railroad maintenance of way and structures personnel to make expeditious repairs.

ATIP AND SACP

Question. How does the ATIP relate to SACP?

Answer. Safety Assurance and Compliance Program (SACP) safety audits are data-driven. SACP safety audits identify systemic problems that may have railroad-wide, or railroad-industry-wide implications. Data generated by FRA's track geometry car, one of only two vehicles that have the capability of evaluating railroad track for compliance with Federal Track Safety Standards, figures prominently in SACP safety audits dealing with track condition evaluations. Furthermore, if track condition remedial actions, under SACP, require a railroad to submit a Safety Action Plan, FRA's track geometry car can evaluate the effectiveness of the railroad's corrective actions on subsequent visits.

GRADE CROSSING DATA BY STATE

Question. In the three full calendar years since the implementation of this multimodal, coordinated plan—1995, 1996, and 1997—what has been the actual and percentage decrease of crossing accidents and fatalities nationally? Please display these data in a state-by-state breakout table. Is the action plan on target to meet the goal of reducing accidents and fatalities by 50 percent in 10 years?

Answer. The Action Plan is on target, and the goal of reducing collisions and fatalities by 50 percent in 10 years (compared to 1993) is achievable. Data for 1995, 1996 and preliminary* data for 1997 follows:

State	Collisions				Fatalities			
	1995	1996	1997	Pct. chg. 95 vs. 97	1995	1996	1997	Pct. chg. 95 vs. 97
NATION	4,633	4,257	3,766	−18.7	579	488	445	−23.1
Alabama	178	157	135	24.2	16	18	18	+12.5
Alaska	3	6	5	+66.7	.....	.....	1	+100
Arizona	38	30	26	−31.6	2	4	5	+150
Arkansas	161	145	114	−29.2	22	20	10	−54.5
California	200	201	137	−31.5	28	24	2	−28.6
Colorado	59	33	26	−55.9	11	5	2	−81.8
Connecticut	6	12	6	.....	1	.....	.....	−100
Delaware	5	4	4	−20.0	.....	.....	1	+100
District of Columbia	.....	2	.....	.....	.....	.....	.....	.....
Florida	95	102	87	−8.4	23	16	11	−52.2
Georgia	160	155	138	−13.8	17	19	12	−29.4
Idaho	34	49	28	−17.6	7	6	6	−14.3
Illinois	295	232	210	−28.8	48	39	27	−43.8
Indiana	271	224	226	−16.6	29	28	25	−13.8
Iowa	123	123	104	−15.4	9	8	12	+33.3
Kansas	101	113	101	.....	15	13	15	.....
Kentucky	103	77	66	−35.9	7	3	5	−28.6
Louisiana	223	231	196	−12.1	28	31	29	+3.6
Maine	11	8	11	.....	.....	.....	.....	.....
Maryland	12	10	17	+41.7	.....	.....	.....	.....
Massachusetts	14	22	15	+7.1	1	0	2	+100
Michigan	133	142	150	+12.8	5	17	14	+180
Minnesota	152	157	115	−24.3	19	14	7	−63.2
Mississippi	159	132	147	−7.6	31	15	17	−45.2
Missouri	128	127	107	−16.4	22	19	14	−36.4
Montana	19	34	31	+63.2	4	3	1	−75.0
Nebraska	86	63	67	−22.1	8	9	9	+12.5
Nevada	8	7	.....	−100	5	1	.....	−100
New Hampshire	5	2	2	−60.0	.....	1	.....	.....
New Jersey	24	31	34	+41.7	5	2	7	+40.0
New Mexico	18	26	20	+11.1	5	7	6	+20.0
New York	52	36	36	−30.8	9	4	7	−22.2
North Carolina	135	123	113	−16.3	11	9	6	−45.5
North Dakota	38	33	21	−44.7	7	4	1	−85.7
Ohio	239	186	176	−26.4	36	14	24	−33.3

State	Collisions				Fatalities			
	1995	1996	1997	Pct. chg. 95 vs. 97	1995	1996	1997	Pct. chg. 95 vs. 97
Oklahoma	113	80	114	+0.9	15	22	22	+46.7
Oregon	35	43	31	−11.4	12	1	4	−66.7
Pennsylvania	80	74	65	−18.8	12	3	4	−66.7
Rhode Island	1	.....	1	.....	.....	.....	.....	.....
South Carolina	111	87	74	−33.3	6	6	13	+116.7
South Dakota	41	20	23	−43.9	4	2	.....	−100
Tennessee	101	123	88	−12.9	13	9	12	−7.7
Texas	474	434	406	−14.3	55	61	52	−5.5
Utah	33	35	24	−27.3	7	11	3	−57.1
Vermont	4	6	1	−75.0	.....	1	.....	.....
Virginia	76	70	52	−31.6	6	4	2	−66.7
Washington	83	69	65	−21.7	4	6	7	+75.0
West Virginia	40	22	26	−35.0	1	2	5	+400
Wisconsin	140	150	117	−16.4	13	5	6	−53.8
Wyoming	13	9	7	−46.2	.....	2	1	+100

STATUS OF HIGHWAY-RAIL ACTION PLAN

Question. Please update the Committee on the implementation of each of the 52 crossing safety proposals in the Highway-Rail Crossing Action Plan. Which of these actions have been the most effective in reducing accidents at highway-rail crossings?

Answer. Effectiveness in the last four years has been much more attributable to the synergism of the 1994 Action Plan than to any one of the 55 individual initiatives. The fact that the four surface modal administrations worked together assembling this Action Plan, and that the Department (and the Congress) have since been tracking progress of each of the 55 initiatives has kept crossing programs high on the agendas of program planners in Federal as well as State and industry offices. Twenty of the original 55 initiatives are considered complete. Another dozen are now considered to be on-going programs. Nineteen are still being developed, and four have been terminated. (The following table applies.) The tragic 1995 school bus—commuter train collision in Fox River Grove, Illinois and the subsequent DOT Task Force and two reports have kept the attention of both the public and of public planners. The existence of the Action Plan, and the 55 initiatives, has provided focus and outlets and has facilitated much of this interest and activity. (Other factors contributing to the overall improvement in safety at highway-rail crossings would include Operation Lifesaver, continuation of the Section 130 Rail-Highway Grade Crossing Safety Improvement Program, FRA's eight Regional Highway-Rail Crossing Safety and Trespass Prevention Program Managers, additional alerting lights on locomotives and widespread debate over train horns. All of these have kept the crossing safety issue before the public and in the minds of public officials.

SUMMARY STATUS OF ACTION PLAN INITIATIVES

Initiative number/title	Agency	Description	Status (a/o March 19,1998)
		COMPLETED INITIATIVES	
I.D., Rules of Evidence	FRA TRB	Research state laws, draft model.	Complete. NCHRP Legal Research Digest, ''Photographic Traffic Law Enforcement,'' published Dec. 96.
I.F., Compilation of State Laws and Regulations on Matters Affecting Highway-Rail Crossings.	FRA	Update 1983 edition	Complete and distributed August 1995.
II.A., Principal Railroad Lines	FRA	Corridor reviews along defined heavy-use rail lines.	Complete. PRL's defined; maps provided; reviews encouraged.
II.F.1., Cash Payments	Legislation	Allow payment of STP funds to communities closing crossings.	Included in DOT's fiscal year 1997 Appropriations Bill. Field guidance released Dec. 2, '96.
II.F.2., Eligibility for 100 Percent Federal Funding	Legislation	Include closure projects in those eligible for 100 percent funding.	Included in DOT's fiscal year 1997 Appropriations Bill. Field guidance released Dec. 2, '96.
II.H., Integrated Intermodal Transportation Planning	FRA FHWA	Outreach meetings with MPO's and railroads.	Complete. Nine symposiums held in TX, CO, PA, MO, MA, WA, CA, GA & IL.
II.I., Check List	FHWA FRA	Detail procedure for corridor reviews.	Complete and distributed to FHWA and FRA field offices in May 95.
II.M., Distribution of Funds	FHWA FRA	Propose revised distribution formula for 130 funds.	Proposed in NEXTEA.
III.D.1., On-Guard Notice	FHWA	Publish a notice re crossing safety.	Complete. Distributed Feb 94. Another re high-profile crossings sent Feb. 96.
III.D.2., Advisory Bulletin	FHWA	Bulletin to trade press re crossing safety.	Complete. Sent Feb 94.
III.D.3., Public Service Print Advertisements	FHWA	Develop and distribute print ads to trade press.	Complete. Sent Jan. 94.
V.A.1., Research Workshop	FRA	Discuss current and projected research needs.	Complete. Held April 95. Report issued.
V.A.2., Defense Conversion Fair	FRA	Exchange program to introduce Defense firms to industry needs.	Complete. Part of DOT Technology Fair and in BAA seeking proposals.
V.B., Demographics	NHTSA	Study fatal casualty statistics	Complete. Report published Nov 94.

V.C., Accident Severity	NHTSA	Study accident severity statistics	Complete Feb 95, unpublished memo rpt.
V.D.4., Locomotive Conspicuity	FRA	Develop standards and rules for alerting lights on locomotives.	Complete. Regs require all locomotives be equipped by Dec 97. Waivers granted to UP & SEPTA for 3 & 6 mos respectively.
VI.B., Trespasser Casualty Reporting	FRA	Propose to collect additional data re trespass casualties.	Complete. New reporting requirement effective January 1997.
VI.C., Workshop on Trespass Prevention	FRA	Plan and host second national workshop.	Completed in Atlanta, Nov 95. Five regional workshops completed Apr 96.
VI.D., Regional Campaigns	FRA	Develop low-cost PSA re trespass casualties.	Complete. Final product delivered Summer 96.
VI.E., Model Trespass Prevention Code	FRA	Develop from current state laws a model trespass prevention law.	Complete. Compilation of state laws and model code sent to Congress in April '97.
	ON-GOING INITIATIVES		
I.A., Section 402 Funds	NHTSA FHWA	Promote state funding of related projects.	On-going. In fiscal year 1997, 15 states dedicated $346,661.
I.B., Police Officer Detail	NHTSA FRA	Officer in Washington to assist FRA outreach.	On-going. 3rd officer selected and on-board.
I.C., Outreach to Judiciary	NHTSA FRA	Publish articles in NTLC newsletter.	On-going. Two columns published by NTLC, presentation made to Traffic Court Judges' Seminar; reviewing draft pamphlet.
II.B., The National Highway System (NHS)	FHWA	States to plan upgrade or elimination of NHS crossings.	On-going. "Continued safety improvements" in OST Strategic Assessment Plan. FHWA encouraging inclusion in state planning processes.
II.C., Upgrade Signing and Marking	FHWA	Improve conspicuity of signs and markings at crossings.	On-going. FHWA memo Dec. 94 encourages promotion of higher quality material.
II.E., STOP Signs	FHWA FRA	Promote STOP signs as traffic control device alternative.	On-going. July 93 memo to FHWA and FRA field offices and regional meetings are promoting.
III.A., Marketing Materials Plan	FRA NHTSA FHWA FTA.	Develop materials and promote increased public awareness.	On-going. Always Expect A Traincampaign ongoing. Most recent release: A Trespass Prevention VNR.
III.D.4., "Trucker on the Train" Program	FHWA FRA	w/ATA & OLI host trucking executives on locomotives.	On-going. "Kick-off" was Nov 94. Safety roundtable w/rail & truck industry planned for Spring '98.
III.D.5., Operation Lifesaver	FHWA OLI	Encourage OL to meet with trucking companies.	On-going.

SUMMARY STATUS OF ACTION PLAN INITIATIVES—Continued

Initiative number/title	Agency	Description	Status (a/o March 19,1998)
III.D.6., National Safety Organizations	FHWA	Discuss issue with industry and law enforcement officials.	On-going. Pamphlets published by NSC in Mar 95 and Sep 97. Video by OLI in '96.
III.D.7., On-Site Compliance Reviews	FHWA	During reviews, inform carriers of risks at crossings.	On-going. Dec 94 memo encourages discussion and distribution of materials.
V.G., Light Rail Accident Statistics	FTA	Broaden SAMIS system to identify crossing accidents.	On-going. Data collection started in fiscal year 1995. Published in '95 SAMIS Annual Rpt.
		IN-PROGRESS INITIATIVES	
I.E., Commercial Driver's License	FHWA AAMVA	Elevate crossing violation to "serious" for CDL holders.	Required by 1995 legislation; NPRM issued March 2, 1998.
I.G., Safety Inquiry	FRA	Informal meeting re standing rail equipment near crossings.	Pending time and resources. (BNSF has proscribe such practice.)
II.D., Responsibilities for Selection and Installation	FRA FHWA	Clarify project responsibilities, railroad vs. highway authorities.	Regulatory action terminated Aug. '97. Considering warrants as an alternative.
II.G., Crossing Consolidation and Closure Case Studies	FRA	Publish guidelines and strategies based on case studies.	First report, a Guide, published July 94. Second report, Options, in draft.
II.J., Highway-Rail Crossing Handbook	FHWA	Update and republish 1986 version.	Contractor progressing. Preliminary draft material received. Target date Sep. '98.
II.K., Vegetation Clearance	FRA FHWA	Address in proposed track standards and SMS.	FHWA encourages states. A joint FHWA-FRA working group is being formed.
III.B., Driver Training Materials	NHTSA AAMVA	Review current and develop new materials.	New model drivers' manual prepared with section on crossings. Will be piloted in several states. Colorado has adopted.
IV.A., Define Categories	FRA	Define categories and minimum standards for private crossings.	Statistics and comments from previous safety inquiry are being reviewed.
IV.B., Safety Inquiry	FRA	Informal meeting re standards for certain private crossings.	Pending time and resources.
IV.C., Locked Gate at Private Crossings	FRA FHWA	Demonstrate gates w/controlled locks at private crossings.	NY & OR studying. Demonstrations being planned in both states.
V.D.1., Signs and Signals	FHWA FRA	Research new traffic control and warning devices.	Contractor is progressing. Final report due April 1998.

V.D.2., Train Horns	FRA AAR	Determine impact of whistle bans nationwide.	Report published Apr 95. Revision being reviewed. Draft assessment of wayside horns under review.
V.D.3., Light Rail Crossing Gates for Left Turn Lanes	FTA	Investigate alternatives for left turn lanes with parallel tracks.	LACMTA demonstration of 4-quadrant gates is progressing. Final Report is due March 1998.
V.D.5., The Manual on Uniform Traffic Control Devices (MUTCD)	FHWA FTA FRA	Propose changes re high speed rail, temporary closure, multi-track signs, work zones, etc.	Published in Federal Register June 95. FHWA decision published Jan 97, ''More study necessary.'' Research being proposed
V.E.1., Automated Video Image Analysis	FRA	Investigate potential for live video monitoring of crossings.	Tests in NY and CA. Proposals being sought through IDEA program.
V.F., 1–800 Computer Answering System	FRA	Develop system for answering and forwarding of trouble calls.	Funding identified, concept under review as railroads have progressed unilaterally.
V.H., Resource Allocation Procedure	FRA	Recalculate accident prediction formulas and rebuild model.	Peer review of CHAID procedure mixed. Contract for update of current formula let.
V.I., The Inventory	FRA FHWA	Promote updating; hold safety inquiry re display of number.	FHWA memo promotes updating; New Update Manual published Dec 96. Inquiry pending time and resources.
VI.A., Demographic Survey	FRA	Review trespass fatal statistics to focus remedial efforts.	Zip code maps available. Review of '97 data initiated.
TERMINATED INITIATIVES			
II.L., Corridor Review Participation	Legislation	Establish an STP incentive program for corridor reviews.	DOT bill offered but not considered.
III.C., National and Community Service	FRA	Support OL State Coordinators with Service Trust Act of 93.	Americorps funding not sufficient to include this program. No further action.
III.E., Operation Lifesaver Matching Funds	Legislation	Propose increased funds to OLI with non-public match required.	1994 DOT bill not considered. FRA's fiscal year 1996 grant to OLI increased to $300,000. Fiscal year 1997 DOT Appropriation Bill increases to $600,000. NEXTEA proposes $300,000 annually.
V.E.2., Radar Actuation System for Light Rail Crossing Warning Devices	FTA	Evaluate/demonstrate feasibility of radar-based system to detect trains and approach speed.	Administrative/contract difficulties led to termination. Substitute project is assessing crossing standards, using video tech, on MBTA's new Old Colony Line.

FISCAL YEAR 1998 EARMARK FOR GRADE CROSSINGS

Question. In the fiscal year 1998 transportation appropriations bill, the conferees provided $275,000 to support new and additional highway/rail grade crossing safety initiatives. Please explain how the Federal Railroad Administration (FRA) has utilized this funding to:

(a) evaluate interstate rail corridor and crossing safety,
(b) identify most dangerous crossings,
(c) mitigate crossing hazards,
(d) assess the effectiveness of the crossing signal technologies,
(e) develop safer commercial driving practices at highway/rail crossings, and
(f) work with communities seeking reduction of train whistles.

Answer. FRA plans to apply these new funds as follows: Over half the funds, $145,000, will be used to assess the impact of train whistles on communities and the effectiveness of mitigating technologies along the rail corridors which will be impacted by train horns (items a, c, d and f above). Additional funds, $54,000, will be used in public awareness and outreach programs in cooperation with FHWA's Office of Motor Carriers. The work will include outreach to commercial drivers (item e above), corridor and community reviews to improve crossing safety and prevent trespassing (item a above), and community work on mitigating safety measures vis-a-vis train horns (item f above). Another portion of these funds, $25,000 will be used to update collision prediction and hazard ranking software used by Federal, State, community, and railroad analysts to identify most dangerous crossings (item b above). Finally, $51,000 of these funds will be used to augment FRA's outreach to law enforcement officials promoting their active involvement in crossing safety and trespass prevention efforts within their communities (items a, c and e above).

FISCAL YEAR 1997–1998 GRADE CROSSING PROJECTS

Question. Please show on a project by project basis how the fiscal year 1997 and fiscal year 1998 monies on grade crossings were spent, who the recipients of the funds were, and the expected results.

Answer. The information follows:

Project	Fiscal year—		Recipient	Expected results
	1997 funding	1998 funding		
Research and Development (RDV)	$2,020,000	$1,997,000		
Locomotive Conspic	5,000		Volpe Ctr	Locomotives and freight cars will be more visible to drivers, helping them avoid striking the train.
Freight Car Reflec	25,000	10,000	Volpe Ctr	
Eval Wayside Horns	12,000	15,000	Volpe Ctr	Locomotive horns will be optimized for sound quality and effectiveness while reducing noise pollution in surrounding communities.
Optml Acoustic Warn	20,000	60,000	Volpe Ctr	
Driver Behavior	65,000	100,000	Volpe Ctr	To gain a better understanding of how drivers react to grade crossings and why accidents happen in order to educate drivers and develop new warning devices.
Accident Causation	124,000	150,000	Volpe Ctr	
Driver Education	134,000	70,000	Volpe Ctr	
Operation Lifesaver	600,000	600,000	Operation Lifesaver, Inc	Public education about the laws regarding grade crossing, the dangers at grade crossings and the importance to obey traffic laws.
Loss of Shunt	300,000	250,000	Assoc. of American Railroads	Examine causes for loss of contact between rail and wheels, resulting in intermittent operation of grade crossing warning device (gate bobble).
Illumination Guidelines	25,000	35,000	Volpe Ctr	The use of street lights to illuminate trains at night so drivers can see and avoid running into the train.
Assess Passive Sys	20,000		Volpe Ctr	Assess the Ohio crossbuck and traffic signals at crossing to improve warning to drivers.
Assess Highway Sig	10,000		Volpe Ctr	
Photo Enforcement	5,000	25,000	Volpe Ctr	
Active Device Fail.	25,000		Volpe Ctr	Analyze the data from the failures of automatic warning devices and recommend improvements to increase device reliability.
HSR Crossing Tech	340,000		Volpe Ctr/Battelle Labs	Examined signaling and train control, obstruction detection and warning devices and barrier system technologies available for use in high-speed corridors. Methodology to evaluate improved safety provided by additional devices developed.
Crossing Problem Definition	10,000		ASTI	Examined the crossing problems in five designated high-speed corridors and recommended solutions.
Assess 1010 & 1036 Demos	150,000	70,000	Volpe Ctr	Evaluate the technology demonstration projects funded under the Section 1010 & 1036 program in ISTEA (4-quad gate with obstruction detection in CT and Vehicle Arrestor Barrier in IL).

Project	Fiscal year— 1997 funding	1998 funding	Recipient	Expected results
Obstacle/Intrusion Detection	150,000		Volpe Ctr	Building on the HSR Crossing Technology project, examine the obstruction detection systems suitable for use at grade crossings and expand for use along the right-of-way.
Compendium of Volpe Research Findings.		200,000	Volpe Ctr	A new project to assemble the research gs to date.
Overview & synthesis of existing grade crossing statics.		160,000	Volpe Ctr	A new examination of available grade crossing statistics to develop a better understanding why grade crossing accidents occur.
Volpe Center Support		177,000	Volpe Ctr	Support of assessing hazard elimination projects.
		75,000	Volpe Ctr	Corridor Risk Analysis for Empire Corridor.
Next Generation High Speed Rail	2,965,400	2,500,000		
NC Sealed Corridor	2,000,000	2,000,000	NCDOT	The North Carolina Sealed Corridor Initiative will treat every crossing in the 92-mile Charlotte to Greensboro segment of the high-speed rail corridor with innovative crossing devices like median barriers, long gate arms, and 4-quad gates. Redundant crossings will be closed.
NY Locked Gate	215,400		NYSDOT	The Locked Gate at Private Crossings project will design, fabricate, test and evaluate a low-cost grade crossing gate system suitable for low volume traffic crossings on high-speed corridors.
TRB IDEA Program	500,000	500,000	TRB	The TRB IDEA Program, supported by FRA, FHWA, NHTSA, and FTA, competitively solicits concepts, conducts peer review, and awards innovative technology projects nationwide. Examples of completed projects include a very wide field of view camera suitable for automated monitoring of grade crossings and a scanning radar antenna for surveillance systems.
ITS Architecture & Support to ITS PO.	100,000		ITS JPO	The ITS Architecture is gaining a new User Service—User Service #30—which describes how grade crossing will be incorporated into the overall Intelligent Transportation System and which will link train control systems with advanced highway traffic control systems.

Volpe Center Support	150,000	.....	Volpe Ctr	Support of assessing hazard elimination projects. Corridor Risk Analysis for Empire Corridor.
Office of Safety	477,600	749,000		
Public Awareness and Outreach	39,300	94,000	Fiscal year 1997, various printing contractors, packing and shipping firms, equipment rental firms, conference organizers, OL suppliers, etc.	Promotional and audio-visual materials, conference registrations and display booth space and supplies, for use or distribution when making presentations to schools, community groups, workshops, conventions, etc. In fiscal year 1998, a targeted effort will focus on the trucking industry.
Police Officer Detail	50,000	63,000	Washington State ($50K for fiscal year 1997, $9K for fiscal year 1998) fiscal year 1998 selection has not yet been made.	The police officer detail is an outreach program with the law enforcement community to raise awareness of crossing safety and trespass prevention.
Outreach to Law Enforcement	19,300	70,000	IACP, NSA, NFOP, etc. fiscal year 1998 will begin a new effort to detail officers to FRA Regional Offices part-time. Selections have not yet been made.	Outreach to judges and prosecutors to enhance their knowledge of crossing safety and trespass prevention issues, and defray convention fees and materials support for FRA's regional manager promotions of highway-rail crossing safety and trespass prevention programs.
Analysis of High-Profile Crossings	18,000	20,000	Univ. of West Virginia and local survey firms.	Research and analysis of problems associated with and alternatives for, high-profile crossings and low-clearance vehicles.
Highway-Rail Crossing Inventory & Data Bases.	55,000	83,000	AMB	Simplify and refine the Highway-Rail Crossing Inventory and collision data bases reporting and report production procedures.
Information Processing	266,000	274,000	AMB	Supports Highway-Rail Crossing Inventory and crossing module of the Accident/Incident Report Processing.
Regulatory Support	30,000	145,000	Fiscal year 1997, Argonne National Labs; fiscal year 1998, DeLeuw Cather.	Fiscal year 1997, assisted in economic analysis of train horn ban impact; fiscal year 1998, assistance in preparation of EIS.

In addition to these projects, two efforts are underway paid for with FHWA funds:

Vehicle Proximity Alert System, with $1 million from FHWA ITS program (fiscal year 1994 $600 thousand & fiscal year 1995 $400 thousand) awarded to the Transportation Technology Center in Pueblo, Colorado ($500 thousand) and Volpe Center ($500 thousand). VPAS is an in-vehicle warning system that alerts motor vehicle drivers of the approach of a train, giving them adequate time to stop. The reliability testing of the prototypes has been completed and the Evaluation Report is scheduled for completion by May, 1998.

Long Island Railroad Intelligent Grade Crossing, with $7.625 million from FHWA and $3.175 million from General Railway Signal (GRS). This project will connect the GRS Atlas train control system with the grade crossing warning system and local highway traffic control system to enable crossing gates to remain up for trains that will be stopping at stations just before a crossing. Before departing, the locomotive engineer will activate the warning lights and gates. This will minimize motor vehicle delay while improving safety. A simulation at the site will take place in the Fall, 1998 followed by the demonstration which is scheduled to begin by November, 1998.

FISCAL YEAR 1998–1999 GRADE CROSSING FUNDING

Question. Please list all highway/rail grade crossing safety programs in the FRA budget (i.e., research and development, next generation high-speed rail, safety), and compare funding for each initiative for the fiscal year 1998 enacted amount to the fiscal year 1999 request. If the total funding is less than that in fiscal year 1998, please explain why.

Answer. The following table applies:

Program	Fiscal year—	
	1998	1999
Railroad Research and Development:		
Equipment, Operations and Hazardous Materials	$435,000	$435,000
Track and Vehicle-Track Interaction	562,000	[1] 100,000
Safety of High-Speed Ground Transportation	400,000	400,000
Operation Lifesaver	600,000	([2])
Subtotal, R&D	1,997,000	935,000
Next Generation High-Speed Rail: Grade Crossing Hazards and Innovative Technologies	2,500,000	2,900,000
Office of Safety:		
Police Officer Detail	63,000	[3] 60,000
Outreach to judges, prosecutors, law enforcement and the public	70,000	115,000
Analysis of High-Profile (Hump) Crossing Problem	20,000	25,000
Information Processing	357,000	[4] 362,000
Regulatory Support	145,000	[5] 100,000
Public Awareness and Outreach	94,000	95,000
Operation Lifesaver	([6])	[7] 300,000
Subtotal, Safety	749,000	1,057,000
Total FRA	5,246,000	4,892,000

[1] Program management (and funding) were moved from the 'Track' program to the Next Generation High-Speed Rail program. As well, ''Track'' funded ''loss-of-shunt'' study was nearly completed in fiscal year 1998 with a much lower level of effort anticipated in fiscal year 1999.

[2] See Safety below.

[3] It may be necessary to fund five calendar quarters of the police officer detail from fiscal year 1998. The fiscal year 1999 amount reflects just four quarters and anticipated cost increases.

[4] Major revisions to Inventory and prediction software are being initiated in fiscal year 1998 which will continue into fiscal year 1999 at a lower level of effort. These funds supplement FRA's Safety Information Processing budget.

[5] Whistle Ban Environmental Impact Statement initiated in fiscal year 1998 will be near completion and will require fewer resources in fiscal year 1999.

[6] See R&D above.

[7] FRA believes that $300,000 is adequate for the Operation Lifesaver program. Fiscal year 1998 included Congressional earmarks.

TOP 10 STATES—HIGHEST NUMBER OF GRADE CROSSING ACCIDENTS

Question. Please list the "top ten" states that have the highest number of highway/rail grade crossing accidents and fatalities, and cite the number of accidents and fatalities in calendar years 1996, 1997 and thus far in 1998.

Answer. No data for 1998 has as yet been processed. The ten states with the most reported collisions and fatalities in 1996 and 1997 are as follows:

State	1996	1997 [1]	Total
Collisions:			
Texas	434	406	840
Indiana	224	226	450
Illinois	232	210	442
Louisiana	231	196	427
Ohio	186	176	362
California	201	137	338
Georgia	155	138	293
Alabama	157	135	292
Michigan	142	150	292
Mississippi	132	147	279
Fatalities:			
Texas	61	52	113
Illinois	39	27	66
Louisiana	31	29	60
Indiana	28	25	53
California	24	20	44
Oklahoma	22	22	44
Ohio	14	24	38
Alabama	18	18	36
Missouri	19	14	33
Mississippi	15	17	32

[1] Data is preliminary.

PLAN FOR REDUCING TRESPASSERS

Question. What is your strategic plan for reducing the number of trespassers?

Answer. Trespass prevention is FRA's most challenging issue. Trespass casualties increased in 1997. FRA is focusing on a multi-faceted trespass prevention program which is summarized in three categories: Currently On-Going, Near-Term, and Long-Term.

Currently On-Going

All FRA offices and other DOT agencies are being challenged to participate in trespass prevention programs.

With FRA encouragement and support, Operation Lifesaver, Inc. (OLI), has become more involved in trespass prevention initiatives. As a result, last Summer and Fall, Community Trespass Prevention Guides were issued to all State OL Coordinators, and Trespass Prevention Presentation materials were distributed to all presenters and trainers (more than 2,500). Most recently, OLI has released and distributed a new 12-minute video, Byron's Last Day, for use with high school students. After a successful effort at the Boy Scout Jamboree last Summer, OLI has established considerable credibility with the Boy Scouts of America. Additional initiatives are being considered and contact has been made with the Girl Scouts.

Both DOT's Always Expect A Train (AEAT) campaign and the Association of American Railroad's Highways or Dieways? campaign include trespass prevention. AEAT's most recent effort produced and widely distributed a Video News Release (VNR) focused on trespass prevention. AEAT also has available anti-trespass posters which are displayed and distributed at safety gatherings and conferences, at schools when visited, etc.

FRA continues to work with the Office of the Secretary and with the National Highway Traffic Safety Administration (NHTSA) to insure that railroad issues, particularly crossing safety and trespass prevention, are part of the continuing Moving Kids Safely and Safe Communities programs. These programs are bringing safety awareness and local attention effectively to potential casualty producing locations and activities in communities, such as railroad rights-of-way and/or bridges.

Pursuant to a Congressional mandate, the FRA has developed and circulated model State legislation providing penalties for vandalism of railroad equipment or property and for trespassing on railroad rights-of-way. A summary of existing railroad trespass and vandalism laws was included. In addition to key members of Congress, the package was sent directly to the National Governors' Association, the Council of State Governments, the National Conference of State Legislatures, the U.S. Conference of Mayors, the National League of Cities, the National Association of Counties and the National Association of Regional Councils. FRA will continue to promote this model code at every opportunity. For example, FRA representatives recently appeared before the State of Washington's House of Representatives' Committee on Criminal Justice and Corrections to explain and promote adoption of a package patterned after the model code.

For nearly three years, FRA has had an active duty police officer detailed to the Office of Safety Analysis to help with its outreach to law enforcement and judicial officials. These individuals have worked with, and advised FRA's Regional Managers on working with State and local law enforcement officials. This liaison officer has also established FRA working relationships with the International Association of Chiefs of Police and the National Sheriffs' Association. FRA also is working with the newly formed International Association of Railroad Police, a spin-off from the Association of American Railroads. All of this effort is targeted towards increasing police awareness of the need to enforce traffic laws at crossings and anti-trespass laws along rail rights-of-way.

Near-Term

In FRA's fiscal year 1999 budget request, eight of the 32 additional positions requested will double the number of Regional Crossing Safety and Trespass Prevention Program Managers. FRA's eight Regional Offices oversee rail infrastructure, operations and programs in four to eight States each. The Crossing and Trespass Managers, though effective, have been unable to meet all demands for their presence and time, and legitimate opportunities to promote crossing safety and trespass prevention opportunities have been missed. These eight additional positions will augment FRA's efforts and provide increased flexibility to work with States, local communities, railroads, Operation Lifesaver, Inc. and other Federal agencies (e.g., NHTSA, FHWA, FTA, USBP, etc.) to promote trespass prevention efforts and crossing safety.

FRA has initiated an effort to demonstrate the applicability of intrusion detection technology to trespass prevention. Preliminary discussions have been held with Monroe County, New York, and Conrail officials. FRA currently is investigating available hardware.

FRA currently is exploring the idea of underwriting the cost of detailing a local police officer part-time to each of FRA's Regional Offices. This officer would support and assist the Regional Manager for Crossing Safety and Trespass Prevention Programs and Operation Lifesaver State Coordinators in outreach efforts to local law enforcement agencies and to the public. Ideas to be explored include: Developing safety training programs for law enforcement regarding railroad rights-of-way, yards and other railroad property; develop focused campaigns for use in high-incident areas; and develop a program of awards and recognitions for law enforcement agencies and officers for outstanding law enforcement efforts in trespass prevention.

Starting in January 1997, railroads have been reporting trespass casualties to FRA in an expanded format. A full year's data soon will be available. FRA will be analyzing this additional data and anticipates producing more detailed information regarding the times, places and activities involved, and identifying high-incident areas. FRA's 1997 Trespasser Bulletin will reflect this additional material.

FRA is working with OLI and several railroad and state representatives to reach a consensus regarding needed additional information about the individuals involved in trespass incidents and options for collecting such demographic data. FRA hopes to produce a demographic study of 1997 trespass casualties.

Long-Term

FRA will be exploring with DOT's other surface Administrations, OLI and the industry a follow-on to the Always Expect A Train campaign of 1994 and 1995 with even more emphasis on trespass prevention. Ideas to be considered include: Media and PSA's to targeted venues such as journals and magazines on hiking, health, trail use, schools and education; and a trespass toolbox with suggested program outlines and sample materials and lists of available resources and contacts for distribution to concerned communities, industry and State officials and other agencies.

During discussions with OLI and industry officials (referenced above), FRA will consider options for supplementing current casualty reporting procedures with spe-

cific demographic data related to trespass casualties. At the same time, FRA will open a dialogue with NHTSA and with the Centers for Disease Control (CDC) seeking their expertise and assistance in developing demographic data.

Besides current casualty reporting procedures, consideration will be given to tapping railroad and police files regarding trespass incidents (that did not result in a casualty) and railroad near-hit programs. A centralized, uniform data base will be considered.

FRA is working with DOT, NHTSA, FTA and FHWA outreach programs to insure that anti-trespass information becomes a part of existing established programs such as the Partnership for a Walkable America and the Bicycle/Pedestrian State Coordinators program. FRA has taken the lead, with support from the American Association of State Highway and Transportation Officials and the Institute of Transportation Engineers (and NHTSA, FHWA and FTA), to foster development of Rails-with-Trails casualty prevention guidelines for consideration and use by community/trail planners.

STATUS OF 1996 GRADE CROSSING RECOMMENDATIONS

Question. What is the status of the recommendations of the 1996 Grade Crossing Task Force report? Specifically, which recommendations from this report have not yet been implemented, and what are DOT's continuing efforts to implement these recommendations?

Answer. The initial report of the 1996 Grade Crossing Task Force was published March 1, 1996, titled, "Accidents That Shouldn't Happen." This report contained 24 short and long term recommendations divided into four specific problem areas: Interconnected Signals and Storage; High-Profile Crossings; Light-Rail Crossing Issues; and, Special Vehicle Operations and Information. On June 1, 1997, a follow-up report was released, titled, "Implementation Report of the USDOT Grade Crossing Safety Task Force." This report provided the status and a summary of actions taken and to be taken for each of the 24 recommendations. All 24 recommendations have been addressed, but to varying degrees. A description of each, and the current status of each, is included in the following table.

SUMMARY STATUS OF TASK FORCE RECOMMENDATIONS

Initiative number/title	Agency	Description	Status (a/o March 17, 1998)
II. INTERCONNECTED SIGNALS AND STORAGE			
II.A.1, State Focal Points	States	Establish focal point for communities and railroads to coordinate crossing issues.	All states have designated a focal point. List published. Intent of FHWA/FRA to outline suggested roles/responsibilities.
II.A.2, Engineering Studies	States	Determine adequacy of storage space and the need for signal interconnections.	States have completed investigations and established data bases. FRA letter to Governors stressed importance.
II.A.3, Planning and Design	States	Consider storage space needs early in design or redesign phase when planning projects.	State newsletters and memoranda have stressed. Design manuals revised. Follow-up with AASHTO and AREA.
II.A.4, Regional Conferences	FHWA FRA	Initiate regional conferences for railroads and states to discuss crossing safety issues.	All FHWA Regions (ex. Region 1, being planned) have held conferences. Several states have hosted state meetings w/RR's.
II.B.1, Technical Working Group (TWG)	FHWA FRA	Review existing standards and guidelines and develop new as needed.	TWG convened in '96, issued report in June '97, included terminology, findings, bibliography, letters, recommendations.
III. HIGH-PROFILE CROSSINGS			
III.A.1, Standard Warning Sign	FHWA	Develop and approve advance warning sign for inclusion in MUTCD.	MUTCD amended on January 9, 1997.
III.A.2, Define Information Sign	FRA FHWA	Propose sample language to advise proper operator action if stalled on crossing.	Alternative word message signs were proposed in Implementation Report and will be included in new Handbook.
III.A.3, Identify Problem Crossings	Highway Agencies.	Identify crossings with history, install signs, alert potential users, update Inventory.	FHWA/FRA encouraging road authorities to identify and sign crossings. Inventory changes in-progress.
III.B.1, Technical Working Group (TWG)	FRA FHWA	With States and industry, investigate feasibility of vehicle and crossing classifications.	TWG confirmed feasibility. Data collection and study of problem crossings and vehicle interaction continues.

III.B.2, Track and Highway Maintenance	FRA FHWA	Post-maintenance guidelines for vertical alignment do not exist and should be developed.	A government-industry task force polled constituents and is defining need. ASLRA, AREA and AASHTO are participating.
IV. LIGHT-RAIL CROSSING ISSUES			
IV.A.1, MUTCD Chapter	FHWA	Adopt chapter, ''Traffic Controls for Light Rail-Highway Grade Crossings''.	Chapter completed by National Committee and is awaiting FHWA publication in Federal Register.
IV.A.2, Planning, Design and Operation	FTA and local agencies.	FTA/FHWA to issue Planning Emphasis Area (PEA) directive to planning agencies.	PEA due Sep '97. FTA designated staff in each Region to monitor progress and results, to coordinate on crossing matters.
IV.A.3, Full Funding Grant Agreements (FFGA)	FTA	Include language in all future FFGA addressing priority of light rail vehicles at crossings.	Consideration and evaluation of signal interconnection now required in all FFGA's during preliminary engineering.
IV.B.1, Data Collection and Dissemination	FTA TCRP	Develop a process to collect, analyze and disseminate detailed light-rail collision data.	FTA has published 1995 crossing data from Safety Management System. Future TCRP project will consider additional need
IV.B.2, MUTCD and Handbook	FTA FHWA FRA	Insure standards and guidelines are consistent re light-rail crossing issues.	FTA is reviewing MUTCD for further suggestions. FHWA is revising Handbook with FRA oversight.
IV.B.3, Priority of Light-Rail Vehicles	FTA ITE	Develop guidelines for priority of light-rail vehicles operating on city streets.	A TCRP Report (#17) issued January '97 developed guidelines for priority of light-rail vehicles operating on city streets.
IV.B.4, Model Legislation	FTA NGA NCSL	Enact and enforce penalties for violations associated with light-rail crossings.	FTA is exploring options to promote enactment of model legislation.
V. SPECIAL VEHICLE OPERATIONS AND INFORMATION			
V.A.1, School Buses	States	School boards and contractors to include crossing emergency info in dispatch books.	OLI has distributed awareness and training video. NHTSA to include crossing issues in developing one-day in-service seminar.
V.A.2, Operating Permits	States	Permits issued for special vehicles to include emergency numbers for railroads.	NTSB has successfully encouraged several states to include numbers. In some states, pamphlets with permits include numbers.

SUMMARY STATUS OF TASK FORCE RECOMMENDATIONS—Continued

Initiative number/title	Agency	Description	Status (a/o March 17, 1998)
V.A.3, "Super-Load" Vehicles	States	Provide RR telephone numbers necessary to arrange flag protection for special vehicles.	NTSB is promoting through State special permit offices.
V.A.4, Commercial Driver License (CDL) Manual and Test	FHWA	Expand crossing safety related message of both manual and tests.	FHWA's Office of Motor Carriers is pursuing; with FRA is planning Safety Round Table with truck and rail industry.
V.B.1, Escort Vehicles	States	Develop certification programs, including crossing safety in training exercises.	NTSB is working with State special permit offices.
V.B.2, "Real Time" Communications	States	Escort and special permit vehicles to maintain contact with dispatchers.	NTSB is working with State special permit offices.
V.B.3, Classification Process	States	Implement classification process when developed per III.B.1 above.	Pending conclusion of III.B.1 above.

GRADE CROSSING ISSUES

Question. Please indicate how the FRA has worked with other Federal agencies in reducing highway-rail grade crossing incidents. What coordinated efforts with other agencies are planned for fiscal year 1999, and how is this reflected in the request?

Answer. In 1994, DOT, along with Members of Congress, unveiled the Highway-Rail Crossing Safety Action Plan. The Action Plan is a visionary policy architecture for achieving its goal of zero tolerance of highway-rail crossing collisions, fatalities and injuries. It is an ambitious national transportation goal, but one that clearly emphasizes that safety is FRA's top priority.

The multi modal endeavor brings together the valuable resources of the Federal Highway Administration (FHWA), the National Highway Traffic Safety Administration (NHTSA), the Federal Transit Administration (FTA), and the Federal Railroad Administration (FRA) to create and implement innovative enforcement, engineering, education, research, promotional and legislative initiatives to save lives at highway-rail crossings and along railroad rights-of-way.

Since the Action Plan's inception in 1994, there has been a significant five-year downward trend in fatalities. Between 1995 and 1996, America achieved the greatest increase in highway-rail crossing safety with a dramatic 18 percent decline in fatalities and collisions. Projections for preliminary statistics for 1997 indicate a continued decrease in fatalities by nearly 10 percent. At the Department, these are more than mere statistics—these are actual lives saved. This overwhelming success highlights the tremendous progress made, since 1994, in raising national awareness about safety at highway-rail crossings.

From the beginning, FRA expanded the safety partnership to include everyone in the transportation safety industry—making safety everyone's business. FRA also knows that the key to preventing car/train collisions and trespassing is working with communities to promote its life saving messages.

As part of FRA's commitment to saving lives, the team successfully coordinated with the Association of American Railroads, Operation Lifesaver, Inc. (OLI), FHWA, FTA and NHTSA to incorporate the "A Highways or Dieways" and "Always Expect A Train" public education campaigns as significant components of the Department's "Moving Kids Safely" and "Safe Communities" programs. The campaign focuses on raising awareness about the deadly consequences of trying to beat a train to a crossing and trespassing on railroad property. The campaigns have reached citizens in all 50 states via 270 television and cable markets, 673 radio markets and 200 publications. The "Always Expect A Train" campaign continues to air in Spanish and English every day throughout the Nation.

Working with Operation Lifesaver, a non-profit national organization devoted to preventing crossing collisions and trespasser fatalities, FRA was an active participant in the Department's Safe Communities traffic safety program, the Garret A. Morgan education initiative, and the Moving Kids Safely child safety campaign, promoting FRA's lifesaving message throughout the Nation, reaching diverse audiences in all 50 states.

As a related initiative, FRA developed an interactive community safety and education resource Internet WEB Page. The program provides exciting and innovative multimedia information to community leaders, teachers, students, and parents on rail safety, technology development, history, and, career opportunities and development. The site contains an interactive classroom site for use by teachers that provides lesson plans, publications, games and teaching resources that convey FRA's life saving message.

One of the most important partnerships is with law enforcement. Partnering with the International Association of Chiefs of Police, FRA created a ticket jacket for use by local officers when ticketing trespass offenders. The ticket holder has valuable life saving information that raises awareness about the dangers of trespassing. More than 2,000 were distributed to local police throughout the nation and during separate conventions sponsored by the Fraternal Order of Police and the National Sheriffs' Association.

In the aftermath of the tragic collision between a school bus and a commuter train at a crossing in Fox River Grove, Illinois in October 1995, the Department partnered with Operation Lifesaver to develop a school bus driver training program, The Responsibility is Ours, to raise awareness about crossing safety. The program was distributed during 1997 to all State departments of education and transportation.

The Department established the intermodal task force immediately following the tragic October 25, 1995, Fox River Grove, Illinois commuter train/school bus collision that claimed the lives of seven high school students. In 1996, the task force

issued recommendations in its first report to the secretary entitled, Accidents That Shouldn't Happen.

In June 1997, the Department issued a status report on the implementation of the original recommendations.

It cited the success the task force achieved in fostering greater communication between federal, state and local governments, railroads and transit agencies and in correction to ensure similar incidents never occur.

One of the most successful on-going programs is the Highway-Rail Crossing and Consolidation Program. FRA and FHWA continue to work with state and community officials to raise awareness that the safest and most efficient way to reduce crossing collisions is by eliminating and consolidating highway-rail crossings. In 1991, FRA established a goal to close 25 percent of the Nation's crossings. Last year 2,955 crossings were reported closed. The total number of public and private crossings has been reduced 27,118 (9.3 percent) to a total of 265,721.

In a related initiative, FRA and FHWA partnered with the Western Governors' Association to improve rail safety throughout Western communities and work to eliminate redundant crossings. FRA assisted in providing information for a reference guide on traffic safety and transportation efficiency that will be used by local communities.

The Department also partnered with the Boy Scouts of America (BSA) to revise their Railroad Merit Badge. The badge requirements were outdated and lacked information on rail safety. Working with OLI and BSA, FRA created a new criteria that included valuable resource material on highway-rail crossing safety and trespass prevention. FRA and OLI attended the 1997 National Jamboree in Virginia to promote awareness about rail safety and the revised badge.

During 1997, the first Department-wide workshop was held regarding Rails-with-Trails. Participants included Federal, State and local government officials, railroads, and, interest and civic groups. FRA is currently working to develop a national policy to assist communities with their transportation and recreational development planning along rail rights-of-way.

In an effort to increase trespass prevention, model state trespass and vandalism prevention legislation was developed by the Department and disseminated to all 50 State Governors and State Secretaries of Transportation, the Congress, law enforcement agencies and transportation-related associations.

FRA encouraged preparation of the National Cooperative Highway Research Program Legal Research Digest report titled, "Photographic Traffic Law Enforcement." The report provides communities information on the effectiveness of placing cameras at crossings to monitor driver behavior, as an enforcement tool and as a deterrent to try to beat the train to the crossing. The report was widely distributed among national and key transportation officials.

FRA conducted a national outreach effort to raise awareness about the Department's National Economic Crossroads Transportation Efficiency Act (NEXTEA) proposal and how communities would benefit from the proposed flexible grade crossing funding allocation model. The new proposal is based on a prudent needs basis model that also allows states the flexibility to use funding for public education and trespass prevention programs.

These are just a sample of the many accomplishments achieved through an active and broad-based partnership lead by the community-based activities of FRA's Highway-Rail Crossing Safety and Trespass Prevention Program Managers. Each manager performs daily outreach to several states in each of their regions and serves as a point of contact for communities on various rail and intermodal safety initiatives.

Clearly, the Action Plan's intermodal approach to preventing highway-rail crossing safety and trespasser casualties has been successful. While FRA should pause and praise the good, staff continues to be vigilant in efforts to improve railroad safety and save lives. The fact remains every 100 minutes someone in America is hit by a train. The key to all of FRA's success in rail safety, as in seat belts and child seats, is an emphasis on intermodal partnerships. Through FRA's railroad safety partnership FRA has made great strides but the challenge remains. The challenge is zero tolerance.

FRA will continue to work with its partners to reach zero tolerance by accelerating FRA's efforts and continuing to broaden the partnership to achieve the goals outlined in the Action Plan.

A copy of the most recent status report on the Action Plan is attached. The report provides a status of on-going initiatives and itemizes initiatives for 1999 and beyond.

In addition to Action Plan-related initiatives, FRA will be working with its transportation safety partners, OLI and Action Plan DOT modal partners to increase

awareness of crossing safety and the dangers of trespassing through a coordinated safety campaign. The objective is to unify the industry under one effective message and to leverage combined resources to maximize the effectiveness of a national and community level public awareness campaign that builds on "Always Expect A Train".

Building upon the DOT Highway-Rail Crossing Safety Action Plan and the Grade Crossing Safety Task Force, FRA is working with FHWA, NHTSA, FTA and NTSB in developing a coordinated and effective intermodal strategic plan for preventing collisions between trains, trucks and school buses. This initiative is an excellent opportunity to enhance DOT's partnership with NTSB.

The aim is to foster enhanced coordination and communication of on-going intermodal initiatives and better leverage intermodal resources to identify possible endeavors in engineering, regulatory action and public awareness to prevent train/bus and truck collisions.

The plan will encompass short and long term goals with specific action items for achieving success in the identified scope areas.

A roundtable on the issue will be convened in an effort to better define the challenges and develop innovative and successful solutions. The roundtable will consist of approximately 30–40 key partners focused on developing best practices and developing a coordinated national campaign.

Currently, trespass prevention is one of FRA's greatest safety challenges. FRA's goal is to prevent trespassing, not to make rail rights-of-way safe for trespassing. Disappointingly, the number of trespass casualties increased in 1997, counter to both the trend of recent years and to the trends in FRA's other casualty-oriented prevention programs. As with crossing safety, FRA is working with its intermodal partners to create common-sense solutions and use high technology to prevent trespassing.

FRA has initiated an effort to demonstrate the applicability of intrusion detection technology to trespass prevention. Preliminary discussions have been held with Monroe County, New York, and Conrail officials. FRA currently is investigating available hardware.

FRA currently is exploring the idea of underwriting the cost of detailing a local police officer part-time to each of FRA's Regional Offices. This officer would support and assist the Regional Manager for Crossing Safety and Trespass Prevention Programs and Operation Lifesaver State Coordinators in outreach efforts to local law enforcement agencies and to the public. Ideas to be explored include: Developing safety training programs for law enforcement regarding railroad rights-of-way, yards and other railroad property; develop focused campaigns for use in high-incident areas; and develop a program of awards and recognitions for law enforcement agencies and officers for outstanding law enforcement efforts in trespass prevention.

Starting in January 1997, railroads have been reporting trespass casualties to FRA in an expanded format. A full year's data soon will be available. FRA will be analyzing this additional data and anticipates producing more detailed information regarding the times, places and activities involved, and identifying high-incident areas. The 1997 Trespasser Bulletin will reflect this additional material.

FRA is working with OLI, and several railroad and state representatives to reach a consensus regarding needed additional information about the individuals involved in trespass incidents and options for collecting such demographic data. FRA hopes to produce a demographic study of 1997 trespass casualties.

FRA will be exploring with DOT's other surface Administrations, OLI and the industry a follow-on to the Always Expect A Train campaign of 1994 and 1995 with even more emphasis on trespass prevention. Ideas to be considered include: Media and PSA's to targeted venues such as journals and magazines on hiking, health, trail use, schools and education. A trespass toolbox with suggested program outlines and sample materials and lists of available resources and contacts for distribution to concerned communities, industry and State officials and other agencies.

During discussions with OLI and industry officials (referenced above), FRA will consider options for supplementing current casualty reporting procedures with specific demographic data related to trespass casualties. At the same time, FRA will open a dialogue with NHTSA and with the Centers for Disease Control (CDC) seeking their expertise and assistance in developing demographic data.

Besides current casualty reporting procedures, consideration will be given to tapping railroad and police files regarding trespass incidents (that did not result in a casualty) and railroad near-hit programs. A centralized, uniform data base will be considered.

FRA is working with DOT, NHTSA, FTA and FHWA outreach programs to insure that anti-trespass information becomes a part of existing established programs such as the Partnership for a Walkable America and the Bicycle/Pedestrian State Coordi-

nators program. FRA has taken the lead, with support from the American Association of State Highway and Transportation Officials and the Institute of Transportation Engineers (and NHTSA, FHWA and FTA), to foster development of Rails-with-Trails casualty prevention guidelines for consideration and use by community/trail planners.

SHIFT OF OL FUNDS BETWEEN ACCOUNTS

Question. Please detail the rationale for moving Operation Lifesaver funding from the Office of Research and Development's equipment, operations, and hazardous materials budget activity to the Office of Railroad Safety's safety regulation and program administration budget activity.

Answer. FRA's Highway-Rail Crossing and Trespasser Team is organizationally located within the Office of Safety's Standards and Program Office, which is funded in the regulation and program administration activity.

This Team's mission is to plan, develop, and direct programs which address highway-rail safety and trespasser issues and to provide coordination between concerned Federal, State and local governments, the railroad industry, and academia. One of the functions of the Crossing and Trespasser Team is to oversee involvement in highway-rail crossing and trespasser programs intended to prevent incidents and promote safety.

In meeting that function, the oversight and liaison activities relevant to Operation Lifesaver historically have been handled by the Crossing and Trespasser Team. Consequently, in an effort to streamline FRA operations and increase efficiency and accountability, FRA moved Operation Lifesaver funding from the Office of Research and Development to the Office of Safety.

FISCAL YEARS 1996–99 FUNDING FOR OPERATION LIFESAVER

Question. Please prepare a table displaying FRA support for Operation Lifesaver, requested and appropriated, for fiscal years 1996, 1997, 1998, and fiscal year 1999 request.

Answer. The following table applies.

FRA SUPPORT FOR OPERATION LIFESAVER

Fiscal year	Requested	Appropriated
1996	$150,000	$300,000
1997	300,000	600,000
1998	400,000	600,000
1999	300,000	.....

FISCAL YEAR 1998 INCREASE FOR OPERATION LIFESAVER

Question. In the fiscal year 1998 Act, the conferees increased the funding for the Operation Lifesaver by $200,000. Please state how the FRA will use these additional monies.

Answer. After discussions with Operation Lifesaver, Inc., FRA is increasing the grant to OLI for purposes outlined in the following table.

Activity	1998 original	New funds	Total	Anticipated use of new funds
States Assistance Grants	$200,000	$121,000	$321,000	Increase direct grants to individual States from $179,000 to $300,000.[1]
Continuing Education Programs	119,000	10,000	129,000	Increase General Training/Consulting.[2]
Communications Programs	81,000	69,000	150,000	Conduct Strategic Planning.[3]
Total	400,000	200,000	600,000	

[1] Direct States Assistance Grants fund applications from 30–40 individual States. Other projects in this program include State Coordinator Orientation, and the 1997 OL Annual Report/Best Practices Review by the States receiving Grants.

[2] General Training/Consulting project includes training new Level I and II trainers. Other projects in this program include Symposium Coordination/Training, New Education Materials, and Leadership training.

[3] Researching and developing an OL Strategic Plan is necessary so that OL can expand its program to include an increased focus on trespass abatement and transit issues. In addition, OL needs to increase public recognition in order to maximize the impact of its message through the implementation of a five-year public awareness and education campaign.

INSPECTOR PARTICIPATION IN OPERATION LIFESAVER

Question. Did your inspectors meet FRA's goal of participating in at least four Operation Lifesaver related activities? Is this still a goal at FRA? How did you respond to the guidance that the Committee provided in this area last year? Will the FRA letter to the House and Senate Committees detailing significantly increased inspector time allocated to Operation Lifesaver activities be submitted by the May 1, 1998 deadline as required in the Senate report?

Answer. Though FRA managers actively encourage FRA field safety inspectors and administrative staff to become certified Operation Lifesaver (OL) presenters and to assist OL in raising awareness of rail safety in their communities, a regional level of effort of four OL related activities per year per inspector has not been reached. While FRA Managers are committed to certifying as many FRA field staff as possible (currently, 233 of FRA's field staff [60 percent] are certified OL presenters), they also leverage resources by certifying people outside of the agency to promote the OL lifesaving messages. In so doing, FRA helps assure far greater numbers of people are capable of doing highway-rail crossing safety and trespass prevention presentations than would be available by using just FRA inspectors. Among the individuals that FRA has trained are employees of NHTSA, FHWA and railroads, county and municipal school bus drivers and trainers, police officers and other state/county/municipal and local safety officials. This is a vital element of the program as there is only one Manager for each of FRA's eight regions (which range in size from four to eight states). Given the limited resources that Managers have, the ability to leverage resources with intermodal, FRA and industry partners has greatly contributed to reducing the number of highway-rail crossing incidents.

FRA's letter to the House and Senate Committees detailing Operation Lifesaver activities will be submitted as required in the Senate report.

FISCAL YEARS 1996–98 PC&B LEVELS

Question. Please prepare a table, by year, showing personnel compensation and benefits appropriated and amounts actually spent for fiscal years 1996, 1997, and 1998 for field and headquarters staff. What was done with any PC and B monies that were reallocated for other purposes during each of these years?

Answer. Funds were not appropriated at the PC&B level, nor PC&B by field and headquarters. An object class table for the Safety appropriation was included in the budget request and reflected an ESTIMATE on how funds would be spent based on funding decisions at the time the budget was developed. Congressional actions, emergencies such as the UP and CSX accidents, absorption of unfunded costs and other policy actions change these decisions and FRA acts accordingly.

FRA works very hard to develop sound estimates at the object class level. However, FRA, within the parameters of the appropriation and approved reprogramming guidelines, reallocates resources at the object class level to fund high priority needs. This is good budgeting and ensures that funds are not only spent in line with Congressional intent, but are leveraged to maximize safety.

SAFETY STAFFING LEVELS

Question. Please verify the number of FTE's working at the Office of Safety and compare this to staffing levels of fiscal year 1996, fiscal year 1997, and fiscal year 1998. How many vacancies now exist in the Office of Safety?

Answer. The information follows: Actual on-board March 31, 1998, 531; Fiscal year 1996 FTE's, 529; fiscal year 1997 FTE's, 520; and fiscal year 1998 estimate, 546.

There are currently 7 vacancies in the field and 8 in safety headquarters. Recruit actions have been processed for all vacancies and positions should be filled before and/or by July 1.

SAFETY TRAVEL BUDGET

Question. How much was spent on travel during fiscal year 1997, fiscal year 1998, and proposed for fiscal year 1999? Please separate the spending amounts for travel by field staff and headquarters staff, as well as for State employees.

Answer. The information follows:

	Fiscal year—		
	1997 actual	1998 estimate	1999 estimate
Headquarters	$677	$210	$302
Field	4,988	4,928	5,949
State Inspector Travel	227	235	250
Total	5,892	5,373	6,501

STATUS OF VIDEO CONFERENCING AND IMAGING SYSTEM

Question. What is the status of your video conferencing and imaging system? How do these technologies affect your request for travel? How much does it cost FRA to use the video? Please provide additional documentation showing that the eight regional crossing conferencing capability per hour? How often was this system used last fiscal year?

Answer. Video Conferencing. The video conferencing system is up and running. FRA uses the following schedule to estimate the cost of each video conference session:

Usage cost

No. of links	*Cost per minute*
1	$1.50
2	2.25
3	3.00
4	3.75
5	4.50
6	5.25
7	6.00
8	6.75
9	7.50
10	8.25

During fiscal year 1997, the FRA video conferencing system was used 20 times. (This was the first year the system was in use and during the period when FRA was involved in an agency move.) The use of the system enhanced communications between field and headquarters and was used for multi-regional discussions, especially in regards to SACP issues and sweep efforts. The use of video conferencing will not result in a net reduction in travel, but could reduce the percentage growth in headquarters travel as it relates to the field.

Imaging System

The Domus system for correspondence flow control will be expanded to become a document imaging management system. This will improve work flow of FRA's internal documents. FRA is assessing its current systems, collecting user requirements, and will integrate resources from the current systems into an expanded imaging system to provide a central online filing system. This expansion will serve as the first phase FRA's document management system.

The imaging system has no impact on travel.

SAFETY FUNDING BY CATEGORY

Question. Please break down the fiscal year 1999 requested amount for the following: PCS, inspector trainee program, data collection, grade crossing safety, alcohol and drug testing, overtime, non-mandatory bonuses, training and travel. Please prepare in tabular form comparable expenditures for fiscal year 1997 and fiscal year 1998.

Answer. Information follows:

[Dollars in Thousands]

	Fiscal year—		
	1997 actual	1998 estimate	1999 request
PCS	$1,405	$702	$1,628
Inspector Trainee Program	1,554	1,619	1,780
Data Collection	1,267	1,291	1,325
Grade Crossing Safety[1]	.....	.....	.....
Alcohol and Drug Testing	314	522	434
Overtime	220	88	110
Non-mandatory bonuses	30	16	96
Training	148	289	427
Travel	5,892	5,373	6,501

[1] Funding for grade crossing is not tracked in the budget or accounting reports.

ROLE OF EIGHT NEW CROSSING ASSISTANTS

Question. Exactly what will the requested eight new assistant positions do to address intermodal, intra-departmental and MPO-related tasks? Who at FRA is handling these responsibilities now?

Answer. The eight safety employees, one per FRA region, will assist the current Regional Crossing Managers and Regional Administrators who are engaged in addressing intermodal, intra departmental, State, Metropolitan Planning Organizations, city and local government liaison activities. A majority of the tasks that will be assigned to these new positions are safety critical, and primarily involve supporting FRA's Crossing and Trespass Prevention Managers. The new employees will work with communities, law enforcement officials, the railroad industry, other government agencies, MPO's and organizations such as Operation Lifesaver to reduce the 530 rail related fatalities and 501 injuries projected that occurred among trespassers in 1997. Last year, for the first time, trespasser fatalities eclipsed grade crossing fatalities as the largest single category of fatalities resulting from rail operations.

These new positions also will assist the Grade Crossing Managers in addressing the hazards at our nation's 166,035 public at-grade crossings and 106,715 private at-grade crossings. The Highway-Rail Grade Crossing Safety Program is clearly intermodal and intra-departmental in nature. Crossing safety requires the coordination of efforts among FRA, the Federal Highway Administration, the National Highway Traffic Safety Administration, State Departments of Transportation, local communities and law enforcement agencies, and the railroad, automobile and trucking industries.

The Highway-Rail Crossing and Trespass Prevention Program tasks cover many other subject areas as follows: Increasing enforcement of traffic laws at crossings; rail corridor crossing safety improvement reviews; increasing public awareness of crossing safety and operation lifesaver; safety at private crossings; data and research; and trespass prevention. Currently, FRA only has eight Regional Crossing and Trespass Prevention Managers to cover each of these major subject areas nationwide for a railroad system that has had substantial growth since 1980. The basic railroad network has ten Class I railroads and more than 700 other railroads that operate over 220,000 track miles under FRA's jurisdiction. The rail network passes through all of the Nation's communities of any reasonable size. The growing number of contacts that must be maintained by the Crossing and Trespass Prevention Managers, clearly support the need for additional staff.

Furthermore, FRA is increasingly being asked by communities to assist in evaluating the impacts of rail mergers on local communities (e.g., noise exposure, highway-rail crossing safety). The current breakup of Conrail poses major issues currently before FRA and the Surface Transportation Board. FRA continues to work with communities experiencing downstream effects of the BNSF and UP/SP mergers. These new positions will help to handle this merger related work load.

NEED FOR ADDITIONAL PRINCIPAL INSPECTORS

Question. Please provide compelling evidence that the eight deputy regional administrators cannot meet their current responsibilities, and thus must be supplemented with eight principal inspectors.

Answer. The eight Principal Inspectors (PI's) positions, one per FRA region, are needed to help meet the growing safety challenges associated with the railroad industry. The growth in rail traffic, decline in employment, emergence of mega-carriers and proliferation of shortline railroads continually strains FRA's safety oversight capacity. The eight PI positions are needed to shoulder the burden caused by the increasing work load.

Deputy Regional Administrators and the Regional Administrators are primarily involved with the administration of the regions. Many have actively participated in the administration and implementation of SACP activities in their Region and some have served as SACP Project Managers, for the major railroads. However, FRA has found the SACP process to be equally effective in addressing safety concerns on regional railroads, the 16 commuter rail systems and many of the more than 600 shortline companies. The eight PI's are needed to help deal with the 5.4 percent increase in the number of new railroads, since 1993. The sheer number of these intermediate sized carriers demands an increase in the number of PI's to plan, coordinate and participate in SACP safety audits and site inspections on these railroads.

The emergence of mega-railroads, through mergers, coupled with a 36 percent increase in Class I railroad freight traffic since the industry was deregulated has increased demands on monitoring railroad industry compliance with safety regulations covering track, equipment, signals, hazardous material, and operating practices. To assist in this endeavor, the eight additional PI's also will serve as Team Leaders on SACP safety audits where they will lead field inspection teams in conducting safety inspections on railroad property.

In addition, FRA's safety responsibilities continue to grow, in large part due to fulfillment of statutory mandates to conduct rulemakings and special studies, which themselves lead to program initiatives. Completion of each new regulatory initiative yields a further substantial workload. The new PI's will be tasked with training FRA and state inspectors, structuring compliance reviews, establishing and monitoring reporting systems, providing training and assistance to small railroads, handling requests for waivers, and responding to complaints. Examples of new and proposed regulations that add to this workload include Passenger Train Emergency Preparedness, Passenger Equipment Safety Standards, Railroad Communications Track Safety Standards, Roadway Worker Protection rules, Power Brake regulations and Whistle Ban regulations.

The Region Administrators and Deputy Regional Administrators are focused primarily on managerial and administrative tasks within the regions, including issues related to personnel, budget, policy implementation, representing the agency before other governmental, public and private entities and interfacing with headquarters.

The Regional and Deputy Regional Administrators are responsible for overseeing program implementation at the Regional level. A number of new programs and initiatives have added to their duties and responsibilities, some of which are growing into discrete programs of major scale. These include:

Intermodal service.—The growth of Intermodal traffic during the 1990's has greatly complicated relationships among railroads, maintenance and inspection contractors, loading contractors, fleet owners, and transportation brokers. Among the significant issues currently being worked is securement of containers and trailers in Intermodal transportation.

Bridge safety.—Continued restructuring of the railroad industry has placed a premium on attention to the bridge structural safety program (over 100,000 structures). In addition to monitoring bridge programs of major railroads through the SACP (as recently recommended by the Office of Inspector General), FRA must pay greater attention to bridge inspection programs on regional and short line railroads that lack on-staff engineering expertise. This aging infrastructure requires increasing attention.

Enhanced passenger service.—Developments are making increasing demands on FRA's regulatory assets, technical staffs, and contractual resources. Examples include: Electrification of the balance of the Northeast Corridor to achieve speeds to 150 mph (subject of recent proposed order for an advanced civil speed enforcement); Florida's project for ultra high-speed rail Miami-Orlando-Tampa (subject of an extensive proposed rule of particular applicability just published); State concerns regarding highway-rail crossing treatments on lines identified for incremental improvements in passenger train speeds; and Proposals for operation of passenger service at higher curving speeds (waivers under consideration for New York and Washington State).

Clearly, given the growing demands on FRA's safety program, it is imperative that the safety staff be further supplemented with positions that can coordinate, direct and participate in safety activities in the field an on railroad property. The

eight additional Principle Inspectors are badly needed to help FRA carry out its safety mission.

NEED FOR ADDITIONAL INSPECTORS FOR SACP

Question. What documented and quantifiable evidence can you present that the requested additional principal inspector and field inspector staff are needed to improve the implementation of the SACP?

Answer. Since 1993, there has been a 5.4 percent increase in the number of new railroads. Also, Class I railroad freight traffic has increased about 36 percent since the industry was deregulated in 1980. The explosion in new railroads and traffic has increased demands on monitoring railroad industry compliance with safety regulations covering track, equipment, signals, hazardous material, and operating practices. Approximately 55 railroads have participated in "open-ended" SACP safety audits, including all major freight and passenger carriers. The SACP safety audits leverage FRA's limited inspector resources to identify systemic problems that may have railroad-wide, or railroad-industry-wide implications. To date, more than 100 systemic safety concerns have been identified. While FRA recognizes that it is not feasible for all railroads to received SACP safety examinations, FRA needs additional inspector resources to continue adding certain railroads to this process. Eventually, all freight carriers with significant hazardous materials shipments, or those that interact with passenger train movements, should be included in this process.

At the same time, FRA lacks the resources to visit every railroad at least once a year. In 1997, FRA was unable to visit 144 railroads, an increase of 64 percent over the 88 which FRA was unable to visit in 1993.

FRA's safety responsibilities continue to grow, in large part due to fulfillment of statutory mandates to conduct rulemakings and special studies, which themselves lead to program initiatives. Completion of each new regulatory initiative yields a further substantial workload in training FRA and state inspectors, structuring compliance reviews, establishing and monitoring reporting systems, providing training and assistance to small railroads, handling requests for waivers, responding to complaints, issuing uniform and consistent guidance in response to requests for interpretations, responding to myriad questions from auditors and congressional committees, and reviewing regulations for effectiveness and currency.

FRA's safety programs require a balanced approach of inspections coupled with partnerships, which enlist the cooperation of rail labor and management to identify and correct safety concerns in the railroad industry. The most expeditious and responsive method of improving safe operating practices and procedures is to tap the knowledge and expertise of all affected stakeholders.

As a result of increased public, congressional, and Administration expectations for the railroad safety program and the currents of change within the railroad industry, FRA is currently in a position of extreme vulnerability. Key staff are overworked, major program elements often lie unattended for extended periods due to competing workload, many projects are well behind schedule, and FRA is finding it increasingly difficult to support critical partnership efforts such as RSAC working groups and SACP initiatives. The requested increases in staffing are intended merely to reduce backlogs and provide an increased capacity to handle non-discretionary projects, while preventing burn-out of key staff where possible. Failure to acquire these resources will result in degraded customer service across a broad front. In addition, FRA is increasingly called upon by communities to assist in evaluating impacts of mergers on local communities (e.g., noise exposure, highway-rail crossing safety). The current breakup of Conrail poses major issues currently before FRA and the Surface Transportation Board, and FRA continues to work with communities experiencing downstream effects of the BNSF and UP/SP mergers.

Eight Principal Inspectors (PI's) positions, one per FRA region, will assist the Deputy Regional Administrators and the Regional Administrators with planning and participation in Safety Assurance and Compliance Program (SACP) safety audits. Sixteen Field Inspectors will be distributed throughout selected regional offices to perform site-specific inspections and to participate, as directed in SACP audits, and in advisory capacities in the Railroad Safety Advisory Committee and Technical Resolution Committee reviews.

REPROGRAMMINGS IN SAFETY

Question. Please show any reprogramming or reallocation of Office of Safety funding from the appropriated amounts for fiscal year 1997 and fiscal year 1998.

Answer. Reprogrammings are only tracked at the Project, Program or Activity (PPA) level, per the Department's reprogramming guidelines, which were approved

by the House and Senate Appropriations Subcommittees. The Office of Safety did not have any reprogrammings at the PPA level.

NEW FTE'S IN R&D

Question. Please detail the associated costs with the two new positions in the Office of Research and Development. When do you estimate the hiring process will be completed? What will the responsibilities of these two new people be? Please fully justify why these responsibilities cannot be absorbed by existing staff.

Answer. FRA is requesting $147,000 for the two new positions; $68,000 for a position to support track research, and $79,000 for a position to manage and oversee communications-based Positive Train Control projects. Funding is for salaries and benefits. FRA estimates that these staff members could be hired shortly after the fiscal year begins.

The new track engineer will assist in managing the portfolio of safety R&D projects dealing with track and structures and track-train interaction. It is a large portfolio consisting of more than 70 projects that are budgeted at approximately $7 million annually. The number of projects in the portfolio has grown in the past year due to requirements developed by the Railroad Safety Advisory Committee. There are currently three employees managing the programs; other R&D staff are fully utilized nor have the required expertise.

The new electrical engineer will fill a void that exists at FRA. Currently, there are no staff telecommunications specialists in the agency. Knowledge of this technology is needed due to the growing emphasis on communications-based train control systems and on telemetry to bring data from train-borne and wayside sensors to locations where it can be analyzed and acted upon. This person will oversee projects related to Intelligent Train-Track Systems.

TRB REVIEW OF R&D

Question. Last year, the Committee asserted that it would be beneficial to expand the purposes of the current TRB review to include a systematic analysis of the entire FRA R&D program, and included $150,000 to initiate the review. Will this review be continued during fiscal year 1999? If so, how much will it cost? Is this in the request? Are additional funds necessary to continue the review?

Answer. The TRB review will be continued through May, 2001. The total cost of the review will be $350,000. Because of the availability of funds in our existing contract with TRB, no additional funds beyond the $150,000 provided in fiscal year 1998 will be required.

IMPACT OF R&D PLAN ON FISCAL YEAR 1999

Question. Please discuss the impact of your five-year research and development plan on the fiscal year 1999 budget request. How was this plan developed, and what outside input did you receive?

Answer. The most obvious impact of the draft five-year R&D plan on the fiscal year 1999 budget request is in the structure of our R&D program. In the draft plan, FRA established 10 program areas: human factors, rolling stock, track and structures, track-train interaction, train control, grade crossings, hazardous materials, safety of train occupants, safety of high-speed ground transportation, and R&D facilities and equipment. Our fiscal year 1999 budget request was structured in the same manner, and most of the proposed projects were laid out in the draft plan.

In the preparation of the draft five-year R&D plan, FRA's Office of Research and Development had discussions with a wide variety of user groups, both within and outside the agency. FRA's Office of Safety provided major input, along with the Federal Transit Administration, Volpe National Transportation Systems Center, Amtrak, the Association of American Railroads, the American Public Transit Association, the Railway Progress Institute, labor unions, railroads, States, suppliers, universities, and individuals. The results of those discussions formed the basis of the plan.

R&D COST SHARING

Question. What has FRA done since last year to promote additional cost sharing in the research and development program? How does FRA plan to continue this practice in 1999? How is this reflected in the budget proposal?

Answer. The FRA's Office of R&D has continued to meet with the Association of American Railroads and the railroad industry (railroads, suppliers, unions) to identify cooperative research projects. FRA is also using the Railroad Safety Advisory Committee process and its Working Groups to investigate additional projects for co-

operative research. One major effort is the Facility for Accelerated Service Testing (FAST), a joint government industry research project conducted at the Transportation Technology Center in Pueblo, Colorado. Another effort is with the RPI/AAR (Railway Progress Institute/Association of American Railroads) Tank Car Research Project where FRA and the industry are cooperating on several research projects to reduce the release of hazardous materials from tank cars involved in accidents. These projects include testing, which FRA funds, and tank cars and other equipment for testing, supplied by the industry. Industry also contributes technical expertise. To ensure maximum leveraging of research funding and to eliminate duplication in the area of passenger car research, the FRA cooperates extensively with organizations such as the American Public Transit Association (APTA) and the Federal Transit Administration. FRA has held discussions with APTA about co-funding some projects and APTA has agreed to ask their members to set aside some funds for this next year. Other projects include cooperation from various labor organizations, especially in the human factors area, in the form of technical experts and test subjects.

FRA will continue meeting with all interested parties to further cooperative research in fiscal year 1999. The fiscal year 1999 budget request is for FRA's safety research efforts and assumes that there will be continued cooperation from the railroad industry in our research projects.

NON-FEDERAL COST SHARING IN R&D

Question. Please update and specify cash equivalents, in-kind services, or other funds obtained from non-Federal sources for each of the subcomponents of the R&D program for fiscal years 1997 and 1998.

Answer.

EQUIPMENT, OPERATIONS AND HAZARDOUS MATERIALS

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1997	$5,545	$3,295	$8,840	37
1998	5,659	2,296	7,855	29

The majority of the cost-sharing under this program was the industry's contribution of equipment for the advanced braking and the bearing defect detection projects. Other cost-sharing includes in-kind contributions of technical expertise and equipment and related shipping costs for test projects under the locomotive and passenger car programs. Some in-kind contributions of time and training materials occurred in both the non-accident release and dispatcher training projects. Not included in the above figures is the industry contributions to the Operation Lifesaver program which is co-funded by FRA, FHWA, Amtrak, Association of American Railroads, Railway Progress Institute, and individual railroads.

TRACK, STRUCTURES, AND TRAIN CONTROL

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1997	$7,346	$6,156	$13,502	46
1998	7,746	5,750	13,496	43

Nearly half of the cost-sharing under this program is provided by industry contribution to the Facility for Accelerated Service Test (FAST). Other significant fractions are provided by industry support to the Top-of-Rail Lubrication Safety Evaluation (jointly funded by DOE) and Rail Defect Test programs (an FRA and Association of American Railroads partnership) and by individual railroad contributions of train crews for test operations of FRA's Gage Restraint Measurement System (GRMS) as well as transportation of FRA's GRMS instrumentation car between test sites on different railroads. The West Virginia University is also cost-sharing on the glass fiber-reinforced composite wood tie project.

SAFETY OF HIGH-SPEED GROUND TRANSPORTATION

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1997	$4,600	$156	$4,756	3
1998	$4,650	$60	$4,710	1

A majority of the work to date has been to conduct safety assessments of foreign high-speed rail technologies in support of rulemaking for the Office of Safety. This type of research, in the past, generally does not get cost-sharing from industry. In fiscal year 1998, the limited cost-sharing has been for continued fire testing and passenger car crashworthiness. FRA is leveraging its technical expertise with DOE to support the Transportation EMF Environmental characterization ($100,000 per year over 3 years); and with FAA, to support to monitor non-ionizing radiation safety issues. These are not direct cost-sharing programs.

R&D FACILITIES

[Dollars in thousands]

Fiscal year	Federal funds	Non-Federal funds	Total funds	Percent non-Federal
1997	$420	$510	$930	55
1998	770	1,040	1,810	57

A major portion of FRA's research funding supports projects that are conducted at the Transportation Technology Center (TTC). The TTC is operated for the FRA by the Transportation Technology Center, Inc, (TTCI), a wholly-owned subsidiary of the Association of American Railroads under a long-term Care, Custody, and Control contract. The total business volume of the TTCI at TTC is on the order of $30 million per year. Of this, approximately 25 percent or less is provided by FRA. Therefore, the majority of the costs for operation, maintenance, and a few selectively chosen capital improvements to the TTC is borne by the TTCI and its customers via AAR's overhead rate and pricing structure for non-FRA projects at TTC.

R&D VOLPE CONTRACTS

Question. Please list all FRA research and development program contracts with the Volpe National Transportation Systems Center that were signed in fiscal years 1997 and 1998, including a short summary of each specific contracted project, and the associated amount.

Answer. The information follows for each Project Plan Agreement.

RR–19 TRACK SYSTEMS RESEARCH

The Track Systems Research Program assesses the risk of derailment induced by track defects and helps determine the level of inspection and maintenance resources to minimize these risks. Specific tasks are based on accident statistics, track maintenance costs, and engineering expectations of potential problems. The results of this research have been incorporated in the risk management strategies of railroads throughout the United States and are used in revising current track safety standards.

Research activities under this program include:
—Rail Integrity
—Track Structural Mechanics
—Track Inspection Tools
—Vehicle Track Interaction
—Train Control Device Safety
—Risk Assessment and Management Strategies
—Special Projects related to Track Systems Safety

Funding: Fiscal year 1997—$2,122,000; fiscal year 1998—$1,417,000.

RR–28 RAIL EQUIPMENT SAFETY

The Rail Equipment Safety Program supports FRA's research on railroad equipment and operating practices (including human factors) and hazardous material safety. The research and engineering studies provide the technology needed to reduce the likelihood of accidents related to the design, operation, and maintenance practices of railroad freight and passenger equipment.

Research activities under this program include:
—Structural Integrity of Tank Cars/Components
—Human Factors Influencing Operator and Crew Performance
—Advanced Operation and Information Displays
—Train Make-Up, Handling, and Controls
—Rail Passenger Evacuation Safety
—Rail Equipment Collision Safety
—Rail Vehicle Dynamics
—Dedicated Train Study
—Advanced Risk Analysis
—Trailer/Container Securement
—Steam Locomotive Study
Funding: Fiscal year 1997—$1,995,000; fiscal year 1998—$2,250,000.

RR–93 HIGH-SPEED GROUND TRANSPORTATION SAFETY

This program provides FRA with technical information needed for rulemaking initiatives related to the implementation of advanced high-speed ground transportation systems. Program assesses the applicability of existing regulations and requirements for systems based on foreign technologies that have been proposed for implementation in the United States. Worked is used to draft waivers to permit demonstration of new equipment and in the preparation of related new rules.

Research activities under this HSGT program include:
—Advanced Train Control and Automation Safety
—Risk Assessments and System Safety Analyses
—Human Factors and Automation
—Right-of-Way Structures (Guideway Integrity; Platform Safety)
—Equipment Safety (Crashworthiness; Interior Safety; Glazing)
—Vehicle/Track Interaction (Track Safety Standards)
—Emergency Preparedness
—Fire Safety
—Noise Identification and Mitigation
—EMI/EMC and Electrical Safety
—Electromagnetic Fields and Maglev Environmental and Health Safety Issues
Funding: Fiscal year 1997—$1,925,000; fiscal year 1998—$2,400,000.

RR–97 HIGHWAY-RAIL GRADE CROSSING SAFETY

Work supports FRA's highway-railroad grade crossing safety research program. This research includes innovative warning signs, more reliable active signal systems, techniques to increase the conspicuity of trains, improved acoustic warning systems, and technologies applicable to the needs of high-speed rail passenger service. Other initiatives include enforcement and education activities as well as a greater emphasis on the human response to grade crossing warning device applications. Accident statistics analysis and research reviews are also included. On-going demonstration projects are being evaluated. Corridor risk assessments are included. Funding comes from both the R&D program and the Next Generation High-Speed Rail program.

Research activities under this program being conducted at the Volpe Center include:
—Grade Crossing Statistics Analysis
—Causal Analysis of Crossing Accidents
—Evaluation of High-Speed Rail Grade Crossing Demonstration Projects
—High-Speed Corridor Risk Assessment
—Illumination Guidelines
—Locomotive Conspicuity
—Freight Car Reflectorization
—Optimal Acoustic Warning Systems
—Wayside Horn Systems
—Driver Behavior
—Driver Education Programs
—Photo Enforcement

—Obstacle and Intrusion Detection
—Vehicle Proximity Alerting System
Funding: Fiscal year 1997—$1,178,000; fiscal year 1998—$1,250,000.

RR–03 NEXT GENERATION HIGH-SPEED RAIL SUPPORT

This work is funded under the Next Generation High-Speed Rail budget rather than the Research and Development budget. The purpose of this effort is to enhance the deployment of high-speed passenger rail, particularly on existing infrastructure, by improving, adapting and demonstrating innovative and cost-effective technologies which have wide application in U.S. corridors.

The Volpe Center provides technical support to the FRA in assessing candidate technologies and procedures to determine the likely impact on rail operations, including safety, performance, reliability and economic viability.

Research activities conducted under this program include:
—High-Speed Positive Train Control
—High Performance Non-Electric Locomotive Development
—Innovative Technologies for Track and Structural Improvements
—Railroad Test Track Upgrade
Funding: Fiscal year 1997—$1,100,000; fiscal year 1998—$0.

FUNDS INVESTED IN SPECIFIC GRADE CROSSING PROJECTS

Question. Please assess the status of the following projects, amount invested to date, fiscal year 1998 funds levels, and amount expected to be invested using fiscal year 1999 monies:

[1] A crosscutting review or assessment of different high-speed rail demonstration projects and the technologies being advanced in these projects;
[2] Reasons drivers violate grade crossing devices and signs; and
[3] A crosscutting review of grade crossing technology.

Answer. The following tables provide the requested information:

Project	Amount invested to date	Fiscal year—	
		1998 estimate	1999 estimate
[1] Evaluation of grade crossing demonstrations	$150,000	$10,000	.....

Status: Because most of the grade crossing demonstrations are still under construction, it was not possible to evaluate them completed. However, a partial review was performed and a draft final report has been submitted by the contractor and is now under review within FRA.

Project	Amount invested to date	Fiscal year—	
		1998 estimate	1999 estimate
[2] Driver behavior	$100,000	$100,000	$150,000

Status: This project was initiated in fiscal year 1997 supporting the driver behavior elements in freight car reflectivity. A low-cost simulator has been established and used in the research at the Volpe Center. A study design is in preparation. Results should identify driver behaviors associated with various current and possibly future crossing warning device technologies.

Project	Amount invested to date	Fiscal year—	
		1998 estimate	1999 estimate
[3] Review of grade crossing technology	$570,000	$20,000	.....

Status: Four reports have been prepared on highway-railroad grade crossing technologies, reviewing European (Sweden, France, Italy, Spain, UK, Germany) and Far East (Japan and Australia) activities in the areas of Train Control and Signaling, Obstruction Detection, Warning Devices and Barrier Systems, and Decision Methodologies used to apply warning devices at grade crossings. These reports are nearing completion by the Volpe Center and will soon be submitted to FRA for review. Meanwhile, as part of a separate initiative, the key findings of these draft reports are being extracted for dissemination to States, railroads, and other users.

Follow-on work has been identified in the Obstruction Detection area to include Railroad Right-of-Ways as well as Grade Crossings.

STATUS OF CORRIDOR RISK STUDY

Question. Why hasn't the corridor risk study been completed? What is the status and future plans for resolution of concerns held by AAR regarding this study?

Answer. The Corridor Risk Analysis study was initiated to determine if characteristics of rail corridors could be identified that might be associated with higher than average risk of accidents of the kind preventable through use of Positive Train Control (PTC) systems. Results are intended to guide public and private sector decisions regarding PTC implementation. The initial phase of the work is complete, and the second, concluding phase is in progress based upon guidance from the Railroad Safety Advisory Committee (RSAC) PTC Working Group.

This project is extremely complex, requiring the construction of a Geographic Information System (GIS) with a greater level of detail than had previously been available, the identification of preventable accidents, and segmentation of the rail network. The task is complicated by the relatively small number of accidents involved when measured against the expanse of the national rail system and large exposure numbers. The first phase of this effort was completed in 1997. In addition to briefing the full RSAC on the general status and results of the effort, FRA arranged for the Volpe National Transportation Systems Center (Volpe Center) to present the methodology and results in detail at a peer review briefing on September 12 , 1997, at Cambridge, Massachusetts. Railroad representatives at the peer review expressed concern over corridor segmentation, normalizing data (modeled traffic flows), and the statistical methods employed. At this meeting and during subsequent discussions, some railroad representatives suggested that this type of geographically-based risk analysis was simply not possible; however, no documented reasons for this conclusion were provided. FRA responded to specific criticisms by encouraging the railroads to provide more useful alternative data and suggestions for corridor definitions. FRA and the Volpe Center remain confident that a corridor risk model can be useful in planning for wise investments in PTC technology.

On September 30, 1997, the RSAC established the PTC Working Group, which has been meeting regularly since last November. The Data and Implementation Task Force of that working group is providing guidance for redirection of the corridor risk work. Discussions have generated approaches for refinement of the study methodology. Railroad members have committed to providing improved density data by May 1, 1998, together with alternative corridor definitions. At the task force meeting of April 6–8, 1998, the Volpe Center led a discussion of an issue paper describing the decisions required to complete the corridor risk work. The task force appeared receptive to most of the recommendations provided in response to issues raised within the task force.

Assuming timely receipt of density data that is readily "mappable" to the GIS, FRA anticipates production of a draft report incorporating the results of the second-phase modeling effort by September 1998. The PTC Working Group will then have a final opportunity to comment on the results, including their significance and any limitations of the final study methodology. This information will be included in the report of the RSAC to the Administrator on the future of PTC.

HUMAN FACTORS RESEARCH

Question. Please provide an update of the progress that has been made in the human factors program since last year. How much of the fiscal year 1997 and fiscal year 1998 allocated funds have been spent, and for what purposes? Please delineate objectives on a project by project basis. Please provide additional details on the plans for any new human factors research in fiscal year 1999.

Answer. Following is a summary of FRA's human factors R&D work:

Train Operations

1. A pilot test of the study design for Engineer Napping Strategies is expected to begin in June 1998 resulting in refinements to test and analysis approaches by the end of the year. The primary purpose of this research is to determine if strategic on-duty napping can improve locomotive engineer performance and safety. Future year funding will be needed to complete this project.

Fiscal year:	
1997	[1] $900,000
1998	400,000
1999	200,000

[1] Includes $530,000 from fiscal year 1996.

2. At least three Vigilance Monitoring devices will be used during the napping study to gather data and test their usefulness in the railroad operating environment. The purpose of these tests is to determine sleep quantity/quality (before work), alertness during operations, and fitness for duty before and after the work period.

Fiscal year:
1997 ....
1998 ..... $300,000
1999 300,000

3. Pilot tests of data collection and analysis methodologies for Dispatcher Workload, Stress and Fatigue are underway and are expected to be completed during the summer of 1998. Methods of measuring workload, stress and fatigue (alertness) in a uniform manner and thresholds for safe performance are to be established. Out year funding will be needed to complete this effort, including testing.

Fiscal year:
1997 ..... $225,000
1998 224,000
1999 378,000

4. A study to evaluate the effects of information-mediated fatigue and automation on locomotive engineer vigilance in high-speed operations (High-Speed Operator Stress and Fatigue) was completed in June, 1997 at the Volpe Center. The study evaluated situational awareness and the monitoring of equipment failures under three operational conditions: manual control, cruise control, and full automation. A report on this study is in preparation and is currently expected to be completed in May. Out year funding will be needed to evaluate related issues.

Fiscal year:
1997 ..... $100,000
1998 200,000
1999 200,000

5. The report on Dispatcher Training Evaluation through the development and industry review of model syllabi is under review. Revisions are anticipated to result in a final report to be published in the Fall of 1998. A workshop and distribution of the syllabi on the internet is anticipated in 1999. Evaluation of the implications of recent mergers on dispatcher training may also be required.

Fiscal year:
1997 ..... $200,000
1998 200,000
1999 200,000

6. A new initiative, Evaluation of Digital Communications in High-Speed Operations, is planned for fiscal year 1999. This multi-year project will examine the human factors implications of using digital communications between locomotive engineers and dispatchers. Currently, such communications are by voice which has proven to be less efficient and precise than digital communications. Transition from voice to digital communications will change the task of the locomotive engineer, therefore the human factors effects of this transition need to be evaluated.

Fiscal year 1999 ..... $100,000

Yard and Terminal

A report on Phase 1 of the multi-phase Yard and Terminal Safety study entitled Railroad Worker Safety in Yards and Terminals: An Evaluation of Existing Data Resources and Proposed Methods for Further Study was published in the Spring of 1997. Analysis of accident patterns is currently underway.

Fiscal year:
1997 ..... $150,000
1998 150,000
1999 150,000

Grade Crossings

Several activities are in various stages under the overall heading of Grade Crossing Safety: in the review or revision stage are—Freight Car Reflectorization and Evaluation of Wayside Horns; ongoing or recently initiated are—Optimal Acoustic Warning Systems, Driver Behavior, Accident Causation Analysis, and a review of Driver Education Programs.

Fiscal year:
1997 ..... $385,000
1998 435,000
1999 435,000

FATIGUE MITIGATION STRATEGIES RESEARCH

Question. What are the fatigue mitigation strategies that have been investigated during the last year? What were the results of these efforts?

Answer. Projects to study napping strategies and vigilance monitoring devices are currently underway. Both projects make use of the RALES simulator at IIT Research Institute and are being performed simultaneously. The napping study will examine four conditions. The control group will have no nap, while the three nap groups will be allowed naps that vary in duration. In the vigilance monitoring study, at least three vigilance monitoring devices will be used during the napping study to gather data and test their usefulness in the railroad operating environment. As these projects have just recently begun, it is too early to meaningfully discuss results. The napping strategies project is expected to require another two years to complete and the vigilance monitoring project will take another year to complete.

INNOVATIVE WORKING SCHEDULE PILOT PROGRAMS

Question. What is FRA doing either to monitor or evaluate various innovative working schedule pilot programs or other fatigue countermeasures now being implemented by various railroads? Is any work planned in this area for fiscal year 1999? Are any fiscal year 1999 funds requested for such evaluation? How much would it cost to do a benefit/cost analysis on the impacts to rail labor, management, and safety for one or two of these ongoing private sector pilot programs? How is FRA's fatigue research coordinated with these private sector activities?

Answer. FRA is a currently participating in the North American Rail Alertness Partnership (NARAP). One of the stated purposes of NARAP is to exchange information concerning fatigue countermeasures, innovative working schedules, and other pilot programs. FRA has previously been aware of the industry activities with regard to fatigue, in particular the activities of the AAR Work Rest Task Force. However, to date, the FRA has received little solid information concerning the outcomes of these activities. In the absence of quantitative data, it is difficult or impossible to evaluate the effectiveness of these programs. The prime concern at FRA is safety. Unfortunately, none of the industry programs has specifically examined the effects of fatigue countermeasures and other programs on train handling performance to determine that the implemented changes are having any effect on this safety-crucial element. FRA's current fatigue research is focused on napping strategies and vigilance monitoring in the locomotive cab, and on measurements of workload, stress and fatigue in the dispatcher's work environment. In every instance, FRA has anticipated the need for projects in these areas by carefully monitoring industry trends and scientific developments in the fatigue research community.

Work on napping strategies and vigilance monitoring will continue in fiscal year 1999. Funding requested in fiscal year 1999 is $200,000 for napping strategies and $300,000 for vigilance monitoring.

FRA has not determined the cost to do a benefit/cost analysis on the impacts to rail labor, management, and safety for one or two of these ongoing private sector pilot programs, however it is expected to be extremely expensive. No quantifiable data exists on which to base the benefit/cost study because performance measures are not included in the pilot projects. Research will be necessary to verify any assumptions being made.

Increased cooperation and coordination on fatigue research projects with the industry are a major goal of FRA's participation in NARAP.

DISPATCHER WORKLOAD, STRESS AND FATIGUE

Question. What is the status of your work on the development of tests and methodology for the evaluation of dispatcher workload, stress and fatigue? Please describe the results, and how the fiscal year 1998 research and development program will continue into fiscal year 1999.

Answer. Field tests for Phase II of the Dispatcher Workload, Stress and Fatigue project were completed in February. The objective of Phase II was to determine the feasibility of using candidate methods for the measurement and evaluation of dispatcher workload, stress and fatigue (which were previously identified in Phase I) in the dispatcher's workplace. Candidate methods would be selected for use in Phase III if they were acceptable to dispatchers, were easy and quick to administer, and did not interfere with performance of dispatching tasks. Methods to measure workload, stress and fatigue were identified for use in Phase III that met these criteria. Workload methods include dispatcher records and subjective ratings of workload. Stress measurements include salivary coritsol and subjective ratings. Fatigue measurements include actigraphy, sleep logs and subjective ratings. The final tasks in

Phase II are the development of a research plan for the full field study for Phase III and the writing of a final report for Phase II. These two tasks are expected to be completed by the end of fiscal year 1998. Phase III, the full field study will begin in fiscal year 1999.

HOURS OF SERVICE PILOT PROJECTS

Question. What is the status of the project which allowed FRA to waive, for experimental purposes, the hours of service regulations? What information has been collected that could lead to a regulatory revision of the hours-of-service requirements?

Answer. This project requires the cooperation of a railroad to request a waiver so that an experiment can be designed and performed. Although initial discussions with several railroads looked promising at one time, to date no cooperative agreements have been reached and no railroads have requested waivers.

HIGH-SPEED OPERATOR STRESS AND FATIGUE

Question. What is the status of the project to evaluate stress and fatigue issues unique to high-speed train operators. What is the status of this project?

Answer. The FRA's approach to the simulation of high-speed rail operations has emphasized problems caused by the high rate of information flow at high operating speeds. Human capacity to receive, process and react to information is limited. The FRA is using a "part task" simulator at the Volpe Center to simulate visual and other sensory-motor aspects of high-speed operations to evaluate the stress and fatigue caused by high rates of information flow and the requirement to act and react on the basis of that information. Since the conditions of interest are computer generated, they are easily replicated for evaluation. The "part task" simulator which is used for this evaluation does not simulate the physical motion, or many other aspects, of high-speed operations.

The study to evaluate the effects of information-mediated fatigue and automation on locomotive engineer vigilance in high-speed operations was completed in June, 1997 at the Volpe Center. The study evaluated situational awareness and the monitoring of equipment failures under three operational conditions: manual control, cruise control, and full automation. A report on this study is in preparation and will be completed shortly.

PASSENGER EQUIPMENT STANDARDS

Question. Please discuss how the equipment and components subprogram reflects the congressional mandate for FRA to develop passenger equipment standards. How has FRA's research program been incorporated into this rulemaking? How much money was spent for this purpose in fiscal year 1997 and fiscal year 1998, and how much is planned for fiscal year 1999?

Answer. To respond to the mandate of the Congress to develop passenger equipment safety standards, FRA has expanded its passenger equipment safety project within the equipment and component subprogram since fiscal year 1996. To support each element of the standards such as the system safety plan, equipment crashworthiness and vehicle dynamics, FRA's research program developed the necessary technical data and provided advice to the FRA team writing the standards. A project on passenger rail vehicles dynamics was initiated in fiscal year 1996 to verify the safety assessment method and derailment criteria. Another project on passenger restraint systems was initiated in fiscal year 1997 to study the effectiveness of various passenger restraint designs. In fiscal year 1998, a project was initiated to evaluate the safety of diesel multiple units and light rail vehicles used in commuter rail service.

Results from these research projects, along with work being conducted under the Safety of High-Speed Ground Transportation program, has been incorporated in the text of the proposed Interim Safety Standards. Ongoing work on crashworthiness, especially for cab cars will be incorporated in the next phase of the rulemaking.

Funding included $800,000 in fiscal year 1997, $800,000 in fiscal year 1998. FRA is requesting $1 million in fiscal year 1999.

ADVANCED BRAKING SYSTEM EVALUATION

Question. Please summarize the progress made to date regarding the Advanced Braking Systems Evaluation. What is your five-year plan with regard to testing and evaluating Advanced Braking Systems? How much has been spent on this effort in each of the last three years and how much is proposed for fiscal year 1999?

Answer. FRA has been working with industry co-operatively in the development of industry performance and interchange requirements for an advanced electroni-

cally-controlled pneumatic braking system (ECP). FRA has supported the safety related work inherent in the development of these specifications. Advanced Braking Systems are currently under test use in a number of unit train applications. These trainsets use the hardwired power source (as opposed to local battery/generator on each freight car) and a hard wire for signal transmission. FRA has also supported safety-oriented laboratory tests and in-train tests at the Transportation Technology Center (TTC). Revenue service tests have also been conducted with some FRA support. The safety of these trainsets is being closely monitored, with failures of individual components being recorded. A system safety and reliability study is planned using the Failure Modes and Effects and Criticality Analysis approach. FRA expects to formalize a procedure for safety assessment of new braking systems.

To extend the use of Advanced Braking Systems to non-unit train cars, that is the general service car, FRA is sponsoring the development of automatic couplers with built-in air and electric lines and added mechanical safety features. This will facilitate coupling of cars and enhance crew safety. This project is in its early stage. As with all new technologies, new variants appear on the scene. Radio-based signal transmission means have been proposed by new entrants. A safety assessment of these may be required as with the hard-wired systems. Informal interviews of locomotive crew members indicate great enthusiasm for advanced braking systems, particularly the train handling features. This work will continue in the next several fiscal years.

Beyond fiscal year 1999 the safety record will be monitored and additional control and surveillance functions will be proposed for addition to the total ECP system. FRA will examine both hard-wired and radio-based versions of ECP brakes. ECP braking systems have improved the stop distance performance dramatically and the uniformity of braking among cars. ECP braking represents a major safety improvement in the rail industry.

Funding is as follows:

Fiscal year:	
1996	$75,000
1997	150,000
1998	250,000
1999 (request)	250,000

WAYSIDE EQUIPMENT INSPECTION DETECTION PROGRAM

Question. Please summarize the progress made to date regarding the Wayside Equipment Inspection Detection program. What is your program plan for the next five years in this area? What is the program plan for the Wayside Inspection Station? How much has been spent on these efforts for each of the last three years and how much is proposed for fiscal year 1999?

Answer. FRA has supported and developed a number of measurement system methodologies to establish car/train stability, equipment performance or lack thereof, and the means to record and transmit data for appropriate use. These include wheelset angle-of attack, lateral/vertical loads, bearing temperatures, and wheel temperatures. Recently, FRA has funded a project to develop the means to measure wheel residual stress, an all-important determinant of wheel structural integrity, and an acoustic detector of identifying potentially unsafe bearings. These are reaching a stage of development where commercial products may soon be possible.

Development of a new generation of equipment defect detectors, which have the ability to detect defects at their early stage of failure and with a high degree of confidence, is needed. FRA's plan over the next five years is to accelerate the development of such devices to improve overall safety and to implement devices into an automated inspection station.

Inspection strategies for freight cars based solely on visual inspections have limitations. Periodic required inspection and maintenance is expensive. Condition-based inspection and subsequent maintenance and repair may improve the use of resources. Initially, FRA is working to co-operatively establish, with one or more railroads, a wayside equipment inspection detection station to cover a large fraction of the active cars in the railroad's fleet. This station will be used to demonstrate the newer measurement systems for monitoring wheel, truck and bearing condition. The co-operating railroad will have to make a significant investment. In time, it should be possible to establish a network of stations geographically positioned for full coverage thereby giving the railroad the ability to monitor its fleet for condition.

Funding is as follows:

Fiscal year:	
1996	$475,000

1997	300,000
1998	300,000
1999 (request)	300,000

ON-BOARD EQUIPMENT HEALTH MONITORING SYSTEMS

Question. What progress has been made to date regarding On-Board Equipment Health Monitoring Systems? How much has been spent on this effort for each of the last three years and how much is proposed for fiscal year 1999?

Answer. As an adjunct to the Advanced Braking program FRA is supporting the development and testing of on-board safety monitoring systems that will provide continuous monitoring of the brake system status. Other braking system parameters also can be included such as brake cylinder pressure and handbrake position sensing, with the information provided to the engineer along with certain other selected parameters. Some brake system parameters are already operational with the electronically-controlled pneumatic (ECP) brake system.

On-board detection of freight car (and passenger car) truck suspension hunting on an on-going basis also is envisaged. As part of the Next Generation High-Speed Rail Program, two systems were developed under Phase I Small Business Innovative Research contracts. One of these is now being developed into a prototype under a Phase II effort. This system will be evaluated for incorporation in this on-board monitoring program. Some form of revenue service demonstration/testing will be planned.

Other systems and components to be included in this monitoring system include overheating of wheels and brake pads, bearing temperature, ride quality, and instantaneous derailment detection. Due to increased traffic, car and train weight increases are expected. Thus, more reliable brake rigging will also be addressed through research. The use of distributed power with ECP-equipped trains to utilize the train line for communication and multiple-unit cable linking the lead unit with locomotives throughout the train will be investigated.

Funding is as follows:

Fiscal year:	
1996	.....
1997	$300,000
1998	300,000
1999 (request)	330,000

TRACK RESEARCH

Question. How were the funds allocated in fiscal year 1998 spent for track research? Please explain the purpose of each project and the amount funded. What are the comparable planned expenses in this area for fiscal year 1999, and how is this reflected in the request?

Answer. In fiscal year 1998, a total of $7.246 million was appropriated for track research. The total funding request for track research in fiscal year 1999 is $6.950 million. The following table shows how these funds are allocated among the four major program activities for fiscal year 1998 and the allocation planned for fiscal year 1999 reflecting a restructuring of the overall R&D program.

[Dollars in thousands]

	Fiscal year—	
	1998 estimate	1999 request
Track and Components	$2,585	.....
Inspection-Detection	2,250	.....
Track Train Interaction	1,364	.....
Signal, Train Control, and Electrification	1,047	.....
Track and Components Safety	.....	$3,900
Track-Train Interaction Safety	.....	3,050
Total	7,246	6,950

The purpose of each of these program activities for fiscal year 1998 can be found on pages 71–73 of FRA's Congressional Budget Justification, and are as follows:

Track and Components.—This program activity assesses the structural integrity of the existing track structure and its components in light of the changing environment of higher axle loads, traffic densities, and speeds and the recent trends of introducing newer unconventional vehicle types and newer track materials. It includes research on more complex track components, such as turnouts, in addition to more commonly considered track components, such as rail, crossties, and ballast. Emphasis is given to failure modes and degradation processes which most impact the safety of track.

Inspection-Detection.—This program activity aims to improve track defect detection techniques and other technologies related to inspection equipment, with the goal of reducing train accidents resulting from failures in the track structure. Potential research products include new techniques and equipment that could provide accurate and reliable assessment of track safety, or aid in the effective planning of track maintenance as a preventive measure against hazardous structural failure of track or bridges. The new techniques could serve as the basis for performance-based track safety standards which do not inhibit innovation.

Track Train Interaction.—This research area will develop analytical tools, instrumentation, and test data that can accurately describe the interaction between the rolling stock and the supporting track structure. This interaction is not limited to the instantaneous transfer of dynamic forces from vehicle to track but extends to cover cumulative effects on track degradation such as wear and surface fatigue of railheads and deterioration of track geometry. Some of the safety-related issues which will greatly benefit from progress in this research area include the impact of high-speed passenger service on existing track, the development of performance-based track geometry standards, and the development of guidelines for optimum inspection and maintenance practices to enhance track safety and durability.

Signal, Train Control, and Electrification.—The goal of this research area is to evaluate critical and interrelated areas of railroad signaling and electrification technology that are out pacing the content of existing Federal standards.

For fiscal year 1999, track research activities were consolidated and focused into two main sub activities, namely Track & Components Safety and Track-Train Interaction Safety, as indicated by the above summary table and in accordance with FRA's draft 5-year R&D strategic plan. Research activities within the more applied Inspection-Detection program were integrated with their traditionally more theoretical and fundamental counterparts in the Track & Components or Track-Train Interaction programs to accelerate the rate of technology implementation into products and systems for improved track safety inspection and hazard detection. The latter were renamed Track & Components Safety and Track-Train Interaction Safety to reflect this focus.

RESULTS OF TRACK RESEARCH

Question. How did the results of the fiscal year 1997 research help FRA and the rail industry?

Answer. Much has been gained from the track research and test activities that were completed in fiscal year 1997. The most notable accomplishments and their benefit to FRA and to the railroad industry can be summarized as follows:

Track Safety Standards.—In 1997, work within a government-industry-labor effort under the auspices of the Rail Safety Advisory Committee was continued to accelerate the development of revised track safety standards for all present classes of track, as well as new standards for high-speed tracks. This effort culminated into the issuance of a Notice of Proposed Rule Making (NPRM) covering in detail the proposed revised track safety rules and soliciting public comments. This process was greatly influenced and guided by results from research completed in fiscal year 1997. One example was the inclusion of performance-based standards for track gage strength based on results from the R&D gage widening research and test program using the Gage Restraint Measurement System (GRMS). Other results from R&D activities in fiscal year 1997 have led to significant contributions to the development of new high-speed track geometry and vehicle-track interaction safety standards. Research results also provided further important refinements to earlier drafted revisions and identified other areas in need of further revisions.

Top-of-Rail Lubrication.—Cooperative full-scale testing both at the Transportation Technology Center (TTC) at Pueblo as well as on revenue service tracks were conducted to examine the safety and energy reduction benefits of a newly developed top-of-rail lubrication system. The system applies a specially engineered water-based consumable lubricant behind the last locomotive to reduce wheel/rail friction under the remainder of the train. Both the railroad industry and the Department of Energy participated with FRA in funding these tests. Initial results indicate sig-

nificant reductions in lateral forces and in energy consumption with no impact on braking distances. Additional testing is planned in fiscal year 1999 to examine other safety aspects of this lubrication technology such as influence on vehicle hunting and operations on steep grades.

Track Buckling.—Full-scale buckling testing on wood and concrete tie tracks has provided needed data for validation of models developed to predict track buckling behavior. Newly developed remote sensing systems for the measurement of rail longitudinal force were designed and installed on the high tonnage and the high-speed rail tracks at the TTC for performance testing and for continued safety monitoring and buckling prevention. Analytical tools were developed for predicting track lateral shift due to vehicle and thermal loads. Parametric studies were conducted to develop safety concepts and criteria for mitigation of excessive lateral alignment defects. Significant reductions in the number of accidents attributed to track buckling have been seen since this research began. Additional work is still needed for further development of analytical tools and for the development of a risk-based buckling safety assessment methods.

Gage Restraint.—An ongoing effort in fiscal year 1997, is application of the GRMS developed by the FRA to measure the ability of track to maintain gage under service load conditions. In 1997, the GRMS continued to gain acceptance as a mature technology resulting in the development of performance-based track safety standards for cross tie inspection and replacement in collaboration with both industry and labor. Similar systems based on this FRA developed prototype have been acquired by at least two major railroads and continue to be used for locating areas of track with weak or unsafe gage restraint. FRA's longer range GRMS testing continued on a range of railroad operations including short lines and regional railroads to ensure that crosstie replacements are being installed in areas of maximum risk for wide-gage derailments from weak ties.

Heavy Axle Loads.—During fiscal year 1997, an additional 100 million gross tons of traffic have been accumulated under the third phase of accelerated testing at the TTC. The objective of this phase is to assess track safety and performance under 125-ton cars equipped with improved suspension systems. Results from more than 200 million gross tons of traffic accumulated under these loads continue to indicate a potential enhancement to safety from the improved suspension due to reductions in lateral loads and fatigue related rail defects. Ongoing experiments on rail grinding practices and their impact on rail wear and fatigue were continued. In addition, a bridge deck was installed on the heavy tonnage loop to examine safety hazards at bridge approaches and methods for their mitigation.

Rail Steel Integrity.—Work continued at the Volpe National Transportation Systems Center on analytical and test methods to support delayed remedial action for non-critical defects as an alternative testing strategy. Results from this work provided valuable input to a waiver application to the Office of Safety from a Class I railroad requesting modifications to existing FRA rules on rail defect inspection. Continued research also provided valuable insight into the phenomena of crack generation and growth rates under a variety of conditions of instantaneous and cumulative tonnage burden as well as various methods of rail conditions. The knowledge gained from these multi-year research projects that have recently come to fruition will now be employed in devising rail flaw inspection revisit protocols and in generating test procedures for assessing rail lubrication and grinding strategies and their influence on the growth of fatigue-induced cracks in the rail head. Collaborated with the railroad industry on the construction of a new rail defect test facility at the TTC in which various rail samples with known internal defects were installed for testing purposes. The facility has been used to evaluate current inspection equipment and will be used in fiscal year 1999 to comparatively test at least two new rail inspection technologies.

MAGLEV RESEARCH

Question. Were any funds spent in fiscal year 1998 on maglev safety research? If so, how were those funds used? Are any maglev projects in progress at his time?

Answer. No funding for maglev safety was appropriated in fiscal year 1998 and nothing was spent on maglev safety research in fiscal year 1998. FRA has no maglev projects in progress, other than monitoring the maglev projects of other agencies, specifically the maglev upgrade of the Holloman Air Force Base high speed test track.

FISCAL YEAR 1999 MAGLEV FUNDING

Question. Please describe in detail how the requested $150,000 program funds for maglev systems evaluations would be utilized?

Answer. FRA has the responsibility for the safety of high-speed ground transportation systems, including maglev. FRA plans to use $150 thousand to fund the assessment of current maglev systems for safety and to cooperate with the on-going maglev programs of the Air Force, Navy, and NASA by exploring ways of deriving civilian sector benefits from the activities during the course of the research.

SOURCE OF HIGH-SPEED RAIL SAFETY DATA

Question. An increase of $150,000 is requested in the subarea "high-speed rail safety," for dissemination of information on reliability, safety records, and maintenance costs of high-speed rail systems. From what high-speed rail operations will the data for this information be derived? Is this a representative enough sampling for dissemination?

Answer. The high-speed rail industry is diverse in its engineering characteristics and global in extent. Thus, many exemplars of Accelerail (with top speeds ranging from 90 to 150 mph) and New High-Speed Rail (with top speeds over approximately 150 mph) exist in key industrialized nations of the world. Sweden, Italy, France, Spain, Germany, the United Kingdom, Japan, the United State, and others operate one or more high-speed rail technologies. All these countries, plus some others which are witnessing ongoing development of high-speed rail, will provide the basis for this study. Indeed, the first task of this effort will be a complete overview of the then-current status of high-speed rail development and of the likely sources of objective data. For example, the FRA will seek critical information from the International Union of Railways (UIC), as well as the Ministries of Transport and railway operators of the countries involved. Additional objectivity will be provided because some technologies are genuinely international: the French TGV provides the technology for the Spanish "AVE," and the Spanish TALGO has operated in France, Switzerland, and elsewhere, in addition to the United States. Although manufacturers' data will be considered, to the extent that data can be had from countries not directly involved in the marketing of particular types of equipment, the credibility of the study will be enhanced. In addition, there exists an active and independent railway press in many countries, which can be surveyed to determine whether the various claims of the parties involved reflect public perceptions of equipment reliability and costs. By developing a systematic study design, making use of multiple sources of information, and addressing all the most prominent high-speed rail venues and equipment types (not excluding activities in America) that would be of relevance to foreseeable State needs and desires, FRA expects to extract data of extraordinary utility that will merit wide dissemination among the States.

SALE OF ALUMINUM AT TTC

Question. Please detail the situation at the TTC in Pueblo, Colorado that led to the inclusion of the requested bill language that will allow FRA to sell old reaction rail aluminum for scrap. What is the estimated worth of this rail? How would the sale proceeds be credited?

Answer. FRA has determined that the aluminum reaction rail at the TTC is an unused asset that could be sold to raise funds for needed capital improvements at the TTC. Since the aluminum has not been appraised, and costs related to the sale are unknown at this time, it is difficult to provide a net worth. For presentation purposes, FRA has included an estimate of $1 million in the fiscal year 1999 budget. Funds would be credited to R&D as reimbursable authority.

FACILITIES RESTORATION AT TTC

Question. What is the status of facilities restoration at TTC?

Answer. Various projects related to TTC facilities' restoration and/or upgrade were initiated or completed in fiscal year 1997. A number of other projects are planned for fiscal year 1998–1999. These projects are summarized below by fiscal year.

Projects Completed or Initiated in fiscal year 1997

Center Services Building.—Construction of the Locomotive Fueling and Servicing Facility was completed, and put in use. This included servicing locomotives with diesel fuel, bulk oil dispensing, used oil collection, and water dispensing.

Catenary Restoration Project.—Numerous items needed to restore the system to a good operating condition were completed. This construction work included replacing damaged components, installation of two phase breaks to provide dual voltage capability around the test loop, and hardware adjustments.

RTT Substation Restoration.—RTT Substation Restoration Project work was completed. This work included inspections, testing, corrective maintenance, and installation of a replacement power system monitoring, and metering system.

DC Rectifier Substations.—Work was initiated to modify the DC Rectifier Substations for the Transit Test Track. Design work has been completed and construction started to correct safety problems, increase current and voltage capabilities, and link the two substations for controlled load sharing.

RTT Upgrade.—Railroad Test Track upgrade project was substantially completed. All ties on the 13.5 mile test loop have been replaced with new concrete or treated hardwood ties with elastic fasteners using a Fairmont Tamper automated tie replacement system. Work included ballast undercutting in the concrete tie zones and replacement with new granite ballast. The track was surfaced/lined to exceed FRA class 6 track standards. The successful completion of this project is an important milestone in FRA's efforts to prepare for the testing Amtrak's American Flyer trainsets at TTC in early 1999 before their entry into revenue service later that year at 150 mph on the Northeast Corridor.

Environmental Audit and Pollution Prevention.—A comprehensive environmental audit of the TTC was conducted and the results documented in a formal report. Based on these results, a comprehensive Pollution Prevention Program has been developed. The purpose of this project is to develop and actively implement policies and procedure to meet the Federal government goals to (1) publicly report toxic waste and emissions, (2) to reduce toxic releases by at least 50 percent by 1999, and otherwise meet the requirements of Executive Order 12856.

Fiscal Year 1998 Planned Projects

Restore Site Radio Communications System.—TTC has an 8 channel radio communications system installed in the early 1970's. The system was overhauled in 1978, with 2 of the channels converted to repeater channels due to communication problems with outlying areas within the facility. All of the 8 base station modular equipment is obsolete in terms of obtaining replacement parts. Two of the 8 units are currently non-functional, and the 2 repeater station units are starting to fail from continuous duty heat. This work is to perform a partial refurbishment of the existing system to restore an 8 channel operation. It includes replacing 5 of the base units with repeater station capability, replacement of the 2 time coder transmitters, upgrading the standby battery power system, upgrading the base station instrumentation cabinets and associated wiring, and upgrading the software control package so that the system is in a full functional condition.

CSB Wheel Truing Machine Restoration.—The existing Heigenscheidt Manufactured, Wheel Truing Machine in the Center Services Building (CSB) requires a limited overhaul to restore and improve current wheel truing tolerance capabilities. The planned restoration work involves system upgrades by rebuilding the longitudinal and cross slides, cylinders, way liners and gibs. It also includes upgrading the feed system by replacing the obsolete feed pump system and installing new servo control valves , and rebuilding of the lifting cylinders to the wheel lift, and trouble shoot/repair as needed to restore the machine to good, serviceable operation.

FRA Heavy Equipment Upgrades.—This project is to replace existing FRA equipment critical for test program support that are beyond their useful economic lives. The planned replacement units are a 50 to 75 ton rated mobile crane, 3 to 3.5 CY rated front end loader, and a 14' moldboard/185 hp min rated, motor grader.

Roof Restoration on TTC Buildings.—This project is to continue with the phased roof replacement program for TTC Buildings. The planned work is to replace, or repair and reroof, as necessary the built-up roof systems of Rectifier Substation No. 2, Urban Rail Building, and Operations Building Kitchen/Cafeteria low bay roof.

Preliminary Design of CSB Lead Wye Track.—The Railroad Test Track has become a high demand test loop for testing, and will become even more so with the high-speed test programs associated with Amtrak and RTRI in the near future. Access to the track for logistics moves are becoming more disruptive to test activities, with maintenance and service activities using the core area facilities. In addition, long range planning has identified the proposed CSB Lead Wye Track as a proposed access for a future project maintenance facility for high-speed testing. The Wye track also would access an unlimited area to develop a more permanent area for intermodal container and material lading staging that is central to the core area for support and logistics. This initial phase of the project is to perform preliminary design work for a Wye Track off of the CSB Lead track that is expandable for the above referenced facility. The work includes a topographic survey of the proposed alignment and facility development area, track alignment and profile drawings, and a budget estimate for a phased construction program.

Fiscal Year 1999 Planned Projects

Roof Replacements on Support Buildings.—Funding will continue the ongoing roof replacement for numerous major buildings at the TTC. Many buildings have their original roofs, which are beyond their economic lives. The roofs must be replaced in an orderly fashion to avoid leaks and damages to building interiors and equipment.

FUNDING OF T–6 WORK

Question. Did FRA perform any upgrade work on the T–6 track inspection car and on-board track inspection equipment in fiscal year 1998? If so, what funds went toward this effort? What was the source of these funds?

Answer. No significant upgrade work was performed in fiscal year 1998 on the mechanical or structural parts of the T–6 car itself. The FRA has elected not to reprogram any of the fiscal year 1998 funds for this purpose due to the potential negative impact on other planned research activities. However, funds were expended on various mechanical repairs and maintenance activities in order to keep the inspection system operational. Additional maintenance is planned by the end of fiscal year 1998. A modest upgrade was performed on some of the instrumentation and data collection systems housed inside the T–6 car to support various track safety inspection technology projects including track degradation, track vertical stiffness measurement, and track data alignment system. The source of these funds was the Inspection-Detection subprogram.

It should be noted that the over fifty-year old T–6 car, which houses most of the instrumentation and all the data collection systems, is rapidly deteriorating and thus requiring more frequent repairs and maintenance. Due to the increasing repair costs and other inefficiencies associated with test scheduling, as well as the FRA R&D Five-year Strategic Plan requirements, a recent study has concluded that current instrumentation and inspection equipment be migrated to a new state-of-the-art track research platform replacing the T–6 car.

FISCAL YEAR 1999 FUNDING FOR THE T–6

Question. What funds are requested for the T–6 upgrade effort in fiscal year 1999? Will this funding complete the T–6 upgrade?

Answer. FRA is requesting $500,000 in fiscal year 1999 for a T–6 replacement. This funding, however, will not complete the T–6 upgrade. It will provide adequate funding to complete the design of a replacement state-of-the-art track research platform, proceed with competitive procurement and ordering of long lead items so that the new research platform will be available for service in mid-2000.

A formal study has been conducted into the feasibility of upgrading or replacing the T–6 research vehicle. Based on the findings of this study, it is recommended that the T–6 be replaced with a new research platform, for reasons of both economy and R&D program requirements as delineated in the Office of R&D's Five-Year Strategic Plan, and to improve substantially FRA's safety inspection capability by taking advantage of new technologies.

The estimated cost of the replacement track research platform according to this study is about $3.5 million, including $500,000 requested in fiscal year 1999.

UPGRADE OR REPLACE T–6

Question. Please provide a cost/benefit analysis of costs to repair and upgrade the T–6 versus costs to replace the T–6 track inspection car.

Answer. The Volpe National Transportation Systems Center (VNTSC) has conducted a formal feasibility study on the upgrade or replacement of the T–6 inspection research vehicle. The study investigated available options for meeting the requirements of the track safety research program delineated in the FRA's draft 5-year R&D Strategic Plan. The two options considered were the upgrade of the T–6 car and its replacement with a new state-of-the-art track research platform. In addition, the replacement option involved two alternatives (towed or self-propelled) to be considered during the design phase. The costs of upgrade or replacement are comparable, estimated at about $3.5 million. The annual savings as a direct result of upgrade or replacement is estimated at about $550,000. Based on these feasibility study figures, the investment in the T–6 upgrade or construction costs would be recovered in less than five years. This conservative analysis does not include the qualitative benefit from a much improved inspection capability during the same period. The two tables below summarizing the costs and savings are reproduced from the referenced VNTSC study.

SUMMARY OF COSTS FOR UPGRADE OR REPLACEMENT THE T–6 TRACK RESEARCH VEHICLE

Primary cost categories	Upgrade	Replacement	
		Towed	Self-propelled
Construction/Upgrade Costs	$2,609,500	$2,834,500	$3,084,500
Usage Loss of the Research Vehicle	450,000	.....	.....
Annual Operational Costs	95,000	91,000	84,000
Total Costs for Five-year Window	3,534,500	3,289,500	3,504,500

Summary of Estimated Annual Savings

Cost saving categories	*Estimated savings*
Research Support	$150,000
Technical Support	50,000
Operational Efficiencies	275,000
Research Delays	75,000
Total	550,000

STATUS OF 1–800 PROJECT

Question. Last year, FRA stated that a contract would be in place to develop and establish a computerized 1–800 telephone number call-in facility. Has this contract been finalized yet? If so, has the program been implemented yet? If not, why?

Answer. The Swift Rail Development Act required a state-based emergency notification system. Based on recent actions taken by the railroads, FRA believes a railroad-based emergency notification system would have more universal potential than would demonstrations in just two states and should result in quicker and wider application, thus achieving Congress and FRA's safety goals in a more favorable time frame. Therefore, as noted in the budget request, FRA requests sufficient flexibility to foster and demonstrate a system which will be more railroad-oriented and would take full advantage of railroad initiatives already underway.

The following highlights the history of this project:

The 1994 Action Plan established the need for a toll-free crossing automated trouble reporting system. In September 1994, a contract was awarded to develop a conceptual design and implementation plan. This effort was completed and the "Conceptual Design & Implementation Plan" was provided in a Final Report dated May 19, 1995.

However, the Swift Rail Development Act of October 1994 directed the Secretary to demonstrate a toll free emergency notification system to report emergencies, malfunctions and other safety problems, and to conduct a pilot program in two states. The requirement for an emergency system is not compatible with the originally conceived automated trouble reporting system for which the Design Plan was based. Because the Swift Act requires emergency notification of situations at highway-rail crossings, both the current "Design Concept & Implementation Plan" and a previously developed work statement must be revised. This revision and a reevaluation are necessary due to the non-compatible requirements.

The Swift Act did not appropriate funds for this project. The program effort was delayed for a year waiting for funding to be identified. In 1996, the funds for development of system hardware and the conduct of a two-State pilot program were appropriated by Congress. The current funding ($625,000) does not provide for the installation of signs at each crossing, nor the public education and awareness program, nor the final Report to Congress.

Preliminary discussions were held with the States of Illinois and Minnesota regarding the pilot project. FRA's goal was to involve two States which would be representative of both urban and rural states, i.e., one of each. In February 1997, the FRA Administrator sent a letter to all States inviting them to participate in the mandatory two-State pilot test program. FRA received responses from just four states who indicated an interest in the program.

In the meantime, FRA's 1989 evaluation report on the State of Texas' 1–800 program concluded that approximately half of all calls received provided useful information to improve the operation of automated warning devices. In 1996, several major railroads, at their own expense, started to install signs at crossings with a 1–800 number for reporting malfunctions and/or emergencies. Some railroads are in-

stalling these at all of their public and private crossings, some are installing these at only the public crossings and some are installing them at only the active crossings (those with gates and/or flashing lights). Preliminary discussions were held with the railroads to evaluate methods for incorporating their 1–800 Number Systems into the overall system planned for the two pilot states. Currently, it appears that by Spring of 1998, 1–800 Number Emergency Notification Signs will be installed by railroads at approximately 62,123 of the 162,426 public at-grade crossings (38.2 percent) on the Burlington Northern Santa Fe, Union Pacific, Norfolk Southern, CSX Transportation and Illinois Central Railroads. This is also 67 percent of all the active crossings in the nation (active includes gates, flashing lights, wigwags, highway signals and/or bells). CSX Transportation is a good case in point. Following an Amtrak passenger train collision with a truck immobilized on a crossing, FRA and CSX Transportation collaborated in the development of a Safety Action Agreement which committed CSX Transportation to placing signs with a 1–800 number at all crossings and to train dispatch center personnel in the proper handling of incoming calls. Crossings on passenger and high-volume hazardous materials routes will all be 'signed' by May 1998, and all CSX Transportation crossings will be included by May 1999.

FRA is committed to achieve the objective of the Action Plan and Swift Rail Development Act by developing, implementing and evaluating a 1–800 toll-free malfunction and emergency notification telephone system. However, the only way to achieve emergency notification is to establish centralized manned centers to receive calls. While this still requires a telephone system for taking such calls and a system for fast and efficient identification of the crossing and its exact location, it is not compatible with the automated approach originally conceived. A manned center would probably need to be either a railroad's or in a police command center (like the State of Texas has established). (FRA does not recommend that the Federal government or its contractor take on this responsibility.) State legislation may be required to implement such a system in a state that requires the State Police Command Center to perform this activity.

FRA proposes to work with the railroads to assume this responsibility, i.e., installing signs with 1–800 numbers that directly reach their train dispatch offices. What is currently missing is an overall comprehensive program which addresses all crossings on all railroads, large and small. (Even the Texas system does not include signs at passive or private crossings.) FRA believes that it may be possible to supplement railroad systems already in place or planned for the major railroads by developing and implementing regional systems for those crossings not already included in a railroad system. It appears very possible that this can be done in more than only two pilot states and thereby achieve greater coverage with the funds that have been appropriated.

FRA's goal is to have a contract in place by mid-1998 to develop the necessary software packages to accomplish these goals. The initial development of this project was started with fiscal year 1995 funds, and of the current $626,000 fiscal year 1996 funds appropriated, $350,000 will be used by the end of fiscal year 1998 and the balance of $275,000 will be used in fiscal year 1999.

STATE INVESTMENT IN 1–800 PROJECT

Question. How will FRA promote State investment in this approach to improving grade crossing safety?

Answer. FRA is evaluating different approaches to the "1–800 Emergency Notification System." Railroads, which are voluntarily installing highway-rail grade crossing emergency notification systems, are extending coverage to all crossings, not just public crossings. Highway-rail grade crossings with automated warning systems are the typical target of State-based systems. Soon, nearly half of all public crossings will be equipped or covered by "1–800 telephone and crossing identification numbers" to report emergency or routine problems.

To promote continued investment in these systems, FRA plans to: (1) Encourage railroads with 24-hour operations to post their own 1–800 signs and to handle such calls through their 24-hour operations center; (2) Provide seed funding for regional contract arrangements whereby smaller railroads would use the services of the larger railroads for responding to calls and/or encouraging American Short Line Railroad Association participation in establishing regional contract services; (3) Develop software for maintaining a railroad or State 1–800 System with crossing inventory data geographically located, including a GIS platform, and developing an automated mapping technique to identify the location of a crossing with a reported problem; and (4) Encourage updating of the National Crossing Inventory (a necessity for identifying the exact location of a crossing with a posted crossing number).

When the system software is developed, it will be made available to States and railroads at no cost. Additionally, the Federal Highway Administration has approved the use of Surface Transportation Program Funds from the safety set-aside portion of the Intermodal Surface Transportation Act (Section 130) for the required signage. Full implementation will take approximately two years.

CSX GRADE CROSSING EFFORTS

Question. In the wake of an October 9, 1997 collision involving an Amtrak train operating on CSX-owned track and a "lowboy" trailer that got hung-up on a grade crossing near Savannah, Georgia, CSX has committed to a substantial effort to install grade crossing signage that precisely identifies the crossing and provides a toll-free emergency notification number. Please outline FRA's involvement in this effort. Is CSX working through FRA's ongoing emergency notification program? Are any federal funds supporting CSX's implementation of grade crossing signage on its property? Are all CSX owned crossings to be so identified? What is the status of the CSX effort?

Answer. Following the Amtrak passenger train collision with an immobilized tractor-trailer truck (lowboy) at a highway-rail grade crossing on October 9, 1997, CSX Transportation (CSXT) executed a Safety Action Agreement with FRA. CSXT agreed to place emergency notification signs with a "1–800 Telephone Number and Grade Crossing Identifier" at all highway-rail grade crossings. In addition, train dispatch center personnel will be trained in the proper procedures to follow when receiving these calls. This established a system-wide "1–800 Number System" on CSXT. All public crossings on passenger and high-volume hazardous materials routes will be 'signed' by May 1998. All remaining public and all private CSXT crossings will be 'signed' by May 1999. CSXT's efforts are separate from FRA's ongoing emergency notification program. However, provisions are being made to integrate CSXT's system into the National emergency notification program.

FRA is monitoring CSXT's compliance with the Safety Action Agreement. FRA also provided technical assistance regarding CSXT's 1–800 Number initiative. There are no Federal funds being used for this effort; all funding is provided by the Railroad.

As of March 1998, 14,815 highway-rail grade crossings, 62 percent of the effort, was complete. CSXT has notified trucking companies about this initiative through Operation Lifesaver Presentations. Law enforcement agencies, fire departments and schools also have been notified about this initiative. The CSX train dispatch center has added additional staff to handle the expanded database management effort for computerized mapping of crossing locations. FRA is monitoring compliance with the agreement during its continuous, open-ended, Safety Assurance and Compliance Program safety audit of CSXT.

AVAILABILITY OF HIGH-SPEED RAIL IN THE U.S.

Question. As compared to five years ago, how much closer today is the Nation to having a reliable, cost-effective, and safe high-speed passenger rail transportation system?

Answer. High-Speed passenger rail service (125 mph) has been available on the Northeast Corridor between NY City and Washington for the past 5 years. Service with trains capable of 150 mph all the way from Boston to Washington with much improved reliability and attractiveness and a quantum decrease in trip time between Boston and NY City should be available before 2000.

Elsewhere in the U.S., the picture is mixed. For the past 5 years, Florida has been working on an effort to award a competitive franchise for a high-speed rail system. The State has now selected a franchisee for a 200 mph system and is much closer to implementation, subject to development of a successful financial plan and environmental clearance. California is starting a similar process.

In Michigan, Illinois, New York, the Pacific NW, North Carolina, and Virginia, thanks in part to the States' own financial efforts and in part to collaboration with FRA's Next Generation Technology Program, affordable incremental high-speed rail improvements are near reality. California has spent hundreds of millions of its own dollars in improving service.

OST/OMB REQUESTS FOR NGHSR

Question. What amounts for each of the NGHSR Program components were originally requested of OST and OMB?

Answer. The information is contained in the following table:

FISCAL YEAR 1999 NEXT GENERATION HSR PROGRAM BUDGET HISTORY

[In thousands of dollars]

	Request to—		President's budget
	OST	OMB	
Non-Electric Locomotive	8,000	6,000	6,800
Grade Crossing Hazards	7,500	4,500	4,000
Track and Structures	3,500	1,500	1,200
Technical Assistance	500	.....	.....
Administration	593	594	594
Total	20,093	12,594	12,594

DECREASE IN NGHSR FUNDING

Question. The fiscal year 1999 request for NGHSR is $7,801,000 below the fiscal year 1998 enacted level of $20,395,000, a decrease of almost 40 percent. Does this sharply decreased request reflect a sharply decreased level of commitment on the administration's part for the development and demonstration of cost-effective high-speed passenger rail in the U.S.?

Answer. The reduction in requested funding is a result of circumstances in implementing major projects in the program and reflects no decreased commitment on the part of the Administration. The Administration's level of interest is reflected in the proposal for ISTEA reauthorization which supports NGHSR technology development activities at a level of $19.6 million annually.

The fiscal year 1999 NGHSR request reflects the completion of several projects in fiscal year 1998 and no funding for positive train control in fiscal year 1999 due to balances already available.

FISCAL YEARS 1995–99 NGHSR

Question. Please provide a NGHSR account breakout table by budget activity and project, showing appropriated levels in fiscal years 1995, 1996, 1997, 1998, and requested for 1999.

Answer. The information is contained in the following table.

NEXT GENERATION HIGH-SPEED RAIL PROGRAM FUNDING

[In thousands of dollars]

	Fiscal year—				
	1995	1996	1997	1998	1999
Positive Train Control	8,500	9,000	4,000	3,750	.....
Non-Electric Locomotives	6,500	8,998	9,000	9,300	6,800
Lightweight Materials	500	.....	.....	.....	.....
Innovative Technology	1,500	.....	.....	.....	.....
Grade Crossing Hazards & Innovative Technologies	.....	4,500	4,959	5,600	4,000
Corridor Planning	5,000	.....	.....	.....	.....
National Transportation Plan	2,500	.....	.....	.....	.....
Track/Structures Technology	.....	.....	6,500	1,200	1,200
Planning Technology	.....	1,250	1,250	.....	.....
Administration	368	379	426	545	594
Total	24,868	24,127	26,135	20,395	12,594

TRB RECOMMENDATIONS OF NGHSR

Question. Please prepare an analysis of how FRA responded to each of the major recommendations of the TRB to improve the NGHSR program.

Answer. The three major recommendations of TRB were: were (1) reduce the number of corridors where demonstrations of positive train control are underway; (2)

treat the fly-wheel project as long-term research, which may not produce any usable results, and as a result terminate the program; and (3) focus the grade crossing efforts on practical, low-cost and low-tech risk reduction technologies. FRA has already responded to these and other comments and recommendations by the TRB Committee in a letter dated January 14, 1998, (attached) which made some of the following points:

(1) FRA is pursuing only two train control projects in the Next Generation program, in Michigan, and in Illinois. (The Pacific Northwest project is a multi-million dollar effort of BNSF and UP. FRA is involved as a monitor, and our financial involvement is minimal, peripheral, and limited to particular components and Congressional earmarks.) Continued FRA involvement is justified in both of these projects, which represent significantly different approaches to train control. No funds are requested in fiscal year 1999, as previous funding provided is sufficient to continue work in fiscal year 1999.

(2) FRA followed the TRB Committee's recommendation with regard to the high-speed non-electric locomotive and have solicited proposals. Rather than terminating the flywheel project, FRA carefully structured its relationship to the locomotive project in a way that would not endanger the success of locomotive development if the (admittedly more risky) flywheel were to run into unexpected technical difficulty.

Congress has directed funding for the flywheel project. To date, there have not been any major setbacks. It carries with it considerable interest and prior investment in component technologies from the defense community along with opportunity for further leverage. It has potential applicability in a number of routes requiring enhanced acceleration because of curved track or frequent stops without requiring additional energy consumption. FRA's fiscal year 1999 budget request includes funding for both projects.

(3) FRA agrees with the Committee's endorsement of the North Carolina sealed corridor approach to grade crossing risk reduction because it validates cost-effective, simple new approaches. However, more sophisticated technologies such as the "arrestor net" will be needed in some locations and must be tested. FRA is working towards a generic, risk-based approach taking into account increased risks associated with high-speed, and cost-effective solutions to deal with the grade crossing issues on a corridor-wide basis. FRA has begun a broad review of all of its grade crossing research and will reallocate resources if appropriate.

[The letter follows:]

LETTER FROM JOLENE M. MOLITORIS, ADMINISTRATOR, FEDERAL RAILROAD ADMINISTRATION

OFFICE THE ADMINISTRATOR,
Washington, D.C., January 14, 1998.

Dr. JOSEPH M. SUSSMAN,
JR East Professor and Professor of Civil and Environmental Engineering, Massachusetts Institute of Technology, Cambridge, MA

DEAR DR. SUSSMAN: Thank you for your letter of December 23, 1997, setting forth the findings and recommendation of the TRB Committee for an Assessment of High-Speed Ground Transportation Research and Development. I would like to respond to the Committee's comments. To begin with, I wish to address the three principal issues you raised at our recent meeting and to follow with a discussion of the remaining points in your letter. Our responses, in italics, update the PTC and locomotive projects reported to the Committee in October and provide additional information to clarify points in your report.

Three principal issues:

1. Whether the results of FRA's program will be generally applicable.

The Committee has been concerned that because FRA's program is less a research program than "a collection of technology demonstration projects, many of which are site-specific in their application" and because "each demonstration project is designed to maximize the benefit to [a particular] State", then the program results would not be generally applicable.

In our letter of May 28, 1997, in responding to similar criticism, we explained that most of our funding comes from the Next Generation program under the Swift Act, which calls for "improvement adaptation and integration of proven technologies for commercial application . . ." rather than "research and development" and that the State participation not only brings additional funding to the table but also increases the likelihood of implementation that goes beyond the demonstration, at least in that State. The Committee now points out that FRA's program is also authorized

under Section 1036(a) of ISTEA, which permits research as well as demonstrations. While this is true, the first really significant funding came after the enactment of the Swift Act, and we chose to structure the program primarily around demonstrations.

The stated goal of the Next Generation High Speed Rail Technology program is to accelerate the implementation of high speed rail by testing and demonstrating technologies that reduce the implementation cost on existing railroads without compromising safety. Let us consider examples in the two important areas of positive train control and non-electric locomotives:

The PTC technology projects are designed to provide the equivalent safety of track circuit based cab signal and automatic train control at a much lower cost using radio based systems than we were required to invest in the Northeast Corridor. We now have underway projects involving both an overlay system (in Michigan) and a generic central control PTC system (in Illinois). A State with an existing signal system will have a choice of implementing either concept in a wide variety of situations.

The non-electric locomotive projects are designed to provide propulsion equivalent to what has been available through electric locomotives on the Northeast Corridor, but at much lower cost. Here again, we have two approaches—one based on upgrade of an existing design (the Turboliner upgrade) and another based on a new design (the current cooperative agreement procurement just announced). While it is true that the former (which was earmarked by Congress) may be a realistic option for only a very limited number of vehicles, the concepts to be demonstrated after the upgrade, such as 125 mph running, improved acceleration, and concomitant treatment of grade crossings, are applicable in other corridors. We strongly believe the new non-electric locomotive program will result in a product which will be applicable in any high-speed corridor.

As to the further question of general applicability, we believe that States or other high speed project sponsors are more likely to act on the basis of a successful technology demonstration than on the basis of a research result. Furthermore, we also believe that our policy of seeking the involvement of equipment suppliers as partners is also likely to increase implementation. Whether the result of a research project or a demonstration, it is always likely that a particular solution for one project will not exactly fit in another. In the cases noted above, we have tried to span a range of solutions that could apply in a number of different projects.

2. Whether our management reorganization of last summer was appropriate.

The Committee believes that our reorganizations which shifted the Next Generation program from the Office of Research and Development to the Office of Passenger and Freight Services, "has actually dispersed the management of FRA R&D activities rather than improving the linkage between the NGHSR and R&D programs".

In a letter of July 25, 1997, Jim McQueen informed you of this reorganization and explained that we believed it was time to put greater emphasis on implementation of high-speed rail systems sponsored by States in cooperation with Amtrak—an activity closer to the mission of the Office of Passenger and Freight Services which was already involved in oversight of Amtrak, the Northeast Corridor Improvement Project and planning and outreach with States in high-speed rail. This will help provide more of a customer-based focus to the Next Generation efforts, and this, in turn, will help in achieving our mutually shared goal of broad applicability of the products of our efforts.

The same people, at the front line level, will be running the program and we do not believe that in an office as small as that of Railroad Development with all personnel on the same floor and accustomed to communicating frequently among themselves and with management we are likely to have a "dispersal" problem. With the changes, the managers have been more successful at sharpening the focus of their respective programs and delivering expected results.

3. Whether the flywheel project should be terminated.

The Committee recommended this earlier in your May 9 letter, along with a recommendation that FRA should proceed promptly with development and demonstration of a high-speed non-electric locomotive. You reiterated the recommendation to terminate the flywheel project in your most recent letter.

We followed the Committee's recommendation with regard to the high speed non-electric locomotive and we recently solicited proposals. Rather than terminating the flywheel project, we have carefully structured its relationship to the locomotive project in a way that would not endanger the success of locomotive development if

the (admittedly more risky) flywheel were to run into unexpected technical difficulty.

Congress has directed funding for the flywheel project. To date, we have not seen any major setbacks. It carries with it considerable interest and prior investment in component technologies from the defense community along with opportunity for further leverage. It has potential applicability in a number of routes requiring enhanced acceleration because of curved track or frequent stops without requiring additional energy consumption. Indeed, this would seem to be the kind of longer term R&D activity which the committee seems to favor in other parts of your letter.

Other Points Raised in December 23 letter:

4. The Committee wants us to reduce the number of train control projects and to focus on safety-critical software development.

The Committee strongly supports work in this area but recommends that FRA reduce the number of corridors with which we are working.

We already are pursuing only two train control approaches, in Michigan and Illinois. (The Pacific Northwest project is a multi-million dollar effort of BNSF and UP. FRA is involved as a monitor and our financial involvement is minimal, peripheral, and limited to particular components and Congressional earmarks) Continued effort is justified in both of these different approaches.

The Committee recommends that FRA's primary activity in the train control area should be to sponsor a software development program.

We are concerned that the products of a Government-sponsored software program would not be applied by the industry and that we would have insufficient funds to complete a comprehensive program. Further, we believe that the ultimate objective of train control implementation will be achieved much sooner and better by the demonstration approach we are pursuing because the major players will be directly involved throughout the process. We have brought Union Pacific back to participation in the Illinois train control project. The critical software favored by the TRB Committee must be developed and validated to accomplish this demonstration program, and will be already implemented at UP's dispatch control center when the demonstration is completed. This is the most effective mechanism to implement the technology and provides the necessary justifications to obtain and effectively utilize both Federal, state, railroad, and supplier resources.

5. The Committee wants us to cease pursuing "exotic" technologies for grade crossing safety and to focus on projects such as the "sealed corridor"

We agree with the Committee's endorsement of the North Carolina sealed corridor approach to grade crossing risk reduction because it is validating cost-effective, simple new approaches. However, we disagree with the Committee in that we believe that more sophisticated technologies such as the "arrestor net" will be needed in some locations and must be tested. (For your information, the arrestor net project was funded under a grade crossing hazard elimination program rather than under Next Generation.) We are working toward a generic, risk-based approach which takes into account the increased risks associated with high speed, and which will indicate the most cost-effective solutions to deal with the grade crossing issue on a corridor-wide basis. We have also recently begun a broad review of all of FRA's grade crossing research, and we plan to reallocate resources as a result of our findings.

6. The Committee wants us to exercise leadership in getting the railroad industry to implement PTC.

You state FRA is in a unique position to convene a summit of the industry's corporate leaders to forge a partnership for the potential implementation of PTC technology. We have already made a start in this process by convening the Railroad Safety Advisory Committee (RSAC), which would do that very thing in the context of our rulemaking authority. But the train control field is enormously complex and involves myriad technology choices. Strongly held opinions abound among railroads, suppliers, and consultants as to the best approach for each piece of the ultimate system. We have sponsored roundtable discussions as well as the RSAC, and are seeking consensus wherever we can find it. But discussion alone will not resolve the complex choices.

Concrete demonstrations will definitively move the process forward by permitting all participants to evaluate actual performance.

7. The Committee's letter did not comment on what seemed to be good reviews by the customers of our program, who were asked to speak before the Committee.

I understand that a number of the customer representatives who spoke at the Committee's meeting strongly endorsed FRA's approach as it applied to their areas of interest but we did not see this reflected in the Committee's report.

As usual we welcome the Committee's frank comments on the FRA program in high speed rail technology and we hope that the Committee members will continue to follow our program and provide further comments even after the Committee formally ends its work later this year.

Sincerely,

JOLENE M. MOLITORIS,
Administrator.

LINKAGE OF R&D AND NGHSR PROGRAMS

Question. What steps will FRA take to ensure that the research and development program and the NGHSR demonstration programs are more closely and explicitly linked together?

Answer. Both programs are managed by FRA's Office of Railroad Development and from the same physical location, affording close coordination. The R&D program focuses on research in support of railroad safety, both passenger and freight, and the NGHSR program focuses on facilitating HSR implementation by making key technologies more cost effective and demonstrating them in operation. Some projects have elements of both purposes and are closely coordinated. For example, the Illinois (NGHSR) positive train control project serves both HSR and rail safety in general and is being closely coordinated with a PTC (R&D) interoperability project, both with heavy industry involvement. FRA plans no further steps for explicit linkage except on a project by project basis.

NGHSR PROGRAM MANAGEMENT

Question. The TRB recommended that the FRA strengthen its program management capabilities to speed up and better control the individual projects. How will this be accomplished?

Answer. Last summer, FRA shifted the Next Generation program from the Office of Research and Development to the Office of Passenger and Freight Services (P&F). P&F is responsible for the oversight of Amtrak, NECIP and planning and outreach with States in high-speed rail. Therefore, by shifting the HSR work to this Office, FRA can ensure State sponsored high-speed rail systems are in cooperation with Amtrak, provide more customer-based focus on Next Generation efforts, and achieve broad applicability of products. Given the overall staffing constraints, FRA has not been able to increase the size of the program management staff.

STATUS OF NON-ELECTRIC LOCOMOTIVE PROJECTS

Question. The fiscal year 1998 Act provided $4,800,000 for work on prototype locomotives, including: (a) research on flywheel turbine technology; (b) development of non-electric locomotive concepts; and (c) evaluation of the potential of the recently developed locomotive car bodies at speeds of 150 miles per hour. Please describe the progress in each of these three areas of research.

Answer. To further research on flywheel turbine technology, FRA has allocated $1,700,000 of the $4,800,000 to the University of Texas at Austin to continue the development of the flywheel energy storage battery system, including an advanced, compact, lightweight generator. Two ⅓ scale rotors have now been successfully tested and construction of the full-scale flywheel rotor and containment is underway. A critical design review for the advanced generator was successfully completed in March, 1998, with the first generator expected to be completed in Fall, 1998.

In January, 1998, FRA issued a Notice of Funds Availability in the Federal Register seeking qualified locomotive manufacturers to produce a turbine-powered high-speed locomotive, capable of 125 mph demonstrations in the near term and ultimately capable of 150 mph operation, as well as coordination with the Advanced Locomotive Propulsion System project at the University of Texas. The solicitation closed on March 27. One proposal was received from a qualified manufacturer, including significant levels of cost sharing, and FRA anticipates successful negotiation of a cooperative agreement in the very near future.

CURRENT CONTRACTS FOR NON-ELECTRIC LOCOMOTIVE PROJECTS

Question. What specific contracts have you signed in each of these three areas since last year? Please state the purpose of each relevant contract along with 1998

funding amount for each contract. How will the fiscal year 1999 program continue this initiative?

Answer. A new project to develop and demonstrate a high-speed prototype non-electric locomotive will be awarded later this year through a cooperative agreement with funding in the amount of $3,000,000. The Notice of Funds Availability for this project closed on March 27th and a proposal is currently being reevaluated by FRA with an expected award by May. fiscal year 1999 funds requested for this effort will support the completion of design work and the start of fabrication of the demonstration locomotive.

The Advanced Locomotive Propulsion Systems project at the University of Texas was funded with an additional $3,700,000 through an interagency agreement with the Defense Advanced Research Projects Agency (DARPA). This project will develop and demonstrate an advanced energy storage flywheel system and compact. lightweight generator for rail applications. The fiscal year 1999 program will continue development of these technologies including, funding the fabrication of additional generator prototypes and testing of the flywheel system and engineering efforts to integrate these devices into the high-speed demonstration locomotive being developed separately under the Agreement described above.

The New York State Rohr Turboliner (RTL–3) upgrade program will be provided with an additional $2,500,000 in Federal funding during fiscal year 1998 by amending the existing cooperative agreement. This project will upgrade at least 2 of the existing 7 RTL trainsets to achieve better performance with modern turbines and equipment for service on the Empire corridor between New York and Albany. No fiscal year 1999 funding is requested for this project.

STATUS OF HIGH-SPEED NON-ELECTRIC LOCOMOTIVE WORK

Question. Regarding the development of high-speed non-electric locomotive technologies, please prepare a table indicating separately, the status, problems, and challenges, along with the fiscal year 1997, fiscal year 1998, and planned fiscal year 1999 FRA investments. Please include information on each major FRA project in this program.

Answer. The information is contained in the following tables:

NON-ELECTRIC HIGH-SPEED LOCOMOTIVE FUNDING

	Fiscal year—		
	1997	1998	1999 (planned)
Advanced Locomotive Propulsion Systems	$2,000,000	$2,000,000	$2,000,000
HS Non-Electric Demonstration Locomotive	.....	4,800,000	4,800,000
New York State RTL Upgrade	4,000,000	2,500,000	.....

NON-ELECTRIC HIGH-SPEED LOCOMOTIVE STATUS AND ISSUES

	Status	Problems and challenges
Advanced Locomotive Propulsion Systems.	Prototype flywheel to be completed in 1998, proof of concept generator to be completed in 1998.	No significant issues at this time.
HS Non-Electric Demonstration Locomotive.	Proposal being evaluated, award expected May 1998.	Adequate future funding.
New York State RTL Upgrade	Upgrades underway, first RTL–3 trainset expected early CY 1999.	No significant issues at this time.

FOCUS OF HIGH-SPEED NON-ELECTRIC LOCOMOTIVE PROGRAM

Question. Where does FRA believe the focus of the non-electric HSR locomotive program should be now? How many bids on the current solicitation do you expect?

Answer. FRA has received one responsive bid to the solicitation which closed on March 27. The program is moving forward to produce a 125 mph turbine-powered

demonstrator locomotive in the near term, which will ultimately be able to receive power from the flywheel energy-storage system, as well as to operate at 150 mph.

COMMON DESIGN FOR NON-ELECTRIC LOCOMOTIVE

Question. How is the non-electric locomotive program developing a consensus about a common design that could serve several markets and generate sufficient demand? How do the States influence this development?

Answer. FRA continues to consult with the States through periodic meetings and contacts. Once a selection is made for a locomotive manufacturer, FRA will convene a panel of representatives from the states pursuing high-speed service to assure that states' needs are most effectively met in the design and manufacture of the prototype.

CHALLENGES IN DEVELOPING HIGH-SPEED NON-ELECTRIC LOCOMOTIVES

Question. What are the remaining technical challenges in developing non-electric HSR locomotives?

Answer. The technical challenges continue to be the ability to achieve very high traction power levels in compact packages with minimal weight, which are affordable to purchase and economical to operate, and are reliable in daily revenue service.

NY TURBOLINER PROJECT

Question. How much of the fiscal year 1999 monies will be allocated to the NY turbo-liner trains program? What would be the next logical technological step to advance this program?

Answer. Through fiscal year 1998, $12.5 million in federal funds has been provided for this project. The $2.5 million available in fiscal year 1998 has not been obligated. No funds are requested in fiscal year 1999. The next logical technological step to achieve advanced turbine propulsion is to increase the total available power and transmit it to the rail using an alternating-current (AC) traction electric transmission system, such as will be employed in the Advanced Locomotive Propulsion System project.

ADDITIONAL COST TO COMPLETE FLYWHEEL PROJECT

Question. How many additional years will be required to complete work on the flywheel project? How much will this cost? Please provide costs for both development and large-scale testing. What is the likelihood that this technology will be commercialized?

Answer. Three to four additional years will be required to reach a full scale demonstration on a railroad consist, depending on funding levels for the program. The University of Texas estimates that a total of about $7.75 million will be required, including about $7 million for development activities and $750,000 for large scale testing.

There is good likelihood that the technology will be commercialized, based on the numerous trip time simulations which have already been performed as part of the ongoing project. Tests show the ALPS flywheel technology delivering time savings averaging about 15 percent.

It is important to consider the relative expenditures needed to reduce trip times, since trip time reduction is a primary requirement of corridor upgrades where service is already being offered. A useful measure for determining the merit of alternative investments is "dollars per minute of trip time saved." This measure allows a direct comparison between the merit of infrastructure investments versus rolling stock investments. The incremental investment needed to equip a typical corridor with ALPS-based locomotives is estimated at about $5 million per minute saved. Similar costs per minute saved are currently being invested by States to eliminate track curves or other slow orders.

To use electric locomotives, a typical corridor would need to invest about $35 million per minute saved (about $150 million total) to build the associated electric catenary power supply infrastructure. Furthermore, to obtain significant benefits the investment in the electrification infrastructure and electric locomotives must be made "up-front", typically for the entire length of the corridor. The ALPS approach permits incremental migration to higher speeds as portions of the route are upgraded, attaining immediate benefits from each route upgrade.

Successful commercialization of the ALPS propulsion system technologies will permit passenger rail corridor operators to attain immediate benefits from high-acceleration 125 to 150 mph locomotives on an incremental, as needed basis, avoiding

the costs of corridor electrification while capturing the revenue-generating benefits of reduced trip times immediately. Consequently, FRA has received strong support for development of this technology from existing corridor operators in New York State, North Carolina, Virginia, Illinois, and Michigan to name a few.

Two other key issues which indicate successful commercialization potential are the willingness of commercial locomotive manufacturers to pursue the development of ALPS technologies, and an industrial producer to manufacture them. Both Bombardier Transit Inc. and General Motors Electromotive Division have expressed strong interest in applying the program results to their locomotives.

Finally, two divisions of AlliedSignal have been strong participants in the program from its inception and continue to support these technologies as indicated by their substantial commitment of resources to this effort, both in terms of manpower and cost sharing. AlliedSignal has expressed strong interest in manufacturing both the flywheel battery and turbo-alternator systems.

STATUS OF THE FLYWHEEL PROJECT

Question. What is the status of the flywheel project, and what are the planned activities for fiscal year 1999? How much is requested for fiscal year 1999, and how much was spent in prior years? What is the cost sharing arrangement for this project?

Answer. Construction of the full-scale flywheel battery components has begun, based on the success of extensive sub-scale testing which validated salient features of the rotor design. Construction is underway of the 2.5 Megawatt motor-generator which is needed for the turbine-powered prime mover and to both energize and withdraw power from the flywheel. Efforts in the flywheel area will be closely coordinated with the demonstration locomotive activity. A rolling demonstration of ALPS turbine/flywheel technology in a prototype commercial high-speed locomotive is planned for CY 2000.

In fiscal year 1999, testing of the full scale flywheel and generator assembly will begin. Heavy emphasis also will be placed on validating the safety aspects of installing the flywheel in a locomotive expected to serve public areas such as railroad passenger terminals. FRA is requesting $2 million for the flywheel portion of the non-electric locomotive effort in fiscal year 1999. Prior year expenditures have totalled $8.228M. The cost sharing arrangement for this project is 50 percent Federal, 50 percent non-Federal.

FUNDING OF FRA PROJECTS FROM FHWA FUNDS

Question. Are any of the flywheel project costs being carried within the $10 million "Joint Partnership Program" in the Federal Highway Administration's limitation on general operating expenses (LGOE) request? Are any FRA-managed research projects budgeted within the Joint Partnership Program account?

Answer. All costs for NGHSR efforts to develop a non-electric locomotive, including the flywheel energy storage battery, are budgeted in FRA accounts, since the NGHSR projects pre-date, by several years, the formation of the proposed Joint Partnership Program, which is still being defined. FRA is working with the joint program office to identify and pursue opportunities to leverage common technology elements between the existing FRA program and the new joint program. To date no specific FRA-managed projects are identified in the joint partnership effort.

JOINT FUNDING OF FLYWHEEL PROJECTS

Question. What types of technology transfer activities and interagency cooperation are underway to advance flywheel safety and technology? Is there any cost sharing with other federal agencies or with industry? If not, are there any ongoing efforts to establish cost sharing?

Answer. Flywheel energy storage technology is attractive to the US Air Force, the communications satellite industry, and NASA for potential satellite applications and for the International Space Station, as well as for terrestrial applications such as backup utility power sources and for ground vehicles as proposed in the Joint Partnership program. The safety of high-energy flywheels is a major concern for all of these applications because launch support personnel, astronauts, and/or the public may be near the flywheels while they are in operation.

A joint committee with representation from USAF, DARPA, NASA, DOT, DOE, universities, and major potential flywheel manufacturers has been formed to examine the safety issues and to formulate an approach to certify the safety of flywheels intended to operate in a "production" environment. Significant information exchange, as well as sharing of the project costs, is already occurring. The joint committee will identify test facilities needed to support the certification effort. The com-

mon approach is expected to significantly reduce duplication of effort and to optimize the construction and utilization of the needed test facilities.

COORDINATION OF VARIOUS POSITIVE TRAIN SEPARATION AND CONTROL SYSTEMS

Question. How are the various positive train control/separation projects coordinated with each other and integrated into a uniform program?

Answer. One of the key tasks of the newly formed joint project in Illinois is to address the issue of "interoperability" of the various proposed train control systems around the nation, including the demonstration systems being sponsored by FRA. One of the earliest tasks of the joint program office will be to catalogue the systems which have strong likelihood of implementation and to document the technical approaches which each such system uses in its operations. Commonalities and differences will be identified so that suggestions for greater commonality can be made. Potential conflicts between systems, if both are installed on the same locomotive, also will be identified.

The industry also has agreed to develop a common "backbone" or data bus to be installed on each locomotive, to minimize the number of train control accessories, such as radios and location systems, which must be carried by each locomotive. This approach facilitates implementation of the various approaches at minimum total cost to the industry. Agreement that this approach will be followed by all major railroads is a significant part of the agreements underlying the AAR participation in the new joint project.

STATUS OF TRAIN CONTROL PROJECTS

Question. Regarding high-speed train control systems, please prepare a table indicating separately the status, problems, and challenges, along with the fiscal year 1997, fiscal year 1998, and planned fiscal year 1999 FRA investments for each major project in this program.

Answer. The information is contained in the following tables:

POSITIVE TRAIN SEPARATION AND CONTROL SYSTEMS FUNDING

	Fiscal year—		
	1997	1998	1999 (planned)
Michigan ITCS Demonstration	$960,000		
Illinois/AAR/FRA HSPTC Demonstration		$3,725,000	
Oregon PTS Demonstration	3,000,000		

POSITIVE TRAIN SEPARATION AND CONTROL SYSTEMS STATUS AND ISSUES

	Status	Problems and challenges
Michigan ITCS Demonstration	Revenue service expected 1999.	Overcome technical challenges revealed in testing.
Illinois/AAR/FRA HSPTC Demonstration	Joint project MOU being finalized.	Managing complex project with many participants.
Oregon PTS Demonstration	Work plan being finalized	No significant issues at this time.

STATUS OF PTC RULEMAKING

Question. FRA plans to complete a rulemaking to require the use of PTC by Class I railroads. What is the status of this rulemaking? When do you expect to issue such a rule?

Answer. FRA convened a working group of the Railroad Safety Advisory Committee to address Positive Train Control in November of 1997. The group is meeting actively and working through two task forces: (I) Data and Implementation and (ii) Standards.

The Standards Task Force is focusing on performance standards for the introduction of PTC systems, including programs for inspection and maintenance of the systems over their life cycles. Although FRA had proffered a draft Notice of Proposed Rulemaking (NPRM) as a basis for discussion, the task force has elected to pursue

a more flexible and more clearly performance oriented approach to the subject matter. Topics under active discussion include verification and validation of systems (including quantitative proof of safety), independent assessment of supplier safety programs, techniques for review of system requirements specifications, and human factors analysis. The current objective is to prepare an NPRM during the current calendar year, with a final rule in 1999.

The Data and Implementation Task Force is guiding preparation of a second-phase corridor risk analysis model that will benefit from improved density data supplied by participating freight railroads and that will utilize a refined accident data set that has been derived by an accident review team of the task force. In addition, this task force has prepared a survey of suppliers to determine characteristics of prospective PTC and similar systems, including systems now being developed and deployed. The task force will proceed to describe possible architectures for PTC and to evaluate the likely costs of systems and likely migration strategies.

VIRGINIA-PENNSYLVANIA PTS PROJECT

Question. The conferees directed the FRA to proceed under previously negotiated cost-sharing agreements with the second phase of the Manassas, Virginia, to Harrisburg, Pennsylvania pilot project which was intended to develop Positive Train Separation (PTS). Please discuss how this project is interoperable and cost-effective. What is the status of this project and what contracts have been signed?

Answer. In fiscal year 1997, FRA provided a grant of $500,000 to Conrail (on behalf of themselves, CSX, and Norfolk Southern) for the definition and design of an interoperable on-board locomotive positive train control (PTC) platform. The railroads awarded a contract to Rockwell for this work. The results were presented to the railroads and the railroad supply community on December 3, 1997. FRA has processed Norfolk Southern's grant application for $1,000,000 (on behalf of themselves, CSX, and Conrail) for the second phase of the project which is to develop two prototypes of an on-board locomotive PTC platform; one platform for each of the two separate vendors' communication bus. The prototypes will consist of a communication bus, core modules, and emulations of non-core modules required to simulate the core modules. The prototypes will be developed around the platform and message set specifications that were a product of the fiscal year 1997 activities. Testing of the prototypes on the Manassas-Harrisburg corridor is scheduled to take place in fiscal year 2000. Should train control system suppliers decide to adopt the standard communication bus developed in this program, and should railroads procure against the standard, interoperability will have been enhanced and PTC implementation costs will be reduced.

STATUS OF MICHIGAN TRAIN CONTROL PROJECT

Question. What is the status of the Michigan incremental train control (ITCS) high-speed passenger rail demonstration project? What will be the future federal involvement in this project?

Answer. Revenue service for the system has been delayed by technical challenges revealed in the initial system testing. These challenges include the need to correct unanticipated radio interference between wayside radio base stations and the need to establish an independent differential global positioning (DGPS) reference system. The U.S. Coast Guard DGPS network does not yet cover the demonstration territory. In addition, planned functions, such as the advance starting of grade crossing warning systems, required almost continuous exchange of digital radio communication from the locomotive to the crossing rather than a one-time exchange. These findings have required revisions to the safety system software. However, the wayside hardware installation is nearing completion on the entire 80-mile segment and changes to resolve the technical challenges are well underway so that revenue service trains can begin to use this system.

The Federal role in the existing project is to support the development and demonstration of new technologies which make high-speed passenger service significantly more practical and cost effective for the states. The ITCS technology, which is now under test, follows Michigan's original proposal—which dealt with an 80-mile segment of single-track railroad with very limited operational complexity. To be widely applicable, the ITCS technology would need to handle operations on multiple-track territory with complex operating scenarios, such as exist on the Kalamazoo to Detroit section of the Michigan corridor, as well as adapt the existing ITCS approach to provide maximum interoperability with other systems as the joint FRA/AAR/Illinois project proceeds. Federal involvement in advancing the technology to accomplish these objectives on a demonstration territory would be appropriate.

BNSF/UP PTS DEMONSTRATION PROJECT

Question. Please update the Committee on the Union Pacific/Burlington Northern Santa Fe positive train separation joint pilot project in Washington and Oregon. What has been the total cost of this project? What were the funding sources? Is the project complete? Will the PTS system developed in the pilot project be put into revenue service by either Union Pacific or BNSF? What concepts have been tested and proven in this project? Are these interoperable elements?

Answer. Proof-testing of the Positive Train Separation (PTS) system is continuing in the Pacific Northwest. Capabilities, which are essential for the successful implementation of both PTS and Positive Train Control (PTC) are being tested. These include: the ability to automatically locate the train; the ability to precisely predict train braking performance in the event an automatic brake application becomes necessary, and the ability to deliver the necessary quantity and reliability of digital communications between the train and the control centers. The next and final planned phase of PTS proof-testing is the validation of trains passing back and forth, at track speed, between the control centers and control networks of the two railroads. All of these capabilities are necessary to ultimately operate high-speed passenger service under PTS or PTC on lines of UP or BNSF.

In addition to the PTS testing, FRA, Association of American Railroads (AAR), the two railroads, and Oregon DOT are formulating a demonstration of advanced digital radio communications. These communications networks are needed to respond to Federal Communications Commission mandated improvements in the efficiency of radio spectrum usage, and will be a cornerstone in future communications-based train control systems. Completion of this demonstration, and other groundwork related to the ongoing PTS tests, will provide the Pacific Northwest Corridor a significant portion of the infrastructure necessary for implementation of a train control system.

Both UP and BNSF, as members of the AAR, are actively participating in the joint AAR-FRA-Illinois DOT train control project. This project is intended to achieve revenue service demonstration of full PTC including flexible block operation. The Illinois corridor between St. Louis and Chicago is an excellent initial testbed for these capabilities because it has a limited number of trains. Unlike the Pacific Northwest main line track, testing can be conducted without undue interference to large numbers of revenue freight trains.

A logical progression is to validate the advanced PTC concepts in Illinois, then return to the testbed in the Pacific Northwest to advance these systems to heavy traffic lines where benefits will accrue to both freight and passenger operations.

TRAIN CONTROL AND ITS TECHNOLOGIES

Question. What efforts have been made to link train control systems with ITS technologies? What contracts have been signed in this area? Please specify objectives and funding amounts of specific projects and indicate the status and progress to date.

Answer. The High-Speed Rail-IDEA Program, funded by FRA and managed by the Transportation Research Board (TRB), has identified seven technologies to help identify the approach of trains, detect obstacles at grade crossings and improve communications between the wayside and a moving train. FRA is hopeful that these promising technologies will continue to be developed and that additional ideas will be submitted to TRB in 1999. The Michigan Incremental Train Control System (ITCS) project incorporates a checking of grade-crossing status before granting a train authority to move across it at high speed. Long Island Railroad is testing GRS' ATLAS system which also incorporates knowledge of grade crossing status into communications-based train control. The Highway Rail Intersection User Service #30 has yet to be forwarded to the Standards Development Organizations by the ITS Joint Program Office. Once standards are developed by the Standards Development Organization's, FRA would anticipate that it would give concept developers more confidence to come forward with specific project proposals.

INSTALLATION OF POSITIVE TRAIN CONTROL SYSTEMS

Question. Please provide an update on what progress has been made by the railroads in installing positive train control systems. What has been done since last year, and how many of the major railroads have installed these systems? What new projects are planned for fiscal year 1999?

Answer. The following is a list of current and proposed positive train control activities:

Amtrak, Michigan.—Testing has continued on Harmon's Incremental Train Control System (ITCS) project with revenue service to begin in late 1998.

Amtrak, Northeast Corridor.—Advanced Civil Speed Enforcement System (ACSES) installation to be installed starting in 1998, with revenue service to begin in late 1999.

Union Pacific, Amtrak, AAR, Illinois.—Positive Train Control (PTC) project agreed upon for Chicago-St. Louis corridor. Hardware procurement will probably take place in 1999 for installation in 2000.

Union Pacific, Burlington Northern Santa Fe, Pacific northwest.—Testing of GE-Harris Positive Train Separation (PTS) system continues. Project should be completed in late 1998.

CSX.—Contracted with Rockwell for PTC installation on Spartanburg-Augusta line. Project schedule not known.

New Jersey Transit.—Installing Automatic Train Control (ATC) on their system in 1998 and 1999.

Long Island Railroad.—Testing GRS' ATLAS system including grade crossing warnings.

Conrail/CSX/Norfolk Southern.—Developing locomotive on-board wiring harness for PTC interoperability. Rockwell awarded contract for developing specifications.

Alaska Railroad.—Awarded contract to GE-Harris for PTC implementation. Communications and dispatcher hardware being installed in 1998. Locomotive hardware scheduled for 1999.

ILLINOIS POSITIVE TRAIN CONTROL PROJECT

Question. Please describe in detail the purpose, scope, methodology, and affected parties of the Illinois positive train control project.

Answer. At the request of Union Pacific Railroad senior management, the Association of American Railroads (AAR) Board of Directors agreed to participate jointly with FRA and Illinois DOT (IDOT) in the Illinois train control project.

The purpose of this project is to:

(1) Develop, install, and demonstrate an advanced, communications-based train control system which will provide capability for both high speed passenger operations and flexible block passenger and freight operations on a corridor segment in Illinois;

(2) Provide a mechanism for the railroad industry to deal with interoperability issues associated with having different train control systems operating on locomotives moving throughout the North American railroad network, and

(3) Provide these features using an "open architecture" approach which fosters participation by multiple technology suppliers.

The proposed train control system will provide flexible block revenue-service operation for both passenger and freight trains on a 123-mile segment north toward Chicago from Springfield, with control from Union Pacific's Harriman Center at Omaha. This will allow passenger train operation at up to 125 mph (if corridor improvements in track and grade crossing protection are made.)

FRA, AAR, and IDOT are finalizing a memorandum of understanding to establish a joint program office at the Transportation Technology Center in Pueblo, CO. This office will be run by AAR's Transportation Technology Center, Inc. Mr. Robert Gallamore, of Union Pacific has accepted assignment as the full-time program manager.

Upgrades of signal and control equipment, and establishment of digital radio communication networks will begin shortly on the demonstration corridor. Over the next two to three months, the joint program office will develop a detailed program plan outlining milestones, completion dates, and cost estimates, with a goal of developing flexible block system within four years. Safety verification and validation of system software will be major funding and time—consuming task.

In addition to installing the demonstration system in Illinois, the joint program office will address major national train control implementation issues such as interoperability of various systems and the need for open architecture solutions for train control systems. Open competition among potential suppliers is a stated goal of this project.

FRA estimates that approximately $60 million over four years is needed to complete this project. FRA and IDOT have identified $15 million of public funds presently available, and the AAR has committed $20 million. Cost sharing from suppliers will be a major criterion in competitive selections, which will help offset the balance of funds needed.

ILLINOIS POSITIVE TRAIN CONTROL PROJECT

Question. Why is there no fiscal year 1999 funding request to support the Illinois project?

Answer. FRA did not request funding in fiscal year 1999 as prior year funding was adequate to continue work through fiscal year 1999.

FRA and the state of Illinois DOT (IDOT) presently have about $15 million of public funds available for this project, to be added to the $20 million committed by the Association of American Railroads. One major precept of the joint effort already agreed is that program procurements will be competitive, based on the principles of open architecture, and cost shared to the maximum possible extent by supplier organizations.

FISCAL YEAR 1999 FUNDING—ILLINOIS PTC PROJECT

Question. Will there be sufficient funds during fiscal year 1999 to cost-share with industry in the new Illinois project? Please specify unobligated federal funds that are available to support this project. What are the sources of these unobligated balances?

Answer. FRA and the state of Illinois DOT (IDOT) presently have about $15 million of public funds available for this project, to be added to the $20 million committed by the Association of American Railroads. This is sufficient funding for fiscal year 1999 work. One major precept of the joint effort already agreed is that program procurements will be competitive, based on the principles of open architecture, and cost shared to the maximum possible extent by supplier organizations. There are no unobligated balances available for this project.

FUTURE FUNDING FOR ILLINOIS PTC PROJECT

Question. Please provide an estimate of project costs for fiscal year 1998, 1999, 2000, and the out years. Please delineate the costs among the federal funds, industry share, and the State of Illinois.

Answer. The information follows:

ILLINOIS TRAIN POSITIVE TRAIN CONTROL PROJECTED COSTS

Cost	Fiscal year—			Out years
	1998	1999	2000	
Federal	$2,225,000	.....	(1)	(1)
State of Illinois	.....	.....	(1)	(1)
Industry	5,000,000	$5,000,000	$5,000,000	$5,000,000
Total	.....	.....	.....	.....

[1] Will be determined based on a project business plan being prepared by the project joint program office and is subject to review and change.

COORDINATION OF PTCS BETWEEN EASTERN AND WESTERN RAILROADS

Question. How will FRA help facilitate PTCS connectivity between eastern and western railroads?

Answer. A key objective of the overall joint Illinois effort is to foster such connectivity by making all proposed systems interoperable to the greatest possible extent. Also, as part of the initiation of the joint project in Illinois, the western railroads have agreed to implement a communications bus approach aboard each locomotive, as originally advocated by the three eastern railroads and being developed jointly with FRA support in the Harrisburg-Hagerstown-Manassas corridor.

ILLINOIS PROJECT—BENEFIT TO NON-SIGNALIZED LINES

Question. How will the Illinois project benefit non-signalized rail lines?

Answer. The communications-based approach can interface with existing signal systems but can be implemented whether or not wayside signals presently exist on any given line. The core technologies of automatic location, digital radio links, onboard computers, and onboard route databases do not rely on the presence of a wayside signal system, although some implementations of communications-based systems do rely on the information available from the existing signals. Systems can

readily be designed to utilize the core elements as "building blocks" to address the needs of territory where signals are not installed.

DGPS AND ILLINOIS TRAIN CONTROL PROJECT

Question. What role will the installation of a nationwide differential global positioning system play in the success of the Illinois positive train control project? Does the State of Illinois have DGPS coverage at this time?

Answer. The rail line on which the Illinois PTC project will be demonstrated already has coverage from the Coast Guard's Maritime DGPS system. The installation of nationwide DGPS will enhance the strength and effectiveness of the DGPS signal available to the Illinois PTC demonstration and thus makes a positive contribution to the success of this project.

ALASKA POSITIVE TRAIN CONTROL PROJECT

Question. What is the status of the Alaska Railroad positive train control demonstration project? Please provide a schedule of project benchmarks and funding history, breaking out funding by federal, Alaska Railroad, and other funding sources.

Answer. FRA provided $4 million to the Alaska Railroad in 1997 to fund the first phase of their positive train control project. To our knowledge, the Alaska Railroad has not received or spent funds from any other source on the project. They will be receiving funds from the Taxpayer Relief Act in 1998 which could be spent on the project.

In the first quarter, 1997, the Alaska Railroad completed site surveys for their communications infrastructure and issued an RFP for train control system hardware and software. In the second quarter, 1997, they evaluated proposals and signed a contract with Train Track Computer Systems for a computer-aided dispatch system. They also awarded a contract to GE-Harris to perform a communications radio frequency and GPS survey.

In the third quarter, 1997, GE-Harris took over responsibility from Train Track for the computer-aided dispatch system. Equipment for voice radio upgrade was received. Digital microwave radios and antennas were installed at six locations. In the fourth quarter, 1997, installation of microwave equipment continued along with voice radio equipment. Work on the computer-aided dispatch system continued, with a completion date set at the end of 1998.

FISCAL YEARS 1998–99 FUNDING FOR ALASKA POSITIVE TRAIN CONTROL PROJECT

Question. What funding for the Alaska Railroad positive train control project did FRA ask of OST and OMB for fiscal year 1998? For fiscal year 1999?

Answer. FRA requested no funds for the Alaska Railroad positive train control project in fiscal year 1998 or fiscal year 1999. In 1997, the enactment of the Taxpayers Relief Act and of Amtrak Reform legislation provided approximated $23 million to the Alaska Railroad for capital projects including their positive train control project. The railroad will receive half of those funds in 1998 and half in 1999.

INDUSTRY BENEFITS OF ALASKA POSITIVE TRAIN CONTROL PROJECT

Question. Please detail the potential benefits to the railroad industry of the Alaska Railroad positive train control project. Are there specific advantages to developing a system from the ground up, rather than developing a system that overlays an existing signaling network? What technical issues that have interoperability implications might the Alaska Railroad positive train control project address?

Answer. The Alaska Railroad's PTC project will be the first complete implementation of PTC on any railroad. It will enable other railroads to see first-hand how it works. It is somewhat simpler and less expensive to install PTC on a railroad, like the Alaska Railroad, which has no signal system in place; fewer interfaces are required with existing electrical and electronic equipment. However, the logic of PTC on the Alaska Railroad would be no different from the logic of PTC on a major railroad in the lower 48 states that carry much heavier traffic on signaled track. Half of the railroad track in the US is without signals, and consequently the Alaska Railroad project could be viewed as a prototype for installations on such "dark territory."

Interoperability issues are nonexistent for the Alaska Railroad since it interchanges traffic with other railroads only by rail-barge operations across the Gulf of Alaska. However, if other railroads elect to install PTC using the same specifications as that on the Alaska Railroad, which they might do once they see it in operation in Alaska, they will automatically achieve interoperability with one another.

PTC interoperability is primarily a management decision issue rather than a technical issue. If railroads can agree on common specifications for communications and

positioning systems, interoperability is automatically achieved. If they cannot reach agreement on common specifications for communications and positioning systems, then the simplest way of achieving interoperability is to install the equipment of the different PTC systems on those locomotives that will be running through. If the manufacturers of different PTC systems were to openly publish their data representations and protocols, it would be possible, in principle, for PTC suppliers to configure their on-board computers to accommodate communications from control systems other than their own. Without either common specifications, or open publication of protocols, separate suites of equipment would be needed on-board a train for it to operate on multiple territories.

INTEGRATION OF NDGPS WITH PTC EFFORTS

Question. How will the NDGPS Program be integrated with positive train control efforts already underway?

Answer. NDGPS will provide a standard nationwide location, positioning, and navigation system, with redundant coverage to provide 99.999 percent availability to the continental United States and Alaska. This system will integrate with all positive train control (PTC) projects already underway, in that it will help solve one of two requirements for PTC interoperability, namely the need for a common positioning and navigation system for locomotives to operate on railroads anywhere in the nation. The other requirement is for a common message format and common radio frequencies.

USER FEES FOR NDGPS

Question. On page 105, you state that future operational funding for the NDGPS system will come through fees on users or manufacturers of equipment. What is the legislative basis or authority for such fees? Who would impose such fees?

Answer. There is currently no legislative basis or authority for such user fees. The Department of Transportation intends to establish a user fee policy for all users of GPS and DGPS. The precise mechanisms for accomplishing this are yet to be determined.

DOT FUNDING ALLOCATION FOR NDGPS

Question. What is the empirical basis for the allocation between the FRA request and the FHWA request for DGPS? How will each agency benefit from the installation of NDGPS transmitters, in fiscal year 1999, and in the future? Who will be the lead agency in administering the program?

Answer. The allocation was based on the fact that benefits that would accrue to rail and highway users. The railroad industry, and its customers, will benefit from the installation of NDGPS because it is an important enabling technology for positive train control, which, in turn, has the ability to make railroads both safer and more efficient. FRA itself will use NDGPS to improve the accuracy and efficiency of its Automated Track Inspection Program and to develop a more accurate railroad network model needed for analytic purposes. Because of the need of the railroad industry for a nationally-consistent positioning system and because of desires to have an interoperable PTC system installed by the nation's railroads, FRA is serving as the lead agency in proposing the expansion of the existing Coast Guard Maritime Differential GPS network (which is currently limited to coastal and navigable waterways) to become a truly nationwide system to support the nation's intermodal transportation system. The Coast Guard will serve as the lead agency for installing, operating, and maintaining the Nationwide DGPS network. The fiscal year 1999 funding is for the second year of a five-year program to complete the Nationwide Differential GPS network. It is difficult to allocate benefits to FRA and FHWA on a year-to-year basis during the implementation period.

FISCAL YEAR 1999 FUNDING FOR PTC

Question. On page 10 of your justification, you state that $600,000 of the NDGPS funding will support PTC initiatives. Doesn't the entire NDGPS request support positive train control? Please break out in specific detail the use of these requested funds.

Answer. The designation of $600,000 to support PTC initiatives was a technical error which was subsequently corrected. In fact, all funding in the request is now directed to NDGPS, and that entire request does support positive train control.

FUTURE COSTS OF NDGPS SYSTEM

Question. What are the future costs of the NDGPS system? Please provide a 5-year schedule of benchmarks, anticipated costs, and anticipated funding sources.

Answer. Under our current estimate, total installation costs will be $30.3 million, including $7.2 million for fiscal year 2000, $7.9 million for fiscal year 2001, and $7.4 million for fiscal year 2002, at which point installation will be complete. In addition to installation costs, FRA estimates operation and maintenance costs of $3.2 million in fiscal year 2000, $4.3 million in fiscal year 2001, and $5.2 million in fiscal year 2002 and each subsequent year. The fiscal year 1999 President's Budget proposes that future capital funding come from all federal agencies whose programs will benefit from the new technology. The President's Budget also proposes that future operational costs be supported through fees on users or manufacturers of equipment.

SEPARATE ACCOUNT FOR NDGPS

Question. What was the rationale behind the decision to create a new account structure for this funding, and to split it between two DOT agencies? Why not include this within FRA's existing Next Generation High-Speed Rail account or Railroad Research and Development account?

Answer. FRA decided to create a new account structure for NDGPS funding because the funding did not fit well within existing accounts. The Next Generation High-Speed Rail program is aimed at demonstrations to foster high-speed passenger service on corridors throughout the country, and the Railroad Research and Development program is aimed at research to improve railroad safety. The NDGPS program is aimed at freight as well as passenger service, and is a deployment program rather than a research or demonstration program. The decision to split funding between two DOT agencies was made because the constituencies of both agencies would receive benefits from the NDGPS program.

STATUS OF GRADE CROSSING HAZARD MITIGATION/INNOVATION TECHNOLOGIES

Question. Regarding the development of grade crossing hazard mitigation technologies, please prepare a table indicating separately the status, problems, and challenges, along with the fiscal year 1997, fiscal year 1998 and planned fiscal year 1999 FRA investments for each major project in this program.

Answer. The information is contained in the following tables.

GRADE CROSSING HAZARD MITIGATION TECHNOLOGIES

	Fiscal year—		
	1997	1998	1999 (planned)
Sealed Corridor	$2,000,000	$2,000,000	$400,000
Mitigating Hazards	1,100,000	2,500,000	2,500,000
Low Cost HSR Crossing	1,899,882	1,100,000	1,100,000

GRADE CROSSING HAZARD MITIGATION TECHNOLOGIES

	Status	Problems and challenges
Sealed Corridor	Construction is underway. Tests of long gate arms and articulated gate arms are complete.	The Master Agreement between the Norfolk Southern Railroad and NCDOT governing crossing work was signed April 6, 1998. Significant construction is planned for this summer and fall.
Locked Gate at Private Crossing	Project awarded to NYSDOT under BAA in 1997.	Adequate funding. No significant issues at this time.

GRADE CROSSING HAZARD MITIGATION TECHNOLOGIES—Continued

	Status	Problems and challenges
Broad Agency Announcement	Additional projects are planned for award in fiscal year 1998.	

STATUS OF ARRESTOR NET PROJECT

Question. What is the status of the arrestor net project? What has this project accomplished?

Answer. The manufacture, crash testing, installation and pre-demonstration field testing of the vehicle arrestor barrier nets (VAB) is complete. Video cameras have been installed to monitor the motion of the arrestor nests as well as record any impacts or attempted violations. Three data transmissions lines are being installed to transmit the video data. Public education through outreach meetings and public service announcements is underway. Bid openings for the maintenance contract is scheduled for April 7, 1998.

The demonstration is scheduled to begin May 1, 1998 following opening ceremonies with the Governor of Illinois to publicize the project. To date, approximately $3.4 million of the state's Section 1010 funds allocation has been devoted to the development and demonstration of this project.

The three locations for the demonstration are:

1. Trunk Rte 35A, near Chenoa, (UP, mp 105.93) #290786R
2. US Route 136, McLean, (UP, mp 141.2) #290964A
3. Hawthorne St., Hartford, (Gateway Western Railway and UP, UP MP 264.85), #FAU 8975.

The University of Illinois has been retained to conduct the technical and human factors evaluations of the barriers. Preliminary surveys of driver perceptions at these crossings have been conducted, and additional surveys will be conducted as the barriers are demonstrated for the 18 months.

STATUS OF SEALED CORRIDOR PROJECT

Question. What is the status of the sealed corridor project? How is this project managed? What are the initial results? How much do you expect to allocate to the sealed corridor project during fiscal year 1999? What is the next technological step to advance this project during fiscal year 1999 and what would this cost?

Answer. The goal of the Sealed Corridor Initiative (SCI) is to improve safety at the 131 crossings in the 92-mile Charlotte to Greensboro segment of North Carolina's high-speed rail corridor between Charlotte and Raleigh (total length 174 miles with 170 public and 60 private crossings). It builds upon the demonstrations of median barriers, four quadrant gates, and finally four quadrant gates with median barriers conducted at Sugar Creek Road in Charlotte from November, 1994 through November, 1996. The SCI is funded by both the Section 1010 Program of ISTEA and the Next Generation High-Speed Rail Program (NGHSR).

Accomplishments to Date

Four-quadrant gates have been installed at 3 locations (Sugar Creek Road and Craighead Road in Charlotte, and Hilltop Road in Greensboro). One gate will be installed at Blue Ridge Road in Raleigh and construction should be finished by October, 1998. (17 are planned)

Long gate arms have been tested at Orr Road in Charlotte (51 are planned) with a resulting decrease in violations by 67 percent. An articulated gate has also been tested with a 78 percent reduction in traffic violations recorded.

The Video Ticketing project in Salisbury has begun.

Median barriers have been installed at 1 location and will be installed at 18 crossings this spring and summer (22 are planned).

Intelligent Signal Monitoring system hardware (health monitoring of grade crossing equipment which communicates with maintenance offices) is being tested to settle on a final design (Harmon, Safetran and Devtronics equipment is under test).

12 crossings have been closed (4 private) so far, with plans to close an additional 7 crossings in the next 6 months. Seven Traffic Separation studies are underway to identify additional crossings eligible for closure (perhaps as many as 13).

Funding and Management

The grant is managed through the NGHSR Program. Project management is provided by the North Carolina DOT, working with the Norfolk Southern Railroad. Total cost of the Sealed Corridor Initiative for the 92-mile Charlotte to Greensboro segment is estimated to be $5.1 million. To date, $2.75 million has been provided from FRA's NGHSR program. An additional $2.5 million has been provided under ISTEA Section 1010, which has paid for the treatment of crossings in the corridor and also funded the initial demonstration at Sugar Creek Road and the corridor-wide (Charlotte-Raleigh) inventory of crossings.

An additional $280,000 in Section 1010 funds allocated in fiscal year 1998 will equip two grade crossings in Greensboro with 4-quadrant gates. Also, an award of $2 million in fiscal year 1998 funds will enable the Sealed Corridor Initiative to expand eastward beyond Greensboro, treating the crossings between Greensboro and Burlington in a similar manner. The State is providing an approximate 20 percent match to the Federal funds. Estimates for completion of the Sealed Corridor between Burlington through Durham to Raleigh is roughly $5 to 6 million. FRA has included $400,000 in its fiscal year 1999 request for this initiative.

Next Technical Step to Advance this Project

There has been a delay in implementing some of the crossing improvement projects due to failure of the State and Norfolk Southern Railroad to complete the master agreement on the Sealed Corridor. There are several reasons for this: NS preparations for acquiring part of Conrail has diverted company resources, NS negotiations with the North Carolina Railroad, and the lawsuit by the private shareholders. The private shareholders were bought out as of April 1, 1998, and the final details of the master agreement have been settled. The Master Agreement was signed April 6, 1998. There should now be no technical obstacles to inhibit the NCDOT and NS from proceeding to complete the Sealed Corridor projects.

HSR TRACK AND STRUCTURES FUNDING

Question. Regarding the development of high-speed rail track and structure technologies, please prepare a table indicating separately the status, problems, and challenges, along with the fiscal year 1997, fiscal year 1998, and planned fiscal year 1999 FRA investments. Please include information on each major FRA project in this program.

Answer. The information is contained in the following table.

TRACK AND STRUCTURES FUNDING

	Fiscal year—		
	1997	1998	1999 (planned)
Track and Structures (State of Oregon)	$5,650,000	.....	.....
Track and Structures (other States)	850,000	$1,200,000	$1,200,000
Total	6,500,000	1,200,000	1,200,000

TRACK AND STRUCTURES STATUS AND ISSUES

	Status	Problems and challenges
Eugene-Portland Corridor track upgrade	Grant awarded, project underway.	No significant issues at this time.
Advanced HS Rail Vehicle and Track Monitoring System.	Prototype successfully tested, in-service demonstration in near future.	No significant issues at this time.
Evaluation and Demonstration of Techniques to Assure Subgrade Performance for High-Speed Track.	Project began early CY 1998.	No significant issues at this time.
Demonstration of HS Track maintenance Using Objective Gage Strength Data.	Project underway, initial results promising.	No significant issues at this time.

TRACK AND STRUCTURES STATUS AND ISSUES—Continued

	Status	Problems and challenges
Broad Agency Announcement to solicit additional proposals in this technology area.	To be issued Spring 1998	No significant issues at this time.

TIME LINES FOR HSR CORRIDOR PROJECTS

Question. Please list separately the time lines for completion of each of the high-speed rail corridor projects now underway, and the estimated amount of Federal funds that will be needed to assure completion. How has the FRA incorporated cost-sharing into each of these program areas? Please quantify cost-sharing for each project.

Answer. The figures stated below on actual and planned expenditures are based on best estimates provided by State officials. FRA planning grants require a $1 non-federal contribution for each federal dollar awarded (50 percent/50 percent). As can be seen in the following corridor summaries, several states have provided more than the required 50 percent non-federal share.

Florida

The State of Florida has spent about $34 million on corridor improvements for high-speed rail within the state. The State also purchased a portion of its designated high-speed corridor between Miami and West Palm Beach for $361 million including interest and established commuter service on the line.

The State awarded a franchise to the Florida Overland Express (FOX) group to design, build, operate and maintain a 200 mph electrified system based on the French TGV on the 320 mile corridor between Orlando, Tampa and Miami. The system would cost about $6 billion and the State is developing its financing plan for this project. FRA is providing $100,000 to assist the state in preparing the project environmental impact statement (EIS). The state is contributing the balance of $7,256,000 to complete the EIS.

Washington, DC to Richmond, VA. And on to Tidewater and Charlotte, NC

Virginia

The State of Virginia has spent $52 million and is planning to spend $50 million in the next two years on the Washington to Richmond corridor, its highest priority, for improvements to the line for the Virginia Railway Express commuter service and high-speed rail.

The State of Virginia has begun an environmental assessment of the Washington to Richmond corridor. Initially, the plan calls for a non-electrified upgrade of the 110 mile corridor which extends the Northeast corridor from Washington to Richmond. It assumes that speeds will be increased to 110 mph. Reducing travel times about 25 percent should provide that needed incentive to handle current traffic problems and projected vehicular traffic on US 95 and other parallel highways. Total travel time by rail would be reduced to 90 minutes and trains would run hourly by the completion of the project in 2014. A High-Speed Rail Commission was formed to evaluate the study and make recommendations to the legislature. The plan consists of six stages:

Estimated capital costs by stage

Stage	*Capitol cost*
1	$150,000
2	4,850,000
3	8,734,000
4	147,500,000
5	52,440,000
6	120,200,000
Total	327,000,000

The state has a major investment study underway of the Richmond to Tidewater area in which various rail options are being investigated. The study is expected to be completed in June 1998. The state is also expected to perform an analysis for rail passenger service from Richmond to Bristol, Virginia which will begin in 1998. FRA has provided the state a total of $285,000 in planning funds to conduct sig-

nalization studies on the Richmond-Washington corridor. The funds have been matched by the state.

North Carolina

The State of North Carolina has expended $31.2 million, including equipment, and is planning to spend $85 million in the next two years in the Raleigh to Charlotte corridor.

The State has developed a "sealed corridor initiative" for the Greensboro to Charlotte portion of the high-speed corridor from Raleigh to Charlotte. The purpose of the initiative is to increase safety and to develop a data base for appropriate treatment of crossings for the entire corridor. The Charlotte to Greensboro segment (92 miles) has 99 public and 32 private crossings. The entire Raleigh to Charlotte corridor (174 miles) has 170 public and 60 private crossings The work includes (1) installation of grade crossing monitoring and data collection devices; (2) innovative grade crossing devices at public at-grade crossings; (3) video enforcement of warning devices at crossings; (4) studies and interviews to determine behavioral aspects and demographics of violators; (5) traffic separation studies to determine crossing consolidation opportunities; (6) and innovative warning devices at private crossings. The Charlotte to Greensboro segment effort is expected to cost about $5.1 million. This experiment will be valuable to the FRA as it works with other developing corridors across the country.

Virginia and North Carolina have completed a high-speed study for the Washington, DC to Charlotte corridor. The cost to upgrade to 110 mph service for the Washington, DC to Richmond segment is estimated at $327 million, from Richmond to Raleigh about $320 million, and from Raleigh to Charlotte $415 million. FRA provided a $200,000 planning grant to conduct an environmental assessment of the Charlotte to Washington, DC corridor. The state over-matched this grant with $300,000 of its own funds.

California

Nearly $670 million has been spent or committed to date for equipment and to upgrade the San Diego-Los Angeles-Oakland and Sacramento corridor. A major study by the California Intercity High-Speed Rail Commission (Commission) evaluated the feasibility of implementing an HSR system in the State and their final report was submitted to the Governor and Legislature in December 1996. The cost of the 676-mile system linking the San Francisco Bay Area, the Central Valley, Los Angeles and San Diego route is expected to be between $21 billion for a Very High-Speed (200 mph) system and $29 billion for a magnetic levitation (Maglev) system. The level of future investments will depend on legislative action and voter response to new bond referenda.

The State has created and staffed a High-Speed Rail Authority (Authority) to build support for the plans and to take the proposal to the voters by the year 2000. The Authority is now seeking bids for a contractor to assist in this process. FRA provided $100,000 for additional study of the Los Angeles-San Diego HSR corridor. The state over-matched this amount with $200,000.

New York

The State of New York has expended $289.2 million and is planning to spend an additional $169.9 million on incrementally improving the 160 mile New York to Schenectady line for 125 mph service on existing right of way and, in the longer term, improving the line west of Schenectady to Buffalo/Niagara Falls. A three year rail improvement plan for New York to Schenectady calls for a total investment of $146 million and will employ non-electric diesel or turbine locomotives. Some $30.5 million is available for New York to Schenectady upgrades. The line from Schenectady to Niagara Falls will cost an additional $145 million of which $5.7 million is available. The state is particularly interested in identifying those sections of the highly congested freight corridor where relatively modest investments in new track may make a significant improvement in train operating performance. A grade crossing protection plan is also being instituted in the corridor. Congress appropriated a total of $10 million of Federal funds for reconstructing the RTL trainsets in fiscal year 1996–1998. NYSDOT will provide $10 million of matching funds for a total of $20 million. NYSDOT has developed a preliminary budget of $50 million for the non-recurring engineering costs and reconstruction of all seven trainsets.

New York-Boston

Between New York City and Boston, the north end of the Northeast corridor, Amtrak will provide 150 mph service and travel time will be cut from the current average trip time of 4:45 hours to 3 hour service after the New Haven, CT/Boston, MA segment is electrified and 18 new trainsets begin to be deployed in late 1999. The

cost of electrification and track upgrades is about $1.5 billion. Between fiscal years 1991 and 1998, Congress has appropriated $940 million for improvements to the north end.

The trainsets are expected to cost $754 million and the Congress has appropriated $185 million through fiscal year 1996. Additional funds have been raised through borrowing. The first trainset is scheduled to be delivered for testing at the Pueblo facility in January 1999.

Pacific Northwest Corridor: Eugene, Portland, Seattle, to Vancouver, B.C.

Washington

The State of Washington has spent $60.1 million and planning to spend $46 million in the next two years to make track improvements to Washington's portion of the corridor. Additional funding may become available through a November 1998 ballot initiative.

The State will take delivery of two custom built TALGO trains in late 1998 and Amtrak will also add a similar TALGO train this year. Amtrak has also optioned for a second TALGO to be built for use in the Eugene, Portland, Seattle to Vancouver corridor.

In 1996, FRA made a grant of $750 thousand to Washington to coordinate high-speed rail requirements with the Positive Train Separation (PTS) prototype being developed jointly by Burlington Northern/Sante Fe (BNSF) and Union Pacific (UP) railroads in Washington and Oregon. PTS will use digital radios and computers on board each locomotive to automatically enforce safe operation. Mostly at their own expense, BNSF and UP plan to continue installing and testing the prototype system for freight operations that was begun in the fall of 1996. The FRA grant provides resources to assure that early PTS design can be upgraded in the future for high-speed passenger operations. FRA provided $170,000 to conduct an environmental impact study (EIS) of the HSR corridor between Vancouver, WA and Blaine, WA. The state contributed the balance of the project cost of $636,000.

Oregon

The State of Oregon has spent $2.9 million on upgrading the Pacific Northwest Corridor. Oregon together with FRA, the Burlington Northern/Sante Fe and Union Pacific railroads are working to further develop the BNSF/UP Positive Train Separation system to permit high-speed passenger service on the Eugene-Portland-Seattle-Vancouver, B.C. corridor. A portion of the $5 million funded project would purchase necessary wayside sensors and radios for 12 miles of heavily congested double track in downtown Portland that is presently signaled for one way operation. This installation will permit assessment of the reliability of the PTS communications links in the area where dense railroad and commercial radio traffic is present. In cooperation with the Coast Guard and Army Corps of Engineers, the state of Oregon and the FRA have established differential global positioning system (DGPS) coverage in the area of the Columbia River valley to confirm the adequacy of DGPS for train control purposes in areas of very rugged terrain.

In 1997, the state received an additional $5.2 million for track work in the Portland Terminal area, which joins an earlier grant for $1 million for track work at the Portland Terminal. FRA provided $120,000 in planning funds which the state matched in order to complete a programmatic environmental impact statement of the Oregon portion of the HSR corridor.

The States of Washington and Oregon, together with British Columbia, have completed a planning report and are now performing an environmental impact study on the Eugene-Portland-Seattle-Vancouver, B.C. project corridor. The plan calls for a non-electrified upgrade of the 466 mile rail corridor that assumes maximum operating speeds of 125 mph. The plan consists of four phases (5 years each) and is estimated to cost $1.82 billion.

MID-WEST HIGH-SPEED RAIL CORRIDOR ACTIVITY

Nine State Midwest Regional System Study

The Wisconsin Department of Transportation (WISDOT) is developing a blueprint/business plan for preserving, improving and expanding rail passenger services (including high-speed rail) within the Midwest region. This would, in effect, be an expansion of the Chicago Hub corridor as designated under ISTEA Section 1010 and studied in FRA's commercial feasibility study (CFS). The study sponsors and the amount of their contribution include FRA , ($200,000), Amtrak, ($200,000), and the states of Illinois ($20,000), Iowa ($20,000), Michigan ($50,000), Missouri ($40,000), Wisconsin ($50,000), Minnesota ($30,000), Indiana ($20,000), Nebraska ($8,500), and Ohio ($50,000).

Preliminary study results indicate that a regional rail system operating over existing trackage is feasible. The system would have a benefit to cost ratio of 1.9, have an overall operating ratio of 1.36 or cover its operating costs and recover the State share of capital costs. The system would operate at speeds up to 110 mph and would use diesel multiple unit equipment. Capital costs are estimated at $3.5 billion over the six years required to rebuild current trackage. The system would provide a competitive system with much improved travel times, frequencies and fares. It would also be comparable to air in comfort and convenience for medium distance trips. The states are now seeking project endorsement and funding commitments to advance project planning and implementation.

Michigan

The State of Michigan has expended to date a total of $53.6 million in track signals, stations and equipment on the Chicago to Detroit designated high speed corridor. The state is planning to spend an additional $16.9 million through 1998.

The State of Michigan together with Amtrak has developed a three phase, 32 segment plan of incremental improvements from Chicago to Detroit. Amtrak service on the 279 mile line now takes about five and one-half hours and the highway trip takes about five hours. By the end of the project, Michigan plans for nine round trip frequencies, using 125 mph electric locomotives and a running time of three hours. Until electrified, the line would require diesel or turbine equipment operating at a maximum speed of 90 mph. Amtrak owns about one-third of the line and Conrail (Norfolk Southern) owns the remaining two thirds. A key component of the proposed plan is the acquisition of a series of abandoned or little used railroad rights of way in Northern Indiana that, when combined with the existing 97 miles of Amtrak owned line and the proposed purchase from Conrail of the segment from Kalamazoo to Ypsilanti, would create a continuous passenger train corridor of over 250 miles long that is suitable for upgrading to high speed service. The estimated capital costs for the upgrades for non-electric service including property acquisition are about $700 million. It is estimated to cost an additional $500 million to electrify the line.

FRA awarded the state a $6.08 million grant in 1995 under the Positive Train Control Development Program to install and demonstrate an incremental train control system in the Amtrak-owned 96-mile segment of its high-speed corridor between Kalamazoo, Michigan and Porter, Indiana. An additional $3 million was awarded in 1996. The system has been installed on the first 20-mile section of the 71-mile demonstration test track. A high-speed public demonstration of the system took place on October 11, 1996. Michigan and Amtrak have entered into an agreement to add an additional $1.6 million to the track rehabilitation work. High-speed 100 mph testing continues and the state anticipates revenue passenger service at 100 mph on the 20 mile segment by October 1998. FRA also provided a $118,695 grant that was overmatched with $170,805 to update ridership and revenue forecasts on the Detroit-Chicago HSR corridor.

Illinois

Through the end of fiscal year 1998 Illinois will have spent $64.5 million on the project. The Illinois Department of Transportation (IDOT) together with Amtrak has developed a plan for non-electric, 125 mph service using tilt suspension technology in the Chicago to St. Louis portion of the Midwest high-speed corridor. The proposed system would offer eight round trips per day between Chicago and St. Louis with downtown to downtown trip times of 3 to 3.5 hours for a two hour time savings. Four alignment options are being considered in the Chicago area in the environmental impact study. Two options go through Peotone based on a planned new airport being built there: (1) Chicago-Peotone-Wilmington, labeled the Green Grass alternative because it will require 20 miles of new track construction, and (2) Chicago-Peotone-Kankakee-Dwight, labeled the Conrail option because it uses Conrail trackage westward from Kankakee. The other two options go through Joliet using the (3) Illinois Central line, labeled the Illinois Central/Union Pacific route and (4) an abandoned Rock Island line, labeled the Rock Island District route. All options use the existing Union Pacific route southwestward from Dwight. Capital costs are in the $400 million range, not including station and grade crossing hazard elimination costs. Current lines would be upgraded over a three year period. Financing would come from a combination of revenue backed financing and public contributions. The entrance into St. Louis is being changed at Granite City, removing passenger trains from the heavily traveled freight lines and moving them southward over renovated tracks to the MacArthur Bridge. FRA provided a $300,000 matching grant to prepare the final environmental impact statement for the Chicago-St. Louis HSR corridor.

A joint innovative signaling project was established this year between the Federal Railroad Administration, Illinois DOT, Union Pacific Railroad and the American Association of Railroads and an agreement is being finalized. The American Association of Railroads will fund the project at $20 million over four years to match the $15 millions of public funding from FRA and Illinois DOT plus future contributions. The project will fund a revenue service demonstration of a satellite linked train control system using flexible blocks. The system will address issues of industry-wide interoperability and open architecture for train control systems.

Starting in the Spring, 1998, the state will demonstrate innovative vehicle arrestor net barriers at three locations to evaluate their effectiveness for improving the safety of crossings on the high-speed corridor.

Wisconsin

The State of Wisconsin has completed a high-speed rail evaluation study of the Chicago to Milwaukee corridor. Three existing rail alignments were examined and the study identified the current Amtrak route between Chicago and Milwaukee as the most favorable for high-speed non-electric service (the most favored cost option). By auto, it now takes from 90 to 120 minutes to travel from city center Milwaukee to Chicago depending on traffic and 87 minutes by train. By increasing train speed to 110 mph service would cut travel time to just under one hour. By increasing train speed to 125 mph, travel time would be cut to 51 minutes. Both plans would substantially reduce highway congestion on the heavily traveled route. Costs were estimated based on 12 round trips under the 110 mph scenario, and 16 round trips using the 125 mph speed. Under both scenarios, operating revenues would cover operating costs and there would be a positive contribution to capital costs. It would take approximately 3 years to complete the project which would begin in 1999 and service would then begin in 2002. Capital costs were estimated to be:

[1995 dollars in millions]

	2000	2001	2002	Total
Total Capital Costs—110 mph	$195.9	$177.4	$182.7	$556
Total Capital Costs—125 mph	273.4	270.5	278.7	822.6

Note: Includes, rolling stock, right of way acquisition, stations and maintenance facilities.

Minnesota

FRA has granted $200 thousand to the Minnesota Department of Transportation to complete phase II of the Tri-State High-Speed Rail Study between Minneapolis-St. Paul, Milwaukee and Chicago. Minnesota and Wisconsin matched the federal funding and the study is underway by TEMS, the contractor chosen by the states. Major tasks of the study are engineering and environmental analyses, including evaluations of routes, crossings, infrastructure needs, intermodal connections and potential station locations in the Twin-Cities-to-Chicago corridor. The report is expected to be completed in late 1998.

Louisiana, Mississippi, Alabama

The State of Louisiana, together with Mississippi and Alabama, completed a preliminary high-speed rail study for a "Deep South Corridor." The Department made a grant for $81 thousand in fiscal year 1997 to continue the preliminary feasibility work. The contractors performing the study are Frederick R. Harris and Morrison Knudsen and results are expected this summer.

PLANNING TECHNOLOGY

Question. What is FRA doing to help communities plan for high-speed rail development? How much was or will be spent for this purpose during fiscal year 1997, fiscal year 1998, and fiscal year 1999? Please respond separately for each year. Is it FRA's view that further federal coordination in these targeted high-speed rail corridors is no longer needed?

Answer. In fiscal year 1997, the last year in which funds were available, twelve State Departments of Transportation received funding from FRA's planning assistance. The table below provides a project description and other data including the amount of the non-federal share of grants awarded in fiscal year 1997. FRA has focused the grants primarily on State DOT's but have also funded a consortium of states in the southeast. Planning funds would be available under the reauthorized surface transportation program. No planning funds were requested in the budgets for fiscal years 1998 and 1999.

FISCAL YEAR 1997 NEXT GENERATION HIGH-SPEED RAIL CORRIDOR STUDIES PLANNING GRANTS (50–50 PERCENT MATCHING) BY STATE

State/project description	Amount of grand award	
	Federal	Non-Federal
California: Conduct additional technical planning along the Los Angeles-San Diego corridor	$100,000	$200,000
Florida: Conduct ridership and market studies for Miami-Orlando-Tampa HSGT corridor	100,000	7,256,000
Illinois: Complete environmental impact statement (EIS) for Chicago-St. Louis high-speed rail corridor	100,000	100,000
Michigan and Indiana: Update right-of-way improvements, ridership and revenue forecasts along the Detroit-Chicago HSGT corridor	118,695	118,695
Nevada: Evaluate Maglev feasibility in Las Vegas-Southern California corridor	[1] 170,000	170,000
North Carolina: Conduct Charlotte-Washington DC corridor environmental study	200,000	300,000
Southern Rapid Rail Commission (LA, MS, AL): Conduct phase II of the HSGT feasibility study of the deep south corridor	81,305	81,305
Virginia: Complete Southeast corridor rail signal system analysis	100,000	100,000
Washington: Conduct EIS and Reliability and Safety Improvement Study on Pacific Northwest Corridor	200,000	636,000
Totals	[2] 1,170,000	8,962,000

[1] Amount deobligated and reapportioned from earlier grant.
[2] Total includes $100,000 from R&D funds for Virginia.

FRA continues to believe that federal coordination in these high-speed rail corridors is necessary to ensure that high-speed rail policy continues to reflect the needs and requirements of the states active in high-speed rail. One of the ways in which FRA coordinates corridor efforts is by holding a meeting with states at the conclusion of the bi-annual meetings of the American Association of State Transportation and Highway Officials' (AASHTO) Standing Committee on Rail Transportation (SCORT).

STATUS OF EMERGENCY RAILROAD REHABILITATION AND REPAIR

Question. Public Law 105–18, the 1997 emergency supplemental for natural disasters and rescissions, provided $18,900,000 to repair and rebuild freight rail lines of regional and short-line railroads or state-owned railroads damaged by floods in South Dakota, North Dakota, Minnesota, and West Virginia. How much of these funds has been obligated to date?

Answer. The total $18.9 million was obligated in fiscal year 1997.

GRANT RECIPIENTS OF EMERGENCY SUPPLEMENTAL

Question. Please provide a list of the total damage claims by railroad, designated grant recipient, description of damage, and amount; and where applicable the amount awarded.

Answer. The designated grant recipients were the Department of Transportation for the States of Iowa, Minnesota, North Dakota, South Dakota, and West Virginia. The remaining information requested is included in the following chart. The following chart outlines their requests and funding:

DISTRIBUTION OF 1997 FLOOD REPAIR FUNDING

State/railroad	Damage type	Damage claim	Amount awarded
Iowa: I&M Rail	Link Retaining Wall Repair	$983,920	$983,920
	Preventative Measures	683,022	.....
Minnesota:			
Nobles Rock Railroad	Bridge Repair, Culvert Repair.	78,740	78,740

DISTRIBUTION OF 1997 FLOOD REPAIR FUNDING—Continued

State/railroad	Damage type	Damage claim	Amount awarded
Northern Plains Railroad	Surfacing	173,713	173,713
Minnesota Central Railroad	Bridge Repair, Culvert Repair.	395,688	395,688
Minnesota Northern Railroad	Crosstie & Ballast Replacement.	106,858	106,858
Red River Valley & Western Railroad.	Surfacing	29,821	29,821
Twin Cities & Western Railroad	Signal Repair, Bridge Repair, Culvert Repair, Erosion Repair.	509,746	509,746
	Preventative Measures to Stabilize Embankments.	614,660	.....
Dakota, Minnesota & Eastern Railroad.	Bridge Repair, Mud Slide Repair.	249,614	249,614
	Preventative Measures to Stabilize Subgrade.	1,532,001	.....
North Dakota:			
Red River Valley & Western Railroad.	Surfacing, Culvert Repair, Installation of Rip Rap.	1,105,692	1,105,692
	Freight Car Repair	43,000	.....
Northern Plains Railroad	Surfacing, Culvert Repair	951,316	951,316
	Installation of Rail, Ballast & Rip Rap.	5,620,571	4,057,162
Dakota, Missouri Valley & Western Railroad.	Culvert Repair, Installation of Ballast & Rip Rap.	1,864,885	1,614,885
South Dakota:			
State-owned Track	Installation of Rock Fill & Rip Rap.	4,931,000	4,931,000
	Bridge Repair, Mud Slide Repair.	1,250,000	.....
D&I Railroad	Bridge Repair, Installation of Ballast & Rip Rap.	271,208	271,208
	Billing Costs	13,560	.....
Sisseton Milbank Railroad	Surfacing, Installation of Crossties & Ballast.	550,942	457,742
Dakota Southern Railway	Surfacing, Installation of Ballast, Bank Stabilization.	453,571	387,571
Dakota, Minnesota and Eastern Railroad.	Bridge Repair, Culvert Repair, Installation of Ballast & Rip Rap, Mud Slide Repair.	2,186,124	1,695,324
West Virginia: South Branch Valley Railroad.	Bridge Repair	900,000	900,000
Total		25,499,652	18,900,000

NEED FOR SMALL RAILROAD CAPITAL ASSISTANCE

Question. Currently, there are no active federal loan programs for short line and regional railroad projects. The local rail freight assistance program is also now defunct, though there have been recent emergency supplemental appropriations for small railroads damaged in floods. Does the Administration think there is an appropriate role for Federal infrastructure financing, either through loan mechanisms or grants, for regional and short line railroads?

Answer. As reflected in NEXTEA, the Administration supports providing States the flexibility to finance infrastructure investments in publicly-owned rail freight facilities. States are in a much better position than the Federal Government to make transportation infrastructure investment decisions that meet their public needs.

SMALL RAILROAD CAPITAL ASSISTANCE IN PROPOSED NEXTEA LEGISLATION

Question. Please update the Committee on any House or Senate provisions in the pending NEXTEA legislation that would authorize capital financing programs for regional and short line railroads?

Answer. Both BESTEA and ISTEA II authorize funding for Light Density Rail Line Pilot Projects in States with Rail Plans. The funding would be provided as a grant to the State. For projects on privately owned rail lines, a private owner financial contribution, commensurate with the benefit of the project, would be required. Both Bills require the Secretary to study the public interest benefits resulting from the projects funded and their contribution to a multi-modal transportation system. ISTEA II includes $10 million per year for fiscal years 1998 through 2003. BESTEA provides $25 million per year for fiscal years 1998 through 2003.

BESTEA also includes a provision that repeals the existing loan and loan guarantee programs under Title V of the Railroad Revitalization and Regulatory Reform Act of 1976. It creates a new program authorizing loan and loan guarantees to State and local governments, government sponsored authorities and corporations, railroads, and joint ventures that include at least one railroad. The Administration strongly opposes this proposal. Financing would be available for acquisition, improvement or rehabilitation of intermodal or rail equipment or facilities, refinancing of outstanding debt, or development of new intermodal or railroad facilities. Under this new program, the estimated long-term cost of the loan or loan guarantee, which the Credit Reform Act requires to be appropriated, may be provided by a non-Federal Infrastructure Partner through the payment of a Credit Risk Premium, in lieu of or in combination with an appropriation. A limit of no more than $5 billion in obligations may be outstanding at any one time.

REPAYMENT TERMS FOR THE ALAMEDA CORRIDOR PROJECT

Question. In the fiscal year 1997 Omnibus Consolidated Appropriations Act, a direct loan of $58,680,000 was provided under the Section 505 redeemable preference share program. This funding secured a $400,000,000 loan for the Alameda Corridor rail project. What are the terms for repayment of the original federal loan? How will these repayments be credited?

Answer. The fiscal year 1997 Omnibus Consolidated Appropriations Act allowed DOT to make a direct loan of $400,000,000 to the Alameda Corridor Transportation Authority (ACTA) to fund in a project intended to improve the movements of cargo through ports of Los Angeles and Long Beach, CA. The total cost of the project is $2.1 billion. Other funding sources include revenue bond proceeds, contributions by the two ports, local funds, and State funds.

The loan is being disbursed over three years in accordance with the appropriations act and ACTA's construction schedule, as follows: Fiscal year 1997, $140,000,000; fiscal year 1998, $140,000,000; and fiscal year 1999, $120,000,000.

The interest rate for the loan will be set at the 10-year Treasury rate during the period of construction. Thereafter, the interest rate would be the 30-year Treasury rate through maturity.

The loan is secured by a rate covenant , and is structured to include flexible repayment provisions that allow principal and interest payments to be deferred (with interest) in the event of insufficient project revenues. The Federal loan's claim on revenues is junior to that of ACTA's senior bonds, which are expected to be issued in late 1998. The combination of the flexible payment structure and the subordinate lien will enhance the coverage ratio on ACTA's senior bonds. This will facilitate ACTA's ability to obtain an investment grade rating on its bonds, thereby substantially reducing its interest expense and transaction costs.

ALAMEDA CORRIDOR PROJECT—DEFAULT RISKS

Question. What are the risks of default on the federal loan? What factors may increase those risks? What factors could mitigate those risks?

Answer. Major infrastructure projects like the Alameda Corridor face different risks at various points over their life cycle. Most of the pre-construction risks relating to factors such as litigation challenges, environmental permitting, and political support have been successfully surmounted at this date. As the Alameda Corridor Transportation Authority (ACTA) enters into the construction phase, it will need to address the risk of cost overruns or completion delays arising from hidden conditions or unforeseen cost inflation affecting the bid price for the construction contracts and engineering services. ACTA is seeking to manage the risk on the largest portion of the project—the Mid-Corridor segment—by entering into a Design-Build

contract which will stipulate a guaranteed maximum price/guaranteed completion date.

Upon completion of construction and the opening of the project for container shipments, the major risk becomes smaller-than-anticipated net revenues (revenues minus expenses) available to pay debt service. Operating cost inflation is not a material risk, as the participating railroads have agreed to pay annually 100 percent of the project's operating costs. Gross revenues might be reduced if there were a major and sustained economic downturn in the U.S., or a large decline in foreign trade shipped through the Ports of Los Angeles and Long Beach as a result of overseas economic conditions or domestic competition from other ports. A downturn in revenues could be cushioned somewhat by the Ports' ability to increase their container fee schedule by up to 3 percent per annum. Utilization risk is further mitigated by the fact that the two Ports themselves are responsible for paying 40 percent of the debt service on ACTA's project revenue bonds and the federal loan. Competition is unlikely to undermine the San Pedro Bay Ports' dominant position in ship-borne commerce due to the large population base residing in the immediate area.

PROFILE OF THE ALAMEDA CORRIDOR PROJECT

Question. Please provide a summary of the Alameda Corridor project, including major construction benchmarks, sources and levels of financing (secured and anticipated), revenue projections, and repayment schedule.

Answer. The information is attached.

[CLERK'S NOTE.—The Alameda Corridor: Semi-Annual Project Status and Credit Assessment Report does not appear in the hearing record but is available for review in the subcommittee's files.]

SEPARATE FUNDING FOR THE RHODE ISLAND RAIL PROJECT

Question. Has consideration been given to incorporating this capital freight project within the Northeast Corridor Improvement Project? What rationale is there to request funds for this single capital freight project, and no others?

Answer. The Northeast Corridor Improvement Project (NECIP) was established by the Railroad Revitalization and Regulatory Reform Act of 1976 as a program to undertake those investments in the infrastructure of the Northeast Corridor necessary to permit safe and reliable intercity rail passenger service that meets statutorily-established trip time goals. The Rhode Island Freight Rail Improvement Project (FRIP), on the other hand, is an initiative to facilitate the economic development of the Davisville/Quonset Point area of Rhode Island. As a consequence, the two projects have clearly different goals and the Administration believes that it is appropriate to request the funds separately. The rationale behind requesting 50 percent Federal funding for this particular freight project (the State is obligated to provide the remainder) goes to the overall regional importance of the Davisville/Quonset Point development and to the overlap between this project and the Northeast Corridor for a 22 mile stretch with the resulting need to insure that the developing freight transportation requirements do not interfere with Amtrak's efforts to establish high-speed rail on the Northeast Corridor.

TOTAL FUNDING FOR RHODE ISLAND RAIL PROJECT

Question. Please provide a funding history of the project, detailing funding sources, amounts, and project benchmarks, by fiscal year, from the project's inception to completion.

Answer. A total of $23 million in Federal funds have been appropriated for the Rhode Island Freight Improvement Project: $5 million in 1995; $1 million in 1996; $7 million in 1997; and, $10 million in 1998. All of these funds require a dollar-for-dollar match from the State. FRA has included $10 million in its fiscal year 1999 budget request for this project.

Approximately $2.5 million has been expended, to date, for construction activities and a limited amount of engineering. Most project implementation activities have been held in abeyance while the necessary environmental documentation was prepared and the State received public support through a referendum for bonding authority to match Federal funds. The latter project prerequisite was completed last November and the former will be completed this month with the scheduled publication of the Record of Decision. Significant additional engineering, materials purchase and construction will be undertaken during the 1998 work season. A detailed construction schedule is being prepared with all work scheduled to be completed by late 2001.

ALASKA RAILROAD CAPITAL PROPOSED IN NEXTEA

Question. Please update the Committee on any House or Senate provisions in the pending NEXTEA legislation that would authorize capital grants to the Alaska Railroad.

Answer. The BESTEA authorizes $5,250,000 for each of fiscal years 1998–2003 in general fund appropriations and $4,800,000 for each of fiscal years 1998–2003 in fixed guide way modernization funds from the Transit Account of the Highway Trust Fund for capital improvements to Alaska Railroad passenger operations . The ISTEA II would authorize States without Amtrak service to spend funds made available from the Mass Transit Account of the Highway Trust Fund on capital improvements and operating support for intercity rail passenger service.

FEDERAL SUBSIDY FOR AMTRAK

Question. If Amtrak adheres to its March 1998 Strategic Business Plan, will the railroad be independent from federal subsidy by 2002?

Answer. The Administration's goal since 1994 has been to eliminate Amtrak's dependence on Federal operating subsidies by 2002, recognizing that all forms of transportation receive some measure of Federal capital investment and that such capital investments in Amtrak would continue past 2002. If Amtrak's March 1998 Strategic Business plan is fully funded, as has been proposed in the Administration's fiscal year 1999 budget request, the Corporation would no longer require federal operating assistance by 2002.

BLUE RIBBON PANEL RECOMMENDATIONS ON AMTRAK

Question. Does the administration's request for $621,000,000 in capital funds for Amtrak reflect the Blue Ribbon Panel recommendations to separate Amtrak's infrastructure management from its operations?

Answer. The Administration's request does not reflect the funding required to implement these recommendations. Instead, the request reflects the funding required to implement Amtrak's five year strategic plan, which the Administration believes is the optimal course of action at this time.

NEED FOR LEGISLATIVE ACTION FOR AMTRAK FLEXIBILITY

Question. Please explain the Administration's position that no specific legislative provision is required to give Amtrak the flexibility to use the same capital project investment criteria as was specified for the Federal Transit Administration in Sec. 316 of Public Law 105–66.

Answer. The capital project investment criteria included in section 316 of the fiscal year 1998 Department of Transportation and Related Agencies Appropriations Act was required in order to adjust an existing statutory definition of the term capital project for the purposes of Federal Transit Administration (FTA) funded projects. There is no similar existing statutory definition of capital project with respect to the expenditure of appropriated funds by Amtrak for capital projects. The proposal to give Amtrak the flexibility to use the same capital project investment criteria as FTA grantees is a reasonable interpretation of the term "capital" as used in Amtrak's authorizing and appropriating legislation. In addition, Amtrak's authorization specifically provides that amounts appropriated under the authorization shall be paid to Amtrak under the budget request of the Secretary as approved or modified by Congress when the amounts are appropriated (49 U.S.C. 24104). As a result, the Department takes the position that the language concerning the capital definition in the budget justification accompanying the Administration's request would be adequate for Amtrak to conclude that the new capital definition is consistent with both the intent of Congress and the authorization unless Congress were to specifically reject this interpretation through the appropriations act. However, the Administration is willing to work with Congress and to submit any document needed to secure Congress' blessings.

ACTIVITIES ALLOWED UNDER TRA AND FLEXIBILITY DEFINITION

Question. For what specific activities does the Taxpayer Relief Act allow Amtrak to use the 1998 and 1999 tax refund allocations? How does this differ from activities allowed under the expanded capital definition the administration is requesting for Amtrak in the fiscal year 1999 appropriations request?

Answer. Section 977 of the Taxpayer Relief Act of 1997 identifies the following as qualified expenses for funding provided to Amtrak under that section: the acquisition of equipment, rolling stock, and other capital improvements; the upgrading of maintenance facilities; the maintenance of existing equipment in intercity rail

passenger service; and the payment of interest and principal on obligations incurred for such acquisition, upgrading and maintenance.

The capital definition applied to projects funded by the Federal Transit Administration, which the administration proposes to apply to Amtrak capital grants, would include these activities (with the exception of payment of interest) as well as the maintenance of existing infrastructure used for intercity rail passenger service.

NEW DEFINITION—MAXIMUM AMOUNT OF MAINTENANCE COST

Question. If the FTA's expanded capital definition were applied to Amtrak capital, what is the maximum amount of the $621,000,000 in the fiscal year 1999 request that could be used for maintenance of equipment, infrastructure and facilities?

Answer. Amtrak estimates that the maximum amount of expenses that would be incurred for maintenance of equipment, infrastructure and facilities in fiscal year 1999 and eligible for capital funding under the FTA's expanded capital definition would total approximately $542 million.

FUNDING CONTROL MECHANISMS FOR AMTRAK

Question. What control mechanisms are in place for ensuring that both TRA and appropriated funds are utilized in a manner consistent with law?

Answer. There are extensive control mechanisms to assure the Congress, the Department and Amtrak's Board of Directors, that Amtrak is using this funding in a manner consistent with law. First, Amtrak will enter into an agreement with the Internal Revenue Service (for the TRA funds) and a grant agreement with FRA (for the appropriated funds) that will establish the allowable uses for these funds and appropriate reporting requirements. In addition, the fiscal year 1999 budget proposes that Amtrak be required to deposit the funds it will receive in fiscal year 1999 under the TRA into the Capital Grant account and to make release of the TRA funds, as well as the $621 million in fiscal year 1999 capital appropriations, contingent upon creation of a thorough and prudent capital investment plan. Next, Amtrak's Inspector General regularly reviews Amtrak's performance under such agreements and reports to the Board of Directors (including the Department) on his findings. The Amtrak Reform and Accountability Act (ARAA) provides for Department of Transportation's Inspector General to conduct an ongoing review of Amtrak for each year that Amtrak receives a Federal subsidy. The ARAA also establishes the independent Amtrak Reform Council which is required to report to the Congress quarterly on Amtrak's use of TRA funds. Finally, the GAO undertakes regular reviews of Amtrak's finances.

INCOME FROM EXPRESS PILOT PROGRAM

Question. Please compare the amount of income anticipated from the express pilot program in fiscal year 1997 and thus far in fiscal year 1998 with the amount of funds actually generated by this program. How will this shortfall against anticipated income affect Amtrak's net loss in fiscal year 1998, and what will the Corporation do to mitigate these losses? What level of income from the express pilot program is anticipated for fiscal year 1999?

Answer. Amtrak's projected net income from the express pilot program as follows:

Fiscal year	Projected net income	Actual
1997	.....	−$100,000
1998 (through March 31)	$12,000,000	−3,100,000
1998	[1] 61,000,000	[2] 11,100,000
1999	[3] 20,900,000	.....

[1] September 1997 Business Plan.
[2] Current projection.
[3] Fiscal Year 1999 Business Plan.

The fiscal year 1998 business plan shortfall from the express pilot is factored into Amtrak's projected cash shortfall of $200 million. Amtrak will mitigate this shortfall through borrowing from its short-term line of credit and "borrowing" short-term from Amtrak's separate TRA account.

IMPACT OF DEFERRING CAPITAL GRANTS

Question. Amtrak has traditionally received its capital appropriation in July of each year. Given that the money contained in the Administration's budget would not

be available until July 1999, will this create any short-term funding shortfalls and if so, how will this be addressed?

Answer. If Amtrak did not receive its fiscal year 1999 appropriation until July 1, 1999, it would be required to "borrow" from funding made available under the Taxpayer Relief Act during the first three quarters of fiscal year 1999 to meet expenses that would otherwise be funded from appropriated funds. The Administration agrees with Amtrak's position that the TRA funds should be limited to investments with high returns. Moreover, the delay in not making appropriated general capital funds available until July 1, has no material impact on outlays during any given fiscal year. As a consequence, the Administration does not object to Amtrak's proposal that the fiscal year 1999 appropriation for general capital be made available on the first day of fiscal year 1999 and is willing to submit any document to that effect.

IMPACT OF AMTRAK REFORM ACT

Question. The reforms contained in the Amtrak Reform and Accountability Act of 1997 provide Amtrak with additional flexibility to address its financial problems. Specifically, how will these reforms contribute to Amtrak's short-term and long-term financial viability?

Answer. The provision of the Amtrak Reform and Accountability Act of 1997 (ARAA) with the greatest implications for Amtrak's financial viability is the stated Federal commitment to provide adequate funding over the next five years, with authorizations totaling $5.163 billion through fiscal year 2002. This Federal commitment will help Amtrak to move away from its past "hand-to-mouth" existence and allow Amtrak to make the investments necessary to make the company financial viable in the long-term while also addressing Amtrak's short-term operating and maintenance needs. The ARAA also provides Amtrak an increased ability to act like a private business. The statutory changes contained in ARAA: repeal the past statutory definitions of the system which Amtrak must operate; clarify the procedures used to reduce routes and services; eliminate the requirement that Amtrak provide unprofitable services requested by States while recognizing that there is a role for States in supporting services important to them; permit Amtrak to negotiate with the commuter railroads over the appropriate level of payments the commuter railroads must make for the use of Amtrak's Northeast Corridor; and permit Amtrak and its employees to negotiate over contract provisions addressing possible contracting out of work performed by Amtrak employees and the appropriate levels of severance benefits. These "reforms" will enhance Amtrak's ability to undertake needed long-term investments by permitting the Corporation to structure a system consistent with the transportation market as well as the national transportation priorities. Amtrak also will be able to improve the cost-effectiveness of the service it provides. Cumulatively, if all of the provisions of the ARAA are fully implemented, the Amtrak of five years from now will be much stronger financially and better positioned to address the evolving challenges of the next century.

AMTRAK FUNDING HISTORY

Question. Please provide a funding history, by fiscal year, of Amtrak's federal appropriations and other federal funds from the Corporation's creation to present.

Answer. The information follows:

[In millions of dollars]

Fiscal year	*Amtrak Federal appropriations*
1971	40.0
1972	170.0
1973	9.1
1974	140.0
1975	276.5
1976	659.1
1977	800.7
1978	1,116.0
1979	1,234.0
1980	1,223.4
1981	1,246.3
1982	905.0
1983	895.0
1984	816.4
1985	711.6
1986	602.7
1987	624.0

Fiscal year	Amtrak Federal appropriations
1988	607.5
1989	603.6
1990	629.1
1991	815.1
1992	856.0
1993	891.1
1994	908.7
1995	972.0
1996	750.0
1997	843.0
1998	594.0
1998—Taxpayer Relief Act	1,092.0

AMTRAK'S END-OF-YEAR OPERATING LOSSES

Question. Please provide a table displaying Amtrak's net end-of-year operating losses, by fiscal year, from the Corporation's creation to present.

Answer. Amtrak's net end-of-year operating losses between fiscal year 1971 and fiscal year 1997 (defined as total expenses less total expenses) were as follows:

[In millions of dollars]

Fiscal year	Operating losses
1971	91.6
1972	150.8
1973	158.6
1974	272.7
1975	352.5
1976	342.6
1977	536.7
1978	581.7
1979	619.8
1980 [1]	27.2
1981 [1]	179.1
1982	795.1
1983	804.9
1984	763.3
1985	774.3
1986	702.2
1987	698.5
1988	650.4
1989	665.5
1990	703.4
1991	721.6
1992	711.8
1993	731.0
1994	1,076.8
1995	808.2
1996	763.6
1997	761.9

[1] In fiscal year 1983, Amtrak changed the method of depreciation for track structures. While the operating loss estimates above reflect the change for fiscal year 1983 and fiscal year 1982, the effects of that change on fiscal year 1981 and fiscal year 1980, estimated at $40.9 million, are not included.

Note: Data is in constant dollars.

AMTRAK'S END-OF-YEAR DEBT LOAD

Question. Please provide a table displaying Amtrak's net end-of-year debt load, by fiscal year, from the Corporation's creation to present.

Answer. Amtrak's net end-of-year debt load between fiscal year 1971 and fiscal year 1997 has been as follows:

[In millions of dollars]

Fiscal year	Outstanding debt
1971	25.7
1972	7.1

Fiscal year	Outstanding debt
1973	109.5
1974	297.5
1975	484.9
1976	753.2
1977	762.4
1978	885.9
1979	972.6
1980	1,236.0
1981	1,784.4
1982	2,342.9
1983	2,743.5
1984	3,004.6
1985	3,185.5
1986	23.8
1987	22.7
1988	35.9
1989	126.5
1990	183.8
1991	287.9
1992	418.8
1993	492.3
1994	770.3
1995	836.9
1996	986.9
1997	1,336.4

In fiscal year 1988, two promissory notes, issued by the Federal Government to fund the acquisition of and improvements to property and equipment, were reclassified as Federal Paid-In Capital. fiscal year 1986 and fiscal year 1987 debt levels were restated to reflect this reclassification.

ROUTE STRUCTURE CHANGES

Question. What plans does Amtrak have to adjust its route structure in calendar 1998, in order to decrease the railroad's operating losses? What route structure adjustments were made in calendar 1997?

Answer. In calendar 1997, Amtrak eliminated service on the route from Denver, CO to Portland, OR (the Pioneer) and the route between Salt Lake City, UT to Los Angeles, CA (the Desert Wind) due to financial constraints. The only route change presently expected in calendar 1998 is an extension of the State-supported San Jose, CA to Roseville, CA Capitols from Roseville to Colfax, CA.

Within existing routes, Amtrak has and will be altering the frequency of service. In 1997, Amtrak eliminated the demonstration train, the Gulf Coast Limited, between New Orleans, LA and Mobile, AL (this route continues to be served by the Sunset Limited), and returned the following routes to daily service: Chicago, IL to New Orleans, LA (City of New Orleans), Chicago, IL to Seattle, WA, and Portland, OR (Empire Builder), and Chicago, IL to Emeryville, CA (California Zephyr). In addition, the Boston, MA to Washington, D.C. Night Owl (renamed the Twilight Shoreliner) was extended to Newport News, VA. The Los Angeles, CA to Sanford, FL Sunset Limited was extended to Orlando, FL and two additional frequencies of the State-supported San Diegans were established between Los Angeles, CA and San Diego, CA. Service adjustments within existing routes that have taken place or will take place in calendar 1998 are: the addition of two daily frequencies on the State-supported Capitols between San Jose, CA and Sacramento, CA, the addition of two weekly frequencies from Chicago, IL to San Antonio, TX with continuing service to Los Angeles, CA (Texas Eagle), an additional daily frequency between New York City and Albany, NY, between Portland, OR and Seattle, WA and from Bakersfield, CA to Sacramento, CA (San Joaquins), and an additional northbound daily frequency from Albany , NY and Rutland, VT (Ethan Allen Express).

Amtrak just recently initiated its first-ever major market-driven review of its system and services. When this study is completed in late 1998, Amtrak's new Board of Directors and management will be in better position to view route and service structure in the context of meeting market demand and the long-term financial viability of the Corporation.

LOANS MADE TO AMTRAK

Question. Please list the loans made to Amtrak in fiscal year 1997 and thus far in fiscal year 1998 (through March 31). Please include information on the lending institution, amount of loan, repayment period, and interest rate.

Answer. The following loans were made to Amtrak in fiscal year 1997 and through the first half of fiscal year 1998:

Lenders	Amount	Loan date	Rate (percent)	Term
NationsBank N.A., Kreditanstalt fur Wideraufbau (KfW).	$33,800,000	12/23/96	5.5805	20 years.
NationsBank N.A., KfW	18,200,000	3/31/97	5.5946	19 years.
NationsBank N.A., KfW	49,400,000	6/26/97	5.5210	20 years.
Norlease Inc., KfW	52,000,000	12/23/97	5.5766	20 years.
US Bancorp Leasing & Fin., KfW, ING Lease B.V.	65,000,000	3/27/97	5.6961	19 years.
BA Leasing & Capital Corp., KfW, Columbia Life Insurance Co., Security Life of Denver Insurance Co.	13,000,000	6/27/97	6.3412	17 years.
BA Leasing & Capital Corp., KfW, Columbia Life Insurance Co., Security Life of Denver Insurance Co.	44,200,000	10/17/97	5.91795	17 years.
State of Texas	5,600,000	6/03/97	Floating rate ...	25 months.
GE Capital Corp	16,700,000	12/30/97	6.4341	18 years.
GE Capital Corp	3,800,000	12/30/97	5.5986	15 years.
GE Capital Corp., Swiss Reinsurance America Corp., American Re-Insurance Co., NAC Reinsurance Co., Universal Underwriters Insurance Co., Chartwell Reinsurance Corp., Everest Reinsurance Co., Fidelity & Deposit Co. (MD).	96,500,000	12/31/97	5.5980	20 years.
NationsBank, N.A., KfW, Columbine Life Insurance Co.	32,000,000	3/27/98	4.6906	17 years.
Export Development Corp., MBK Rail Finance Corp.	700,000,000	12/02/97	Floating rate ...	20 years.
Export Development Corp., MBK Rail Finance Corp.	120,000,000	12/02/97	Floating rate ...	20 years.
Bank of America, Bank of Tokyo-Mitsubishi, Chase Manhattan, First National Bank of MD, Industrial Bank of Japan, NationsBank, CIBC, Inc.	170,000,000	12/18/97	Floating rate ...	1 year.

PRIVATE BIDS TO PURCHASE AMTRAK

Question. Please inform the Committee of any pending bids by private companies to purchase Amtrak lines or run Amtrak operations.

Answer. The FRA is aware of no such bids that could be considered "pending". On May 26, 1997, Guilford Transportation Industries, Inc., wrote Secretary of Transportation Rodney E. Slater requesting a meeting with representatives of the Department to begin negotiations for the sale or lease of Amtrak's Northeast Corridor. The Federal Railroad Administrator wrote to Guilford's president, David A. Fink, to invite representatives of that railroad to meet with FRA staff to discuss the specifics of this proposal. Since there has been no follow-up from Guilford to set up such a meeting, FRA has concluded that this proposal is not being actively pursued by the railroad.

SCOPE OF AMTRAK REFORM COUNCIL

Question. Please update the Committee on the status of the Amtrak Reform Council, and summarize the council's scope of responsibility under the Amtrak Reform and Accountability Act.

Answer. Nine of the 11 members of the Amtrak Reform Council (ARC) have been named; however, no meeting has yet been scheduled. The scope of the ARC's respon-

sibilities, as defined by Sections 203, 204, and 209 of the Amtrak Reform and Accountability Act are: (1) evaluate Amtrak's performance and make recommendations to Amtrak for achieving further cost containment and productivity improvements and financial reforms; (2) monitor savings achieved from work rule changes contained in Amtrak's new labor agreements and provide Congress with an annual report on such savings; (3) report quarterly to the Congress on the use of funding received by Amtrak under Section 977 of the Taxpayer Relief Act of 1997; and, (4) if the ARC finds at any time after December 2, 1999 that Amtrak's business performance will prevent it from meeting certain statutorily-established performance goals, inform the President and Congress of such finding and, within 90 days, prepare and submit to the Congress an action plan for a restructured and rationalized national intercity rail passenger system.

STATUS OF APPOINTMENTS TO THE AMTRAK REFORM BOARD

Question. Please update the Committee on the status of the appointment of the new Amtrak Reform Board. What time sensitive trigger mechanisms are included in the Amtrak Reform and Accountability Act provisions regarding appointment and confirmation of board members?

Answer. The President's nominations for the members of the new Reform Board of Directors are expected in the near future. If the committee of jurisdiction has not reported the nominations by June 1, 1998, then the committee will be discharged from further consideration of the nominations and the nominations will be placed on the Executive Calendar. It shall then be in order at any time to move to proceed to the consideration of the nominations without any intervening action or debate. After no more than 10 hours of debate, the Senate shall then proceed without intervening action to vote on the nominations. If the Reform Board has not assumed its responsibilities by July 1, 1998, all provisions authorizing appropriations for fiscal year 1999 and for subsequent years cease to be effective.

NUMBER OF EMPLOYEES AT AMTRAK

Question. How many people are employed by Amtrak? Please provide a table or chart divided by SBU's, showing all employment centers and number of employees at each center.

Answer. As of the end of fiscal year 1997, Amtrak had 23,548 employees. This employment was organized as follows:

Employment center	*Number of employees*
Intercity SBU	5,887
Northeast Corridor SBU	12,073
Amtrak West SBU	2,733
Corporate/Service Centers	2,855
Total	23,548

OA PAY-RELATED INCREASES

Question. In the fiscal year 1999 OA budget, $1,117,000 is characterized as for "non-discretionary increases". The pay related costs are $709,000—an average increase of $4,655 for each of the 152 employees in the Office of the Administrator. Please detail more fully what these pay-related costs are, and explain why they are "non-discretionary".

Answer. Increase reflects fiscal year 1999 pay raise ($271K), annualization of the fiscal year 1998 pay raise ($87K), and other pay-related costs ($351K). Other pay-related costs include within-grades, adjustments to retirement contributions based on the number of FERS vs CSRS employees and laws governing federal contributions for each retirement system, merit bonuses, terminal leave payouts and overtime.

These costs are non-discretionary as they are governed by law and as such, FRA must pay them. The Office of the Administrator account does not have sufficient funds in the non-pay categories to absorb these increases.

OA NON-PAY INCREASES

Question. The other component of "non-discretionary increases" is $408,000 for communications, computer, and information technology systems. Please detail these expenditures. How much is for telephone and communications costs? How much is for computer systems, i.e., to replace and upgrade hardware and software and to enhance automation systems? How much is for technology systems and information

technology? Please prepare a table of each of these expenditures for the last five years. Why are these costs "non-discretionary".

Answer. The following table details OA's fiscal year 1999 non-discretionary increase of $408 thousand:

Object class	*Net change*
Travel	$52,000
Rent/Communications	−175,000
Contractual Services [1]	421,000
Supplies	26,000
Equipment	101,000
Grants	−17,000
Total	408,000

[1] Includes contracts, consulting services, TASC, common services, agreements, information technology, and other.

Of the $408 thousand, $203 thousand will support information technology.

These costs are non-discretionary as they reflect known adjustments to fiscal year 1998 and must be paid if services/products are to be procured. Adjustments include inflation, vendor/contract increases, GSA rate increases, increased utilities costs, and/or other support needed to maintain on-going work in support of FRA's program offices. The OA account does not have sufficient funds to absorb these increases, nor can it operate at a reduced level without compromising current productivity levels.

The following table details OA expenditures in these object classes for the past five years:

[In thousands of dollars]

Object class	Fiscal year—				
	1993	1994	1995	1996	1997
Travel	271	210	274	192	217
Rent/Comm	36	42	45	43	311
Contract Services	3,249	2,690	2,577	2,879	2,575
Supplies	188	196	695	218	162
Equipment	312	579	1,493	238	683
Grants	4,763	529	2,977	485	27

OA UNOBLIGATED BALANCES

Question. Please identify any unobligated balances in the Office of the Administrator.

Answer. FRA projects an unobligated balance of $2.105 million. This includes $935 thousand earmarked for Alaska Railroad Liabilities, specifically the environmental compliance project which is still active and not settled, and approximately $1.170 million held in reserve for the annual mortgage payment of the Washington Union Station. Appropriation language states that FRA is responsible for payment on the first deed of trust from OA unobligated balances if the Union Station Redevelopment Corporation cannot make the payment.

PERSONNEL IN THE SAFETY LAW DIVISION

Question. Please prepare a table for each of the last three years indicating the number of personnel in the Safety Division of the Office of the Chief Counsel.

Answer. The information follows: 1995, 27 employees; 1996, 27 employees; and 1997, 27 employees.

In addition to the members of the Safety Law Division, a senior member of the General Law Division serves as Hearing Officer for engineer qualifications appeals and both the Chief Counsel and the Deputy Chief Counsel spend large amounts of their time on safety matters.

ADDITIONAL APPROPRIATIONS FOR COMPLIANCE FUNCTIONS

Question. Several years ago the Office of Chief Counsel received additional appropriations to conduct certain compliance/enforcement-related functions. Please specify the amount of these funds which are now reflected in the base of the fiscal year 1999 proposed budget and discuss the amounts actually used in fiscal year 1997 and fiscal year 1998 versus the amounts actually appropriated.

Answer. In fiscal year 1995, FRA sought $386,000 to fund the costs of administrative litigation related to the FRA safety program (e.g., engineer qualifications, hazardous materials enforcement, disqualification of unfit railroad employees and emergency orders). FRA at that time employed, through a reimbursable agreement, administrative law judges (ALJ's) from the Department's Office of Hearings to preside over the hearings in these cases. FRA's funding request was based on an Office of Hearings estimate that each engineer qualification case would cost approximately $33,000, and FRA's anticipation of having 15 cases involving a review of railroads' decisions to revoke or deny engineers' certificates. To reduce the administrative litigation costs to the agency, in fiscal year 1996 FRA decided to discontinue using DOT ALJ's and instead use an FRA attorney as a hearing officer, in addition to handling non-safety FRA legal matters. The fiscal year 1996 and fiscal year 1997 budgets reflect a reduction of $368,000 as a result of this decision. The fiscal year 1997 Enacted Budget contained no funding for ALJ's and the same is true for the fiscal year 1998 request. FRA's hearing officer is currently handling all of FRA's administrative litigation.

ENFORCEMENT ACTIONS IN LAST THREE YEARS

Question. For each of the last three years, please prepare a table describing the number of enforcement actions, the amount of civil penalty assessments and those collected or settled, and the number and type of violation reports submitted. What percentage of these actions have come from Federal inspectors and what percentage from state inspectors?

Answer. The information follows:

CIVIL PENALTY ENFORCEMENT ACTIONS, FISCAL YEARS 1995–97

Fiscal year	Cases transmitted	Dollars assessed	Cases closed [1]	Dollars collected
1995	1,447	$10,897,600	1,313	$5,230,044
1996	827	5,157,500	970	3,588,765
1997	1,014	7,514,750	846	3,792,380

[1] Many cases are closed in years after the year they were transmitted. Accordingly, the cases transmitted and cases closed are largely groups of cases.

PERCENTAGE OF VIOLATION REPORTS SUBMITTED BY STATE/FEDERAL INSPECTORS, FISCAL YEARS 1995–97

	Fiscal year—		
	1995	1996	1997
Federal Inspectors	91	91	88
State Inspectors	9	9	12

VIOLATION REPORTS SUBMITTED BY TYPE, FISCAL YEARS 1995–97

Type	Fiscal year—		
	1995	1996	1997
AD	30	30	95
AR	84	41	128
BW	5	5	1
EO	11	.....	.....
EP	.....	2	5
EQ	48	18	29
FCS	276	204	225
GC	.....	2	20
GS	.....	1	.....
HMT	419	273	359

VIOLATION REPORTS SUBMITTED BY TYPE, FISCAL YEARS 1995–97—Continued

Type	Fiscal year—		
	1995	1996	1997
HS	1,440	148	222
HSR	335	76	453
LI	280	194	376
NE	3	.....	.....
REM	19	9	16
ROP	53	32	25
ROR	3	.....	4
RSP	13	9	13
RW	.....	.....	4
SA	411	242	584
SI	86	74	77
TS	82	55	69
Total	3,598	1,415	2,707

POLICY AND IMMEDIATE OFFICE FTE'S

Question. For each of the last three years, please list separately the number of FTE's in the Office of Policy and Program Development as well as in the Immediate Office of the Administrator.

Answer. The information follows:

Office	Fiscal year—			
	1995	1996	1997	1998 estimate
Office of Policy	30	28	23	22
Immediate Office	11	10	10	10

OA—CONTRACT SUPPORT

Question. For each of the last three years, please list the amount actually spent on technical assistance and contractor support for the Office of the Administrator and compare these amounts to the amount appropriated for the activity.

Answer. The information follows:

Contract support	Fiscal year—		
	1995	1996	1997
Enacted	$651,000	$578,000	$549,000
Actual obligations	[1] 744,000	355,000	417,000

[1] Includes carryover funds.

OFFICE OF THE ADMINISTRATOR

Question. Is FRA the only DOT agency participating in the new electronic grant pilot project? Is this a multi-year effort? If not, have other agencies requested additional funding for this project?

Answer. FRA is not the only DOT agency participating in this project. The electronic grant pilot project is a Department-wide initiative, funded by all DOT agencies. This is a multi-year effort and all DOT agencies have requested funding in fiscal year 1999.

OA—NON-PAY INCREASES

Question. What is the empirical basis for the $853,000 requested on page 18 for inflation/vendor increases? How was this amount determined?

Answer. Using the fiscal year 1998 Enacted as the base level, FRA calculates inflation (2.3 percent) increases for those budget line items that are inflation sensitive such as travel, rent, contracts, training, and information technology. FRA then reviews all on-going services or contracts to see if increases are automatically built in for the coming year or if vendors are planning to raise their prices in the coming year. Finally, FRA determines if any other factors may increase on-going work. For example, in the OA Offices, FRA may be funding the same number of training courses in fiscal year 1999 as in fiscal year 1998, however, the courses may cost more (or less) in fiscal year 1999. FRA may have the same number of computers but plan to use them more or differently in fiscal year 1999, driving costs up. Increases in paper, postage, air rates, GSA rates for travel and per diem, OST agreements, or policy directives can affect the costs even if current services are maintained and not expanded.

It should be noted that the increase of $853K is offset by non-recurring costs of $445K for a net increase of $408K. FRA is as diligent tracking cost reductions as it is with cost increases.

In addition, almost all of the non-pay object classes in the OA show an fiscal year 1999 estimate that is either equal to or lower than the fiscal year 1997 actual or the fiscal year 1998 estimate.

FUNDING AND PROJECTS OF CIVIL RIGHTS OFFICE

Question. For each of the last three years, please specify the amount appropriated and the amount spent for civil rights activities. How much is requested for fiscal year 1999? Please list the civil rights activities which have been completed for each of the last three years. What activities are planned for fiscal year 1999?

Answer. The following table provides expenditures and appropriated funding for the last three years for civil rights activities:

	Fiscal year—		
	1995	1996	1997
Appropriated	$244,000	$256,000	$260,000
Actual Expenditures	238,000	250,000	257,000

FRA is requesting $301 thousand for fiscal year 1999.

Fiscal year 1995

An action plan for enforcement of the Americans with Disabilities Act was developed.

In accordance with the Federal Railroad Administration's Federal Assistance program, twenty-seven out of forty-three recipients' affirmative action programs were reviewed by desk audit. These reviews were performed in order to determine compliance with regulatory requirements, 49 CFR part 265.

The FRA Office of Civil Rights, authorized by the Railroad Revitalization and Regulatory Reform Act, monitored the performance of, and assisted recipient railroads doing business with minority and Women-owned business enterprises. One of the recipients, the National Railroad Passenger Corporation (Amtrak), surpassed its dollar goal commitment of $65 million for fiscal year 1995 by awarding $77.5 million to minority and women-owned businesses. This reflected 119 percent for dollar goals achieved. Their overall contract dollars awarded totaled $470.5 million, reflecting 16 percent for minority participation. Since 1990, Amtrak has consistently exceeded its MBE/WBE contract dollar goal for minority participation.

Fiscal year 1996

The MBE/WBE contract dollar goal for fiscal year 1996 was $160.5 million. Contract dollars awarded to MBE's/WBE's for fiscal year 1996 totaled $208.9 million, reflecting 131 percent of the total dollar goals achieved. The overall contract dollars awarded totaled $1.8 billion, reflecting 11 percent for minority participation. Contract dollars awarded to women-owned businesses (White) totaled $110.8 million and $98 million to other minority concerns.

The National Railroad Passenger Corporation (Amtrak) surpassed its dollar goal commitment of $70 million for fiscal year 1996 by awarding $102.5 million to minority and women-owned businesses. This reflected 147 percent for dollar goals achieved. Their overall contract dollars awarded totaled $585.6 million, 18 percent for minority participation. Amtrak awarded $37.2 million to women-owned businesses (White) and $65.2 million to other minority concerns. Since 1990, Amtrak

has consistently exceeded its MBE/WBE contract dollar goal for minority participation.

Fiscal year 1997

In accordance with the Civil Rights Offices' Customer Service Plan, the Office shared with its internal and external customers pertinent equal employment opportunity (EEO) documents and information which impact minorities and women in the work force and the EEO program. Subject information included reports on Sexual Harassment, "Glass Ceiling" and FRA's Affirmative Employment Program.

Coordinated two guest speakers from FRA's Transportation Partners to participate in a panel discussion at Secretary Slater's Garrett A. Morgan Technology and Transportation Futures Program Roundtable on October 30, 1997.

A staff member represented FRA on the Garrett Morgan Internet Committee where the agency's Garrett A. Morgan website and the Department's Garrett A Morgan homepage was undertaken and completed.

Staff member participated in two events, in support of the Garrett A. Morgan Initiative. Approximately forty students, ages 11 to 17 represented the Association of Renewal in education, and the 1997 Pathways to Freedom Programs.

Civil Rights staff worked with Amtrak's Office of Consumer Affairs to process Americans with Disabilities Act (ADA) complaints. Newly established procedures agreed upon by the Civil Rights Office and Amtrak's Regulatory Affairs office are beginning to work, by decreasing the time necessary to process ADA complaints involving Amtrak's vast rail network.

The vetoed fiscal year 1997 Supplemental Appropriations bill included funding for repair of flood-damaged shortline and regional railroad track in the Northern Plain States. In anticipation of enactment of the Bill, review of Affirmative Action Plans for the States of Iowa, Minnesota, North Dakota and South Dakota was completed.

Fiscal years 1998 and 1999

In partnership with the Departmental Office of Civil Rights, FRA's Office of Civil Rights is currently reassessing its programs and policies and the way its conducts business. Civil Rights is partnering with the Office of Human Resources in the implementation and expansion of the Diversity Management Program, Title IX of the Education Amendments Act of 1972 and the Summer Internship Program. The FRA sought feedback from the Departmental Office of Civil Rights, in restructuring a position description for the Director of Civil Rights to reflect current law, regulations and the Secretary's initiatives. A broad spectrum recruitment effort will be used to fill the vacant Civil Rights Office position.

Additionally, the Office of Civil Rights plans to continue its support of the Garrett A. Morgan outreach efforts with Transportation partners, Community Organizations and Schools. Currently, research is underway searching for the best EEO training consultant firm in order to provide EEO Awareness training for managers and supervisors. Further, EEO Counseling training for FRA Counselors is scheduled during the last quarter of fiscal year 1998. The office is in the process of establishing better lines of communication with FRA's EEO counselors by establishing quarterly conference calls to discuss potential problems, current counseling activity and their monthly reporting requirements.

In fiscal year 1999, the office will engage managers in the overall development of the agency Affirmative Employment Program.

GARRETT A. MORGAN PROGRAM

Question. How has the FRA participated in the Garrett A. Morgan program during fiscal year 1998? What is planned for fiscal year 1999?

Answer. FRA did not contribute any funds for this program in fiscal year 1998 or fiscal year 1999. However, FRA will participate in the following activities:

Fiscal year 1998

Completion of FRA's Garrett A. Morgan technology and Transportation Futures Program web site.

Presentations relating to the initiative and outreach efforts to over three thousand middle school, high school, and college students, and Transportation partners.

Donations of surplus computers from FRA Headquarters and Regional offices. In the regions, this has allowed inner city schools to establish computer labs.

Participation in High School and College Career Fairs. Tours of Amtrak's Maintenance Facility.

Mentoring and tutoring by regional personnel. These efforts will continue into fiscal year 1999.

Fiscal year 1999

Partnering with Regional offices to enhance intermodal Garrett A. Morgan activities.

Integration of Garrett A. Morgan, Trespasser Prevention, Buckle-Up America, and Rail Safety and Transportation-related career presentations.

Development of outreach campaigns for grades K–12 in the areas of: Interactive Web Page, Administrator's Safety Ambassadors Pledge-Certifications of Accomplishment, Local Partnerships with Transportation, Health, Education, Media, and Business Partners (Field trips, Guest Speakers, donated time and money).

POLICY STUDIES AND CONTRIBUTIONS

Question. What are the most important policy studies and contributions made by the Office of Policy and Program Development in fiscal year 1997, thus far in fiscal year 1998, and what is planned for fiscal year 1999?

Answer. The Office of Policy and Program Development has the lead role for the Federal Railroad Administration, and the Department, in several areas: rail structural and industry analysis (mergers); economic regulation; rail network geographic information systems (GIS); rail needs for national defense; Operation Respond; and railroad data development. In addition the Office of Policy and Program Development has played a significant role in development of the Department's proposal for reauthorization of the Intermodal Surface Transportation Efficiency Act, and continues to develop tools to assist states in evaluating the costs and benefits of rail projects, under the current ISTEA.

Structural Analysis.—The Office of Policy and Program Development has been the lead Department of Transportation (DOT) group for analyzing rail merger proposals for over 10 years. Staff analyzed and developed the DOT's position on the merger of the Union Pacific and the Southern Pacific railroads; during fiscal year 1997 and 1998, the Office is continuing to assess the competitive issues associated with the consolidation, as an active participant in the Surface Transportation Board's oversight proceedings. During fiscal year 1997 and thus far in fiscal year 1998, they similarly led the DOT analysis of the proposed acquisition of Conrail by the Norfolk Southern and CSXT railroads. As a result of the service and safety problems that developed after the Union Pacific/Southern Pacific merger, the Office is initiating development of an "early warning" system designed to alert FRA and DOT to potential problems with the Conrail transaction, as well as with the rail system in general. This work will begin in fiscal year 1998 and continue in fiscal year 1999.

In fiscal year 1997, the Office had the lead for the Department in assessing the impact of a potential strike on Amtrak; strike impact analyses produced by the Office are used by the National Mediation Board and the White House to determine the need for a Presidential Emergency Board, or for legislation to end a strike.

Much of the data (traffic, financial, and general economic) that supports this and other policy analyses are acquired, compiled, and funded as explained below.

Economic Regulation.—In addition to continuing work on the competitive aspects of the UP/SP merger in fiscal year 1998 and 1999, the Policy Office will have the lead in developing DOT's views on Surface Transportation Board reauthorization, potential legislative changes to the Staggers Rail Act, and any administrative changes proposed by the STB. This will include assessing the issues of competitive access, product and geographic competition and revenue adequacy.

The Office is an active participant in the Department's ongoing analysis of the impacts of potential truck size and weight changes. In fiscal year 1997 and continuing in 1998, staff worked with FHWA to recalibrate the Department's traffic diversion model; additionally, Policy Office staff is assessing the effects of various truck size and weight scenarios on rail revenues and traffic levels, as well as on rates for shippers whose traffic would remain on the rail system. These analyses will be incorporated into the Department's report, due to be published in the Fall of 1998.

Rail Network Geographic Information System (GIS).—The Office of Policy and Program Development created a rail network GIS, representing all 150,000 route miles of track in the United States railroad system. The GIS is extremely detailed, containing ownership, trackage rights, and traffic statistics for each line segment in the country. It is updated annually and has been widely distributed to other federal agencies, states, MPO's, local jurisdictions, and railroads. It has been coupled with a highway GIS from DOT's Federal Highway Administration and a waterway GIS from the United States Coast Guard to create the initial stages of an intermodal network GIS. During fiscal year 1998 and fiscal year 1999 the FRA Rail Network GIS will be updated, enhanced, and distributed to the public. Also, hazardous materials movements (extracted from the Waybill Sample) will be simulated over the

Rail Network GIS to be used as an aid by the Office of Safety in deploying its inspection fleet.

ISTEA.—In fiscal year 1997 and continuing in 1998, the Office of Policy and Program Development continues to lead FRA's participation with the rest of the Department on reauthorization of the Intermodal Surface Transportation Efficiency Act (ISTEA). FRA was successful in including flexibility for states and localities to fund some types of rail passenger and rail freight projects in the Administration's legislative proposal; the Senate legislation incorporates some aspects of the Administration's proposal. In fiscal year 1999, FRA anticipates working with other parts of the Department, and with states and MPO's, to implement the rail and intermodal aspects of the reauthorized legislation.

Analytic Tools Development.—The Office of Policy and Program Development has funded the development of a computerized model (RailDec) to assess the public and private costs and benefits of rail and rail-related projects. It has been made available to and is widely used by states, Metropolitan Planning Organizations (MPO's), and regional jurisdictions to analyze the worth of such projects in their own areas. During fiscal year 1997 the model was modified to better include projects directly related to rail/highway crossings. Work in fiscal year 1998 includes further refinements, as well as additional workshops and other instructional sessions with states and MPO's. Once ISTEA legislation is reauthorized, the Office will assess the rail and intermodal aspects of the new program to determine what additional tools and training should be developed in fiscal year 1999.

National Defense (STRACNET).—The Office of Policy and Program Development, in cooperation with the Military Traffic Management Command (MTMC) of the Defense Department, reevaluates on an annual basis the rail requirements for the defense of the United States based on changing rail traffic density and defense traffic pattern shifts. This effort defines the Strategic Rail Corridor Network (STRACNET), those rail lines identified as necessary to defense.

Operation Respond.—The Office of Policy and Program Development administers the FRA's portion of the federal grant to Operation Respond. FRA's funding helped to develop a very successful pilot project in Houston, Texas that paved the way for better response to rail hazardous materials spills. Funding in fiscal year 1998 and fiscal year 1999 will expand these efforts to other localities in the United States and also broaden the railroad base to include short line carriers. Starting in fiscal year 1999 Operation Respond oversight will transfer from the Office of Policy and Program Development to the Office of Safety.

Waybill Sample Creation.—The Office of Policy and Program Development jointly with the Surface Transportation Board (STB) funds the creation of the Rail Carload Waybill Sample data base on an annual basis. Funding is 50 percent FRA (Office of Policy and Program Development—item "Contract Support," subitem "Waybill Sample") and 50 percent STB. The Waybill Sample data base is the only comprehensive source of rail traffic data that includes details for both commodity and routing. As such it functions as the official traffic data source for proceedings before the STB, including mergers, acquisitions, and abandonments.

Economic and Financial Data.—The Office of Policy and Program Development purchases and collects rail economic and financial data to support policy analysis of the rail industry. Economic data is purchased from Data Resources, Inc. (DRI) to track economic trends in the rail industry. Rail financial data is compiled into a financial data base to evaluate individual rail companies and the industry as a whole. These data are used extensively in rail structure analysis such as mergers, as well as in the rail chapter of the Department of Commerce's annual Industrial Outlook, written by Office of Policy and Program Development staff.

OA OTHER SERVICES

Question. Please delineate on a contract-by-contract basis how the object classification line item 25.2 "other services" was allocated in fiscal year 1997 ($1,576,000); and will be allocated in fiscal year 1998 ($5,181,000); and what services are included in the fiscal year 1999 request ($2,455,000)

Answer. The information follows:

[Dollars in thousands]

Category	Fiscal year—		
	1997 actual	1998 estimate	1999 estimate
Contracts	$346	[1] $3,886	$703

[Dollars in thousands]

Category	Fiscal year—		
	1997 actual	1998 estimate	1999 estimate
Common Services	34	61	53
Agreements	177	164	[2] 385
Information Technology	346	959	1,075
Other	673	111	239
Total	1,576	[1] 5,181	2,455

[1] Includes carryover funds.
[2] Includes $200K for the Electronic Grants Pilot Project.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

SAFETY PERFORMANCE

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for the four programs in the Safety Performance Standards Budget for fiscal years 1996, 1997, and 1998.

Answer. Below is a budget comparison table for fiscal years 1996, 1997, and 1998.

[In thousands of dollars]

Programs	1996 Request	1996 Approp	1997 Request	1997 Approp	1998 Request	1998 Approp
Vehicle Safety	850	642	589	929	929	929
New Car Assess	2,792	1,707	3,542	2,786	2,786	2,786
Fuel Economy	2,285	118	1,560	60	60	60
Theft & Consumer	110	106	50	50	50	50
Motor Vehicle Title Info	[1] 890	.....	.....	.....	.....	
TOTAL	6,037	3,463	5,741	3,825	3,825	3,825

[1] Funds administered by Traffic Safety Programs (pilot demo).

Question. Please prepare a table for each of the five components of the Safety Performance Standards Program, showing how all of the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amount provided for comparable activities for fiscal year 1998.

Answer. Below are the comparison tables for the Safety Performance Standards Program for fiscal year 1998 and 1999.

[In thousands of dollars]

	Fiscal year 1998	Fiscal year 1999
SAFETY STANDARDS SUPPORT:		
Quick Reaction Testing	414	218
Cost and Lead time Analysis	75	150
Consumer Information	100	.....
Off-Set Frontal Testing	340	340
TOTAL	929	708
CONSUMER INFORMATION:		
NCAP and other consumer information materials	114	347
''Buying A Safer Car'' and ''Buying A Safer Car For Child Passengers'' brochures and marketing	103	150
New materials for other program areas such as anti-lock brakes, rollover, theft prevention and the development of a summary crashworthiness measure for new vehicles	.....	150
Research on consumer needs for vehicle safety information	105	100
Develop improvements in current consumer information	25	67
TOTAL	[1] 347	814

[In thousands of dollars]

	Fiscal year 1998	Fiscal year 1999
NEW CAR ASSESSMENT PROGRAM:		
Frontal NCAP	1,777	2,551
Side NCAP	762	1,701
NCAP Promotional Program	247	.....
NCAP 5th percent Female Dummy Testing	.....	604
Crash Avoidance Demonstration Program	.....	200
TOTAL	2,786	5,056
FUEL ECONOMY PROGRAM: Fuel Economy Analysis	60	60
THEFT PROGRAM: Theft Analysis	50	30

[1] The fiscal year 1998 request includes the $100,000 allocated under Vehicle Safety Standards and Consumer Support for consumer information and the $247,000 allocated under NCAP for NCAP promotional activities.

Question. Please list the purpose, amount and recipients of your contracts over $50,000 issued during fiscal year 1998 and fiscal year 1997.

Answer. Below is a list of contracts over $50,000 issued during fiscal year 1998 and fiscal year 1997.

Description	*Amount*
Fiscal year 1997 contracts:	
Study the feasibility of possible upgrade to FMVSS No. 218, Motorcycle Helmets—University of Southern California, Head Protection Research Laboratory	$50,000
Conduct research on consumer knowledge of vehicle safety and focus group sessions to determine consumer perceptions and needs about vehicle safety—Global Exchange, Inc	71,778
9 frontal barrier crash tests for MY 97 NCAP—Karco Engineering	198,893
8 frontal barrier crash tests for MY 98 NCAP—Calspan	144,840
11 side impact tests for MY 97 NCAP—MGA Research Corporation	188,340
16 side impact tests for MY 97 NCAP—MGA Research Corporation	262,288
6 side impact tests for MY 98 NCAP—MGA Research Corporation	112,152
8 offset frontal tests—Karco	160,456
Quality assurance for NCAP data—Conrad Technologies	97,000
Conduct a series of focus groups on air-bag labels—Global Exchange, Inc	53,622
Cost, weight, and lead time analysis of advanced air bag systems—Ludtke and Associates	65,585
Computer and other support for rulemaking activities—Dell Computer, Information Management Consultants, Treadway Corporation	226,971
Fiscal year 1998 contracts awarded to date:	
14 side impact tests for MY 98 NCAP—MGA Research Corporation	255,068
6 frontal barrier crash tests for MY 98 NCAP—MGA Research Corporation	163,206
16 frontal barrier crash tests for MY 98 NCAP—Calspan	273,105
11 frontal barrier crash tests for MY 98 NCAP—Karco Engineering	214,896
6 frontal barrier crash tests for MY 98 NCAP—Transportation Research Center	154,878
Computer support for rulemaking activities—Information Management Consultants	53,410

Question. What is the number and nature of the key rulemaking activities that are now before NHTSA?

Answer. Of the current 128 pending rulemaking activities, approximately 30 are considered key rulemakings. The majority of these activities address the issues of air bag aggressiveness, particularly as they relate to the safety of children. A significant number also relate to the establishment of new and varying sizes of dummies

to be used for compliance testing of new air bags. Other major activities include labeling requirements to improve consumer information; warning labels for child restraint systems used in motor vehicles with air bags; uniform child restraint attachment systems, new technologies for interior impact protection; exemptions for businesses that modify vehicles to accommodate persons with disabilities from the "make-inoperative" prohibitions; and the establishment of a regulatory negotiation for certification of multi-stage vehicles.

Question. For the record, please prepare a list of all final rulemakings that have been issued since you submitted a similar list last year.

Answer. Below is a list of final rulemakings that have been issued from June 1997 through April 1998.

1997

49 CFR—Description

571.101.—In response to the President's Regulatory Reinventing Initiative, the agency removed two tables and certain regulatory text, all of which applied to motor vehicles manufactured before 9/1/89.

571.105; 571.135.—Accommodated the unique characteristic of brake systems on electric vehicles.

571.105; 571.135.—Extended requirements to trucks, buses, and multipurpose passenger vehicles with a gross vehicle weight rating (GVWR) of 3,500 kilograms or less in an effort to achieve international harmonization.

571.208.—Extended the time period during which vehicle manufacturers are permitted to offer manual on-off switches for the passenger-side air bag for vehicles without rear seats or with rear seats that are too small to accommodate rear facing infant seats.

571.208; 571.201.—Interim final rule allowing unbelted sled test protocol as a temporary alternative to the full scale unbelted barrier crash test.

571.213.—Interim final rule allowing the phrase "unless air bag is off" to be added to the warning label for child seats which can be used in a rear-facing position ("rear-facing child seats").

572.—In response to a petition for rulemaking, the agency published a technical amendment correcting the specifications of the characteristics of a test dummy representing a six-year-old child.

583.—In response to petitions for reconsideration, the agency extended for two years a limited temporary provision in its content calculation procedures to provide vehicle manufacturers added flexibility in making content determinations where outside suppliers have not responded to requests for content information.

1998

49 CFR—Description

571.105.—In response to petitions for reconsideration, allows hydraulically-braked vehicles with a gross vehicle weight rating (GVWR) greater than 10,000 pounds, but less than 19,501 pounds, to be equipped with a single wheel speed sensor in the drive line to control wheel slip at the drive axle and allows rear tag axles to lock up. In addition, this allows motor homes with a GVWR of 22,500 pounds or less to use a single rear drive axle wheel speed sensor if they are manufactured before March 1, 2001, after which new motor homes must meet the same antilock braking system (ABS) requirements as other hydraulically-braked trucks and buses.

571.108.—In response to a petition for rulemaking, allows white reflex reflectors designed to be mounted horizontally in trailer and truck tractor conspicuity treatments to be mounted vertically in upper rear corner locations if they comply with appropriate photometric requirements for off-axis light entrance angles.

571.121.—In response to petitions for reconsideration, allows an alternate placement of the external antilock braking system (ABS) malfunction indicator lamp on trailers that have limited or non-existent structures to which the lamp and associated wiring can be attached.

571.208.—In response to a petition for rulemaking, amended the requirements for seat belts at forward-facing rear outboard seating positions of police cars and other law enforcement vehicles to facilitate the transporting of prisoners.

571.208.—Corrects the language of the regulatory text to clarify the requirement of a key specifically matched to the on-off switch and how the readiness indicator should function when one or both air bags have been deactivated by means of the on-off switch and corrected a clerical error.

571.223; 571.224.—In response to petitions for reconsideration, clarified the 100 mm (4 inch) height requirement for the horizontal member of an underride guard, explicitly exclude from having to meet the energy absorption requirements

all cargo tank motor vehicles manufactured with rear end protection complying with the high strength requirements of 49 CFR part 178 (to protect hazardous material) that occupies the area specified for the underride guard, and increases the acceptable range of force application rates during testing. This excludes pulpwood trailers from the application of the vehicle standard.

572.—In response to petitions for reconsideration, made minor modifications in the dummy's femurs and ankles to improve biofidelity.

533.—Established the average fuel economy standard for light trucks manufactured in model year (MY) 2000 at 20.7 mpg.

Question. How much do you plan to spend or did you spend on all consumer-related information activities in fiscal year 1997 and in fiscal year 1998 relevant to the Safety Performance Program?

Answer. In fiscal year 1997 we spent $347,000 for consumer-related information activities. In fiscal year 1998 we plan to spend $347,000 for consumer-related information activities. These activities include research, marketing, materials development and dissemination, and outreach for the purpose of developing and delivering motor vehicle safety information to consumers.

Question. Please break down how the $814,000 requested in fiscal year 1999 will be allocated for consumer-related information programs. What is the empirical basis for this request?

Answer. The requested $814,000 will be allocated as follows:

—$347,000 will be spent to consolidate the vehicle consumer information program by including the amount of funds from the NCAP and Vehicle Safety and Consumer Standards budgets that were allocated to support consumer information activities in fiscal year 1998. These funds will continue present NCAP and other consumer information materials development and dissemination.

—$150,000 will be used to increase the distribution, marketing, and outreach for the "Buying A Safer Car" and "Buying A Safer Car For Child Passengers" brochures and other current consumer information materials that are produced. The program will emphasize outreach to new partners and constituents such as National Automobile Dealers Association (NADA), child safety advocates, the public health community, and consumer groups. It will take advantage of new technologies and communications strategies such as the Internet to increase the public's awareness and use of motor vehicle safety information.

—$150,000 will be spent for the agency to work with its partners to pursue the development of a summary crashworthiness measure for new vehicles. New materials for other program areas such as anti-lock brakes, rollover, theft prevention and previously owned vehicles will also be developed and disseminated to consumers.

—$100,000 will be spent for research to determine what vehicle safety information is most helpful to consumers, how it can be presented, and the most effective means of disseminating it. This research will provide the basis for the development of summary ratings, and other new campaigns and materials for issues such as rollover, antilock brakes, safety cards, and previously owned vehicles.

—$67,000 will be spent to examine the information currently provided by the agency to determine how its presentation and usefulness can be improved. This includes initiatives to improve warning labels, public service announcements and brochures.

The empirical basis for this request is previous experience with the NCAP program and other highway safety information programs, and an assessment of the level of effort required to address the recommendations contained in the National Academy of Science's (NAS) study "Shopping for Safety." The NAS study recommends a level of $300,000 for research, alone. At the current budget levels, we are only able to print 200,000 to 250,000 "Buying A Safer Car" brochures, and 100,000 to 150,000 "Buying A Safer Car For Child Passengers" brochures. We do not have in the present budget the ability to plan, produce and market other materials on proper usage and other required issues, of critical interest to consumers.

Question. Why does it take money to develop strategies for engaging the participation of key public and private sector organizations in the development of consumer information related to safety performance standards?

Answer. Establishing partnerships is key to NHTSA's efforts to improve the development and delivery of motor vehicle safety consumer information. Partners contribute technical expertise, distribution channels, and funding or "in-kind" support. Unfortunately, because of competing interests and/or a lack of familiarity with the issue, prospective partners often do not readily agree to engage in partnerships. Therefore, developing strategies for engaging the participation of key public and private sector organizations in the development and dissemination of motor vehicle safety consumer information is necessarily a complicated and resource intensive ac-

tivity. By contracting with expert marketing and communications firms who are knowledgeable and experienced in targeting and recruiting partners (including the development of materials that market the proposed partnership), NHTSA is much more likely to be successful in its effort to establish multiple partnerships. These partnerships will help improve the quality of the consumer information materials that are developed and will significantly expand their distribution to the public.

VEHICLE SAFETY AND CONSUMER STANDARDS PROGRAM

Question. What is the status of your efforts to develop a federal motor vehicle safety standard for frontal offset crash testing?

Answer. Congress provided $340,000 in fiscal year 1997 and again in fiscal year 1998 to conduct tests and studies. To date, the testing and studies have been directed at determining the potential for harmonizing any offset requirements with those of Europe and to evaluate the potential use of the 5th percentile female dummy in crash test standards. After the completion of the second phase of testing of 8 tests on 3 additional vehicles with depowered air bags, the agency plans to initiate rulemaking.

NHTSA is following the plan in a June 1997 Offset Frontal report to Congress. This report is in docket NHTSA–1998–3332 and is also available on the NHTSA Website. NHTSA has completed the first eight tests in the frontal offset testing program, as proposed in the report to Congress. These tests include: 2 offset tests with 50th percentile male dummies; 3 offset tests with 5th percentile female dummies; and 3—FMVSS 208-type barrier tests with 5th percentile unrestrained female dummies. NHTSA will provide a status report to Congress on the results of these tests later this spring. These test reports also are available in docket NHTSA–1998–3332.

Question. What additional activities are planned during fiscal year 1998 to investigate the potential of establishing an offset frontal standard? How much is planned to be allocated towards that objective?

Answer. NHTSA will continue to evaluate the potential for harmonizing any offset requirements with those of Europe and to evaluate the potential use of the 5th percentile female dummy in crash test standards with additional vehicles from the overall fleet that have the new depowered air bags. NHTSA plans to conduct 8 tests with 3 depowered air bag vehicles in summer of 1998, using $340,000 in fiscal year 1998 funds. NHTSA plans to complete the analysis of the data from the testing conducted with fiscal year 1997 funding. NHTSA plans to prepare a report to Congress on the results of this initial testing by June 1998.

Question. What additional activities are planned during fiscal year 1999 to investigate the potential of establishing an offset frontal standard? How much is planned to be allocated towards that objective?

Answer. NHTSA plans to get the rulemaking process underway in fiscal year 1999; NHTSA will be challenged by commenters and questioned on technical questions. For example, the agency may be challenged that not enough offset testing was completed to project the benefit of extending offset testing to the fleet of vehicles sold in the U.S. The offset testing in fiscal year 1999 will address the technical issues that will arise.

NEW CAR ASSESSMENT PROGRAM

Question. Are you planning to change the way that crashworthiness information is provided to consumers? If so, how? How will it improve matters?

Answer. Yes, the agency intends to change and improve the way that crashworthiness information is provided to consumers. Crashworthiness information is presently disseminated through the NHTSA Hotline, the NHTSA web page, and in the "Buying A Safer Car" brochure, which is also distributed by AAA. As recommended by the NAS study "Shopping For Safety", the Agency will implement a research based multi-channeled approach to providing crashworthiness information to consumers. Enhanced consumer information campaigns will be developed for the NCAP program and for its companion piece, the "Buying A Safer Car For Child Passengers" brochure. Marketing plans will be developed for NCAP and other programs and products that include consumer research, marketing strategies, materials development and dissemination, media outreach, establishment of partnerships, and evaluation. Products will include a video news release, radio public service announcements, media kits, and other executions as appropriate. NHTSA will also develop and implement a marketing plan to make previous years NCAP information available to prospective purchasers of previously owned vehicles. The agency will emphasize outreach to new partners and constituents such as NADA, child safety advocates, the public health community, and consumer groups. The agency will also take full advantage of new technologies such as the Internet. The result will be improved

distribution and promotion of NCAP information and material and a wider and more thorough consumer exposure and awareness of NCAP ratings and of the agency as a credible source of motor vehicle safety information.

Question. The fiscal year 1998 budget earmarked $247,000 for promoting and distributing safety information to consumers regarding NCAP. Did you subtract $247,000 out of the fiscal year 1998 base request for NCAP or is that amount double funded under the new consumer information initiative?

Answer. The fiscal year 1999 budget request for NCAP of $5,056 thousand does not include an amount for promoting and distributing safety information to consumers regarding NCAP. Those activities are included only in the $814 thousand request for the new consumer information initiative. The increased budget request for NCAP will increase the number of tests which can be conducted and investigate the feasibility of extending testing to adults of small stature. The increased testing would benefit consumers by providing them with safety information on a greater proportion of the fleet. Testing with a dummy of a small stature will benefits consumers by providing them with safety information on a greater proportion of the population.

Question. In extensive detail, please break down by each major activity how you would spend the $5.06 million requested for NCAP. Please compare that breakdown to last year's spending allocation. Please delineate specific projects, activities, and associated amounts.

Answer. The following two tables provide a comparison of NCAP fiscal year 1998 and fiscal year 1999 spending and break down for last year's spending.

Table 1

PROJECT/DESCRIPTION	*BUDGET AMOUNT*
Frontal & Side Impact NCAP Fiscal Year 1999 Budget Plans:	
Vehicle Purchase (100)	$1,850,000
Vehicle Testing (100)	2,000,000
Dummy Calibration & Refurbishing	70,000
Quality Assurance of NCAP Data	227,000
Video Production	25,000
Administrative Costs	[1] 80,000
TOTAL	4,252,000
Demonstration of 5th percent Female Dummy Full Frontal Impact NCAP Fiscal Year 1999 Budget Plans:	
Vehicle Purchase (14)	259,000
Vehicle Testing (14)	280,000
Dummy Calibration & Refurbishing	20,000
Quality Assurance of NCAP Data	40,000
Administrative Costs	5,000
Total	604,000
Crash Avoidance Demonstration Program: Braking and Headlight evaluation	200,000
Total NCAP Contract Funds	5,056,000

[1] Administrative costs include computer support, hot copy, printing, and distribution costs.

In fiscal year 1998, NCAP tested a total of 70 vehicles. Fifty vehicles were tested and rated for the frontal protection and 20 for side protection. In fiscal year 1999, NCAP plans to test 100 vehicles. Sixty vehicles will be crashed in the frontal direction and forty in the side direction. The results from the 60 frontal tests will provide consumers with relative frontal crashworthiness information on approximately 85 percent of the new vehicles. In 1999, side impact testing will be expanded to include light trucks, vans, and sport utility vehicles. The results from the 40 side tests will provide information on approximately 80 percent of the new vehicles.

Fiscal year 1999 NCAP funds of $604,000 are requested to evaluate the feasibility of testing with a smaller adult female dummy. Without a funding increase, the NCAP will be testing only with an average size adult male dummy for the future. This will not allow NHTSA to adequately address our critical concerns about air bag safety and other issues. For model year 1999, the results of the testing with a dummy, of small stature, will not be reported to consumers as a safety rating. The purpose of the feasibility testing will be to (1) work out precise laboratory proce-

dures, (2) confirm the durability of the small adult female dummy at the NCAP speed, and (3) assess the data recorded in the crash tests.

NHTSA is seeking $200,000 for NCAP exploratory activities. NHTSA wants to explore whether the agency can provide the American public with meaningful safety information about the crash avoidance capabilities of a vehicle, along with the crash test results. This will give the public a more complete measure of vehicle safety for relatively little additional funding, since crash avoidance testing can be conducted before the vehicles are crash tested. The agency will use these funds to explore whether information on braking and head lighting performance can be provided with the crash test results in NCAP.

Table 2

PROJECT/DESCRIPTION	*BUDGET AMOUNT*
Impact Testing NCAP Fiscal Year 1998 Budget Plans:	
Vehicle Purchase (70)	$1,093,000
Vehicle Testing (70)	1,161,000
Dummy Calibration & Refurbishing	70,000
Quality Assurance of NCAP Data	110,000
Video Production	25,000
Administrative Costs	[1] 80,000
TOTAL	2,539,000
NCAP Promotional Program:	
Promotional Material (Brochures, Radio & Print Spots & Internet Dissemination)	150,000
Reproduce & Disseminate Consumer Material	97,000
Total	247,000
Total Fiscal Year 1998 NCAP Costs	2,786,000

[1] Administrative costs include computer support, hot copy, printing, and distribution costs.

Question. Please provide a breakdown of how the funds appropriated for fiscal year 1998 were used to expand NCAP. How many tests have been conducted, and what were the results?

Answer. In fiscal year 1998, the agency tested 28 passenger cars, 10 sport utility vehicles, 4 vans, and 8 pickups (total of 50 vehicles) in the frontal NCAP. These tests provide frontal safety information on 70 percent of the model year 1998 vehicles sold in the U.S. In fiscal year 1998, the side impact NCAP has tested 20 passenger cars. These test results, combined with carry-over results from fiscal year 1997, will provide side impact information to consumers on 72 percent of the passenger cars sold in the US. The funds for fiscal year 1998 NCAP were spent as follows:

PROJECT/DESCRIPTION	*BUDGET AMOUNT*
Impact Testing NCAP Fiscal Year 1998 Budget Plans:	
Vehicle Purchase (70)	$1,093,000
Vehicle Testing (70)	1,161,000
Dummy Calibration & Refurbishing	70,000
Quality Assurance of NCAP Data	110,000
Video Production	25,000
Administrative Costs	[1] 80,000
TOTAL	2,539,000
NCAP Promotional Fiscal Year 1998 Program:	
Promotional Material (Brochures, Radio & Print Spots & Internet Dissemination)	150,000
Reproduce & Disseminate Consumer Material	97,000
Total	247,000
Total fiscal year 1998 NCAP Costs	2,786,000

[1] Administrative costs include computer support, hot copy, printing, and distribution costs.

RESULTS: 1998 FRONTAL NCAP VEHICLES

# OF CARS	MANUFACTURER	MODEL	STAR RATINGS	
			DRIVER	PAS-SENGER
1	CHRYSLER	CARAVAN	3	3
2		DAKOTA	4	4
3		DURANGO	2	3
4		GRAND CARAVAN	3	3
5		GRAND CHEROKEE	3	3
6		NEON	3	4
7		RAM	4	4
8		STRATUS	3	4
9	FORD	CONTOUR	5	4
10		CROWN VICTORIA	5	5
11		ESCORT	3	3
12		EXPEDITION	4	4
13		EXPLORER	4	4
14		F–150	5	4
15		MUSTANG	5	4
16		RANGER	4	4
17		TAURUS	4	4
18		WINDSTAR	5	5
19	GM	BLAZER	4	4
20		C/K	4	3
21		CAMARO	4	5
22		CAVALIER	3	4
23		CAVALIER	4	4
24		CENTURY	3	1
25		INTRIGUE	4	3
26		LUMINA	4	5
27		MALIBU	4	4
28		S–10	4	4
29		SL	5	4
30		SUBURBAN	4	4
31		VENTURE	4	3
32	HONDA	ACCORD	4	4
33		ACCORD	4	4
34		CIVIC	4	4
35		CR-V	4	5
36	ISUZU	RODEO	3	4
37	NISSAN	ALTIMA	4	4
38		FRONTIER	3	4
39		MAXIMA	4	4
40		SENTRA	3	4
41	SUBARU	LEGACY	4	4
42	TOYOTA	4-RUNNER	3	3
43		AVALON	4	5
44		CAMRY	4	5
45		COROLLA	4	4
46		ES300	4	4
47		RAV–4	4	4
48		SIENNA	5	5
49		TACOMA	4	3
50	VOLVO	S70	5	5

RESULTS: 1998 SIDE IMPACT NCAP PASSENGER CARS

# OF CARS	MANUFACTURER	MODEL	STAR RATINGS	
			DRIVER	PAS-SENGER
1	CHRYSLER	NEON	2	3
2	FORD	ESCORT ZX2	1	4
3		MUSTANG	3	3
4	GM	BONNEVILLE	3	2
5		CAVALIER	1	3
6		CENTURY	3	3
7		INTRIGUE	3	1
8		LeSABRE	3	3
9	HONDA	ACCORD	4	4
10		CIVIC	2	3
11	HYUNDAI	ELANTRA	3	1
12	MAZDA	626	3	3
13	MERCEDES	C–230	3	4
14	MITSUBISHI	ECLIPSE	1	ND
15	NISSAN	ALTIMA	3	3
16		SENTRA	3	3
17	TOYOTA	AVALON	5	4
18		COROLLA	3	3
19	VOLKSWAGEN	JETTA	3	2

Note: Results are not yet available for the 20th vehicle (Lexus ES300).

Question. How will NHTSA utilize the fiscal year 1999 requested funding to provide improved information regarding full frontal and side crashes to consumers?

Answer. NHTSA's requested funding will enable the agency to regain some of the fleet coverage that had been lost due to depowering and increased costs. Approximately 100 vehicle crash tests will be conducted in frontal and side NCAP ($4,252 thousand). This will allow the consumer to have frontal safety information on 85 percent of cars and light trucks sold in the U.S. This is roughly the percentage of vehicles covered before the depowering of the frontal air bags in 1998. Without the increase, the percentage will remain at 70 percent.

Expansion of the side NCAP to LTV's (of the 40 side impact tests, 20–25 would be LTV's) will allow much broader coverage of the total fleet. This will provide the consumer with side impact safety information on approximately 80 percent of the cars and light trucks sold in the U.S. Without the increase, only 60 percent of the fleet will be covered.

Question. Please outline the amounts allocated and activities NHTSA conducted to promote NCAP during fiscal year 1997, fiscal year 1998, and planned for fiscal year 1999. How successful have those activities been?

Answer. For both fiscal year 1997 and fiscal year 1998, $247,000 was allocated to promote NCAP. These activities included:

—Produced a 60-second PSA for movie theaters and distributed it to 56 theaters nationwide. (1997 only)

—Produced a series of camera-ready, pre-packaged print articles for each release of crash test results for MY 1997 vehicles, and distributed them electronically to more than 10,000 weekly and daily newspapers and wire services.

—Produced a VNR on the NCAP program which was shown on all three major network morning shows and distributed by satellite to all TV markets. A total of 77 network affiliate stations and programs played the VNR, and it aired in a total of 18 million households.

—Performed consumer research by completing a Literature Review and conducted focus groups on consumer knowledge, beliefs, and behaviors concerning motor vehicle safety.

—Produced and distributed over 400,000 copies of the Buying a Safer Car brochure, which was updated for MY 1997 vehicles to add side crash test information.

—Used the NCAP exhibit to promote the program at several consumer information events in the fall of 1997.

—Maintain updated NCAP information on the Internet. NCAP is receiving about 4,500 inquiries and visitors per week on the NHTSA web site. This has quadrupled over the past year.

While these activities were successful, much more needs to be done. A recent NHTSA customer survey found that 40 percent of the respondents had never seen or heard of the crash test ratings.

For fiscal year 1999, the following activities are planned.

—$347,000 will be spent to consolidate the vehicle consumer information program by including the amount of funds from the NCAP and Vehicle Safety and Consumer Standards budgets that were allocated to support consumer information activities in fiscal year 1998.

—$150,000 will be used to increase the distribution, marketing, and outreach for the "Buying A Safer Car" and "Buying A Safer Car For Child Passengers" brochures and other current consumer information materials that are produced. The program will emphasize outreach to new partners and constituents such as NADA, child safety advocates, the public health community, and consumer groups. It will take advantage of new technologies and communications strategies to increase the public's awareness and use of motor vehicle safety information.

—$150,000 will be spent for the agency to work with its partners to pursue the development of a summary crashworthiness measure for new vehicles. New materials for other program areas such as anti-lock brakes, rollover, theft prevention, and previously owned vehicles will also be developed and disseminated to consumers.

—$100,000 will be spent for research to determine what vehicle safety information is most helpful to consumers, how it can be presented, and the most effective means of disseminating it. This research will provide the basis for the development of summary ratings and other new campaigns and materials for issues such as rollover, antilock brakes, safety cards, and previously owned vehicles.

—$67,000 will be spent to examine the information currently provided by the agency to determine how its presentation and usefulness can be improved. This includes initiatives to improve warning labels, public service announcements, and brochures.

Question. Please compare the amount appropriated to the amount spent on NCAP for each of the last three fiscal years.

Answer. The appropriated funds for NCAP in fiscal year 1996, fiscal year 1997, and fiscal year 1998 were $1,707,000, $2,792,000, and $2,786,000 respectively. The amounts spent on NCAP in fiscal year 1996, fiscal year 1997, and fiscal year 1998 were the same as the amounts appropriated for those years.

Question. Since last year what improvements have you made in NHTSA's efforts to promote international harmonization? How much do you plan on spending in that area during fiscal year 1998 and fiscal year 1999?

Answer. To improve efforts in the area of international harmonization the agency has drawn as needed on personnel resources from other activities of the agency such as counsel, performance standards, safety assurance and research and development.

These resources were used in the successful negotiation of a draft global agreement on the development of harmonized technical regulations among the European Community, Japan and the United States. The availability of adequate travel funding enabled the holding of five intensive negotiation sessions with appropriate United States representation at each session. The satisfactory funding of the travel associated with international harmonization was also an important factor in enabling the agency's continued substantive participation in the activities of the Automotive Standards Council of the North American Free Trade Agreement (NAFTA) and the Transportation Working Group of the Asia Pacific Economic Cooperation (APEC). Further, the personnel resources made available as needed, has made it possible to complete a process for assessment of the functional equivalence of foreign regulations as compared to United States regulations and to begin substantive participation in the various activities of the International harmonized Research Agenda.

The globalization of the automobile industry and the challenges and opportunities this presents for the agency in promoting motor vehicle safety through the harmonization of regulations worldwide has begun to be felt through the increasing requests for information and counsel from other agencies of the government that have functions where standards and regulatory initiatives play an important role.

As of this writing the agency plans for fiscal year 1998 and fiscal year 1999 are to spend about the same resources for international harmonization activities. To the extent that the agency's participation in the meetings of the Working Party on the Construction of Vehicles (WP29) of the Economic Commission for Europe is funded

and accredited by the Department of State, no increase in travel funding is anticipated. The value of the latter funding is approximately half the agency's travel budget for international harmonization activities.

Question. What efforts are underway or planned to improve the way NCAP information is conveyed to customers?

Answer. NHTSA will improve the way NCAP information is conveyed through implementing programs and approaches designed to respond to consumer research findings. Consumers want more safety information than they presently have; they want the quality and understandability of the information to be better; they want information that is free from bias; and they want the information to be easily accessible from a variety of sources. NHTSA will develop marketing strategies to address these needs and will explore additional methods of presenting and disseminating information, including developing of a summary measure to provide more comprehensive safety information. NHTSA will pursue the development of a summary rating combining front and side impact crash scores, as well as other possible elements, through the establishment of a working group of industry and other partners. The group will examine the feasibility and potential methodologies for developing a summary measure. When completed, the summary rating will provide consumers with another piece of useful information to be used when purchasing a vehicle.

FUEL ECONOMY PROGRAM

Question. Please provide a detailed explanation of the efforts underway to improve the plants and lines database.

Answer. Over the past year, the plants and lines database has been enhanced to provide, not only current data on auto manufacturer product plans and production facilities, but also the storage and retrieval of historic data. As in the past, all data and information related to future product plans and facility utilization are continually updated with more recent information. Enhancements and upgrades to the database format and mapping software have been completed to improve the ease of use, retrieval, and presentation of data and information by the end user. The database has been expanded to provide better coverage of international product planning and facility utilization. The staff has also begun to compile information on alternative fueled vehicles and their producers.

Question. What data have been collected, and what are the results of the data analysis?

Answer. The plants and lines project has collected data on the current and future product plans of all auto manufacturers serving the North American market. It also includes data on assembly plants and plants where major powertrain products are assembled or manufactured, including production rates and future product plans for these facilities. Financial data on the three major domestic manufacturers is included.

Plants and lines is most often used to respond to ad hoc inquiries concerning developments in the auto industry, future product plans, and geographical information concerning companies and their facilities. It was used to support the preparation of the report to Congress on the use and utility of light trucks and, more recently, a report by the Volpe Center for the Partnership for a New Generation of Vehicles (PNGV) study.

THEFT PREVENTION

Question. Please describe the improvements made in your theft prevention program. Were those improvements effective? Please provide quantitative data to support your answer.

Answer. The agency is required by 49 U.S.C. 33104(b)(4) to periodically obtain, from the most reliable source, accurate and timely theft data and publish that data for review and comment. NHTSA obtains its data from the National Crime Information Center (NCIC) of the Federal Bureau of Investigation. The NCIC is a governmental system that receives vehicle theft information from nearly 23,000 criminal justice agencies and law enforcement authorities throughout the United States. This data permits NHTSA to issue rules requiring the designation of likely high-theft vehicles and to calculate annual theft rates of various motor vehicles to determine the risk of their theft.

To fulfill this statutory mandate, NHTSA has published theft data annually since 1983/84. In past years, the agency's theft data was processed by private contractors at a substantial cost to the government. Beginning with receipt of model year (MY) 1995 information from NCIC, theft data have been processed by an in-house team of specialists. In-house processing of the theft data has resulted in a substantial cost

savings to the agency and has improved its ability to more efficiently compile, analyze, and publish the theft data for public review.

Prior to MY 1995 (Contractor costs)	$54,000
MY 1995 (In-house processing)	24,000
Agency Savings	30,000
Prior to MY 1995 (Contractor costs)	54,000
MY 1996 (In-house processing)	4,000
Agency Savings	50,000

The team responsible for implementing of this in-house procedure will continue to develop ways to improve the efficiency of processing the data. The most recent calendar year for which data are available was published on February 9, 1998 (See 63 FR 6603). This data reports preliminary theft data for MY 1996 passenger motor vehicles stolen in calendar year (CY) 1996.

Additionally, on June 26, 1997, the agency published a notice announcing publication of its Preliminary Report to Congress on the Auto Theft and Recovery Effects of the Anti Car Theft Act of 1992 and the Motor Vehicle Theft Law Enforcement Act of 1984 for review and comment (See 62 FR 34494). This report evaluated the effectiveness of the current federal parts-marking program, its statutory regulations, and recommendations for program improvement.

NHTSA's preliminary report showed that parts marking and other provisions of the 1984 and 1992 Acts have given the law enforcement community tools they can use to deter thefts, trace stolen vehicles and parts, and apprehend and convict thieves. Theft rates leveled off after 1989 through 1990 and then began to drop. The average consumer cost of parts marking in 1995 models was approximately $5 per vehicle. At that cost, just a 2 percent reduction in the theft rate would create consumer benefits exceeding the cost of parts marking.

The results of NHTSA's Preliminary Report to Congress suggested that parts-marking has had benefits. There is some indication that the effect of parts marking might have been greater than the 2 percent needed for cost-effectiveness, at least at certain times. The program has, on the whole, had an impact as evidenced by the leveling off and reduction of theft rates after 1990. A final decision on whether to continue or expand the program will not be made until the Department of Justice has completed its extensive review of other information that the Attorney General may develop and include in the public record.

Additionally, funding will be provided for the development of consumer information and materials to increase public awareness of motor vehicle theft deterrence and prevention methods aimed at the further reduction of motor vehicle theft.

SAFETY ASSURANCE

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for the four components in the Safety Assurance Program for fiscal years 1996, 1997, and 1998.

Answer. The information follows.

Program	Fiscal year—					
	1996 Request	1996 Approp.	1997 Request	1997 Approp.	1998 Request	1998 Approp.
Vehicle Safety Compliance	$5,353,000	$4,775,000	$6,033,000	$5,837,000	$5,712,000	$5,712,000
Auto Safety Hotline	1,667,000	657,000	1,787,000	1,483, 000	1,458,000	1,222,000
Defects Investigation	2,460,000	2,419,000	2,481,000	2,478,000	2,478,000	2,478,000
Odometer Fraud	100,000	60,000	100,000	60,000	210,000	135,000
Total	9,580,000	7,911,000	10,401,000	9,858,000	9,858,000	9,574,000

Question. Please prepare a table for each of the four programs in the Safety Assurance Program, showing how all of the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amount provided for each of those activities for fiscal year 1998. On a separate page, please justify the need for the requested increases.

Answer. The information follows.

ACTIVITY	FISCAL YEAR 1998	FISCAL YEAR 1999
VEHICLE SAFETY COMPLIANCE:		
Vehicle Compliance Testing	$3,500,000	$3,463,000
Equipment Compliance Testing	2,212,000	2,212,000
Total	5,712,000	5,675,000
DEFECTS INVESTIGATION:		
Defect Identification and Evaluation	1,296,000	2,056,000
Testing and Surveys	832,000	1,015,000
Recall Monitoring and Performance	350,000	350,000
Total	2,478,000	3,421,000
AUTO SAFETY HOTLINE:		
Defect Reporting	177,000	219,000
Contract Personnel	640,000	666,000
Phone	250,000	260,000
Call handling Support	80,000	125,000
Printing	75,000	125,000
Total	1,222,000	1,395,000
ODOMETER FRAUD INVESTIGATION:		
Cooperative Agreements for 3 States to provide law enforcement agent	135,000	.....
Cooperative agreements with 2 States for State enforcement support	.....	60,000
Cooperative agreements for 2 State enforcement officers for temporary assignment to NHTSA	.....	90,000
Total	135,000	150,000

Justification for Increases:

Auto Safety Hotline

In fiscal year 1999, the agency plans to expand its defect reporting outreach program to increase public awareness of the Hotline and NHTSA's Internet web site and to encourage motorists to report potential safety-related defects. Additionally, small increases are necessary to accommodate cost-of-living increases for contract personnel, to fund anticipated increases in telephone costs, to replace or upgrade broken or outdated equipment for call handling support, and for additional printed materials requested by consumers.

Odometer Fraud Program

Additional funding in fiscal year 1999 program, would allow the agency to award cooperative agreements to four states. Cooperative agreements, at approximately $45 thousand each, will be awarded to two states to provide two State law enforcement agents (one from each State) to NHTSA for one year of in-depth training. The state agents will supplement NHTSA's odometer enforcement program and in return, will receive in-depth training in conducting odometer fraud investigations for prosecution in federal courts, similar to the cooperative program in fiscal year 1998.

The remaining cooperative agreements will be awarded to two states at approximately $30 thousand each to enable those states to initiate new odometer enforcement activities or to enhance existing programs. These states will investigate odometer fraud for criminal or civil prosecution; assist defrauded consumers in recovering damages; monitor state motor vehicle titling systems to deter odometer fraud; and conduct public awareness campaigns.

With these cooperative agreements, the agency plans to realize the goal of promoting or enhancing active state enforcement, help deter future violations of odometer laws, and save consumers millions in maintenance and repair costs.

Defects Investigation

It is not unusual for the Office of Defects Investigation to curtail or delay important testing or survey work because of lack of manpower to conduct the tests/surveys. This puts the agency at a distinct disadvantage when trying to demonstrate the existence of a safety-related defect. It also makes it difficult to maintain the performance measure of an 8-month average completion time for investigations. Funding requested in fiscal year 1999 will provide additional Vehicle Research and Testing Center (VRTC) contractor engineering and technical personnel to support defect identification and evaluation.

Investigations, such as those currently being conducted on alleged problems with antilock brakes, are quite complex and, therefore, quite expensive. The additional funds for testing would enable ODI to conduct the tests necessary to fully understand complex problems and to complete investigations in a more timely manner. The addition of contractor engineering and technical support personnel for VRTC and added test funds for VRTC will enable investigations such as these to be conducted in a more complete and timely manner.

Additional funds to provide contractor engineers and investigators in support of defect identification and evaluation, will allow the agency to conduct investigations of small population vehicle groups (i.e., transit buses, recreational vehicles, heavy trucks, fire & rescue vehicles, and motorcycles), which are not actively investigated at the present time. While the number of vehicles in these groups may not be large, the results of defects could be catastrophic. For instance, in 1996 there were 410 large truck occupants killed in single vehicle crashes. In that same year, however, there were 211 large truck occupants and 4,072 other vehicle occupants killed in multiple vehicle crashes involving large trucks. Similarly, the injury rate per 100 million vehicle miles traveled for motorcyclists in 1994 was 549, while the injury rate for passenger car occupants was 160. Problems involving vehicles which carry large numbers of passengers, such as transit vehicles, can also have catastrophic consequences because of the numbers of people involved. Additionally, recreational vehicles frequently involve second stage manufacturers who may not be familiar with the underlying vehicles which they are converting, and fire and rescue vehicles travel at high speeds in emergency situations, possibly leading to devastating effects if crashes occur. All of these vehicle groups require special screening methods in order to be effectively monitored.

The availability of one full-time investigator to perform on-site investigations of crashes and vehicle inspections would substantially assist the defects office in conducting investigations more expeditiously and thoroughly. This person would be on-call to visit sites, perform crash reconstruction, and inspect vehicles and equipment. These on-site inspections would assist defects investigations by providing analyses and documentation critical to determining whether a defect exists in a motor vehicle or motor vehicle equipment.

Finally, the addition of one contractor to conduct computer aided design (CAD) analyses would aid the office in conducting more thorough and timely investigations. CAD analyses are useful tools in investigations because they enable the agency to model relevant components and apply forces to the model in varying amounts and directions to determine whether the component is susceptible to failure. Such modeling could save the agency the cost of conducting multiple tests to determine failure.

NHTSA REGULATIONS

Question. How is NHTSA demonstrating its commitment to performance-based criteria as a regulatory philosophy? Which performance-based regulations were issued last year?

Answer. The Safety Performance Standards program supports the achievement of the DOT and NHTSA safety goals to reduce fatalities, injuries, crashes, and their economic costs. For the fiscal year 1999 budget, the program's safety goals are:

—Reduce the 41,000 fatalities, 3.3 million injuries, and 6.3 million police-reported motor vehicle crashes that annually result from motor vehicle crashes by issuing vehicle safety standards and developing and distributing of motor vehicle safety consumer information.

—Improve crash survival for the 1.6 million occupants of vehicles involved in towaway frontal and side impact crashes each year.

Examples of program performance measures that provide the linkage to achieving these goals are:

—Average time required to complete rulemaking actions.

—Percentage of petitions answered within 120 days.

—Timely completion of model year crash tests.

—Percent of the new vehicles sold in the U.S. annually for which frontal impact safety information is available.
—Percent of the new vehicles sold in the U.S. annually for which side impact safety information is available.
—Percentage of consumers who believe safety of the vehicle is a "very important" consideration in their purchase decision.
—Percentage of consumers who have heard of or seen the vehicle crash test ratings.

Under the Department's environmental and economic goals the safety performance program goals are to:

—Improve the average fuel economy of new passenger car and light truck fleets.
—Reduce the incidence of the more than 1 million motor vehicle thefts that occur annually in the United States.

NHTSA seeks to make the largest possible impact on the overall number of crashes, fatalities, and injuries by focusing on discrete vehicle safety issues. A number of factors are considered, including problem size, feasibility and practicability of solution, potential benefits, and costs to the public per life and injury saved. The agency also gives emphasis to safety issues that are of critical concern to society, such as the safety of children and the disabled.

All of NHTSA's rules are performance-based with respect to improving and maintaining the level of safety in vehicles, or supporting its non-safety mandates (e.g. theft program). Significant final rules and NPRM's issued in CY 1997 are:

571.108—Final Rule.—Requires the rear of truck tractors be equipped with retro reflective material similar to that required on the rear of the trailers they tow to increase nighttime conspicuity.

571.135—Final Rule.—Extended requirements to trucks, buses, and multipurpose passenger vehicles with a gross vehicle weight rating (GVWR) of 3,500 kilograms or less in an effort to achieve international harmonization.

571.201—NPRM.—The agency proposed to permit, but not require, the introduction of dynamic head protection systems currently being developed by vehicle manufacturers to provide added lateral crash protection.

571.208—NPRM.—In response to a petition for rulemaking, the agency proposed amendment to provisions in the standard which specified that, during crash tests, all portions of a test dummy must remain in the vehicle throughout the test.

571.208; 571.213—Final Rule.—Required vehicles with air bags to bear three new warning labels to reduce the adverse effects of air bags, especially for children.

571.208—Final Rule.—Extended the time period during which vehicle manufacturers are permitted to offer manual cutoff switches for the passenger-side air bag for vehicles without rear seats or with rear seats that are too small to accommodate rear facing infant seats.

571.208.—Temporarily amended the standard to allow vehicle manufacturers to quickly depower all air bags so that they inflate less aggressively. [This final rule allows unbelted sled test protocol as a temporary alternative to the full scale unbelted barrier crash test.]

571.208—Final Rule.—Allows motor vehicle dealers and repair businesses to install retrofit manual on-off switches for air bags in vehicles owned by or used by persons whose requests for switches have been approved by the agency.

571.210—NPRM.—In response to a petition for rulemaking, the agency proposed to require manufacturers to certify the anchorages of a voluntarily installed Type 2 safety belt (lap/shoulder belt) to the anchorage requirements for a mandatorily installed Type 2 safety belt.

571.213—NPRM.—The agency proposed to require that motor vehicles and add-on child restraints be equipped with a means independent of vehicle safety belts for securing the child restraints to vehicle seats (Uniform Child Restraint Anchorages—UCRA).

571.213—Final Rule.—In response to petitions for reconsideration, the agency corrected or clarified provisions to the final rule which added a greater array of sizes and weights of test dummies for use in compliance tests.

571.214; 572—NPRM.—The agency proposed specifications and qualification requirements for a newly-developed anthropomorphic test dummy for compliance testing.

571.216—NPRM.—In response to petitions for rulemaking, the agency proposed to revise the test procedure to make them more suitable to testing vehicles with highly sloped roofs or raised roofs.

VEHICLE SAFETY COMPLIANCE

Question. Please break down how you intend to use the $5,675 million requested for Vehicle Safety Compliance, and compare those expenditures with amounts allocated during fiscal year 1997 and planned for fiscal year 1998.

Answer. The information follows.

VEHICLE SAFETY COMPLIANCE	FISCAL YEAR 1997	FISCAL YEAR 1998	FISCAL YEAR 1999
Vehicle Compliance Testing	$3,625,000	$3,500,000	$3,463,000
Equipment Compliance Testing	2,212,000	2,212,000	2,212,000
Total	5,837,000	5,712,000	5,675,000

The budget for the Vehicle Safety Compliance Program has decreased slightly from fiscal year 1997 to fiscal year 1999 ($162,000) with the distribution of funding between the Vehicle Compliance Test Program and the Equipment Compliance Test Program remaining relatively constant. The key program components continue to be full-scale dynamic testing of new motor vehicles under the Vehicle Compliance Test Program. These tests assess impact and occupant crash protection performance for a wide spectrum of vehicles, including all sizes of passenger cars, vans, pickup trucks, and sport utility vehicles. The actual number of full-scale vehicle tests for fiscal year 1997 and planned for fiscal year 1998 and fiscal year 1999 are as follows: frontal crash tests—10, 27, and 26, respectively, for the three years; side impact tests—20 for each year; and side and rear fuel system integrity tests—20 for each year. Historically, the agency conducts 26–30 frontal crash tests each year. In fiscal year 1997, fewer frontal crash tests were conducted due to a major regulatory change, which allowed manufacturers the option of using an acceleration sled rather than a barrier crash to accommodate depowered air bags. In fiscal year 1999, the agency will also initiate compliance testing of upper interior head protection in vehicles using dynamic head form impacts, which is a standard that will begin to be phased in in fiscal year 1999. Under the Equipment Compliance Test Program, the agency will continue to test a majority of new child restraint systems and motorcycle helmets to the requirements of the safety standards. The actual number of tests for fiscal year 1997 and planned for fiscal year 1998 and fiscal year 1999 remain constant at 60 child restraint system tests for each year and 40 motorcycle helmet tests for each year.

Question. Is your testing program geared to the evaluation of the most critical safety components of a vehicle?

Answer. Yes. In the Vehicle Safety Compliance Program, we conduct full-scale dynamic tests of new motor vehicles to verify compliance of the most critical safety components of a vehicle to the requirements of the Federal motor vehicle safety standards. In fiscal year 1999, three critical areas will be assessed for passenger cars and light trucks selected for dynamic testing: the performance of driver and front passenger air bags in frontal crashes, the performance of the vehicle structure in side impacts or intersection-type collisions, and the protection of occupants' heads from impacts to vehicle upper interior components, where the performance requirements will be phased in over five years. The fiscal year 1999 testing program will also include tests of passenger cars, light trucks, and school buses to assess the performance of critical fuel system components following a crash.

Question. Please describe the relationship between your testing program and injury reduction.

Answer. We continue to place emphasis on those areas in our compliance testing program which we believe offer the greatest potential for reducing deaths and injuries on the highways. All new passenger cars and light truck vehicles are being equipped with air bags to provide protection in frontal crashes. Requirements for side impact performance will become effective for all light trucks manufactured on and after September 1, 1998. Also, beginning on that date, 10 percent of each manufacturer's passenger cars and light trucks must meet requirements for upper interior head protection. The compliance testing program will include testing in each of these areas to ensure that the motoring public is receiving all the benefits of those lifesaving features as new vehicle models are introduced into the marketplace. The program also focuses on compliance testing of new child restraint systems and motorcycle helmets to ensure that the highest level of safety benefits are being realized from these devices. We strive to complete these programs as early in the fiscal year

as possible to reduce the number of vehicles and/or equipment to be recalled in the event a noncompliance is found.

Question. Could some parts of your safety testing program be eliminated because the safety impacts of non-compliance are minimal compared to non-compliance of other regulations?

Answer. Compliance testing, inspection, and investigation of vehicles and equipment provide oversight and surveillance to ensure compliance with all Federal motor vehicle safety standards (FMVSS). From 24 to 28 of the 44 testable standards are included in each fiscal year's compliance testing program. Therefore, not all standards are tested each year. The standards selected for testing are based on a variety of factors. These include the potential to reduce casualties, the failure rate in prior years of testing, new product offerings certified to a standard, the introduction of new standards, and the cost of compliance testing. Ensuring that compliance requirements are met will result in the on-the-road fleet providing the benefits associated with all standards. Additionally, a rigorous safety testing program results in manufacturers designing vehicles and equipment with an appropriate margin of compliance to ensure that, should the agency perform a FMVSS test, the vehicle or equipment will meet the performance requirements in each standard. This results in comprehensive safety benefits from all FMVSS, since the higher the margin of compliance, the greater the reduction in injury risk.

Question. How do you know that you are conducting the most cost effective mix of tests? For example, have you evaluated whether or not you should be conducting more side impact tests versus frontal occupant protection crashes?

Answer. Compliance testing includes Federal motor vehicle safety standards (FMVSS) that promote crash avoidance and provide occupant protection during the crash event and following the crash event. Not every standard is tested every year, but we continually assess the frequency of each standard's testing when we revise the five-year plan for compliance testing each year. Frequently, vehicles are used for multi-standard testing to improve the overall cost effectiveness of our testing program. The FMVSS with the greatest potential benefits are tested yearly, including those to assess side impact and frontal crash protection. Data for 1996 from the agency's General Estimate System (GES) indicate that there were many more angular crashes (2,461,694) than head on events (110,379). However, the number of fatalities for both types of crashes (8,629 in angular crashes, 6,843 in head-on crashes) are significant with respect to the 42,065 fatalities reported in the GES. Given the higher percentage of head-on crashes that resulted in a fatality, we believe that our plan for 26 tests to assess frontal crash performance and 20 tests for side impact protection reflects a cost-effective mix of tests.

AUTO SAFETY HOTLINE

Question. Please describe the improvements made in the Auto Safety Hotline program since last year.

Answer. During calendar year 1997 the following improvements have been made in the Hotline:

—All remaining personal computers were upgraded to Pentiums; the desktop information was upgraded to be more user-friendly; voice management system scripts have been changed to improve call handling; staffing additions have been made to accommodate peak time calls; and reporting features for the automatic call distribution system have been upgraded to capture more data.

—An outreach program has been implemented which is focusing primarily on mass mailings to organizations such as state motor vehicle departments, state consumer organizations, state tourism agencies, state attorneys general, leasing and rental companies and libraries. These organizations have been requested to put posters in prominent places, make flyers available, place articles in newsletters, and hotlink their organization with the Auto Safety Hotline web site.

—A few smaller projects have also been undertaken on a trial basis. These include dioramas in several airports, Amtrak and Metro stations, and tailgate displays or interior cards on buses in selected jurisdictions. It should be noted that the space for these latter projects has been donated by the respective transit companies, with the agency paying only for printing costs.

Question. Please provide statistics on the use of the Hotline during each of the last three years.

Answer. Total calls received by the Auto Safety Hotline during each of the last three calendar years are as follows: 1995—809,496 calls; 1996—778,819 calls; and 1997—724,516 calls.

Question. Please describe the outcomes or outputs that you measure pertaining to the Hotline.

Answer. The Auto Safety Hotline performance is measured through:

—Call composition and metrics, which includes gathering and archiving the following data: calls received, calls answered, abandoned calls, representative availability, average time to handle calls, average delay time to handle call, systems availability, number of fax requests, and number of electronic mail requests;

—Customer service surveys, such as bounce back cards, outreach statistics gathered at the time of the call, annual surveys, random call monitoring, and callbacks; and

—Impact on the Defects Investigation Program. Over 75 percent of the preliminary defect investigations are initiated by reports received through the Auto Safety Hotline.

The following Auto Safety Hotline outputs are measured:

Mailings.—Number of documents pertaining to specific highway safety issues; number of recall information requests filled; and number of defect reports.

Reports.—Daily, Weekly and Monthly Reports on call composition and metrics, mailings and outreach efforts.

Data Capturing.—Caller information, vehicle information, recall requests, literature requests, outreach activities, and customer service survey results.

Question. Have you changed and increased the use of the Internet to accomplish the objectives of the Hotline? How has it helped?

Answer. The following changes have been made to the web site of the National Highway Traffic Safety Administration to increase consumer use:

A search engine has been installed to assist those customers with access to the World Wide Web in identifying recalls, defect reports, defect investigations, and technical service bulletins pertaining to a specific vehicle make and model.

The option to download files (recalls, defect reports, defect investigations, technical service bulletins), free of charge, is available to customers who request large amounts of data.

Customers can submit a defect report by completing the vehicle owner's questionnaire (the form on which consumers report potential safety-related defects to the Auto Safety Hotline) directly through the Internet.

Question. When will the budget for the Hotline level off?

Answer. The Hotline budget is expected to experience small yearly increases over the next several years. These increases are the result of the need to periodically upgrade equipment to the latest technology, expand Internet usage, replace or repair broken or malfunctioning equipment, print additional literature requested by consumers, account for cost of living increases for the contract personnel, and obtain some more highly skilled contact representatives as automobile systems become more complicated. Additionally, the budget could increase in order to expand the outreach program to increase the public's awareness of the Hotline, and the importance of contacting the agency to report potential problems with motor vehicles and motor vehicle equipment.

Question. Please prepare a detailed breakdown on a project-by-project basis showing the expected uses of the $1.395 million requested for the Auto Safety Hotline.

Answer. The following is a breakdown of the expected uses of the $1.395 million requested for the Auto Safety Hotline.

Defect Reporting	$219,000
Contract Personnel	666,000
Telephone Bill	260,000
Call Handling Support	125,000
Printing	125,000

Question. Please prepare a side-by-side comparison on the spending allocation for fiscal year 1998 and planned spending allocation for fiscal year 1999.

Answer. The following is comparison of the spending allocation for fiscal year 1998 and fiscal year 1999.

	Fiscal year 1998 budget	Fiscal year 1999 request
Defect Reporting	$177,000	$219,000
Contract Personnel	640,000	666,000
Telephone Bill	250,000	260,000
Call Handling Support	80,000	125,000
Printing	75,000	125,000

Question. How much did you spend or will spend in fiscal year 1997, fiscal year 1998, and fiscal year 1999 on contractor studies to evaluate or assess the use of future use of the Hotline.

Answer. No contract funds were spent in fiscal year 1997 or 1998 to evaluate or assess the future use of the Hotline. During the past two years, the Hotline administered customer service surveys and utilized in-house teams to evaluate and recommend improvements. NHTSA does employ a contractor whose duties are to promote public awareness of the need to file owner reports of problems with motor vehicles and motor vehicle equipment via the Auto Safety Hotline and the Internet. Approximately, $75,000 of the amount allocated to defects reporting was spent in fiscal year 1998 for the salary and benefits for that contractor. As part of his duties, he performed an analysis of the Hotline database to determine by zip code the demographics of the callers to the Hotline. That data will be refined in fiscal year 1999 to enable to the Hotline outreach program to focus on population groups that heretofore have not utilized the Hotline to report problems with vehicles that may be safety-related. The remainder of the amount allocated to defects reporting was utilized for contracts with auto clubs for mailings to their members to encourage reporting of problems with vehicles and for printing of some outreach material that we were unable to print through GSA.

SAFETY DEFECTS INVESTIGATION

Question. Please prepare a detailed breakdown on a project-by-project basis showing the expected uses of the $3.421 million requested for Safety Defects Investigation.

Answer. The breakdown of the expected uses of the $3.421 million requested for Safety Defects Investigation is as follows:

Defect Identification and Evaluation	$2,056,000
Testing/Surveys	1,015,000
Recall Monitoring and Performance	350,000

Question. Please prepare a side-by-side comparison on the spending allocation for fiscal year 1998 and planned spending allocation for fiscal year 1999.

Answer. The comparison of spending allocation for fiscal year 1998 and fiscal year 1999 is as follows:

	Fiscal year 1998 budget	Fiscal year 1999 request
Defect Identification and Evaluation	$1,296,000	$2,056,000
Testing/Surveys	832,000	1,015,000
Recall Monitoring and Performance	350,000	350,000

Question. Do you believe that spending more dollars on monitoring and investigating vehicle population groups involving relatively small numbers of vehicles is a cost effective investment?

Answer. NHTSA believes that it is important to have the resources to investigate vehicle population groups involving smaller numbers of vehicles (i.e., heavy trucks, fire & rescue equipment, transit buses, recreational vehicles, and motorcycles) that are not currently monitored. While the number of vehicles in these groups is not as large as in passenger cars or light trucks, the results of defects could be catastrophic. For instance, in 1996, there were 410 large truck occupants killed in single vehicle crashes. In that same year, however, there were 211 large truck occupants and 4,072 other vehicle occupants killed in multiple vehicle crashes involving large trucks. Similarly, the injury rate per 100 million vehicle miles traveled for motorcyclists in 1994 was 549, while the injury rate for passenger car occupants was 160. Problems involving vehicles which carry large numbers of passengers, such as transit vehicles, can also have catastrophic consequences because of the large numbers of people involved. Additionally, recreational vehicles frequently involve second stage manufacturers who may not be familiar with the underlying vehicles which they are converting and fire and rescue vehicles travel at high speeds in emergency situations, possibly leading to devastating effects if crashes occur. All of these vehicle groups require special screening methods in order to be effectively monitored. The driver/owners of these vehicles often do not file complaints with NHTSA, so it is important to develop working relationships between the agency and the fleets.

Question. What are the advantages and disadvantages of focusing more of your resources on investigations of vehicle population groups with the largest number of vehicles?

Answer. The Office of Defects Investigation (ODI) currently focuses its resources on investigations of vehicle population groups with the largest number of vehicles. With the current level of resources, NHTSA believes that this is the most effective way to approach investigating potential safety-related defects. The disadvantage of utilizing all of ODI's investigative resources in this manner is that it makes it possible to overlook defects in other vehicle population groups that, while they may be smaller in numbers, could affect a large number of individuals. For instance, because transit buses carry large numbers of passengers, a defect could be catastrophic. Similarly, single vehicle crashes involving heavy trucks may affect only one individual. However, statistics demonstrate that in multiple vehicle crashes where one of the vehicles is a heavy truck, occupants of passenger vehicles are far more likely to be fatally injured. Motorcycles are associated with more serious consequences when a crash occurs than other types of vehicles in similar crashes. Given current resource limitations, it would not be beneficial to divert resources to address these vehicle populations; however, we believe that these are vehicle population groups to which additional resources should be devoted.

ODOMETER FRAUD PROGRAM

Question. What were the three key improvements made since last year?

Answer. During the past year, NHTSA organized and participated in a northeastern states odometer fraud task force conference which was held in New Hampshire. This was the first such conference held in that part of the country since 1988 and was attended by law enforcement officials from seven northeastern states. The conference resulted in the renewed commitment by these states to exchange intelligence information and join forces in combating interstate odometer fraud enterprises.

Additionally during the past year, the victim notification program, which NHTSA initiated in 1993, produced a very significant outcome. Because that program led to claims against members of the National Auto Auction Association (NAAA), the NAAA passed a resolution urging all members to report violations of odometer laws to law enforcement agencies. NHTSA and the law enforcement community have been pressing NAAA for this commitment for several years.

In addition, the funding for NHTSA's program to enter into cooperative agreements with three states to provide law enforcement officers to the Odometer Fraud Staff to receive training in return for assisting the staff with investigations has begun to change the management culture in the States. Recognizing the problem of odometer fraud, these states have determined the long term gain to be achieved by having better trained law enforcement officers outweighs the short term loss of staff. Each officer will receive extensive training in odometer fraud enforcement and will be assigned to conduct investigations in areas of the country where odometer fraud is most prevalent. This will increase the number of federal convictions substantially, thereby creating a deterrent in those areas, while providing the participating states with an officer capable of managing a comprehensive and effective odometer enforcement program.

The agency continues to complete investigations and obtain criminal convictions by DOJ, and obtain restitution to victims of odometer fraud.

HIGHWAY SAFETY

Question. What is the relationship, if any, between the allocation of resources in the highway safety budget and potential life saving or injury reduction outcomes?

Answer. The traffic fatality toll for the next four years (1998–2001) is expected to average 41,000 per year. This projection is associated with a rising annual travel and a slightly decreasing fatality rate per mile.

NHTSA has clear opportunities to decrease traffic fatalities by changing driving practices—for example, by increasing seat belt and child safety use and by decreasing impaired driving. If the nation can achieve the belt use and impaired driving levels of the best states, we can save over 10,000 lives annually.

Clearly, the agency is directing its resources to those areas where the greatest gains in saving lives can be made. The increased funding for the occupant protection program will provide more aggressive and targeted public information and education, improved state legislation and more intensive enforcement of those laws. The agency will place added emphasis in this area with the addition of new partners supporting the effort, strong promotion of primary enforcement in state belt use laws, and the implementation of the President's Plan to Increase Seat Belt Use Nationwide through the Buckle Up American campaign.

The increased funding request for the alcohol program is also consistent with a focus on potential high payoff areas. The fiscal year 1999 budget request will allow

NHTSA to initiate demonstration projects in targeted States with higher alcohol-related fatalities, to implement innovative strategies from Partners in Progress and to "move the needle" closer to the 2005 goal. Outreach to national organizations will focus on the targeted states, as will enforcement demonstrations. Combating impaired driving by youth will be a major component of the fiscal year 1999 program. Additionally, the agency will respond to the greater demand from states and communities for the dissemination of "best practices" and training. Finally, the agency will provide media support for the national campaigns and outreach to various partners.

These resources will provide progress toward reducing alcohol-related fatalities to 11,000 in 2005 (CY 1999 Target: 14,200; 1995 baseline: 17,274) and increase observed safety belt use rates to 85 percent by 2000 and reducing the number of child occupant fatalities (ages 0–4) by 15 percent by 2000, from a total of 685 in 1995.

Question. Please document whether you are proposing to allocate most of your resources on those areas most likely to result in the biggest payoffs.

Answer. The agency is allocating its resources most heavily to those areas which have the greatest potential for impact. Specifically, the areas receiving the bulk of the resources are the alcohol and occupant protection programs. Another important area is that of Enforcement and Emergency Services. The table below shows the amounts of funds requested for each of these areas.

[In thousands of dollars]

	Fiscal year 1998 Approp.	Fiscal year 1999 Request
ALCOHOL, DRUG & STATE PROGRAMS:		
Alcohol Program	7,675	9,728
Drug Evaluation & Classification	476	920
Pedestrian & Bicycles	655	745
Motorcycle Programs	337	509
NATIONAL OCCUPANT PROTECTION PROGRAMS:		
Public Information & Education	2,263	2,911
Belt Law Compliance	1,594	2,383
Target Population Ed	1,540	3,050
Evaluation & Technology Sharing	498	771
ENFORCEMENT & EMERGENCY SERVICES:		
Police Traffic Services	1,646	1,868
Emergency Medical Services	1,550	1,737

Question. Please specify the scope, nature, and funding amounts for fiscal year 1998 activities and for fiscal year 1999 planned efforts on the issue of SUV's and on the issue of people driving while using their phones.

Answer. The issue of SUV's is being investigated as part of the agency's vehicle compatibility research. To date, the agency's research that has been undertaken to evaluate passenger cars versus light trucks and vans (LTV's) (which includes SUV's) has found that the LTV's as a group substantially increase the risk of fatality to their collision partners in vehicle-to-vehicle crashes. For fiscal year 1998, the agency plans to spend $1.3 million on vehicle compatibility issues. This funding will be used to continue the development of system modeling for the evaluation of vehicle aggressivity and compatibility. Also, crash tests are being conducted to develop concepts for countermeasures that increase vehicle compatibility and reduce vehicle aggressiveness. Full-system testing also will be used for model validation as well as for evaluating system performance. This effort will also include pedestrian protection research.

The agency plans to spend $1.677 million in fiscal year 1999 for research on vehicle compatibility. This funding will be used to continue the development of system modeling and test procedures for the evaluation of vehicle aggressivity and compatibility. Also, activities will be initiated for evaluation of countermeasures to increase vehicle compatibility and reduce vehicle aggressiveness and for the development of a test procedure for evaluating vehicle aggressivity/compatibility. Full-system testing will be conducted for model validation as well as for determination of system performance. This effort will also include the continued assessment of pedestrian protection test procedures.

No fiscal year 1998 money was spent on cellular phone research. A preliminary study that was funded earlier was published in fiscal year 1998. The fiscal year 1999 budget request includes $800 thousand for driver behavior and performance,

which will include research to determine the safety effects of using in-vehicle devices such as cellular phones, navigation systems, fax machines, and computers on drivers' attention to the driving task.

SAFE COMMUNITIES INJURY CONTROL PROGRAM

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for the Safe Communities Injury Control program for fiscal years 1996, 1997, and 1998.

Answer. See table below.

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Approp	Request	Approp	Request	Approp
Safe Comm	5,600	675	1,800	900	900	900

Question. Please prepare a table for the Safe Communities Injury Control Program, showing how all of the funds requested for fiscal year 1999 area intended to be spent, and please include in that table a comparison with the amount provided for similar activities for fiscal year 1998.

Answer.

Project	Fiscal year 1998 expenditures	Fiscal year 1999 planned expenditures
Demonstration/Evaluation Projects	$525,000	$650,000
Peer-to-Peer Technical Assistance	.....	1,150,000
Safe Communities Award Program	.....	50,000
Overall Program Evaluation	.....	350,000
Technical Assistance (service center, website, training, newsletters, materials, printing etc.)	375,000	600,000

Question. Is this the last year that monies will be allocated for program evaluation purposes? Why is there a need to continue the evaluation components?

Answer. This is the only year that NHTSA anticipates monies will be allocated for Safe Communities program evaluation purposes, separate from the demonstration grants.

Two levels of evaluation of the program are being conducted. The first level involves process and impact measures that are incorporated into each of the Section 403 demonstration and evaluation projects. Evaluation at this level will yield information on the impact of the Safe Communities model on the traffic safety problem at each site as well as information on various types of activities and countermeasures that were implemented at that site.

The 10 communities that will be added this year and next year will specifically use a "continuous process improvement" approach to improving traffic safety. The greatest difference between previous evaluations and this one is the time span. Whereas major program evaluations may take three years, this process looks at changes over periods as short as a week. The second largest difference is the feedback loop. Program interventions are identified and tested on a small scale. If, for instance, seat belt usage has risen as a result of the program activity, the program will be implemented on an expanded basis. If it remains the same or has fallen, the original changes will be dropped or altered. NHTSA feels that this approach is well suited for individual communities. This technique has shown some promise in some non-NHTSA research, but it is an adaptation of an approach which has shown its best success within companies that had top-down control and direction. It needs to be refined and tested for Safe Communities, where decision making is a group process.

The second level of evaluation will compare a sample of the existing Safe Communities programs to a series of matched control sites which are not Safe Communities. Each matched-pair of communities will be in the same State. In addition to whether injuries and deaths decreased, this level of evaluation will look at how well the Safe Communities applied recommended best practices, and whether improvements which occurred in the short term continued in the loner term after less atten-

tion was given by the Safe Community committee. This will test whether the new safe behaviors have become community norms.

Question. How will the fiscal year 1999 evaluation component differ from the fiscal year 1998 component?

Answer. All of the Section 403 Safe Communities demonstration and evaluation projects for both fiscal year 1998 and fiscal year 1999 have a component built into them that evaluates only the activities and the results achieved within each community, compared to baseline data of traffic injuries and fatalities in that community prior to the implementation of the Safe Communities model. In fiscal year 1999, there will be an independent, overall evaluation of the Safe Communities model consisting of a matched-pair comparison of a random sample of the existing Safe Communities with similar communities in the same state which are not Safe Communities.

Question. Did NHTSA originally state that the evaluation phase of the Safe Communities program would only last a few years? When was the evaluation program originally intended to end?

Answer. When the program was conceived in 1995, it was designed as a three-year demonstration and evaluation effort to test the implementation of the newly-developed model in several locations. Since that time, the program has gained momentum beyond expectation, requiring additional monitoring and evaluation. The agency has also learned of new techniques and strategies (i.e., continuous process quality improvement procedures) that it believes can significantly improve the efficiency and effectiveness of the Safe Communities model. Demonstrating and evaluating the effect of these new techniques would be very beneficial to our efforts to establish effective community-based efforts.

Question. Why are you seeking to expand the number of evaluation sites during fiscal year 1999? What will be different or unique about those evaluations? What new results are likely or are we simply testing the injury control model in different locations?

Answer. NHTSA is seeking to expand the number of evaluation sites during fiscal year 1999 to evaluate the effect of continuous improvement procedures in a number of different settings. However, this is not a matter of simply testing the model in different locations. It also involves a variety of different countermeasures and "best practices" implemented at various sites. Our objective is to gather a sufficient amount of information to ensure that nearly every community can apply effective Safe Communities procedures to its own special circumstances.

Continuous improvement methodologies have been widely used and proven effective in business and hospital settings. In 1996–97, the Institute for Healthcare Improvement tested the use of these methodologies in ten communities. The program resulted in a number of program improvements. NHTSA is interested in testing the application of these methods in a wide variety of non-hospital settings to determine if they can: expedite the planning process and assist communities in more rapid countermeasure implementation; assist communities in obtaining early indications of potential effectiveness; and increase local support and commitment by demonstrating more immediate successes at lower costs.

Question. In view of the fact that more than 350 communities already are participating in the Safe Communities program, why is it necessary to continue the evaluation process?

Answer. Although more than 350 communities are already participating in the Safe Communities program, the majority of these communities have not yet fully adopted the four defining characteristics of the model: use of multiple sources of data, citizen involvement and participation, expanded partnerships, and use of a comprehensive injury control system approach. This model offers communities a new framework by which to address their motor vehicle injury problems and encourages communities to be innovative in how they develop their community programs.

NHTSA and the states continue to invest significant resources in the implementation of Safe Communities. To date four research and demonstration projects have been funded and five projects are pending. Fiscal year 1999 funds request additional resources to support five additional demonstration projects that will test the efficacy of using a continuous improvement process model in a community setting. This is a new approach that has not been tested in the highway safety setting. These 14 demonstration projects will provide "best practices information" on an array of strategies that an evaluation will determine which are most useful to communities trying to replicate the model. The best way to obtain this information is to conduct numerous demonstrations in many locations.

Question. Why is it critical to increase spending for the Safe Communities program by over 300 percent at this time?

Answer. The Safe Communities program has gained momentum beyond the Agency's modest expectations. NHTSA's goal for fiscal year 1999 is to have 600 Safe Communities and the ultimate goal is to have thousands of Safe Communities throughout the country. Demand for technical assistance, best practices information, training, and materials by practitioners is extremely high. As a result, NHTSA will employ several new initiatives to fulfill this demand.

NHTSA will establish a Network of Injury Prevention Medical Professionals to market and support Safe Communities. This network will be developed and maintained through the use of computer technology (e-mail, bulletin board, Internet), video tele-conferences, distance learning, videotapes, conference calls, newsletters and meetings. The network participants will serve as an information resource, participate in a speakers bureau, develop position papers, give presentations, talk with a unified voice on traffic safety/Safe Communities, and market Safe Communities to their colleagues.

A Regional Safe Communities Best Practices Workshop will be developed to focus on community implementation strategies and model programs such as the quality improvement approach. NHTSA will also provide grants to communities to document Safe Communities "best practices" in rural environments.

Regional Strategy Planning Sessions will develop Intermodal Safe Communities strategic implementation plans with a variety of partners, in the business, medical and other communities. A series of planning meetings will be conducted to develop three to five year regional Safe Communities strategic implementation plans.

A Safe Communities at Work Initiative will promote participation by large and small employers to become an integral part of the program. Finally, a series of forums will be conducted to help private sector partners understand how to expand their role in local community programs beyond providing small donations during fundraising events to setting and implementing company policies and expanding their community involvement.

Question. Since you already have several Safe Community evaluations underway, wouldn't those results be sufficient to document the value of that approach and the benefits of the continuous process improvement strategy?

Answer. The results from the five Safe Communities evaluations underway in fiscal year 1998 are not sufficient to document the value of the approach and the benefits of the continuous process improvement strategy for several reasons. First, although there are now hundreds of Safe Communities programs in existence, most of them are asking for more help to adapt and incorporate all aspects of the model most effectively to their particular set of circumstances. The model is challenging to communities because it encourages them to explore different strategies to implement a community motor vehicle injury program.

The continuous improvement strategy is intended to assist communities in implementing the model more effectively. However, it adds yet another dimension which would benefit from proper evaluation. Significant demands have been placed on NHTSA to help communities identify the "best practices" that fit their unique situations. All of this requires much additional "real world" data.

Finally, it has been the Agency's experience that when strategies are developed or evaluated in only a handful of communities, they are not well received in other locations as they fail to address the unique aspects of communities across the country. By increasing the number of demonstration sites from five to ten, it is likely that strategies will be perceived more favorably by a wider variety of communities.

Question. Instead of increasing Section 403 funds for the Safe Communities program, would it not be advantageous to simply increase Section 402 funds for that program?

Answer. It would not be advantageous to increase Section 402 funds instead of increasing Section 403 funds. These two funding mechanisms are complementary to each other. Section 403 funds are used to demonstrate and evaluate promising concepts and to provide technical assistance and best practices information based on the demonstration and evaluation results. Section 402 funds are used to provide seed money to local communities for planning and implementation efforts that build upon the lessons learned in the Section 403 demonstration and evaluation program.

States already have demonstrated a strong commitment to the Safe Communities program. For example, although there was no earmarking in fiscal year 1997, states expended $2.3 million of Section 402 funds in support of Safe Communities. In fiscal year 1998, it is anticipated that states will expend an estimated $2.4 million. Given this investment by the states, the Agency believes that sufficient Section 403 funding should be provided to ensure that these state commitments are supported with adequate technical assistance including the Safe Communities Service Center, website, bi-monthly bulletin, newsletter, awards program, best practices information, training and the four new peer-to-peer technical assistance initiatives. This

Section 403 activity is designed to help communities expand partnerships, adopt new strategies and methods to improve program outcomes and, in general, to provide a national support structure for the Safe Communities program.

ALCOHOL, DRUG AND STATE PROGRAMS

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for each of the subprograms in the Alcohol, Drug and State program for fiscal years 1996, 1997, and 1998.

Answer. See table below.

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Approp	Request	Approp	Request	Approp
Alcohol	9,057	8,398	9,015	8,800	7,675	7,675
DEC	957	907	600	599	476	476
Ped/Bike	474	250	474	473	655	655
Motorcycle	327	327	338	337	337	337

Question. Please provide a table for each of the major components of the Alcohol program showing how all the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amount provided for similar activities for fiscal year 1998. On a separate page, please justify the need for the requested increases, specifying any new projects and associated funding needs.

Answer.

[In thousands of dollars]

Area	Fiscal year—	
	1998 budget	1999 request
Alcohol Program	7,675	9,728
Education and Prevention	3,075	4,715
Enforcement & Sanction	1,725	1,990
Prosecution/Adjudication	1,150	1,200
Youth	1,181	1,823
Innovative Grants (Partners in Progress)	544	.....
Drug Evaluation and Classification Program	476	920
Pedestrian and Bicycles	655	745
Pedestrian Program	300	275
Bicycle Program	205	290
Pupil Transportation Safety	150	180
Motorcycle Program	337	509

Alcohol Program

In fiscal year 1999, NHTSA will undertake a major new initiative to target five to ten states with the most significant opportunity to reduce alcohol-related fatalities and assist them to conduct highly focused problem identification and strategy development. Outreach to national organizations and enforcement demonstrations will focus on activities to support these targeted states. NHTSA will continue to work with diverse and high risk populations and focus a new initiative on college drinking and driving issues. In addition, NHTSA will demonstrate alternative sanctions, procedures for enforcing court orders, and emergency department intervention programs.

Drug Evaluation and Classification Program (DEC)

NHTSA will utilize fiscal year 1999 funding to: (1) enhance the number of officers trained in Standardized Field Sobriety Testing (SFST); (2) promote the effective use of drug detection training modules; (3) expand drug information and training for prosecutors; (4) involve prosecutors in community drug prevention programs; (5) promote uniform sanctions for drug offenders; (6) continue research on drug effects and methods for detecting drug use; (7) explore the use of CD–ROM technology to

improve impaired driving detection for law enforcement; (8) promote the collection and analysis of state arrest data on drug-impaired drivers; (9) expand the knowledge and use of the DEC to community policing programs; and (10) develop tools for improving officer observation and articulation skills when testifying in alcohol and drug impaired driving cases.

Pedestrian and Bicycles Program

In fiscal year 1999, NHTSA will undertake several new initiatives in the pedestrian and bicycle safety programs. In pedestrian safety, the agency plans to initiate a technical assistance demonstration program to focus pedestrian safety activities on those cities and communities with the greatest pedestrian safety problem. With regard to bicycle safety, the agency will initiate a review of available data and literature on bicycle helmet usage, injuries, costs of injuries, and experience with bicycle helmet laws. In addition, promising bicycle safety initiatives will be promoted via a new mini-grant program. The requested increase in pupil transportation safety will be used to develop a child safety seat curriculum and video to assist states and communities in transporting pre-kindergarten and Head Start children on school buses.

Motorcycle Program

In fiscal year 1999, NHTSA plans to initiate (1) development of a training curriculum for judges and prosecutors on a variety of motorcycle safety issues; (2) a grant program to encourage states to increase the availability of motorcycle licensing through extended testing hours; and (3) a program to identify innovative approaches to address impaired motorcycle riding. The agency will also use the proposed increase in the motorcycle safety budget to support research initiatives including identification of more effective methods of motorcycle helmet labeling; effects of daytime running lights on motorcycle conspicuity; and motorcycle crash causation and resulting injuries.

Question. Please identify the purpose and amount of each of the 10 largest contracts funded under that area in fiscal year 1997.

Answer. In fiscal year 1997, NHTSA solicited innovative ideas to address the strategies outlined in the Partners in Progress: An Impaired Driving Guide for Action. Eight awards were made to innovative programs, seven of which represent the largest contracts in this program area. The ten largest contracts (some split-funded over a couple of fiscal years) include:

American Prosecutors Research Institute, Alexandria, VA to support a national clearinghouse of legal information and research related to impaired driving and develop and implement prosecutor and judge training ($475,585).

Charlotte-Mecklenburg Hospital Authority, Charlotte, NC on the identification and referral of impaired drivers through emergency department protocols ($470,752).

Department of Health and Human Services, San Diego, CA on targeted reduction in alcohol related crashes ($400,000).

Harborview Injury Prevention and Research Center, Seattle, WA on the impact health professionals can make on DWI ($397,114).

Mid America Research Institute, Winchester, MA on demonstrating the effectiveness of a DUI Court ($342,955).

Traffic Injury Research Center, Ottawa, Canada and PA Liquor Control, Harrisburg, PA on the demonstration of the smart card technology ($282,925).

Mothers Against Drunk Driving, Irving, TX, to develop regional impaired driving public policy workshops ($271,019).

National Public Services Research Institute, Landover, MD on a safety economics resource center with an impaired driving component ($206,958).

University of North Carolina, Chapel Hill, NC, to research and evaluate a comprehensive program to reduce drinking and impaired driving among college students ($175,000).

Scholastic, Inc, New York City, NY, to develop a national zero tolerance education program ($170,000).

Question. How are the fiscal year 1998 and fiscal year 1999 funds to be divided among such diverse purposes as outreach, evaluation studies, PSA's, and other strategies? What is the rationale for that allocation?

Answer. The goal of the alcohol program is to reduce alcohol-related fatalities to 11,000 by the year 2005. Success in meeting this goal will be achieved through a comprehensive approach to impaired driving using the strategies identified in the Partners in Progress: An Impaired Driving Guide to Action as the framework. A fundamental principle of the alcohol program is that of partnerships. NHTSA's role in this effort is to form new partnerships with organizations developing new and

innovative approaches to combat impaired driving; and to develop, produce, and distribute materials to communities and organizations to support their outreach efforts; and to provide national public information and prevention initiatives to support local efforts, as identified in the table that follows.

Fiscal year 1998	Amount	Fiscal year 1999	Amount
Outreach.—Expand the number of national organizations addressing the prevention and health aspects of alcohol and impaired driving. Develop materials targeting the medical and public health communities to assist in their educational efforts both to their peers and their constituents. Exhibit at national conferences, supporting the goals of the Partners in Progress initiative.	$2,900,000	Expand the number of national organizations whose constituents represent diverse and high risk populations to support the agency's alcohol programs, targeting organizations whose mission is to reach youth. Special emphasis will be placed on reaching college students. Provide opportunities for organizations to participate alcohol programs at the state and local levels. Continue to exhibit at national conferences in support of Partners in Progress goals.	$3,500,000
Evaluation Studies.—A variety of key legislation (.08 BAC, zero tolerance, ignition interlocks), enforcement (use of passive sensors), adjudication (sanctions) and public information and education programs will be evaluated to determine their effectiveness and to measure progress in reducing alcohol-related crashes.	540,000	Complete evaluation of the effectiveness of vehicle sanctions, hospital reporting of BAC's, why there are fewer young-alcohol impaired drivers, innovative enforcement techniques (saturation patrols), complete evaluation of innovative sanctions for repeat offenders, and measure progress in reducing alcohol-related crashes.	620,000
Materials and Public Service Announcements.—Develop, produce, and distribute materials in support of the alcohol programs, including a new Partners in Progress campaign and ongoing activities such as TEAM, Campaign Safe & Sober, and the Ad Council Drunk Driving Campaign.	2,275,000	Continue fiscal year 1998 activities, but with additional emphasis on youth and diverse populations. Develop new materials for law enforcement related to sobriety checkpoints and alcohol detection devices.	3,333,000
Other Strategies.—Innovative grants, targeted enforcement, technology to identify impaired drivers, research.	1,960,000	Continue 1998 activities and initiate demonstration projects in 5–10 targeted states with high alcohol crash rates, focusing on enforcement and public education, improved laws, focus on .08 initiatives as identified in the President's Plan, convene a national summit for judges, research.	2,275,000

Question. Please submit for the record a copy of your 1998 spending plan for that area as well as the occupant protection area.

Answer.

[In thousands of dollars]

Alcohol Program	7,675
Education and Prevention	3,075
Enforcement & Sanction	1,725
Prosecution/Adjudication	1,150
Youth	1,181
Innovative Grants (Partners in Progress)	544
Drug Evaluation and Classification Program	476
Pedestrian and Bicycles	655
Pedestrian Program	300
Bicycle Program	205
Pupil Transportation Safety	150
Motorcycle Program	337
Occupant Protection Program	6,610
Public Information & Education	2,263
Belt Law Compliance	1,594
Target Population Education	1,540
Evaluation & Technology Sharing	498
Patterns for Life	715
Air Bag Safety Program	2,000

Question. Please discuss all of the current NHTSA-supported studies underway regarding the benefits of 0.08 BAC laws. When are those studies expected to be released? Please estimate the amount of funding for each of those studies and describe the specific purpose of each study.

Answer. NHTSA has supported two studies in the past on the effects of 0.08 BAC. One study, published in 1991, found a 12 percent decrease in alcohol-related fatalities in California in 1990, the year 0.08 BAC went into effect along with an administrative license revocation law. The second study was conducted by NHTSA staff and published in 1995. That study found significant reductions in nine measures of alcohol-related fatalities in four out of five states that had .08 laws compared to the rest of the states at .10 BAC.

Presently, NHTSA has two studies of the effects of 0.08 BAC in progress. One is a study of the effects of 0.08 BAC in North Carolina on alcohol-related fatalities, crashes, arrests and other measures ($103,000). That study is expected to be completed by July 1998. The second study is on the effects of 0.08 BAC in nine states that have had some experience with the law ($49,000). Numerous effects are being analyzed in this study including the effects on alcohol-related fatalities and on per capita alcohol consumption. That study is expected to be completed in August 1998.

Question. What studies on 0.08 BAC laws are planned with fiscal year 1999 funds? Please estimate the amount of funding for each of those studies.

Answer. NHTSA plans to continue to evaluate the effects of 0.08 BAC laws on alcohol-related crashes and fatalities as more states consider and adopt such laws. In fiscal year 1999, $150,000 is being allocated to conduct a multi-state study of the effects of 0.08 BAC in states that have recently adopted such laws.

Question. What studies are underway examining the impact of the 0.08 BAC law on the courts and enforcement officers? Will those studies be conducted during fiscal year 1998 or during fiscal year 1999? Please delineate associated funding amounts for each year.

Answer. NHTSA examined the impact of the 0.08 BAC law on the courts and enforcement officers in a California study published in 1991. It was found that while there was a slight increase in driving while intoxicated (DWI) arrests in California in 1990, the year 0.08 BAC and administrative license revocation laws went into effect, the increase was not enough to overburden the police or the courts. In the following year (1991), DWI arrests went back down below the 1989 level, possibly due to the general deterrent effect that the two laws (and their strict enforcement) had on drinking and driving in California.

NHTSA does plan to include examining the impact on the courts and police in multi-state evaluation of the effects of 0.08 BAC laws in fiscal year 1999. The total funds for that study will be $150,000 in fiscal year 1999.

Question. Please provide additional details on the proposal to target five to ten states with the most significant opportunity to reduce alcohol-related fatalities.

Answer. The intent of this proposed demonstration program is to target the top five or ten states having the most significant alcohol-related motor vehicle crash problem with focused support. The components of the projects will include the identification of impaired driving problems; the development of performance measures; the implementation of countermeasures; and the evaluation of results. Technical assistance will be provided to the states to address each of these components. Program initiatives will focus on high risk populations including youth, repeat offenders, and 21–34 year olds. Final results will be distributed nationally.

The state demonstration projects will build on the innovative strategies from the Partners in Progress: An Impaired Driving Guide for Action and will focus on prevention, education, enforcement, intervention, and treatment. Outreach to national organizations with state affiliates in the demonstration states will compliment state and local coalition building efforts.

DRUG EVALUATION AND CLASSIFICATION

Question. Please prepare a detailed breakdown of how the $920,000 requested for the Drug Evaluation and Classification (DEC) program would be used and compare that allocation to the fiscal year 1997 and fiscal year 1998 expenditures.

Answer.

[In thousands of dollars]

	Fiscal year—		
	1997 budget	1998 budget	1999 budget
Drug Evaluation and Classification Program	599	476	920

By fiscal year 1997, most states with high drug-impaired driving populations had established DEC programs in some of their communities. NHTSA concentrated its efforts to support the program by expanding legal research, technical assistance, and training to state and local prosecutors and judges through the American Prosecutor Research Institute ($300 thousand) and the National Judicial College ($100 thousand) to counter new legal challenges as the program spread. The agency continued to assist the International Association of Chiefs of Police ($75 thousand) to maintain the national standards for performance and certification of Drug Recognition Experts. Research projects ($124 thousand) focused on testing new technology to detect drugs with urine screening devices and a study to explore improvements to the DEC procedures.

In fiscal year 1998, NHTSA's approach was to maintain the DEC program at minimum support level by providing support for (a) IACP ($50 thousand) and the National Traffic Law Center ($250 thousand) to provide technical assistance; (b) training to prosecutors in recent DEC sites and maintain legal research on impaired driving; and (c) assistance to states to assure program continuity and sharing of training instructor resources. Research activities ($176 thousand) concentrated on detecting the incidence of drugs and driving.

NHTSA's fiscal year 1999 requested funding will allow support of the DEC program as an effective tool for reducing impaired driving. The agency will serve in its leadership role by maintaining the quality and integrity of the program. Funding provides for a summit level conference ($250 thousand) that brings judicial educators, judges, alcohol researchers and highway safety experts together to educate and share technology advances. This meeting will expand knowledge and acceptance of new impaired driving techniques and technology. Judicial educators will be provided with a conference kit for duplication in each state. Additionally, funding ($200 thousand) is directed to research and advance new impaired driving detection technology.

A program to promote and renew a training emphasis on detecting drug-impaired drivers for law enforcement ($250 thousand) will increase impaired driving arrest. Funding will support new prevention, education, and technical assistance activities for law enforcement, prosecutors, judges, and the public as identified in the President's Initiative on Drugs, Driving and Youth ($220 thousand).

Question. Please describe the performance measures associated with that program, especially the outcomes and outputs.

Answer. The goals of the DEC program are to increase the number of drugged drivers convicted in DEC sites and reduce drug-impaired driving and drug use by youth. This goal is a significant challenge, as there is growing evidence that the use of drugs, especially by youth, is on the upswing. In addition, studies of drivers involved in crashes show that many have used drugs often in combination with alcohol.

Specific outcome measures include the number of crashes in which drugs are involved and the number of DEC related convictions. Since these data are not always available, plans are underway to increase the collection of such data.

Question. Please provide an update on any studies that NHTSA has underway or planned that will help the criminal justice system deal with drug-impaired drivers. How much will be spent on those during fiscal year 1998 and fiscal year 1999?

Answer. NHTSA has several studies underway that will serve as resources to the criminal justice system.

A joint NHTSA/NIDA laboratory study designed to improve DEC examination procedures is reaching completion. In this study subjects were dosed with one of the following drugs: cannabis, alprezolam, amphetamine, codeine, or placebo. Either a low or high dose was administered. The measurable signs of these drugs on cognitive, ocular, physiological and motor performance were examined. A multivariate discriminant function analysis is being performed to determine the most accurate detection procedure. (Fiscal year 1998 funding: $25,000)

A NHTSA study is near completion of the incidence of drugs in non-fatal seriously injured drivers. Over 2,000 injured motorists taken to the hospital for treatment have been screened for drug use while driving. Confirmatory tests are currently being conducted on all presumptive positive samples. Culpability analysis will help

determine if drug use is associated with driver crash responsibility. A report is expected by the end of 1998. (Fiscal year 1998 funding: $80,000)

NHTSA is funding a comprehensive review of research on the behavioral effects of antihistamines on driving related skilled performance and crash rates. Laboratory, simulator, and on-the-road studies on the effects of antihistamines, as well as the interaction of antihistamine and alcohol use will be examined. This study will determine the extent to which antihistamines, especially sedating over-the-counter antihistamines, appear to represent a highway safety hazard. (Fiscal year 1998 funding: $28,000)

A literature review of research on drug use and driving with a particular focus on the role of drugs other than alcohol in traffic crashes is being completed. This study looked at epidemiological research on drugs and traffic crashes, including literature on the drug use of various subgroups of drivers. A final report is due by the end of 1998. (No fiscal year 1998 or fiscal year 1999 funding)

NHTSA, in conjunction with the Substance Abuse and Mental Health Services Administration (SAMHSA), has conducted a survey of the prevalence and patterns of substance use among drivers in the United States. A report on this nationally representative sample of over 11 thousand drivers regarding their driving under the influence of drugs other than alcohol will be released in the Fall of 1998. (No fiscal year 1998 or fiscal year 1999 funds)

Question. Please provide an update on any studies that NHTSA has underway or planned that will help the law enforcement community deal with drug-impaired drivers. How much will be spent on those during fiscal year 1998 and fiscal year 1999?

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Question. How much of the DEC training provided to enforcement officers is being paid for by NHTSA?

Answer. Currently no Section 403 funds are being used for this purpose. Fiscal year 1994 was the last year that the agency used 403 dollars to fund DEC instructor services to train law enforcement officers.

Question. In view of the fact that the DEC program is a relatively mature program, why is it critical to increase funding at this time?

Answer. Some states have institutionalized the DEC program in selected communities while others are still struggling. The number of DEC trained officers remains less than 1 percent of all patrol officers.

The available information from studies of drivers who have been involved in crashes indicates that many have used drugs. NHTSA estimates that drugs continue to be used by approximately 10 percent to 22 percent of drivers involved in crashes, often in combination with alcohol. Additional studies show that many drivers injured in crashes or cited for traffic violations also have used drugs.

In the research to complete the Presidential Initiative on Drugs, Driving and Youth, the Federal multi-agency task force identified the DEC program as the only program in the country that was specifically designed to remove drug-impaired drivers from our highways.

It is critical that NHTSA continue the national leadership role in the DEC program to ensure that training and testing standards are strictly followed and accepted by the courts as valid. Any modification or improvement must be done on a national level in order to maintain the program's validity and integrity. This will ensure that the protocol is conducted in a systematic and standardized manner across the country.

The additional funding will: (1) increase and promote training in Standardized Field Sobriety Testing (SFST) training and training for prosecutors; (2) involve prosecutors in community drug prevention programs; (3) promote uniform sanctions for drug offenders; (4) continue DEC related research; (5) promote the collection and analysis of state arrest data on drug impaired drivers; (6) develop courtroom skills for testifying in alcohol and drug impaired driving cases; and (7) expand DEC to community policing programs.

Question. Please summarize specific advances and benefits that have resulted from NHTSA's research on DEC during the last two years. What specific changes in the DEC protocol have resulted from that research?

Answer. Several of the essential studies implemented over the past two years are still in progress. When completed, the results and recommendations will be presented to the DEC Technical Advisory Panel, Highway Safety Committee, International Association of Chiefs of Police. Some of the most important activities include (a) joint NHTSA/NIDA laboratory research to validate and improve DEC procedures; (b) clinical results which validate the DRE evaluation is procedure; (c) a study to identify the strengths and weaknesses of the DEC program in different enforcement contexts, and to determine the relative importance of the various types of information available to DEC officers in those different contexts; (d) a study to analyze blood specimens from drivers injured in crashes and to conduct an analysis of responsibility to assess the causal role of drugs in those crashes, and (e) a field test of inexpensive drug screening kits to determine their accuracy and usefulness in actual law enforcement settings for both DEC and non-DEC officers.

Question. Has NHTSA or any one else ever conducted any studies on the net outcome of the DEC?

Answer. NHTSA has conducted two formal studies that have examined the impact of the DEC program on enforcement and adjudication and to review the experiences of sites that have implemented the DEC program.

A 1992 study looked at arrests and convictions in eleven communities in Arizona, California, Colorado, New York, and Texas which had the DEC program for at least two years. Data from before and after the initiation of the DEC program in each community was examined and compared to state-matched communities which had not adopted DEC. The study found that prior to the DEC program implementation, arrests for drugged driving were very rare. After initiating the program, DEC sites showed increased drugged driving arrests and convictions while there were not similar increases in the comparison communities. Overall, 65 percent of the drivers suspected of being under the influence of drugs were convicted on an impaired driving charge. Comparable conviction rates for the alcohol impaired drivers in these sites ranged from 80 to 90 percent.

More recently, Arizona (1994), New Mexico (1997) and New York (1997) found conviction rates of 90 percent and above for drugged driving cases made by Drug Recognition Expert (DRE) officers. Additionally, Arizona's 500 Case DRE Validation Study found that most of the drivers in the study would not have been arrested and prosecuted for drug-impaired driving prior to the implementation of the DEC program.

Another NHTSA study looked at the growth and expansion of the DEC program in an attempt to identify key elements of successful programs. This study found that the withdrawal of NHTSA funding for DEC program maintenance and expansion in 1995 had little impact on existing programs (most showed long term viability) and that the DEC program continues to expand although more slowly than in the early years.

Question. Are there studies which address the following questions: What happens to people who are arrested because of DEC? Are they typically convicted? Are those same people likely to be convicted again for driving under the influence of drugs?

Answer. The comprehensive DEC evaluation conducted on people arrested for driving under the influence of drugs showed that a high proportion of such offenders enter a guilty plea. A number of state and local agencies have conducted studies to determine the conviction rate of DEC-related arrests. Studies conducted in Arizona, New Mexico, Maryland, and New York all suggest a conviction of 90 percent or greater. In Minnesota, studies found a conviction rate of about 80 percent.

There are currently no formal studies that we are aware of that measure the recidivism rate for DEC cases. Several states are attempting to collect such data. The Metro Dade, Florida Police Department estimates that their recidivism rate is less that 10 percent. Preliminary data from New York State Police shows a recidivism rate of only 2–3 percent.

Question. What new and innovative activities will be funded?

Answer. NHTSA will: enhance the number of officers trained in Standardized Field Sobriety Testing (SFST); revise and promote the effective use of drug detection training modules; expand drug information and training for prosecutors; involve prosecutors in community drug prevention programs; promote uniform sanctions for drug offenders; continue research on drug effects and methods for detecting drug use; explore the use of CD–ROM technology to improve detection of impaired driving; promote the collection and analysis of state arrest data on drug impaired drivers; develop tools for improving observation and articulation skills when officers testify in alcohol and drug impaired driving cases; and expand the use of the DEC procedures in community policing programs.

Question. What is NHTSA doing to work with the States to improve laws pertaining to drug-impaired driving? How much is in your fiscal year 1998 spending plan and fiscal year 1999 budget request for that activity? (In your answer, please assume there is no grant program in that area.)

Answer. NHTSA provides legal research on existing drug-impaired driving laws in the states. This is carried out through ongoing in-house legal research and an annual publication of the Alcohol-Highway Safety: A Digest of State Alcohol-Highway Safety Related Legislation. The Digest serves as a state law reference guide and is used for comparisons and improvements to existing state laws. In fiscal year 1998, no funds were specifically dedicated to this effort.

In fiscal year 1999, under the Drugs, Driving and Youth Initiative ($950 thousand), NHTSA will work with national and state leaders to develop a legislative assessment of state drugged driving laws. Such laws are inconsistent and frequently difficult to enforce, often hampering law enforcement and the courts.

NHTSA will develop and provide model laws and effective laws used by various states as examples for other states desiring to improve their laws. A 3–5 state demonstration project, with a strong evaluation component, will assess and provide methodology to improve state drugged driving laws. Technical assistance will also be provided to states interested in expanding and/or strengthening their drugged driving legislation.

Question. What else could NHTSA do in this area?

Answer. There are other areas that NHTSA could focus on to address the drugged driving problem such as technology, public education and research.

PEDESTRIANS AND BICYCLES

Question. Why is an increase necessary in this area?

Answer. Pedestrian and bicycle fatalities constituted about 15 percent of traffic fatalities (6,173) in 1996. Seventy-five percent of all bicycle crashes involve head injuries; however, despite their effectiveness, only 18 percent of riders wear them.

In the past, pedestrian and bicycle programs have received very limited funding. Consequently, initiatives have been few and modest. Over the past several years, NHTSA has attempted to expand its initiatives in these areas, and most recently has emphasized pedestrian and bicycle safety in the context of Safe Communities. In addition, two public-private partnerships, requiring assistance and support, have been formed to promote safe walking and bicycling—The Partnership for a Walkable America and the National Bicycle Safety Network.

Three years ago, the agency had one initiative for bicycle safety: the Ride Like a Pro Bicycle Safety Event. By fiscal year 1998, NHTSA will have three funded initiatives in bicycle safety and plans to expand these to five or six in fiscal year 1999. New initiatives in bicycle safety include a review of available data and literature on bicycle helmet usage, injuries, costs of injuries, and experience with bicycle hel-

met laws; and a new mini-grant program to involve national organizations in bicycle safety.

The pedestrian safety program has fared somewhat better over the past few years but additional technical assistance and program activities are needed to address this significant problem area. The agency is completing development of Spanish-language materials which address older adult and child pedestrian risks and will begin work with national organizations to distribute and field test the materials. During fiscal year 1999, new pedestrian safety initiatives will focus on identifying and documenting "best practices case studies" in pedestrian safety; developing a technical assistance workshop for communities and local organizations; increasing outreach to health care professionals, employers and intergovernmental organizations; and marketing the pedestrian safety tool kit to safe communities sites. The agency will also initiate a demonstration program to target pedestrian safety initiatives to cities with the greatest number of fatalities.

Until recently, the agency had few pupil transportation safety projects. An in-service school bus driver safety curriculum is being pilot-tested and will be finalized in fiscal year 1998. In addition, the agency will initiate new cooperative agreements with several localities to develop innovative strategies for reducing the illegal passing of stopped school buses. In fiscal year 1999, the agency will develop a child safety seat curriculum and video to assist communities in transporting pre-kindergarten and Head Start children.

Question. Please describe the measures of performance associated with this program, and list the resulting outcomes and outputs.

Answer. The measures of performance for the Pedestrian and Bicycle Safety Program are the number of pedestrian and bicycle-related injuries and fatalities occurring on public roadways. The resulting outcomes are to (1) reduce pedestrian fatalities to 4,925 and bicycle fatalities to 722 by the Year 2000; (2) reduce pedestrian injuries to 81,000 and bicycle injuries to 54,000 by the Year 2000.

The outputs for the pedestrian and bicycle safety program include:

Pedestrian safety program materials (for children and older adults) for Hispanic populations.

Pedestrian safety "tool kit" for use by local communities to improve pedestrian safety.

Walkability Checklist and "Walk a Child to School Day" with the Partnership for a Walkable America.

Technical Assistance Workshop to help communities address pedestrian safety issues.

Technical assistance demonstration program focusing pedestrian safety activities in cities and communities with the greatest pedestrian safety problem.

White paper, with case studies, on successful community programs reducing pedestrian and bicycle injuries.

Bicycle Safety Community Handbook.

"Cops on Bikes" training enabling law enforcement to provide bicycle safety education while on patrol.

Bicycle safety materials and approaches for use with at-risk youth in urban areas.

Mini-grant program to involve national organizations in bicycle safety.

School bus operator in-service training program.

Program to reduce illegal passing of stopped school buses.

Question. How much of this account is spent on safety measures involving school buses?

Answer. Approximately $180,000 of the fiscal year 1999 Pedestrian-Bicycle Program account is designated for school bus safety.

Question. Please prepare a table showing both FHWA and NHTSA investments in those areas for each of the last three fiscal years and requested for fiscal year 1999.

Answer. The information is presented below.

Fiscal year by program area	NHTSA	FHWA
Fiscal year 1996:		
Pedestrian Safety	$152,000	$198,000
Bicycle Safety	55,000	110,000
Pupil Transportation	11,000	.....
Fiscal year 1997:		
Pedestrian Safety	222,000	374,000
Bicycle Safety	122,000	109,000
Pupil Transportation	130,000	.....

Fiscal year by program area	NHTSA	FHWA
Fiscal year 1998:		
Pedestrian Safety	300,000	63,000
Bicycle Safety	205,000	42,000
Pupil Transportation	150,000	.....
Fiscal year 1999:		
Pedestrian Safety	275,000	515,000
Bicycle Safety	290,000	410,000
Pupil Transportation	180,000	.....

AUTOMATIC EXTERNAL DEFIBRILLATORS (AED)

Question. To ensure that training standards for use of AED's are not unnecessarily burdensome and are consistent with new easy to use AED technology, the Committee encouraged the Department to work with state departments of transportation and other appropriate state agencies to review their defibrillator training requirements and to modify those requirements where appropriate. How did you respond to that request? What specific contracts have been signed to implement that effort?

Answer. NHTSA responded to the Committee's request in the form of a cooperative agreement with the National Association of State EMS Directors (NASEMSD). This agreement is currently being negotiated utilizing fiscal year 1998 funds. This agreement will enable the NASEMSD to conduct and analyze a survey of appropriate state offices to determine current training requirements and plans for future amendments in these requirements. A final report on this survey is due five months following award. The agency and the NASEMSD will utilize findings of the survey to develop plans for encouraging and supporting appropriate accommodation of new AED technology.

YOUTH, DRUGS, AND DRIVING INITIATIVE AND OTHER YOUTH ORIENTED ACTIVITIES

Question. The budget justification states that funding will support a pre-driver licensure drug testing demonstration program. Please describe the scope, nature, and purpose of that initiative. How would it work? How much money is planned for that activity?

Answer. The pre-driver licensure drug testing demonstration program is envisioned as one component of a systematic and comprehensive program designed to reduce the incidence of drug use by teens and to reduce driving under the influence of drugs. A report entitled Presidential Initiative on Drugs, Driving and Youth recommended concerted efforts to improve the DUID (Driving Under the Influence of Drugs) system. A key part of the strategy laid out in that report was a demonstration program to assist states in developing and testing core elements of a pre-driver licensure drug testing program. The demonstration program would involve 2–4 states over a two-year period implementing pre-driver licensure drug testing programs.

One approach to operating a pre-driver licensure drug testing program would be to simply require proof of testing (by an independent certified laboratory) as part of the licensing process. This is currently done in many states as a requirement for participation in high school athletics. NHTSA estimates the cost of having drug tests conducted using DOT/DHHS-approved procedures for collection, testing, review, and reporting would be $35 to $45 per test. These procedures require: (a) standardized collection steps that are used at over 10,000 sites across the U.S.; (b) testing at any of the 69 DHHS-certified laboratories; and (c) review of positive results by qualified physicians.

Fiscal year 1999 funds, not to exceed $250,000, would be used to provide a small number of planning grants to states wishing to examine the practical issues involved in implementing a testing program and to develop detailed implementation plans for such a program (e.g., what drugs to include, test procedures to use, who will conduct the tests, who will receive the results, etc.). NHTSA has been in contact with states that have expressed serious interest in receiving planning grants.

Question. Were any funds expended in fiscal year 1998 to plan for a pre-licensure drug test program. If so, how much?

Answer. No funds were expended in fiscal year 1998 to plan for a pre-licensure drug test program. A small amount of staff time was expended responding to congressional requests for information about this proposed program and to respond to

state inquiries about the possibility and likelihood of funding being provided for a program of this type.

Question. Please break out separately the expected costs for each of the new and on-going initiatives specified under the Youth, Drugs, and Driving Initiative.

Answer.

[In thousands of dollars]

	Fiscal year—	
	1998 budget	1999 request
Youth, Drugs, and Driving	1,400	2,000
Law Enforcement Training	400	.....
Prosecutor Training	400	.....
Judge Training	300	100
Drug Prevention Program	300	100
Drug Testing Demos	.....	250
Public Education and Outreach	.....	750
Summit on Drugs and Driving	.....	300
Research and Demo on state drugged driving legislation	.....	500

Question. What is NHTSA doing to improve the enforcement of drunk driving laws affecting youth?

Answer. NHTSA has undertaken activities in four major areas: technical assistance materials, training, demonstration projects and promotion of innovative concepts.

Manuals and video tapes have been developed to assist enforcement and alcohol beverage control agencies with strategies and program ideas. Youth DWI And Underage Enforcement was written by police officers to describe effective strategies in detecting and apprehending youthful offenders. Retail Oriented Best Practices for Underage Drinking Prevention was assembled by a committee of alcohol beverage control officials from throughout the country. Both publications have recently been distributed to enhance law enforcement efforts. The agency is planning a new round of training in youth enforcement techniques and adjudication concepts. The Youth DWI Enforcement Workshops, developed by IACP, is being revised to include additional zero tolerance enforcement information. The Alcohol Highway Safety Workshop For Juvenile Court Judges will be updated to include more information on drugged driving and will be delivered in approximately ten States by the National Council of Juvenile and Family Court Judges. As a result of five demonstration sites conducted in partnership with the Department of Justice, NHTSA will be publishing Strategies For Success: Combating Juvenile DUI. This document will encourage police executives and other criminal justice officials to develop a coordinated criminal justice system to deal with youthful drinking and impaired driving offenders. Innovative concepts such as Teen Courts are being promoted by NHTSA to find alternate methods of processing youthful offenders. Publications and training programs have resulted in an increase of over 300 new teen court programs in the past several years. Because of universal difficulties police have after arresting a juvenile, NHTSA is currently examining effective "holdover" facilities that temporarily detain youthful alcohol offenders. Training and technical assistance will be provided to assist police in this post-arrest phase of activities. Zero Tolerance projects have had a particular emphasis on enforcement, including a national satellite teleconference, a student/police collaboration demonstration project, and a national campaign emphasizing enforcement coupled with awareness.

The agency will also be initiating a project in fiscal year 1999 to better measure compliance of youth alcohol and impaired driving laws.

Question. How do NHTSA's fiscal year 1998 budget and the fiscal year 1999 budget request address that issue? Please break down specific activities and associated amounts.

Answer. The following projects are underway or planned in fiscal year 1998 or fiscal year 1999:

[In thousands of dollars]

Youth enforcement projects	Fiscal year 1998	Fiscal year 1999
Replicate Washington DC Model Underage Drinking Program	200	200
American Probation and Parole Association ''Teen Courts''	.....	50
National Zero Tolerance Campaign	200	250
Rural Enforcement of zero tolerance and alcohol laws	150	.....
Juvenile ''Holdover'' Project	100	.....
Demo to Target High Fatal Crash States	200	200
Training for Juvenile Court Judges	300	100
Techniques for Measuring Compliance with Alcohol Laws	.....	150

Question. Please specify the nature and total amount of all youth-oriented activities for fiscal year 1997, fiscal year 1998 and planned for fiscal year 1999 separately.

Answer. The information follows:

[In thousands of dollars]

Project	Fiscal year—		
	1997	1998	1999
Graduated Licensing State Grants and Evaluation	100	175	225
Replicate Washington DC Model Underage Drinking Prog	.....	200	200
American Probation and Parole Association ''Teen Courts''	100	.....	50
American Trauma Society Juvenile Visitation Program	946	.....	.....
National Zero Tolerance Campaign/Scholastic	200	200	250
BACCHUS/SADD Zero Tolerance Campaign	96	.....	.....
Peer Helpers Zero Tolerance Teleconference	93	.....	.....
Rural Enforcement of zero tolerance and alcohol laws	150	150	.....
Determine Effectiveness of Zero Tolerance Laws	150	.....	.....
MADD Training of Student Activists	118	30	.....
Strides for Safety Campaign/National Safety Council	81	80	.....
Juvenile ''Holdover'' Project	100	100	.....
National Organization for Youth Safety (NOYS) support	45	200	150
National Organization (NOYS) Project Support	.....	150	250
NOYS Youth Summit	69	.....	75
Cross Age Peer Mentoring Program	25	.....	.....
Nat'l Science Teachers Assoc. Traffic Safety Science Curr	50	75	.....
Youth Sanctions Guide for impaired driving offenses	75	.....	.....
Youth Urban Project	50	50	.....
Evaluation of youth projects	25	25	25
Guidelines for age-appropriate safety education materials	150	.....	.....
Develop strategies to increase safety belt use by youth	40	50	.....
Improve decision making skills of young novice drivers	257	.....	.....
Community Compliance With ABC Laws	150	.....	.....
SADD National Conference Support (Nat'l Youth Campaign)	50	25	25
''Traffic Safety Box'' National Implementation	50	50	50
Reduce Impaired Driving Among College Students	100	75	250
Matching Safety Strategies to Youth Characteristics	28	.....	.....
Determine Reasons for Reduced Youth DWI	100	40	.....
Bicycle Programs	80	100	120
Pedestrian Programs	.....	125	75
Training for Juvenile Court Judges (Alcohol and Drugs)	.....	300	100
Youth Diversity Project	50	.....	.....
Zero Tolerance Education with NCAA	.....	100	100
Techniques for Measuring Compliance with Alcohol Laws	.....	.....	150
TOTAL	2,578	2,395	2,450

Question. How many States are now receiving grant funds to test and evaluate graduated licensing systems? What have been the results?

Answer. Five States received grants to assist them in establishing and then evaluating graduated licensing systems—Alaska, Florida, North Carolina, Tennessee, and Vermont. Only Florida and North Carolina have been successful in passing legislation creating graduated systems. They are currently conducting evaluations. In addition, contracts have been initiated in Michigan (University of Michigan) and Kentucky (University of Kentucky) to evaluate their graduated driver licensing systems.

Evaluation results are expected from Florida later this year; from North Carolina and Michigan by June 2000, and from Kentucky by June 2001.

Question. What progress has been made in that area during the last three years? How does the fiscal year 1999 budget request and the fiscal year 1998 budget address that matter? Please indicate funding amounts.

Answer. Nineteen States have passed legislation establishing or upgrading components of a graduated driver licensing system in the last three years (California, Connecticut, Florida, Georgia, Hawaii, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, North Carolina, Ohio, South Carolina, and Virginia). Many other States have introduced legislation during the last three years to establish or upgrade components of a graduated driver licensing system.

With regard to funding, $175,000 and $225,000 were allocated in fiscal year 1998 and fiscal year 1999, respectively, to evaluate the Michigan and Kentucky programs. The evaluations in North Carolina and Florida were initiated with fiscal year 1995 funds.

Question. Please describe the changes made and performance measures associated with the youth program and the outcomes and outputs of any accomplishments since last year.

Answer. NHTSA has developed a performance measure in partnership with Students Against Destructive Decisions (SADD). The "2000 X 2000 Campaign" has set a goal of 2,000 alcohol-related fatalities for ages 15 through 20 by the year 2000. In 1996, these fatalities numbered 2,315, a 5 percent increase from 1995.

The NHTSA youth program continues to focus on three broad approaches to achieve reduced teenage fatalities: legislation, education and enforcement. Our legislative efforts are primarily focused on strengthening and implementing the zero tolerance laws, enacting graduated licensing laws and increasing compliance with the age 21 drinking laws. Numerous education efforts are underway, primarily in partnership with national organizations like MADD and SADD and the members of National Organizations For Youth Safety (NOYS). Enforcement efforts focus on the development of how-to materials and demonstration programs with law enforcement organizations.

Currently, 49 States and the District of Columbia have zero tolerance laws. NHTSA estimates that age 21 laws saved 846 lives in 1996 alone. In 1997, 6 States passed new laws revising their licensing statutes that pertain to teen drivers. Currently, there are 15 States that require multiple levels of licensing for young novice drivers. Seventeen States have restricted nighttime driving hours for teen drivers. Numerous products have resulted from NHTSA funded efforts, the latest being a national satellite teleconference on Zero Tolerance, which was fed to approximately 400 down-link sites and 20 public service TV stations.

Question. The conferees provided $1,400,000 to bolster training and education in law enforcement, prosecutors and judges dealing with detection, arrests, and punishment of young alcohol and drug offenders, and the sanctioning of alcohol and drug offenders. Please describe the progress made in each of these areas.

Answer. The plan for addressing these concerns focuses on training and education for law enforcement, prosecutors, judges, and school officials. For law enforcement, the Youth Enforcement Workshop will be revised to expand its focus to alcohol and other drugs and will to include topics such as zero tolerance, impact of drug use by youth, and drug research.

For prosecutors and patrol officers, a workshop entitled Protecting Lives, Saving Futures is being developed to provide guidance on the effective and efficient use of existing and newly enacted laws, enforcement techniques and technology to reduce alcohol and other drug use by youth.

For judges that hear cases involving youthful drug, alcohol, and other impaired driving offenses, an educational program is being developed which focuses on the impact that alcohol and other drugs have on both crime and traffic safety, as well as judges' impact on the enforcement process and dispositional alternatives for youthful offenders. NHTSA anticipates an award to the National Council of Juvenile and Family Court Judges by August 1998.

For school administrators, teachers, coaches, counselors, and nurses an education and training program is being developed to help recognize the signs and symptoms of students under the influence of alcohol and other drugs. This program is designed to be presented by law enforcement officers.

Question. What specific contracts have been signed to implement that directive?

Answer. No contracts have been signed yet. We anticipate the following awards to be made by the end of fiscal year 1998:

	Organization	Date
Law Enforcement—Youth Enforcement Workshop.	International Association of Chiefs of Police.	July 1998.
Prosecutors—Protecting Lives, Saving Futures Workshop.	National Traffic Law Center	September 1998.
Judges—Workshop and training for juvenile court judges.	National Council of Juvenile Court Judges.	August 1998.
Detecting and Treating Alcohol and Other Drugs Before It Becomes a Problem.	International Association of Chiefs of Police.	July 1998.

Question. How much will be spent on alcohol issues and how much on drug-related concerns?

Answer. Funding levels cannot be easily differentiated. All four projects to be undertaken in the youth, drugs and driving initiative focus on alcohol and other drugs and on training for a variety of audiences (law enforcement, prosecutors, etc.). The training will cover both alcohol and other drug issues as they relate to prevention, detection, prosecution, adjudication, and treatment.

Question. The conferees directed NHTSA to consider developing model policies for youth enforcement treatment and sentencing and then conduct a demonstration using this model. Please describe the progress made in that area. What specific contracts have been issued to implement the revised project?

Answer. NHTSA has a number of initiatives underway to address model enforcement and sentencing policies and practices. This year the agency published two documents addressing enforcement issues: Youth DWI and Underage Enforcement and Best Practices For Retail Oriented Underage Drinking Prevention.

A demonstration grant to test a model approach to enforcing underage sale is underway with the Pennsylvania Liquor Control Board. A five-site demonstration program was conducted with the Department of Justice to develop model policies and practices within the enforcement community. In addition, a publication is now under development which describes model approaches for dealing with youth issues within the criminal. It is entitled Strategies For Success—Combating Juvenile DWI.

Sentencing and treatment issues are being addressed through an interagency agreement with the National Institute on Alcoholism and Alcohol Abuse (NIAAA). This project will produce a sentencing guide for judges and prosecutors who deal with youth alcohol issues.

Finally, the agency will award a fiscal year 1998 grant to the National Council of Juvenile and Family Court Judges to conduct a series of State workshops for judges on adjudicating and sentencing youthful alcohol and drug offenders.

NATIONAL OCCUPANT PROTECTION PROGRAM

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for each of the five subprograms of the National Occupant Protection Program in fiscal years 1996, 1997, and 1998.

Answer. See table below.

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Approp	Request	Approp	Request	Approp
PI&E	2,414	2,314	2,364	2,360	2,263	2,263
Belt Law	1,904	1,886	1,674	1,670	1,594	1,594
Target Pop	1,635	1,253	1,637	1,498	1,540	1,540
Eval & Tech	447	439	538	537	498	498
Patterns	1,600	952	745	744	715	715

Question. Please prepare a table for each of the five subprograms in the National Occupant Protection Program, showing how all the funds requested for fiscal year 1999 are to be spent, and please include in that table a comparison with the amount provided for comparable activities for fiscal year 1998. On a separate page, please further justify the need for the requested increases over the fiscal year 1998 appropriation.

Answer. The tables follow:

1998	Amount	1999	Amount
PUBLIC INFORMATION AND EDUCATION SUBPROGRAM			
Initiate social marketing approach to achieving goals and objectives in the Buckle Up America program.	$90,000	Conduct social marketing research, develop messages, focus test, plan and implement media events, develop partnerships, and support partners for the Buckle Up America program.	$500,000
National Safety Belt Media Campaign under a cooperative agreement with The Advertising Council.	550,000	National Safety Belt Media Campaign under a cooperative agreement with The Advertising Council.	600,000
Develop and produce child passenger safety and safety belt educational, promotional, and media materials.	700,000	Develop and produce educational, media, and promotional materials, with special emphasis on Hispanic, African American, Asian American, and Native American audiences.	911,000
Produce and distribute two Campaign Safe & Sober Planners: (1) Occupant Protection and (2) Youth and Generation X.	490,000	Develop, produce and distribute the Campaign Safe & Sober Seasonal Planners for Occupant Protection.	375,000
Maintain database for communicating with partners in the Buckle Up America program	50,000	Increase technical capability and maintain database for communicating with thousands of partners in the Buckle Up America program.	100,000
Buckle Up America public information and education activities of the NHTSA Regional Offices.	383,000	Buckle Up America public information and education activities of the NHTSA Regional Offices.	425,000
BELT LAW COMPLIANCE SUBPROGRAM			
Complete final year funding of four-year demonstration grant program. These funds have assisted 19 states in conducting statewide enforcement and education programs to increase seat belt and child safety seat use.	1,149,000	Support enforcement-related activities of states targeted for intensive outreach efforts following June 1998 Buckle Up America Leadership Conference, and communicate this experience to all states through law enforcement organizations.	1,130,000
Establish law enforcement liaison officers at the agency regional level to promote occupant protection training programs, provide technical assistance and organize regional summits for law enforcement agencies to support Buckle Up America.	255,000	Continue the law enforcement liaison officer program and summits. Experience from the 19-state grant demonstrations, ''Operation ABC'' and the June 1998 Buckle Up America Leadership Conference will be promoted within these and other states.	300,000
Develop updated material on the experience of states which have upgraded their seat belt use laws from secondary to primary enforcement (experience from California, Louisiana and Georgia law changes).	.....	Provide information extensively to national, state and local organizations interested in pursuing improved state occupant protection legislation, and measure use rates and public acceptance of new primary law experience in Oklahoma, Indiana and other new primary enforcement law states.	300,000
Develop and update training materials for law enforcement officer and fire and rescue staff training in child passenger safety. Encourage the law enforcement community to enforce belt and child safety seat use laws, providing this information through professional law enforcement programs.	140,000	Train greater numbers of officer-instructors in the states to educate patrol officers on child passenger safety and belt law enforcement issues. The involvement of professional law enforcement organizations will increase program awareness and participation among more communities.	400,000
Continue data base development and pilot test CD–ROM product as a tool to assist child passenger safety technicians in providing selection, use and compatibility information about child safety seats to parents and other care givers at the community program level.	50,000	Provide CD–ROM as a resource to child passenger safety technicians to support better advice to parents and other care givers. Develop and market a version for marketplace use by parents, care givers and dealers to support compliance and correct usage at the community program level.	250,000
TARGET POPULATIONS SUBPROGRAM			
Conference Exhibits. Exhibit at national conferences to solicit participation in the Buckle Up America program.	100,000	Exhibit at 50 percent more national conferences to solicit greater participation in the Buckle Up America program, especially among minority populations.	150,000

Minority Outreach. Work with and support national minority organizations to develop culturally-relevant materials for distribution through minority organizations	250,000	Conduct a diversity summit to enroll additional groups representing diverse organizations into the Buckle Up America campaign; develop ethnically and culturally-relevant public education materials targeting minority audiences on the importance of seat belts and child safety seats; and discuss the role of law enforcement in raising seat belt and child safety seat use.	600,000
Medical/Public Health Outreach. Develop targeted toolkit for medical and health care partners to enhance their educational efforts in promoting seat belt and child seat use.	300,000	Increase the number of medical and public health organizations implementing occupant protection activities; effectively involve the medical/public health communities in providing community leadership to support Buckle Up America.	500,000
Elected Officials Outreach. Develop materials suitable for elected officials, and encourage participation in occupant protection activities. Work with an support national organizations such as U.S. Conf. of Mayors and Nat'l. Assn. Of Prosecutor Coordinators.	300,000	Increase outreach to elected officials through national organizations; effectively involve organizations (see examples in fiscal year 1998 column) in occupant protection activities, based on materials developed in fiscal year 1998.	400,000
Educational Organizations Outreach. Work with and support national educational organizations to develop and distribute educational materials promoting seat belt use.	140,000	Extend outreach to educational organizations, involving them in the development and distribution of educational materials (K–12) focusing on the importance of occupant protection.	350,000
Business and Federal Agency Outreach. Expand partnerships with business and federal agencies to encourage implementation of seat belt policies among employees.	250,000	Mobilize federal agencies in support of the President's Initiative to Increase Seat Belt Use. Increase partnerships with the business community, focusing on activities they can implement in support of the Buckle Up America campaign.	400,000
Youth Organization Outreach. Develop and distribute occupant protection materials targeting young people, through a national youth champion.	100,000	Increase the number of youth organizations served, and provide peer-to-peer mentoring to increase seat belt use through a national youth summit.	300,000
Develop a national Recognition and Awards Program for the Buckle Up America Campaign ..	100,000	Implement a Recognition and Awards Program for the Buckle Up America Campaign	350,000
EVALUATION AND TECHNOLOGY SHARING SUBPROGRAM			
Respond to requests for occupant protection materials from national, state, and local organizations plus individuals who are conducting traffic safety programs. On average, the Traffic Safety Resource Center estimates that it is currently filling over 3,000 orders per month just for occupant protection materials.	200,000	Respond to requests for occupant protection materials. The demand for traffic safety educational materials has been increasing every year at an accelerated rate. With the initiation of the air bag safety program and Buckle Up America, this program is placing even greater demands on the services that the Resource Center must provide.	400,000
Provide technical assistance to the states. Training, demonstration grants, observational belt use surveys.	198,000	Continue activities such as were conducted in fiscal year 1998, plus increase technical assistance for child passenger safety programs and training.	221,000
The Presidential Initiative to Increase Seat Belt Use Nationwide semi-annual progress report for fiscal year 1998 will not involve data collection from partners. Reports written by NHTSA staff.	.....	The Presidential Initiative to Increase Seat Belt Use Nationwide semi-annual progress reports. Collecting and analyzing data from partners participating in Buckle Up America campaign, and writing reports.	50,000
Maintain the Grant Tracking System to assist in the evaluation of the 402 State and Community Grant Program. Publish quarterly Traffic Safety Digests for sharing successful 402 projects with the all of the State Highway Safety Offices and Community Traffic Safety Programs/Safe Communities.	100,000	Continue activities such as were conducted in fiscal year 1998	100,000
"PATTERNS FOR LIFE"—CHILD SAFETY SEATS SUBPROGRAM			
Conduct and manage coalition events and partnerships lists. Develop and coordinate information and technical assistance between members of the coalition and facilitate member sponsored media and promotion activities.	85,000	Continue activities such as were conducted in fiscal year 1998	85,000

1998	Amount	1999	Amount
Materials Development—Coordinate the development, updating, and revision of training materials, public awareness and information, and promotional items on child passenger, bicycle, pedestrian, and school bus safety.	285,000	Materials Development—Continue activities such as were conducted in fiscal year 1998. This year's efforts will add the development of materials targeted for special populations.	285,000
Training Development—Support workshops, training and other educational activities to enhance technical training programs. Provide technical assistance to states interested in educating opinion leaders on child passenger safety issues, effective communication, and coalition building.	175,000	Training Development—Continue activities such as were conducted in fiscal year 1998, but fiscal year 1999 efforts will also include working with select organizations to develop additional training on child transportation, pedestrian, and bicycle issues.	175,000
Training Delivery—Work with national organizations to coordinate delivery of training workshops to state and local affiliates. Facilitate training activities coordination.	105,000	Training Delivery—Continue activities such as were conducted in fiscal year 1998	105,000
Grassroots Educational Support—Develop technical assistance for states interested in upgrading child passenger safety legislation and improving media advocacy skills for state and local program personnel.	35,000	(Completed)	.....
Support Air Bag Safety Campaign—develop approaches to educate the public about the risks of air bag injury to unrestrained and improperly restrained children, the need for effective child passenger safety law enforcement, and the benefits of effective child passenger safety laws.	30,000	(Completed)	.....
	.....	Child Transportation Guidelines—Develop and coordinate age-appropriate guidelines on pedestrian, bicycle, and school bus safety skills for children (ages 0–14), and implement the effort.	65,000

Justifications For Increases:

The Presidential Initiative for Increasing Seat Belt Use Nationwide set extremely ambitious goals of 85 percent seat belt use by Year 2000 and 90 percent by 2005. Achieving safety belt use rates of this magnitude requires strong safety belt and child passenger safety laws that are consistently enforced, enlightened and educated community leaders and opinion makers who can influence and shape the public's attitudes toward safety and health issues, and a public which strongly agrees that "unbuckled is unacceptable." Specific subprogram justifications follow:

Public Information and Education Subprogram.—The increased funding will allow the agency to (1) develop culturally-relevant child passenger safety and safety belt educational and training materials into Spanish and Asiatic languages; (2) hire a public relations/social marketing firm to support the entire Buckle Up America effort; (3) increase the capability and maintain a database management system for communicating with the agency's Buckle Up America partners; and (4) produce sufficient quantities of print and audio-visual educational and training materials to meet the exponentially increasing demand for materials created by the Buckle Up America initiative. The savings realized from reducing the number of Campaign Safe & Sober planners from four a year to three will be somewhat offset by the need to contract out more of the developmental work that previously was performed in-house.

Belt Law Compliance Subprogram.—The additional resources are needed to implement the more intense program activity and new initiatives designed to achieve the challenging belt use and child passenger fatality reduction goals established at the request of the President for the years 2000 and 2005. The 1998 budget request did not reflect the level of resources needed to operationally implement this initiative, which was in the planning process from January through September 1997. The fiscal year 1999 budget request is the first we have proposed which reflects the resources needed to fully support the annual costs of the campaign. This campaign is a comprehensive effort which targets (1) the development of new and more focused public-private partnerships to promote the message for increased use to the public, (2) the enactment of stronger state occupant protection use laws, (3) high visibility enforcement of those laws, and (4) effective public education. While the belt law compliance subprogram is not the only funding component for the Campaign, the activities it supports are crucial to its operation and success, and a large increase in funding level is required over the fiscal year 1998 request.

Target Populations Subprogram.—The objective of this subprogram is to work through national organizations to enlighten and educate community leaders and opinion makers, make them "champions" of safety belt and child safety seat use, and create a public attitude that "unbuckled is unacceptable." This is a massive undertaking and requires the assistance and cooperation of hundreds of national organizations, and their state and local affiliates to have a noticeable impact. The increase will allow the agency to: (1) promote Buckle Up America at 35 additional national conferences of minority organizations; (2) increase the number and types of national organizations (especially minority, medical and health, and youth organizations) that the agency can support with mini-grants, training, materials, and technical assistance; (3) identify, recruit and support individuals to serve as national spokespersons for Buckle Up America; and (4) establish a Rewards and Recognition program to motivate organizations and individuals to participate in Buckle Up America.

Evaluation and Technology Sharing Subprogram.—The demand for traffic safety educational materials, from national, state, and local organizations plus individuals who are conducting traffic safety programs, has been increasing every year at an accelerated rate. Occupant protection materials have always represented the largest share of these orders. Now, with the initiation of the Air Bag Safety Program and Buckle Up America, there are even more requests resulting from the need to provide materials to the hundreds of national organization partners who are being recruited to support Buckle Up America. The logistical support for shipping displays and materials to national conferences where NHTSA promotes its traffic safety programs has likewise increased from about 24 in 1996, to over 50 in 1998, and 75 in 1999. BUA also requires a semi-annual progress report on meeting the national goals by Year 2000. $50,000 of the requested increase is to pay for data collection from the national partners who will be conducting activities in support of Buckle Up America, analysis of that data, and writing the reports to Congress. The balance is to provide additional technical assistance to the states' child passenger safety (CPS) programs and training courses. The demand for CPS training is growing at an exponential rate and NHTSA is responding.

"Patterns for Life"—Child Safety Seats Subprogram.—There is no increase requested for fiscal year 1999 from the level funded in fiscal year 1998.

Question. Please provide a detailed breakdown of how the $9.83 million requested for the National Occupant Protection program will be allocated.

Answer. A detailed breakdown follows:

PUBLIC INFORMATION AND EDUCATION SUBPROGRAM:	
Conduct social marketing research, develop messages, focus test, plan and implement media events, develop partnerships, and support partners for Buckle Up America	$500,000
National Safety Belt Media Campaign under a cooperative agreement with The Advertising Council	600,000
Develop and produce educational, media, and promotional materials, with emphasis on Hispanic, African American, Native American and Asian American audiences	911,000
Develop, produce and distribute the Campaign Safe & Sober Seasonal Planners for Occupant Protection	375,000
Increase technical capability and maintain database for communicating with thousands of partners in the Buckle Up America program	100,000
Buckle Up America public information and education activities of the NHTSA Regional Offices	425,000
BELT LAW COMPLIANCE SUBPROGRAM:	
Support enforcement-related activities of states targeted for intensive outreach efforts following June 1998 Buckle Up America Leadership Conference, and communicate this experience to all states through law enforcement organizations	1,130,000
Continue the law enforcement liaison officer program and regional summits. Experience from the 19-state grant demonstrations, Operation ABC and the June 1998 Buckle Up America Leadership Conference will be promoted within these and other states	300,000
Provide information extensively to national, state and local organizations interested in pursuing improved state occupant protection legislation, and measure use rates and public acceptance of new primary law experience in Oklahoma, Indiana and other new primary enforcement law states	300,000
Train greater numbers of officer-instructors in the states to educate patrol officers on child passenger safety and belt law enforcement issues. The involvement of professional law enforcement organizations will increase program awareness and participation among more communities	400,000
Provide CD–ROM as a resource to child passenger safety technicians to support better advice to parents and other care givers. Develop and market a version for marketplace use by parents, care givers and dealers to support compliance and correct usage at the community program level	250,000
TARGET POPULATIONS SUBPROGRAM:	
Conference Exhibits. Exhibit at 50 percent more national conferences to solicit greater participation in Buckle Up America, especially among minority populations	150,000
Minority Outreach. Conduct a diversity summit to enroll additional groups representing diverse organizations into the Buckle Up America campaign; partner with diverse groups to address the issue of harassment in respect to the enforcement of seat belt laws; and develop ethnically and culturally-relevant materials targeting minority audiences on the importance of seat belts and child safety seats	600,000
Medical/Public Health Outreach. Increase the number of medical and public health organizations implementing occupant protection activities, and effectively involve them in community leadership to support Buckle Up America	500,000
Elected Officials Outreach. Increase outreach to elected officials through national organizations; effectively involve organizations such as the U.S. Conference of Mayor and the National Association of Prosecutor Coordinators in occupant protection activities, based on materials developed in fiscal year 1998	400,000
Educational Organizations Outreach. Extend outreach to educational organizations, involving them in the development and distribution of educational materials (K–12) focusing on the importance of occupant protection	350,000

Business and Federal Agency Outreach. Mobilize federal agencies in support of the President's Initiative to Increase Seat Belt Use. Increase partnerships with the business community, focusing on activities they can implement in support of the Buckle Up America campaign	400,000
Youth Organization Outreach. Increase the number of youth organizations served, and provide peer mentoring to increase seat belt use through a national youth summit	300,000
Implement a Recognition and Awards Program for the Buckle Up America Campaign	350,000
EVALUATION AND TECHNOLOGY SHARING SUBPROGRAM:	
Responding to state, national organization and other requests for occupant protection materials to support their efforts in Buckle Up America	400,000
Providing technical assistance to the states. Training, demonstration grants, observational belt use surveys, and technical assistance for CPS programs and training	221,000
Semi-annual progress reports on the Presidential Initiative to Increase Seat Belt Use Nationwide—collecting and analyzing data from participating partners	50,000
Maintaining a grant tracking system to assist in the evaluation of the 402 State and Community Grant Program, and publication of the quarterly Traffic Safety Digests for sharing successful 402 projects with all of the State Highway Safety Offices and Community Traffic Safety Programs/Safe Communities	100,000
"PATTERNS FOR LIFE"—CHILD SAFETY SEATS SUBPROGRAM:	
Continue efforts in managing coalition events and partnerships lists. Maintain information and technical assistance between members of the coalition and facilitate media and promotional activities	85,000
Expand efforts with the production and revision of training materials, public awareness and information, and promotional items on child transportation, bike and pedestrian safety. This year's efforts will add materials targeted for special populations	285,000
Conduct and promote workshops, training sessions and other educational activities to enhance technical and advocacy programs. Provide technical assistance to states interested in educating opinion leaders on child passenger safety issues, effective communication, and coalition building. This year's efforts include working with select organizations to develop additional training on child transportation, pedestrian, and bicycle issues	175,000
Continue instructor staff development and coordinate delivery of training workshops to state and local affiliates. Continue to coordinate training activities	105,000
Coordinate a team to create developmental age-appropriate guidelines on pedestrian, bicycle, and school bus safety skills for children (ages 0–14). Produce and implement the new program effort	65,000

Question. What are the objectives and expected funding activities for each of the activities listed on page HS–38 of the fiscal year 1999 Budget Estimate.

Answer. The activities listed in HS–38 were provided to highlight, by example, some of the activities that the agency planned to undertake as part of the overall Presidential Initiative to Increase Seat Belt Use Nationwide. They were not meant to constitute a total list of the entire Occupant Protection or Buckle Up America (BUA) programs. The objectives of the activities and estimated dollars allocated can be summarized as follows:

Objective: National Outreach and Building Partnerships ($290,000)

Redefine the National public campaign to meet the goals as set in the Presidential Initiative to Increase Seat Belt Use Nationwide. Develop a Network of "Champions" to increase support for the Presidential Seat Belt Initiative.

Conduct a National Diversity Summit to enlist support for traffic safety initiatives from ethnically and culturally diverse populations.

Reach out to national associations representing medical and health professionals, youth, businesses, government officials, ethnically and culturally diverse populations and others to promote safety belt messages to their members, constituents, and the public.

Conduct outreach activities to support and enable state and local infrastructures to provide information about child passenger protection and training activities. Increase the number of local child passenger protection experts providing technical assistance to national, state and local health and medical, intergovernmental, and civic groups.

Objective: Technical Assistance to States and Communities ($610,000)

Promote intensive statewide publicity and enforcement programs in as many states as possible, offering demonstration grants to 8–10 states to assist them in developing and coordinating such programs.

Provide technical assistance to States to improve their observational belt use surveys.

Promote "best practices" in states and local communities through NHTSA's regional offices.

Provide state and local training in technical skills, program advocacy and project management.

Provide regional assistance for the development of materials and program implementation.

Develop regional peer-to-peer technical assistance capabilities.

Develop regional technical transfer capabilities to improve occupant protection countermeasures.

Continue to promote occupant protection initiatives through regional public information and education campaigns and Safe Communities programs.

BELT LAW COMPLIANCE

Question. Please provide an empirical basis justifying the need for the $2.38 million requested for the Belt Law Compliance program in fiscal year 1999. Please specify amounts to be associated with specific activities.

Answer. Failure to buckle up contributes to more fatalities than any other single traffic safety-related behavior. And, fatalities are only the tip of the iceberg, with almost four million injuries documented in police-reported crashes each year. A critical element to achieving increased seat belt and child safety seat use and reducing motor vehicle related deaths and injuries is the continued implementation of high-visibility enforcement activities in as many states and communities as possible.

Experience shows that high-visibility enforcement works to increase occupant protection use because, with many part-time and non-belt users, the fear of citation and fine adds additional persuasive weight to their fear of being injured or killed in a crash. For others in these groups who unrealistically refuse to accept that they are ever at any risk of being injured or killed in a crash, the heightened possibility of citation and fine provides a motivation that is otherwise lacking. During the past few years when very few additional belt use laws were enacted and no widespread enforcement efforts were undertaken, the national seat belt use rate remained essentially unchanged. In those states that already had enacted primary enforcement seat belt legislation, and where there was a greater perceived potential for receiving a citation for belt non-use, belt usage was about 15 percentage points higher than in the states with secondary enforcement provisions. In those states that have recently adopted primary enforcement seat belt legislation, and in those communities that have implemented sequential waves of high-visibility belt law enforcement, seat belt use rates have increased dramatically, in the range of 12 to 15 percentage points.

In order to reach the national seat belt and child passenger safety goals, the agency proposes the following activities and funding levels for its Belt Law Compliance Subprogram in fiscal year 1999:

—Support enforcement-related activities of states targeted for intensive outreach efforts following the conduct of a June 1998 Buckle Up America Leadership Conference, and communicate the results of this experience to all states through law enforcement organizations. ($1,130,000)

—Continue the law enforcement liaison officer program. Experience from the 19-state sTEP demonstration programs and the June 1998 Buckle Up America Leadership Conference will be promoted to all states via these liaison officers. ($300,000)

—Provide information to national, state and local organizations to support improved state occupant protection legislation; measure use rates and public acceptance of new primary law experience in Oklahoma, Indiana and other new primary enforcement law states. ($300,000)

—Train large numbers of officer-instructors in the states to educate patrol officers on child passenger safety and belt law enforcement issues. The support and involvement of major professional law enforcement organizations will increase the

potential for this effort to increase program awareness and participation among police officers in thousands of communities. ($400,000)

—Provide a CD–ROM resource to child passenger safety technicians to provide accurate and up-to-date advice to parents and other care givers. Develop and market a version of this CD–ROM for use by parents, care givers and dealers to support compliance and correct usage at the community program level. ($250,000)

TARGET POPULATIONS

Question. Please provide an empirical basis justifying the need for the $3.05 million requested for the Target Populations program in fiscal year 1999. Please specify amounts to be allocated for specific activities.

Answer. An important element of increasing seat belt and child safety seat use is the development and use of strategic partnerships to educate the motoring public on their safety benefits. During the past three years, the Agency has expanded its outreach targeting specific national organizations.

These partnerships result in the development and distribution of seat belt materials focusing on the specific needs of the membership, technical and advocacy training of members, and the convening of workgroups to enhance communications and coordination across organizations. Working with our partners, for example, the Agency has developed occupant protection tool kits designed for physicians for use in speaking with their patients regarding the injury prevention benefits of seat belts; model seat belt policies for use by business and industry in implementing seat belt policies for their employees; training programs for child care providers in the proper installation of child safety seats.

Increasing our outreach to national organizations will enable the agency to reach individuals in the community, through their physicians and nurses, child care providers, employers, service organizations, governing bodies, and others, all with the same message: "Buckle Up America, there's just too much to lose". This, combined with highly visible enforcement efforts and enhanced legislation, will be essential to move us to our goal of 85 percent belt use by the year 2000.

The Agency proposed the following activities and funding levels for its Target Population subprogram in fiscal year 1999:

—Increase the number of exhibits at national conferences featuring the Buckle Up America campaign by 50 percent. ($150,000)

—Conduct a diversity summit to mobilize diverse organizations into the Buckle Up America campaign; develop ethnically- and culturally-specific materials; partner with diverse groups to address the issue of potential police harassment generated by primary seat belt laws. ($600,000)

—Mobilize the medical/public health organizations in support of the Buckle Up America campaign, including their involvement in providing community leadership. ($500,000)

—Increase outreach to elected officials in support of the Buckle Up America campaign, including a "mayor's challenge" for increased seat belt use. (400,000)

—Increase educational organization outreach in support of seat belt use, to include the development of curricula designed for middle school, using traffic safety examples and exercises to augment science classes. ($350,000)

—Expand partnerships with business and industry and with other federal agencies promoting seat belt policies for their employees, and working as community leaders supporting visible enforcement of seat belt laws. ($400,000)

—Mobilize youth organizations to focus on the benefits of seat belt use; conduct a summit to teach young people leadership skills and peer-to-peer mentoring skills to increase youth activities at the local level in support of the Buckle Up America campaign. ($300,000)

—Implement a recognition and reward program for national organizations and other partners who have exhibited extraordinary efforts in supporting the campaign, and whose work has resulted in increases in seat belt and child seat use. ($350,000)

OCCUPANT PROTECTION RESEARCH

Question. In extensive detail, please further justify the $1.08 million increase for the Occupant Protection Research.

Answer. The $1.08 million figure refers to the total requested research budget in occupant protection. This is a $306,000 increase over the fiscal year 1998 research budget of $774,000. Increased funding in the occupant protection area is requested for fiscal year 1999 in order to fund research to support implementation of the Buckle Up America campaign. Fiscal year 1999 funding will be directed towards

providing a solid research, evaluation and data foundation for the campaign. This will include monitoring of public awareness and attitudes of various intervention approaches and observational surveys to track safety belt and child seat use at various stages of the program. In addition, efforts will be initiated to develop and test interventions, such as enforcement programs, positive incentives, and public information and education programs.

PUBLIC INFORMATION AND EDUCATION

Question. Please describe all agency activities related to child safety seat use and the subprogram from which those activities are funded. Please specify fiscal year 1999 and fiscal year 1998 amounts associated with major activity categories.

Answer. A table of agency activities, by subprogram area and fiscal year, follows.

1998	Amount	1999	Amount
PUBLIC INFORMATION AND EDUCATION SUBPROGRAM			
Develop, produce, and distribute child passenger safety educational, promotional, and media materials.	$300,000	Develop, produce and distribute educational, media, and promotional materials, with special emphasis on Hispanic, African American, and Asian American audiences.	$500,000
Develop, produce and distribute a Campaign Safe and Sober Quarterly Planner focusing on occupant protection, including child safety seats.	245,000	Develop, produce, and distribute a Campaign Safe and Sober Seasonal Planner focusing on occupant protection and child safety seats.	250,000
BELT LAW COMPLIANCE SUBPROGRAM			
Complete final year funding of four-year education and enforcement demonstration grant programs.	383,000	Support enforcement-related activities of child seat laws in states targeted for intensive outreach efforts.	375,000
Establish law enforcement liaison officers at the agency regional level to promote child seat training, provide technical assistance to the states, and conduct summits for law enforcement agencies to support the goals of Buckle Up America.	75,000	Continue the law enforcement liaison officer program and summits. Promote best practices from the fiscal year 1998 program, and results from the Buckle Up America Leadership Conference in targeted states.	100,000
Develop and update training materials for law enforcement and fire and rescue staff in child passenger safety. Encourage the law enforcement community to enforce belt and child seat use laws.	140,000	Train additional officer-instructors in the states to educate patrol officers on child passenger safety enforcement issues.	300,000
Continue data base development and pilot test CD–ROM product as a tool to assist child passenger safety technicians in providing selection, use and compatibility information about child safety seats.	50,000	Provide CD–ROM as a resource to child passenger safety technicians to support better advice to parents and other care givers. Develop and market a version for marketplace use by parents and others to support compliance and correct usage at the community program level.	250,000
TARGET POPULATIONS SUBPROGRAM			
Exhibit at national conferences promoting child seat initiatives through the Buckle Up America program.	25,000	Exhibit at national conferences to solicit greater participation in the child passenger safety aspects of the Buckle Up America program, especially among minority populations.	75,000
Minority Outreach. Partner with minority organizations to develop culturally-relevant materials for distribution through minority organizations.	100,000	Expand partnerships with organizations representing minority populations; expand production of culturally-relevant materials for distribution through minority organizations; enlist additional support from minority organizations in support of child seat use.	200,000
Medical/Public Health Outreach. Increase outreach to medical/public health partners. Develop toolkit targeted for medical and health care partners to enhance their educational efforts in promoting child seat use.	150,000	Increase the number of medical and public health organizations implementing child seat activities; expand production of materials targeted at the health profession for distribution to their patients regarding the safety benefits and proper use of child seats.	300,000
Elected Officials Outreach. Develop and distribute materials focusing on the safety benefits of child seats and the highly visible enforcement of child seat laws.	75,000	Increase outreach to elected officials through national organizations; effectively involving them in the Buckle Up America program through highly visible enforcement of child seat laws and providing information regarding gaps in legislation covering children.	150,000
National Recognition and Awards Program for Buckle Up America Program recognizing programs exhibiting increases in child seat use.	25,000	Implement national Awards Program, recognizing national organizations, states, and communities that increase child seat use and decreases in childhood fatalities.	100,000
EVALUATION AND TECHNOLOGY SHARING SUBPROGRAM			
Respond to requests for child seat materials from national, state, and local organizations plus individuals who are conducting traffic safety programs.	100,000	Respond to requests for child seat materials. The demand for traffic safety educational materials is increasing every year at exponential rate.	200,000

1998	Amount	1999	Amount
Provide technical assistance to the states. Training, demonstration grants, observational child safety seat use surveys.	75,000	Increase technical assistance for child passenger safety programs and training	150,000
"PATTERNS FOR LIFE"—CHILD SAFETY SEATS SUBPROGRAM			
Conduct and manage coalition events and partnerships lists. Develop and manage information exchange and technical assistance between members of the coalition; facilitate member sponsored media and promotion activities.	85,000	Continue activities such as were conducted in fiscal year 1998	85,000
Materials Development—Develop, update, and revise training materials, public awareness and information, and promotional items on child passenger safety.	175,000	Materials Development—Continue activities conducted in fiscal year 1998. This year's efforts will add the development of materials targeted for special populations.	175,000
Training Development—Support workshops, training and other educational activities to enhance technical training programs. Provide technical assistance to states interested in educating opinion leaders on child passenger safety issues, effective communication, and coalition building.	175,000	Training Development—Continue activities conducted in fiscal year 1998	175,000
Training Delivery—Work with national organizations to coordinate delivery of training workshops to state and local affiliates. Facilitate training activities coordination.	105,000	Training Delivery—Continue activities such as were conducted in fiscal year 1998	105,000
Grassroots Educational Support—Develop technical assistance for states interested in upgrading child passenger safety legislation and improving media advocacy skills for state and local program personnel.	35,000	(Completed)	.....
Support Air Bag Safety Campaign—develop approaches to educate the public about the risks of air bag injury to unrestrained and improperly restrained children, the need for effective child passenger safety law enforcement, and the benefits of effective child passenger safety laws.	30,000	(Completed)	.....

PATTERNS FOR LIFE

Question. What specific products have resulted from this effort to date? What materials have been distributed to the States?

Answer. The Patterns for Life program has produced a number of important products:

—A comprehensive, technical curriculum Standardized Child Passenger Safety Training Program has been developed and distributed nationally for use by certified technician instructors. It provides standardized, accurate, and up-to-date information regarding child passenger safety. This development is a major step towards developing improved child passenger safety expertise in communities across the country. The curriculum is supported by the following additional products:

—A certification process has been established for technicians and technician instructors. This helps maintain high qualifications and abilities of those providing child passenger safety education to their communities.

—A database has been developed of all course participants and instructors, as well as of classes held or planned. This will assist states and organizations requesting technical assistance to locate trained child passenger safety technicians in their areas.

—The Operation Kids training program for law enforcement officers, has been updated to be consistent with the content of the above Standardized Child Passenger Safety Training Program. The training provides law enforcement officers with training on actions they can take in their communities to improve child passenger safety.

—The Child Transportation Safety Materials Review and Evaluation Booklet has been widely distributed. It provides a checklist for child passenger safety advocates and organizations to help them review educational materials and to determine if the information they are providing to parents and care givers is current.

—A special insert on bicycle safety was included in the Spring Issue of Safe Rides News. The focus of this newsletter will be expanded to cover bicycle, pedestrian and school bus safety.

Materials developed but not yet distributed include:

—A CD–ROM for use by child passenger safety technicians to assist them in determining which child seats will fit in which vehicles. This product provides answers to child safety seat installation and compatibility problems on over 300 models of automobiles and approximately 100 models of child safety seats.

—Child pedestrian safety materials for Spanish-speaking parents, grandparents, and other care givers are being developed which include a bilingual brochure, educator's guide, and broadcast length video "telenovela" Amigos por Vida (Friends for Life).

—A highway safety activity book is being developed for children age 5 to 11. It includes a board game, maze, crossword puzzle, and crossword puzzle, all focusing on bicycle and pedestrian safety, occupant protection (safety belts, child safety seats, and bicycle helmets) and pupil transportation safety.

—A Community Bicycle Safety Handbook is being developed to enable sports franchises and communities to conduct their own comprehensive bicycle safety events.

AIR BAG SAFETY PROGRAM

Question. Please summarize the Agency's efforts to address the adverse effects of airbag deployment, specifically as related to serious injuries and fatalities. How is that reflected in the fiscal year 1999 budget request?

Answer. The agency is focused on developing test procedures and the accompanying vehicle performance requirements which will lead to the elimination of fatalities and reduce the severity of the injuries resulting from aggressive air bag deployment to children and adults, and to infants in rear facing child safety seats. This is to be accomplished simultaneously optimizing the benefits to normally seated restrained occupants and also providing protection for unbelted adults in high severity crashes. Research will include the analysis of injuries/fatalities with air bags, analysis of fatalities to children under 15 with air bags, and analysis of injuries/fatalities to drivers, to specifically identify cases of air bag aggressiveness contributing to the injuries/fatalities. This will include both field investigations as well as laboratory testing to evaluate aggressiveness of new-generation air bags. Research also will assess advanced air bag technology that provides protection over a wide range of conditions, and will develop appropriate test procedures for evaluating air bag system

performance over the range of conditions. The agency has requested $6.984 million in the fiscal year 1999 budget request to undertake this program.

Question. Please provide in detail the amount spent on this area during fiscal year 1997, fiscal year 1998, and planned for fiscal year 1999, being certain to identify purposes and objectives of those expenditures.

Answer. The fiscal year 1997 budget devoted to air bag research was approximately $1.311 million. Work in fiscal year 1997 focused on laboratory testing and real-world crash analyses aimed at identifying technical approaches to address inflation caused injuries. Research efforts were geared to assessing near-term mitigation concepts—primarily related to depowering air bag systems. Additional work was initiated to assess the performance of advanced technology or "smart" air bags. Work included biomechanics research, vehicle and air bag research, and real-world crash investigations.

In fiscal year 1998, $6.331 million in funding has been allocated for air bag research. This research is directed toward allowing the agency to collect additional real-world crashes involving air bag-equipped vehicles and to expand the biomechanics and vehicle and air bag research and testing program. The following provides a brief description of each of the major research program areas:

Biomechanics Program ($3.15 million).—Design of less aggressive air bags requires a better understanding of injury mechanisms and tolerances of the human body to air bag loading. This is especially true for children and small females. This research will allow the generation of sufficient biomechanical data and provide necessary physical and analytical tools to address this issue.

Safety Systems Program ($1.85 million).—Research will continue that is focused on the development, performance, and monitoring of advanced air bag systems to find solutions to the air bag problems identified in the field experience, including those injuries resulting from aggressive air bag deployments (especially to children). For the advanced air bag systems under development, research will identify the better performing systems, evaluate their best features, and determine the need for performance requirements regarding these systems.

Special Crash Investigations ($1.031 million).—The Special Crash Investigations (SCI) program provides the flexibility to acquire detailed engineering information on crashes of special interest which fall outside the established scope or criteria of other agency data systems. It is the agency's primary resource for examining the safety impact of rapidly changing technology and exploring alleged or potential vehicle defects. These include but are not limited to investigation of crashes in which an air bag or safety belt system appeared to operate in an unexpected manner, crashes involving heavy trucks, crashes involving alternative fuel vehicles, crashes involving children in restraints, and serious school bus crashes not investigated by other Federal agencies. As new highway safety issues emerge, this program has the capability to respond quickly for collection of field information to support agency analysis and appropriate action.

Collect Data Through Hospital Emergency Rooms ($0.3 million).—In order to better understand air bag-related injuries, funding is being requested to maximize the use of an existing relationship with the Consumer Product Safety Commission to conduct a clinical study of the nature and severity of injuries associated with air bag deployments.

In fiscal year 1999, $6.984 million in funding has been requested for air bag research. The following provides a brief description of the fiscal year 1999 program for each of the major research areas:

Biomechanics Program ($3 million).—Research will continue to address the near-term development of pediatric and small female injury criteria associated with the intense and complex out-of-position air bag deployment situation. These efforts have as their goal the development of essential tools for the assessment of current and emerging air bag deployment systems to allow maximizing crash protection.

Safety Systems Program ($2.431 million).—Research will continue to focus on the development, performance, and monitoring of advanced air bag systems that build upon the short-term technological solutions to air bag problems identified in the field experience, including those injuries resulting from aggressive air bag deployments (especially to children). For the advanced air bag systems under development, the better performing systems will be evaluated and performance requirements established based on these systems. Also, research will include out-of-position occupant tests (static and/or dynamic) to evaluate the performance of side air bags and other related systems (i.e., Inflatable Tubular Structure (ITS), deployable upper interior paddings, etc.). Research will conduct reconstructions of crashes in which the air bag deployment caused either fatalities or severe injuries.

Special Crash Investigations ($1.553 million).—Research will continue to investigate, through its SCI program, approximately 320 motor vehicle crashes that qual-

ify for NHTSA's Air Bag Investigations Program and non-air bag related vehicle safety problems (i.e., school bus crashworthiness and pedestrian safety problems, potential safety defects, and alternative fuel vehicles). During fiscal year 1999, over 200 new-generation and advanced air bag cases would be investigated.

Question. What are the longer term actions to be taken by the Agency that may reduce or eliminate these problems? How is that reflected in the fiscal year 1999 budget request?

Answer. On March 19, 1997, the agency published a final rule that temporarily amends the agency's occupant crash protection standard to ensure that vehicle manufacturers can quickly redesign air bags so that they inflate less aggressively. More specifically, the agency adopted an unbelted sled test protocol as a temporary alternative to the standard's full scale unbelted barrier crash test requirement. The agency took this action to provide an immediate, interim solution to the problem of the fatalities and injuries that current air bag systems are causing in relatively low speed crashes to a small, but growing number of children and occasionally to adults. The longer term action that is anticipated by the agency is the issuance of test procedures that lead to the introduction of air bag systems that provide benign deployment to out-of-position occupants and/or suppress deployment of the air bag when deployment is determined to hazardous to the occupant. These advanced systems are to provide protection to the variety of occupant sizes over the range of crash events where serious injuries and fatalities occur. The agency has requested $6.984 million for fiscal year 1999 for this activity.

Question. What is the status of your work to advance smart air bags?

Answer. The agency has initiated an extensive Special Crash Investigations program to monitor the performance of current-generation and new-generation air bag systems in the fleet experience, has initiated efforts to introduce a variety of dummy sizes and associated injury criteria (both child and fifth percentile female) into the agency's compliance test procedures, has initiated the development of new test procedures and associated performance requirements that lead to the introduction of air bag systems that provide benign deployment to out-of-position occupants and/or suppress deployment of the air bag when deployment is determined to hazardous to the occupant. These advanced systems are to provide protection to the variety of occupant sizes over the range of crash events where serious injuries and fatalities occur. A Notice of Proposed Rulemaking resulting from these activities is anticipated for June, 1998.

Question. The Committee directed NHTSA to ensure that sufficient emphasis is placed on quantifying the safety benefits and costs associated with depowering airbags. What is the progress to date?

Answer. NHTSA conducted a complete analysis of the safety benefits and costs of depowered air bags in conjunction with the final rule permitting the temporary use of a sled test to comply with FMVSS 208 crash test criteria. The results of that analysis were based on the data available at the time. Since then, further testing has been done on both pre-depowered and depowered systems.

NCAP tests (35 mph rigid barrier tests with belted 50th percentile male dummies) were conducted on 46 depowered 1998 model vehicles. These tests showed only minor improvement over pre-depowered air bags in providing protection against head and neck injury to average size males in high speed crashes. They showed a minor decrease in protection against chest injuries. Overall, there was no significant change in safety measured in these belted, high-speed tests.

FMVSS 208 30 mph rigid barrier tests were conducted on six 1998 model vehicles with unbelted 50th percentile male dummies. These tests showed a minor improvement in safety for unbelted drivers, but a minor decrease in safety for unbelted passengers.

NHTSA has also conducted static out-of-position tests with 5th percentile female dummies on four 1998 depowered vehicles. In three of the four vehicles tested, there was a significant reduction in serious neck injuries to out-of-position occupants, and modest reductions in head and chest injuries. Similar tests were conducted using 6 year old dummies. In these tests, four of the five vehicles experienced improvements in protection against head, neck, and chest injury.

NHTSA also has an ongoing collaborative effort with Transport Canada to collect depowered air bag test data on restrained drivers and passengers, and especially on small occupants. Transport Canada has conducted low speed (25 mph) offset deformable barrier tests on 10 vehicles and high speed (30 mph) rigid barrier tests on 9 vehicles. These tests indicate that smaller occupants have a lower risk of serious neck injury with depowered air bags than with pre-depowered air bags. However, in general, the depowered air bags showed little improvement in reducing air bag induced head and chest injury for belted small occupants.

The above test results will be used to revise estimates of impacts of depowered air bags in the analysis of advanced air bags that is currently underway at NHTSA.

NHTSA is also conducting a series of special crash investigations of crashes involving vehicles with depowered air bags. These investigations were undertaken in order to determine patterns of injury and to gain insight into the safety impacts of vehicles with this new technology. To date, 61 cases have been examined in this ongoing program. Cases examined thus far reveal a noticeable decline in the incidence of lower arm fractures.

NHTSA will conduct an in-depth benefit assessment of depowering when enough years of real world crash data become available.

Depowering of air bags can be accomplished by a simple substitution of a lower powered inflator, which might actually reduce the variable costs of air bag systems. There are also development costs to design, test, and certify compliance for new air bag designs. Overall, costs to depower air bags are not considered to be significant. NHTSA stated this in the final rule on the depowering issue published in February 1997, and this assertion has not been challenged.

ENFORCEMENT AND EMERGENCY SERVICES PROGRAM

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for the two programs specified under the Enforcement and Emergency Services Program for fiscal years 1996, 1997, and 1998.

Answer. See table below:

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Approp	Request	Approp	Request	Approp
PTS	1,606	1,286	1,209	1,207	1,850	1,646
EMS	1,122	1,122	1,180	1,178	1,550	1,550

Question. Please provide a table for both of the components in the Enforcement and Emergency Services Program, showing how all of the funds requested for fiscal year 1999 are intended to be spent. Include in that table a comparison with the amount provided for similar activities for fiscal year 1998. On a separate page, please further justify the need for the requested increases over the fiscal year 1998 appropriation amount.

Answer.

[In thousands of dollars]

	Fiscal Year—	
	1998 Estimate	1999 Request
Police Traffic Services:		
Enforcement Demonstrations	630	630
Technology Transfer	360	340
Public Information and Education	227	250
Training and Technical Assistance	173	218
National Organizations	256	430
Total	1,646	1,868
Emergency Medical Services:		
National Standard Curricula	486	370
Injury Prevention & Control	389	585
Leadership	250	370
EMS System Support	357	480
EMS Information, Technologies & Dissemination	68	145
Total	1,550	1,950

Police Traffic Services

The additional resources are needed to implement a speeding and aggressive driving program. Speeding is a factor in 30 percent of all fatal crashes. Aggressive driving has rapidly become the driver behavior of major concern to the motoring public.

In response to the elimination of the national maximum speed limit, NHTSA, FHWA and CDC contracted with the National Academy of Sciences to conduct a study of setting and enforcing speed limits. The results of this study will be pilot tested in several communities.

NHTSA will conduct aggressive driving outreach program to combat aggressive driving. Additionally, the aggressive driving public information and education program will be expanded to include print, radio, and television media.

Additional resources are also needed to implement more intense and visible traffic law enforcement activities required to support the President's Plan to Increase Seat Belt Use Nationwide, the Presidential .08 BAC initiative, and the Partners in Progress program.

Finally, NHTSA will provide technical assistance on the implementation of Police Traffic Services in the 21st Century. This program will aid law enforcement agencies in dealing with the combination of dwindling resources, increased demands for service, application of new technology, and the need for public awareness of the importance of traffic law enforcement.

Emergency Medical Services

The emergency medical services program will be significantly expanded in priority areas outlined in the EMS Agenda for the Future. These areas include Injury Prevention & Control, Leadership, EMS System Support, and EMS Information, Technologies & Dissemination. Added program emphasis in these areas is critical to take full advantage of current enthusiasm among the EMS community for achieving the objectives outlined in the Agenda.

In the Injury Prevention and Control area, new projects will establish collaborative relationships between EMS and public health agencies. The new Bystander Care Campaign will be marketed with both a public awareness component and a community-based bystander training effort. The Leadership area will be strengthened with a program to recognize best practices related to achieving goals stated in the EMS Agenda and with a similar program to recognize state and local EMS quality improvement efforts.

The EMS Systems Support activities will be expanded to provide technical support for an end-to-end emergency communication system. This system is the next step in the evolution of emergency access and response. It will utilize advanced technologies to provide faster and better emergency care and it will include the development of education materials as well as support for implementation of specific components of that system. The EMS Information, Technologies and Dissemination area will include new efforts to develop a consensus-based national EMS research agenda.

Question. Please list the three most significant challenges to this program that must be addressed during fiscal year 1998 and fiscal year 1999.

Answer. The three most significant challenges to the Enforcement and Emergency Services program during fiscal year 1998 and fiscal year 1999 are:

1998

Increasing safety belt and child safety seat usage and combating impaired driving, speeding and aggressive driving behaviors will require countermeasures and best practices that can be used by law enforcement agencies throughout the country.

Providing technical assistance on the implementation of Police Traffic Services in the 21st Century. This includes dealing with dwindling resources and increase demands for service; application of technology; and public awareness of the importance of traffic law enforcement.

Increasing recognition and endorsement of the EMS Agenda for the Future by continuing to promote the value of a common vision through the EMS professional literature, national EMS professional organizations and in key national meetings. The program will also provide continued recognition of best practices for achieving these visions.

1999

Increasing safety belt and child safety seat usage and combating impaired driving, and aggressive driving outreach and coalition building to get the support of the motoring public will require expanding public information and education efforts.

Providing technical assistance to states and communities to combat speeding, using the results of the National Academy of Sciences' study Guidance on Setting

and Enforcing Speed Limits. This study was conducted in response to the eradication of the national maximum speed limit in 1995.

Implementing the EMS Agenda will require more specific guidance, sponsorship of consensus meetings to create implementation plans, revision of the Blueprint for EMS Education and Practice, and development of a national research agenda.

Question. Please discuss what NHTSA is doing to further the use of cellular 911 numbers. How is this reflected in your fiscal year 1999 request?

Answer. NHTSA is promoting the concept of an end-to-end emergency communication system utilizing advanced communication technology to provide quicker and better response to crashes or other life-threatening emergencies. Central to this system is the cellular 911 communication link which allows instant access from the emergency scene and provides the mechanism for determining the precise location of the emergency, and for transmitting crash and medical data to enable dispatchers to provide the most appropriate first response resources.

The agency built support for the end-to-end concept among the health and medical community by conducting a national "Call to Action" meeting during EMS Week in May 1997, and by publishing informational documents explaining the need for the improved emergency communication system. NHTSA has since worked with several national EMS professional organizations to encourage involvement of their members in local efforts to implement cellular 911.

The Emergency Medical Services budget request for fiscal year 1999 includes support for conducting educational activities for emergency communication personnel to facilitate their preparation for implementing cellular 911.

Question. What could be done to expedite the use of a uniform system anywhere in the nation?

Answer. NHTSA is promoting the concept of an end-to-end emergency communication system. This system will enhance public safety by utilizing advanced technology to provide a faster and better emergency response to 911 calls. The end-to-end concept acknowledges the need for consistency from one end of the nation to the other and the need for complete coverage of the emergency event, from injury to arrival at the hospital. Creating the end-to-end system will require the commitment and action of public and private sector stakeholders at the national, state and local levels.

The agency is working to bring these stakeholders together. NHTSA sponsored a national "Call to Action" meeting during EMS Week in May 1997 to bring the health and medical community together with the cellular telephone industry and emergency communication providers. NHTSA has also published documents to increase awareness of the need for a consistent national emergency communication system among stakeholder groups, and is working through the Intelligent Transportation System (ITS) program to facilitate incorporation of this system in the national ITS architecture.

Stimulating the local action necessary to build a uniform system is a major challenge. The agency will continue efforts to mobilize local representatives of health and medical organizations in support of implementation of the end-to-end emergency communication system and will direct technical support where needed to augment local resources.

Question. What efforts were undertaken on that initiative during fiscal year 1998?

Answer. In fiscal year 1998, NHTSA conducted several activities to further nationwide implementation of cellular or wireless 911. The agency continued to build support for local implementation by alerting public safety professionals of the current limitations of cellular 911 and of the need for community action to upgrade this emergency access system. NHTSA developed and distributed informational documents explaining technical aspects of the problem and presented this information in key national forums.

The NHTSA Administrator worked with the Cellular Telecommunications Industry Association to develop local infrastructure to support wireless 911. To provide national leadership, the agency supported development of the EMS Agenda for the Future Implementation Guide which includes two objectives related to cellular 911 among its ten priority objectives for the future of EMS.

NHTSA continues to work closely with the Federal Communications Commission (FCC) and the national associations representing 911 call centers to facilitate implementation of the 1996 FCC regulation requiring cellular providers to provide 911 service.

POLICE TRAFFIC SERVICES

Question. How much money is planned to be spent in fiscal year 1999 on efforts to demonstrate the link between traffic enforcement and the detection of criminal activity? What is the status of that effort?

Answer. In fiscal year 1999, $40,000 will be allocated to update case studies demonstrating the link between crime and traffic enforcement. Prior case studies were compiled in 1995 and 1997 from Grand Prairie, TX and Peoria, IL and were based on limited data. This new effort will fund the services of a full time, commissioned law enforcement officer, for one full year, to gather data from additional agencies which have data to support this linkage and to market the program to law enforcement. This expanded case study will identify currently successful programs and will document "best practices" for use by other law enforcement agencies.

Question. How much was spent on this in fiscal year 1998?

Answer. No funds were spent on this effort in fiscal year 1998.

Question. Please provide a detailed break out for fiscal year 1998 activities and fiscal year 1999 planned activities with associated funding amounts.

Answer. The information follows:

Fiscal year 1998	Amount	Fiscal year 1999	Amount
Implement a field test of an automated speed enforcement program on the George Washington Parkway. The field test will ensure maximum coverage of the sections of the parkway where speed related crashes have most frequently occurred.	$40,000	Sponsor a joint project between NHTSA and FHWA on speed deterrent initiatives	$50,000
Conduct an aggressive driving enforcement demonstration project in a major urban area to identify effective innovative enforcement techniques, possible applications for new enforcement technology, legislative, prosecutorial or judicial needs and what role alcohol or drugs play in the problem.	540,000	Implement two Aggressive Driver Pilot Projects in major metropolitan areas, to validate the techniques used in the 1998 demonstration project.	500,000
Establish a system to respond to requests from the law enforcement community regarding the availability and applicability of new enforcement technology, thus reducing or eliminating repetitive testing of instruments.	56,000	Support the services of a technical expert in speed measurement technology who can assess and report on new technology for use by the law enforcement community.	30,000
Obtain data from individual states that can be analyzed and evaluated to determine the effects of raising speed limits on specific roadways.	50,000	Sponsor (with FHWA) workshops for patrol officers on Traffic Enforcement and Commercial Vehicles, based on a jointly developed training course.	50,000
Provide technical support to law enforcement on speed measuring instruments, including maintaining and modifying the minimum performance specifications and testing protocols for RADAR, LIDAR, and automated speed measuring instruments.	110,000	Provide technical support to law enforcement on speed measuring instruments, including maintaining and modifying the minimum performance specifications and testing protocols for RADAR, LIDAR, and automated speed measuring instruments.	110,000
Upgrade one of the current International Association of Chiefs of Police sponsored testing labs with the capability for testing automated speed measuring instruments.	100,000	Assess the application technology which expands the deterrent effect of automated enforcement devices (speed and red light) jointly with FHWA.	200,000
Continue a project to develop magnetic strip and barcode reader that will automatically populate forms and automatically transmit data to check for stolen vehicle, wanted person, drivers license history and etc.	50,000	Assess labor saving enforcement devices such as ALERT vehicle and computer applications.	50,000
Provide the services of a trained law enforcement officer to promote and enhance the enforcement activities associated with Campaign Safe & Sober sTEP programs, the Presidential Seat Belt Initiative, and expand aggressive driving enforcement programs.	20,000	Provide the services of a trained law enforcement officer to promote and enhance the enforcement activities associated with Campaign Safe & Sober sTEP programs and the Presidential Seat Belt Initiative.	20,000
Convene a group of law enforcement administrators to develop a plan and facilitate the implementation of the 21st Century Recommendation Report.	71,000	Develop radio public service announcements on aggressive driving and excessive speed to target the high risk groups.	150,000
Provide the services of a trained law enforcement officer to gather data on the effect that various traffic safety activities have on reducing law enforcement's injury crashes.	40,000	Provide technical assistance to law enforcement based on the results of the police fleet crash study conducted in fiscal year 1998.	25,000
Support principal national law enforcement association to provide guidance to law enforcement leaders to increase occupant protection use, and to reduce impaired driving, speeding, and aggressive driving.	120,000	Support principal national law enforcement association to provide guidance to law enforcement leaders to increase occupant protection use, and to reduce impaired driving, speeding, and aggressive driving.	110,000
Support principal national sheriff's association to provide guidance to law enforcement leaders to increase occupant protection use, and to reduce impaired driving, speeding, and aggressive driving.	100,000	Support principal national sheriff's association to provide guidance access to law enforcement leaders to increase occupant protection use, and to reduce impaired driving, speeding, and aggressive driving.	100,000
Support efforts of national organization of state police and highway patrol agencies nationwide, to conduct dedicated special traffic enforcement programs during key holidays.	20,000	Support efforts of a national organization of state police and highway patrol agencies nationwide, to conduct special traffic enforcement programs during key holidays.	20,000
Provide public information and educational materials on occupant protection, impaired driving, speeding, and aggressive driving to law enforcement agencies.	280,000	Support the Campaign Safe & Sober public information and education program	100,000

Provide technical assistance to law enforcement agencies to support traffic enforcement agencies' techniques.	49,000	Update the legal section of the National Law Enforcement Driver Training Reference Guide	40,000
		Conduct and support a workshop for traffic law enforcement in a high fatality region	50,000
		Revise and update the Model Minimum Performance Specifications for Speed-Measuring Instruments and support speed measurement devices.	100,000
		Support the services of a trained law enforcement officer to promote and expand the enforcement activities associated with aggressive driving enforcement programs.	40,000
		Provide technical assistance on the implementation of the Police Traffic Services in the 21st Century recommendations.	23,000
		Support the services of a trained law enforcement officer to make national distribution of the study of the effect traffic enforcement has on crime and expand the series of case studies of projects that demonstrate the positive effect traffic enforcement has on the reduction of crashes and criminal activity.	40,000
		Develop a guide for the enforcement of occupant protection laws in a diverse community.	60,000

Question. What is the compelling reason for the requested increase in PTS activity in fiscal year 1999?

Answer. The additional resources are needed to support efforts to increase safety belt and child safety seat usage, reduce alcohol impaired driving and to implement a speeding and aggressive driving program. Speeding is a factor in 30 percent of all fatal crashes. Aggressive driving has rapidly become the driver behavior of most concern to the motoring public.

The additional resources are needed to implement more intense traffic law enforcement program activities and new initiatives designed to achieve the challenging belt use in the President's Plan to Increase Seat Belt Use Nationwide, the Presidential .08 BAC initiative as well as the Partner's in Progress Implementation Guide to reduce impaired driving.

Also, in response to the elimination of the national maximum speed limit, NHTSA, FHWA and CDC contracted with the National Academy of Sciences to conduct a study of setting and enforcing speed limits. The results of this study will be pilot tested in several communities.

NHTSA will conduct aggressive driving outreach and coalition building to get the support of the motoring public in combating the aggressive driver. Additionally, the aggressive driving public information and education program will be expanded to include print and television.

STATE MOTOR VEHICLE SERVICES PROGRAM

Question. NHTSA has been working on a new agenda for traffic records for several years. What components will be included in your new agenda? What is the expected issue date for that agenda?

Answer. The following components will be included in the new agenda: traffic records assessments (and reassessments); traffic record file integration; the technology clearinghouse; minimum crash data criteria; the traffic records forum; traffic safety managers training course; traffic safety quantitative analysis training course; development of a population-based data file; driver history initiative; intelligent transportation systems; adaptations of global positioning and geographical information systems; use of expert systems to improve crash data quality; support for an American Association of Motor Vehicle Administrators Multi-Year (MY) Plan; and inclusion of traffic records in the National Committee on Uniform Traffic Laws and Ordinances. Each of the components included in the agenda relate to improving traffic records data collection, management, and analysis. The draft new agenda is considerably expanded over previous versions and will be made available for review and comments to NHTSA, FHWA and appropriate safety organizations by June 1, 1998. The revised agenda will be presented at the Traffic Records Forum, July 26–29, 1998 in Minneapolis.

Question. Please provide a table indicating the amount allocated and the amount actually appropriated for fiscal years 1996, 1997, and 1998 in this area.

Answer. See table below:

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Approp	Request	Approp	Request	Approp
R&L	1,284	1,284	1,330	1,329	1,579	1,579

Question. Please submit a table showing how all of the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amount provided for similar activities for fiscal year 1998. On a separate page, please justify the need for the requested increases.

Answer. See table below and response.

Activity	Fiscal year 1998	Fiscal year 1999
Technology Clearinghouse	$80,000	$80,000
Traffic Safety Manager Quantitative Analysis Training	60,000	60,000
Traffic Safety Manage Training in Use of Analytical Software	44,000	44,000
Intermediate Data Analysis Training	50,000	50,000
Minimum Crash Data Set	60,000	60,000
Traffic Records Forum	60,000	60,000
Population Data Base	55,000	55,000

Activity	Fiscal year 1998	Fiscal year 1999
Traffic Records Technology Grants	302,000	266,000
AAMVA MYPLAN	50,000	50,000
NCUTLO Marketing Plan	50,000	50,000
SCS Transfer—Technical Assistance to States (data linkage/program evaluation)	768,000	815,000
TOTAL	1,579,000	1,590,000

Justification for Increase in SCS Transfer.—The agency plans to expand its technical assistance to states in data linkage and program evaluation procedures.

HIGHWAY SAFETY RESEARCH PROGRAM

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for the subprograms in the Highway Safety Research program for fiscal years 1996, 1997, and 1998.

Answer. See table below.

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Approp	Request	Approp	Request	Approp
Alc & Drugs	1,802	1,772	1,606	1,603	1,600	1,600
Occupant Prot	645	635	575	574	774	774
Older Driver	390	490	444	543	550	550
Ped & Bicyl	302	302	302	301	375	375
Speed & Unsafe	615	615	556	655	699	699
Driver Ed	350	255	350	349	400	400
Drvr Fatigue	.....	1,000	.....	980	.....	.....
Evaluation	.....	.....	1,000	100	500	500
EMS	.....	.....	.....	.....	225	225

Question. Please prepare a table for each of the subprograms in the Highway Safety Research Program, showing how all the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amount provided for similar activities for fiscal year 1998. On a separate page, please justify the need for the requested increases.

Answer. See the tables that follow, and the additional information regarding the need for increased budget amounts.

Subprogram	Fiscal year 1998	Fiscal year 1999
ALCOHOL AND DRUG RESEARCH		
Identify target groups and activities	$600,000	$370,000
Develop enforcement improvements	550,000	300,000
Evaluate injury control programs	100,000	.....
Evaluate drinking driving legislation	200,000	250,000
Test high-impact countermeasures	.....	200,000
Develop programs to reduce repeat offenders	.....	200,000
Develop traffic law system improvements	.....	100,000
Identify drugged driving characteristics and develop countermeasures	150,000	150,000
Total	1,600,000	1,570,000
OCCUPANT PROTECTION RESEARCH		
Develop, implement, and test strategies to increase seat belt use	300,000	250,000
Develop strategies for youth	80,000	85,000
Determining strategies for passing primary belt laws	120,000	.....
Identify strategies to combat problems in child passenger safety	124,000	220,000

Subprogram	Fiscal year 1998	Fiscal year 1999
Research supporting ''Buckle Up America''	.....	305,000
Monitor public attitudes, knowledge, behavior	150,000	220,000
Total	774,000	1,080,000
SPEED AND AGGRESSIVE DRIVING RESEARCH		
Determine the magnitude of the speeding problem, identify targets	149,000	.....
Fleet study of crash risk	200,000	250,000
GW Parkway safety program	300,000	300,000
Implement and evaluate countermeasures	.....	.....
Develop objective definition, and determine incidence of aggressive driving	50,000	.....
Total	699,000	914,000
PEDESTRIAN AND BICYCLIST RESEARCH		
Develop and test programs for target groups	30,000	.....
Large city demonstration program	290,000	.....
Literature review of conspicuity	30,000	.....
Monitor attitudes and behaviors	25,000	.....
Develop and field test bike countermeasures	.....	.....
Evaluate impact of motorcycle law repeals	.....	.....
Total	375,000	375,000
OLDER DRIVER RESEARCH		
Field test driver licensing system	300,000	.....
Identify medical conditions and crash risk	150,000	.....
Implement demonstration programs	.....	.....
Update older driver report	50,000	.....
Field test guidelines for older drivers with health care and social service agencies	.....	.....
Examine mobility issues	50,000	100,000
Total	550,000	550,000
DRIVER EDUCATION RESEARCH		
Training to improve decision making	100,000	.....
Evaluate graduated licensing systems	175,000	200,000
Develop 2-phase driver education program	125,000	200,000
Total	400,000	400,000
EMERGENCY MEDICAL SERVICES RESEARCH		
EMS outcomes evaluation	125,000	150,000
Rural preventable mortality follow-on	100,000	.....
Conduct study of patient outcomes in out-of-hospital emergency settings	.....	.....
Review pre-hospital data for crash victims	.....	.....
Total	225,000	340,000
SAFETY PROGRAM EVALUATION		
Evaluate belt laws	100,000	.....
Evaluate Partners in Progress	.....	150,000
Evaluate innovative programs	250,000	.....

Subprogram	Fiscal year 1998	Fiscal year 1999
Evaluate Presidential initiative on seat belt use	150,000	173,000
Evaluate NEXTEA incentive grant program	.....	.....
Investigate possible applications of ITS and other advanced technology	.....	125,000
Evaluate air bag safety campaign	.....	150,000
Total	500,000	648,000

Justification for increases:

Additional funding for Occupant Protection Research.—The additional funds would fund research to support implementation of the "Buckle Up America" campaign. Buckle Up America is the Presidential initiative to increase seat belt use to 85 percent by the year 2000 and to 90 percent by the year 2005. It is a priority of the agency and the Department. The funding will be directed towards providing a solid research and monitoring foundation to the campaign to enhance its effectiveness. This entails developing and testing interventions and evaluating Buckle Up activities.

Additional funding for Speed and Aggressive Driving Research.—The additional funding is needed to initiate a study of the increased crash risk associated with specific types of speeding. A fleet of vehicles will be equipped with low cost data recorders that will measure when, and under what circumstances, the vehicles are driven above the posted limit. This project will provide critical information on the situations and circumstances in which speeding elevates crash risk and will allow the development of targeted enforcement focused on the situations where speeding is most likely to cause crashes.

Additional funding for Emergency Medical Services Research.—This funding is for research to reduce rural preventable mortality and to evaluate pre-hospital care to ensure that is delivered efficiently and effectively. Funding for Emergency Medical Services Research has been moved to the research office to take advantage of the greater research and evaluation expertise and experience so that research of only the highest quality is produced.

Additional funding for Program Evaluation.—This funding will be used to evaluate major activities resulting from the agency's efforts to increase safety belt and child safety seat use through the Presidential initiative on seat belt use, Air Bag Safety Campaign, and the Partners in Progress program. Special emphasis will be placed on evaluation the impact of the legislative and enforcement activities.

OLDER DRIVER RESEARCH

Question. Please list the publications issued during the last year in this area and associated NTIS numbers.

Answer. Many projects have come to fruition in the past year and several reports have been written. Three of the publications written have been journal articles; they include: "Safe Mobility for People with Alzheimer Disease: A Commentary" in Alzheimer Disease and Associated Disorders, Vol. 11, 1997; "Safe Mobility for Senior Citizens" in the journal of the International Association of Traffic Safety Sciences (IATSS), Vol. 20, 1996; and "Crash Prediction Models for Older Drivers" in Accident Analysis and Prevention, 1998.

A DOT Technical Report was also published: "Improving Transportation for a Maturing Society", DOT–P10–97–01.

Several technical reports from contractors that are under review by the Agency include: Safety Wheel Program; Family and Friends Concerned About an Older Driver; Development of Statistical Relationships Between Vehicle Crash Rates, Moving Violations and Age-Related Physical and Mental Limitations; Assessing the Older Driver—Pilot Studies; Mobility Consequences of the Reduction or Cessation of Driving by Older Persons; and Improving the Safe Mobility of Older Persons and Measures for Increasing the Mobility of Aging Commonwealth Citizens.

Question. Please present a summary of the specific products that have resulted from this program during the last year and how those results have benefitted state licensing agencies, physicians, and families.

Answer. The results of NHTSA's problem identification research in cooperation with the National Institute on Aging has helped to identify some of the older driver groups that need special attention. In addition, our research on the role of families, law enforcement, social service agencies and other caretakers is being used to develop materials for the benefit of driver licensing agencies, health and social service

agencies and families. These products will be used to identify older drivers who may be at increased risk of being in a crash.

An example of a product recently developed is "The Safety Wheel Program Guide Book" that provides social service agencies with guidelines for dealing with older driver issues. The guide book gives specific strategies on how to deal with problem drivers and yet still keep them mobile. Another recent product includes very promising driver license screening tests, developed under a cooperative agreement with the California Department of Motor Vehicles, which are being used in our overall model screening and assessment demonstration project currently underway in Maryland's Department of Motor Vehicles and other agencies dealing with aging.

Question. Please assess progress made on the five-year strategic plan regarding older driver research that was requested by the Committee several years ago.

Answer. The older driver research plan emphasized three areas: identifying high risk older drivers via screening and assessment by licensing agencies; helping older drivers to self regulate their driving by family and friends; and better identification of problematic older drivers by physicians and care takers. Several projects have been completed in these areas and reports have been published or are forthcoming. One enhancement to the plan is that the Agency has determined that working with a state consortium in selecting and pilot testing "model" programs is a very effective way to obtain state cooperation. The agency will pilot test the model programs developed in the above projects in the State of Maryland this year and next. The Maryland Department of Motor Vehicles will pilot test the licensing aspects, while various Maryland agencies on aging will test other aspects dealing with family, friends and the medical and health communities.

Obtain state cooperation.—The agency will pilot test the model programs developed in the above projects in the State of Maryland this year and next. The Maryland Department of Motor Vehicles will pilot test the licensing aspects, while various Maryland agencies on aging will test other aspects dealing with family, friends and the medical and health communities.

Question. Is it time to develop another five-year plan?

Answer. Based on our research findings it has become increasingly evident that older women may be more at risk of not having safe mobility as they age. Less than 25 percent of women over 85 drive. They outlive their husbands by 8 to 10 years, and have limited access to alternative transportation. NHTSA will conduct a needs analysis in fiscal year 1998. If it turns out that there is evidence of an emerging problem with elderly women, the agency will develop another five year plan with emphasis in that area.

Question. In Senate Report 104–325, the Committee indicated that NHTSA should continue its work on demonstration activities for technologies and practices intended to improve driver performance of older drivers at risk of losing their licenses. How is this reflected in the fiscal year 1999 budget request and in the fiscal year 1998 spending plan for TSP?

Answer. As part of our fiscal year 1998 funded activities, the agency will be developing a model screening and assessment program that will include activities to improve performance of older drivers at risk of losing their license. That project is working closely with the States of Maryland and Florida to pilot test assessment tools to identify potential weaknesses. Once pilot tested, drivers who have problems will be referred to vision specialists, occupational therapists and other specialists to overcome the problems whenever possible. In fiscal year 1999, field test of driver licensing system and field test of guidelines for older drivers with health care and social service agencies will begin.

Question. Please be certain to break out activities and specific funding levels for each activity.

Answer. Fiscal year 1998: Field Testing Model Driver Licensing Systems—$300,000 (to pilot test model screening and assessment program).

Fiscal year 1999: Field Test Driver Licensing System $200,000; Field Test Health and Social Service System: $200,000, Update Transportation for an Aging Society—$50,000 and Examine Mobility Issues: $100,000

Question. What is NHTSA doing to improve the safe mobility of older drivers? What are the results achieved during the last year?

Answer. NHTSA is managing a program to develop and evaluate model screening, assessment and rehabilitation programs. In addition, the Agency is coordinating a number of other related activities (e.g. guidelines for self-regulation) in several states. Staff has provided specific guidance to states and other countries (e.g. Canada, Australia, and New Zealand) on programs to enhance safe mobility for older people. Programs to help screen out high risk older drivers and to help with alternative transportation for those who cease driving are under development or being implemented in Florida, Maryland, Michigan, California, New York, and Pennsyl-

vania with technical assistance from NHTSA. The Agency is also working with the American Association for Motor Vehicle Administrators (AAMVA) and various public affairs and consumer education groups to get better information to the general public on the key issues in this important safety area.

Question. What is NHTSA doing to demonstrate new approaches to the licensing of older drivers during fiscal year 1998? During fiscal year 1999?

Answer. NHTSA is working with the state of Maryland to pilot test an overall program designed to keep older people safely mobile. NHTSA is working with Maryland to establish a consortium of the key groups who can have significant roles in identifying, assessing, rehabilitating, counseling and assisting older people either to maintain their driving ability or transitioning to alternative means of transportation. The activity is bringing together all of the prior research that NHTSA and others have conducted including the identification of older drivers who may be at risk of crashing or losing their mobility. Older drivers at increased risk could be identified by family members, social service agencies, law enforcement groups, or the medical community. Driver screening and diagnostic testing with the potential for rehabilitating functional disabilities will also be pilot tested in the Maryland demonstration project. The project will also determine ways to keep older people mobile who either have to restrict or stop driving altogether.

Question. Have those demonstrations of improved screening and evaluation been effective?

Answer. Some of the elements of the instruments that are being pilot testing in Maryland have been shown to be predictive of crash involvement or poor performance on certain road tests. NHTSA is currently attempting to determine in the pilot tests in Maryland whether or not these instruments can distinguish between those who are crash involved, those who have traffic citations and those who have been referred to their Department of Motor Vehicles for a medical condition or functional limitation.

Question. Please discuss how you used the GM settlement monies to supplement appropriated older driver research monies. How much did you allocate for that purpose? (GM and appropriated monies)

Answer. While NHTSA's research has studied older drivers from the perspective of identifying unsafe drivers and restricting their ability to drive, the General Motors (GM) projects have focused on identifying opportunities and methods for extending the driving time of safe and qualified older persons. GM awarded nine grants to conduct research in four areas that complement NHTSA-sponsored research: (a) three projects are investigating various aspects of trends in older-driver crash involvement and causality and projecting outcomes into the next quarter-century; (b) two projects are extending NHTSA's work with self-regulation of driving by older persons by investigating different systems and procedures for providing information to drivers; (c) three projects are examining a variety of factors that influence older persons to stop driving prematurely and testing the effects of different kinds of information on extending their mobility; and (d) one project is looking at methods for extending older-drivers' mobility through performing careful assessments and installing personalized adaptive devices on the driver's automobile. These projects are supported solely by GM funds: $5 million over a 5-year period. No appropriated funds have been used in the conduct of these projects.

DRIVER EDUCATION

Question. Please describe progress or accomplishments in this area.

Answer. Following submission of the 1994 Report to Congress, Research Agenda For An Improved Novice Driver Education Program, various contract activities have been initiated. A study to review the use of various simulation devices was completed in 1996, "Feasibility of New Simulation Technology to Train Novice Drivers." An effort to develop parental participation materials for providing guided practice to novice drivers is nearing completion. The materials will be available by September 1998 and will be distributed by the American Association of Motor Vehicle Administrators to the States. An effort to develop a CD–ROM program to train novice drivers to make better risk management decisions is underway. A Beta version is expected by September 1998. Various safety associations are considering marketing of the training program. Efforts have been initiated through Cooperative Agreements with the American Driver and Traffic Safety Education Association and the National Safety Council to conduct activities to establish a national curriculum for a two-tiered driver education program. These efforts also provide limited assistance (e.g., expert testimony) to States who are considering improving driver education as a part of a graduated driver licensing system. Agency staff also provides consulta-

tion to various safety groups that are also attempting to improve training programs for novice drivers (e.g., American Automobile Association).

DRIVER FATIGUE AND INATTENTION

Question. Senate Report 104–325 directed NHTSA to prepare a report on driver fatigue and inattention, and encouraged collaborative efforts and funding activities between NHTSA and the National Center on Sleep Disorders Research. Please provide the status and findings of that report, and whether it is on schedule.

Answer. The report to the Senate is being delayed in order to include the joint NHTSA and NIH report prepared by the expert panel convened by the National Center on Sleep Disorders Research (NCSDR). Internal reviews at the two agencies required considerably more time than expected, but that report is currently being printed.

The NCSDR panel report presents information in four major areas: mechanisms of human sleep and sleepiness, characteristics of drowsy driving crashes, population groups at highest risk, and effective drowsy driving countermeasures. The report to the Senate will include the panel report, a list of panel members, the panel's recommendations to NHTSA, and details of the NCSDR fiscal year 1997 program. The expected delivery date is July 31, 1998.

NCSDR and NHTSA have completed a new interagency agreement, funded at $234,000 from NHTSA's fiscal year 1997 appropriation. These funds support the NCSDR's effort to create and disseminate drowsy-driving information to school-age drivers in cooperation with their private-sector partners.

Question. Please present an updated chart similar to that provided last year showing which projects have been funded, their purposes, amounts and participants. Please present a similar updated chart showing a schedule of anticipated projects. When were these contracts signed? What are the challenges that remain in developing that program?

Answer. All the components of the development program, including the evaluation and implementation components, are currently in place and are summarized in the table below. The remaining challenge will be to keep the projects on track and on schedule in order to complete the program development deadline of Summer 1998, to award implementation grants by Fall 1998, and to ensure the cooperation of the implementing entities with the evaluation process.

Project	Purpose	Amount (Date Signed)	Participants
Analyze role of fatigue, sleep disorders, & inattention (FSDI) in highway crashes.	Describe characteristics of FSDI crashes; Identify subgroups most at risk.	$130,000 (8/14/96)	National Center on Sleep Disorders Research.
Investigate instances of fatigue-related events in motor-vehicle operation.	Observe drivers during fatigue-related inattention incidents; Establish characteristics of inattention.	100,000 (9/23/96)	NHTSA Vehicle Research and Test Center.
Develop and test educational countermeasures for fatigue-related highway crashes.	Specify target populations; Determine message themes (content); Establish motivational approaches; Establish dissemination strategies.	175,000 (6/26/96)	Harvard Univ. School of Public Health.
Develop strategy and lay foundation for education and information campaign.	Determine campaign objectives & target audience; Determine content, strategy, & media mix; Prepare and test draft materials; Refine materials.	325,000 (9/20/96)	Global Exchange, Inc.
Evaluate information and education campaign to combat fatigue-related highway crashes.	Determine appropriate outcome measures & evaluation design; Choose evaluation sites; Collect pre- & post-campaign data; Evaluate campaign; Recommend revisions.	516,000 (9/1/97)	Systems Assessment and Research, Inc. (through GSA FEDSIM).
Promulgate the educational program to implementation sites.	Identify communities, organizations and associations that serve appropriate target group constituencies; Create interest in program implementation; Award competitive grants to support implementation activities; Provide program materials to implementors.	271,000 [1] (9/26/97) [2] 200,000 To be Arranged	Global Exchange

Project	Purpose	Amount (Date Signed)	Participants
Conduct supplementary implementation activities.	Adapt campaign themes for use in ongoing educational programs for target audiences; Produce and disseminate supplementary materials through appropriate channels to reach target audience.	234,000 (9/15/97)	National Center on Sleep Disorders Research.

[1] Materials production & program administration costs.
[2] Grants to implementors.

Question. What new findings have resulted from research to determine the role of sleep disorders or fatigue as a causal factor in traffic crashes?

Answer. NHTSA's research has been limited to discovering what is currently known about the causal role of sleep disorders or fatigue in motor vehicle crashes. Consequently, no new information has been generated. Members of the NCSDR panel agree that more extensive knowledge about the role of fatigue in crashes will require some yet undiscovered method for reliably assessing the level of fatigue of crash-involved drivers.

NHTSA's current efforts are focused on the development of the fatigue education program. We have conducted several rounds of focus group interviews with young male drivers, shift workers, and shift-work supervisors to establish the informational needs and motivational approaches appropriate for these candidate target groups. These qualitative studies revealed that, while young males accept the consequences of sleep loss and drowsy driving as acceptable lifestyle choices, shift workers yearn for more or better sleep. Shift workers are personally familiar with the hazards of driving while drowsy and express eagerness for remedies to reduce these hazards.

Question. What progress has been made in the development and implementation of public education programs?

Answer. Contracts for all components of the development and evaluation of the educational program have been awarded and work to establish the foundations of the educational program has been completed. The National Centers on Sleep Disorders Research (NCSDR) expert panel has completed its report which provides information on mechanisms of human sleep and sleepiness, characteristics of drowsy driving crashes, guidance for population groups at highest risk, and evidence of effective drowsy driving countermeasures. Contractors have conducted focus group interviews with candidate target groups and determined potential informational content, motivational approaches, communications strategies, and evaluation protocols. Procedures for awarding grants to employers and organizations to assist in implementation and evaluation are being readied for announcement by late Spring, 1998. Development of draft program materials is underway and should be ready for pilot test by Summer, 1998, and for distribution by Fall, 1998.

Question. What is planned for fiscal year 1999, and how is this reflected in the budget request?

Answer. During fiscal year 1999, NHTSA plans to award mini-grants to employers and organizations to assist in the implementation and evaluation of the educational program. During this time, the evaluation contractor will monitor implementation activities and assess outcomes related to the program's objectives. The materials developer will revise the materials, based on the evaluation results. The results and recommendations of the evaluation are expected by late Summer of 1999.

The fiscal year 1996 and 1997 appropriations fully support the development and implementation of the program and the evaluation of its effectiveness. NHTSA's fiscal year 1999 budget request does not contain any funds for drowsy-driver education. The Agency will establish plans for funding future efforts in this area after reviewing results of the evaluation of the program currently under development.

Question. What specific studies does NHTSA have ongoing regarding the interaction of fatigue and alcohol?

Answer. NHTSA currently has no studies specific to the interaction of fatigue and alcohol. This cogent issue has certainly come up in discussions with other professionals and has been added to our Draft Strategic Plan for Behavioral Research in Traffic Safety. A study of this kind will be considered for inclusion in our execution plan to be developed interactively with our customers and partners in the Fall, 1998.

Question. What specific work products or publications have been issued or released as a result of the Committee's directions and support in this area?

Answer. The expert panel convened by the National Centers on Sleep Disorders Research (NCSDR) completed a review of the "state of knowledge" regarding sleepi-

ness and traffic safety. The panel's report, ''Drowsy Driving and Automobile Crashes,'' will be jointly published by NHTSA and NCSDR.

In addition to a print version, the report will be available on the World Wide Web via both agencies' web sites. Both versions will be available in late Spring or early Summer, 1998.

RESEARCH AND ANALYSIS

Question. The FHWA has recently conducted an in-depth review of its entire research and technology program. FHWA has developed detailed roadmaps of its programs and is beginning to discuss those plans with the highway safety community. When was the last time that NHTSA conducted a detailed review of its entire research and development program? When was the last time that NHTSA discussed its research plans with the broader community besides your advisory committee?

Answer. NHTSA's research agenda is set on the basis of the agency's rulemaking priorities. The rulemaking agenda is published in the Federal Register for dissemination of the information publicly. The research plan developed by NHTSA is in support of the safety standards the agency promulgates. The review of NHTSA's research plan is routinely conducted during every budget cycle.

The agency's discusses its R&D plans and research agendas with the public in several fora, including: quarterly public meetings where it discusses research findings and planned research activities; annual SAE meetings; and with the international research community through the International Harmonized Research Activities (IHRA) program under the collaboration of 16 countries participating in the Enhanced Safety of Vehicles (ESV) program, a program sponsored by NHTSA. The agency also participates in Department-wide planning and review coordination efforts on an ongoing basis. NHTSA also has a Web page where highlights of the research agenda can be found, and these are accessible to all interested parties from whom we receive comments periodically on our programs.

In addition, NHTSA conducted a review of its entire R&D program during CY 1997.

Question. Please provide data on the amount of cost sharing received for the entire R&D program for each of the last three years, braking out separately the amount received for the NADS.

Answer. The agency's best estimate for the amount of R&D cost sharing that has been achieved during the last three years exceeds $75 million per year; however, the precise amount is unknown as the agency has been provided prototype hardware and test results which do not have assigned dollar values from the private sector in a number of areas of crashworthiness research.

Furthermore, in fiscal year 1996 NHTSA received cost sharing commitments for the NADS program of $15.15 million. This consisted of $11.53 million from the University of Iowa and $3.62 million from TRW. In fiscal year 1998, Freightliner Corporation committed to providing cost sharing which NHTSA values at approximately $300 thousand.

Question. What efforts has NHTSA pursued to increase the amount of cost sharing?

Answer. NHTSA has provided comprehensive technical briefings on the NADS capabilities to major commands within the U.S. Army in an attempt to interest them in supporting the project. The agency has also carried out a mailing solicitation to major corporations within the commercial truck manufacturing industry.

Additionally, in the safety systems area, the greatest cost sharing has been achieved is the development of advanced air bag technology. Here, the agency has established cooperative research programs with a major restraint system supplier and with other groups that support the suppliers. Also, the agency has been the recipient of advanced prototype technologies from the American Automobile Manufacturers Association and has been supplied hardware by the Association of International Automobile Manufacturers. Other cost sharing has been achieved in the area of advanced glazing to prevent occupant ejection. Here, the agency is working with a major glazing supplier in a cooperative research effort.

Question. FHWA's RTCG for safety is seeking to design that agency's safety R&D agenda to fund primarily those projects that would result in substantial improvements in highway safety. Have you considered redesigning the research agenda towards this same objective? What would be the costs and benefits of pursuing such an approach?

Answer. NHTSA's research and development agenda is totally focused on improving automobile safety, and it is developed after careful evaluation of the highway safety problem as indicated by an analysis of the highway crash data the agency collects. The main objective of NHTSA's research is to define the safety problem, de-

velop suitable countermeasures, and show their feasibility and cost effectiveness in solving the safety problem. Much of NHTSA's research findings forms the basis for developing the behavioral issues and safety standards which NHTSA promulgates.

NHTSA seeks advice on its research agenda from the Motor Vehicle Safety Research Advisory Committee comprised of motor vehicle industry experts, academics, medical doctors, and others appointed by the Secretary of Transportation and through other outreach means such as the Federal Register. Thus, NHTSA's R&D agenda is peer reviewed and is in many respects developed in the same manner as FHWA's R&D agenda.

Question. What selection criteria have you developed to ensure that your research agenda is focused on topics that address the most significant safety problems?

Answer. The research priorities are mostly defined on the basis of NHTSA's rulemaking agenda. The rulemaking agenda is based on the most predominant safety problems that need to be addressed. For instance, crosscutting research such as that related to crash injury mechanisms and injury criteria development is additionally undertaken to support the agency's rulemaking priorities. Most of NHTSA's research is geared towards application of engineering principles and other scientific principles in developing safety countermeasure programs that are designed to solve specific safety problems. Therefore, the selection criteria for NHTSA's research are guided by the definition of the safety problems and the expected effectiveness of the solutions.

Question. When was the last time that NAS comprehensively reviewed the scope and direction of your research program?

Answer. To the best of our knowledge, the National Academy of Sciences (NAS) has never conducted a comprehensive review of the scope and direction of the entire NHTSA R&D program. From time to time, NHTSA has participated in several program reviews with NAS, where NAS reviewed individual research topics. An example of one of these reviews is Estimating Demand for the National Advanced Driving Simulator, 1995. NHTSA also supports NAS which includes approximately $80,000 funding per year.

Question. Which aspects did the Academy review?

Answer. Reviews performed by the National Academy of Sciences have been limited to individual projects such as the vehicle size and weight study and the implications of the National Speed Limit.

Question. What are your views on NAS conducting a comprehensive review and analysis? What are the advantages and disadvantages?

Answer. NHTSA is of the view that the oversight brought on by the Motor Vehicle Safety Research Advisory Committee, its subcommittees, and working groups and the peer review it receives from the safety community, the motor vehicle industry, and the international safety community are comprehensive and thorough and any additional review would be unnecessary. NHTSA has several internal needs for R&D efforts to support its Federal motor vehicle safety standards and vehicle defect investigations; hence, some of the research work is dictated by internal requirements.

The research plans and budget are thoroughly reviewed by various parts of the agency before they are finalized. Thus, these plans undergo a level of scrutiny similar to any organization in the public or private sector.

NHTSA does not see any advantages in adding an additional oversight. Disadvantages include duplication of effort and diverting the agency's meager resources to oversight with no concomitant benefits.

Question. What are some of the policy resource allocation, or management issues that a NAS panel might explore that would be of benefit to NHTSA in shaping its R&D program for the next decade?

Answer. The involvement of the National Academy of Sciences panel in reviews of major high visibility research programs involving large budget allocations such as the Intelligent Transportation Systems Intelligent Vehicle Initiative Programs would be of value.

CRASHWORTHINESS RESEARCH PROGRAM

Question. Please prepare a table indicating the amount allocated and the amount actually appropriated for the two programs in the Crashworthiness Research Budget for fiscal year 1996, 1997 and 1998.

Answer. The requested information for the Safety Systems Engineering and Analysis Division (SSEA) and the National Transportation Biomechanics Research Center (NTBRC) in the Crashworthiness Research Program follows:

[In thousands of dollars]

Fiscal year	Request	Appropriated
Safety Systems:		
1996	6,000	5,910
1997	6,500	6,488
1998	8,338	8,338
NTBRC:		
1996	7,450	5,890
1997	7,450	7,437
1998	10,587	10,587

Question. Please prepare a table for both of those programs, showing how all of the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amounts provided for similar activities during fiscal year 1998. On a separate page, please justify the need for the requested increases. Please demonstrate the continuity or completion of specific research projects in your answer.

Answer. The following table summarizes the budget allocations for the major research areas of the Crashworthiness Research Program, the Safety Systems Engineering and Analysis Division (SSEA) and the National Transportation Biomechanics Research Center (NTBRC):

[In thousands of dollars]

Activity	Fiscal year—	
	1998	1999
Safety Systems:		
Upgrade Frontal Crash Protection	1,365	1,100
Upgrade Rollover Crash Protection	1,100	1,100
Vehicle Aggressiveness and Compatibility	1,300	1,677
Upgrade Side Crash Protection	1,338	1,300
Upgrade Seat and Restraint Systems	1,385	1,100
Advanced Air Bag Research	1,850	2,431
International Harmonization Research	.....	1,850
Totals	8,338	10,558
NTBRC:		
Crash Injury Research and Engineering Network (CIREN)	2,100	3,010
Impact Injury Research	2,200	2,200
Human Injury Simulation and Analysis	1,937	2,170
Crash Test Dummy Development	2,100	2,300
Biomechanics of Air Bag Injuries	2,250	3,000
Totals	10,587	12,680

The request includes $1.850 million which is essential to launch the new initiative in International Harmonized Research Activities. This critical initiative will enable the Office of Crashworthiness Research to initiate the development of harmonized test procedures, test requirements and a harmonized dummy for pedestrian protection. Research will be conducted for the development of harmonized injury criteria and an associated crash test dummy, harmonized test procedures including an approach to the offset crash test condition and for side impact crashes, and (if possible) harmonized test performance requirements. Research will examine the development of a harmonized test procedure for evaluating vehicle aggressivity/compatibility. Finally research will evaluate the complexities of the existing safety standards promulgated around the world, identify those standards for which some degree of harmonization is possible, and develop harmonized test procedures and/or agree to the functional equivalency of testing procedures.

The following major initiatives will be expanded with the proposed increases in NTBRC's budget:

CIREN: $3,010,000 (+$910,000).—Increase the number of participating trauma centers from four to seven to continue the current data collection efforts including the three trauma centers currently funded through the General Motors Settlement Agreement. Continue medical and engineering data collection, documentation, and analysis of causes, conditions, and injury consequences in approximately 350 selected crashes per year. Complete development and implementation of the CIREN Data Network.

Human Injury Simulation and Analysis: $1,937,000 (+$233,000).—Continue the development and validation of detailed finite element models of the human anatomy capable of predicting the extent and severity of human injury under impact conditions for the skull and brain, the neck, the thorax and abdomen, and the pelvis and lower extremities. Develop and verify detailed models of existing and developing dummy systems. Expand capabilities to simulate out-of-position situations.

Crash Test Dummy Development: $2,100,000 (+$200,000).—Complete prototype development of Advanced Frontal 50th Percentile Male Dummy and evaluate its performance to allow its integration into frontal crash protection research efforts. Complete development of Advanced Lower Extremity devices and introduce into research and testing efforts. Continue "federalization" and upgrading of existing dummies to qualify them for agency regulatory actions. Enhance biofidelity and injury sensing capabilities of the various child dummies. Complete development of prototype Advance Frontal 5th Percentile Female Dummy and begin evaluation phase. Continue the development of advanced injury sensing instrumentation development activities while continuing the use of existing instrumentation.

Biomechanics of Air Bag Injuries: $3,000,000 (+$750,000).—Continue and expand efforts to "federalize" existing dummy systems for regulatory efforts to improve air bag performance. Continue and expand efforts to understand and quantify the mechanisms of injury prevalent in air bag loading situations with emphasis on out-of-position situations. Continue and expand efforts to model the human under air bag crash circumstances. Expand research activities to supplement the instrumentation and injury sensing capabilities of existing test devices.

Question. What is the driving force behind the request for additional funds for international harmonization activities? Exactly how will those monies be used? What is the empirical basis for that request?

Answer. Since the motor vehicle industry is increasingly becoming a global industry, international safety standards make sense; because, when standards are the same, addressing similar safety problems, vehicle designs need not differ from country to country. However, it is important that the safety standards that are developed provide the optimum level of safety. Since various countries have different regulatory procedures, achieving harmonized safety standards can only occur if the scientific bases for those standards are the same. Therefore, it is NHTSA's belief that world-wide harmonized research would form the foundation for any future harmonized safety regulations. At the Enhanced Safety of Vehicles Conference in May 1996, in Australia, the Governmental focal points from North America, Europe, and the Asian-Pacific countries met and established an International Harmonized Research Activities (IHRA) Steering Committee. Several working groups under this Steering Committee were established with one country having the lead responsibility for planning and coordinating the research work. The United States has the lead in biomechanics research. Research tasks in several other major topics are to be carried out in different participating countries. It is the goal of the working groups to share the research findings and reach conclusions based on the results. The requested funding will allow NHTSA to conduct those research tasks which are agreed upon by the IHRA working groups to be carried out in the United States. NHTSA will be heavily involved in the IHRA research tasks in biomechanics, pedestrian safety, frontal offset crash safety, vehicle compatibility, and side impact protection. The funding request of $1.85 million will be the minimum that will be required in fiscal year 1999 under IHRA to supplement NHTSA's own research activities in the above topical areas. It is our belief that the research conducted under IHRA will lead to test procedures and injury criteria that will provide optimum vehicle safety in an efficient and consensus based manner.

Question. Please break down the expected projects and associated amounts to be funded with the $1.850 million requested. What was the amount already spent or planned to be spent on comparable activities during fiscal year 1997 and fiscal year 1998?

Answer. Given below is a table showing the breakdown of the planned allocation of funds in fiscal year 1999 for conducting research by NHTSA under the Internationally Harmonized Research Activities (IHRA).

[In thousands of dollars]

Research Topics	*Fiscal year 1999 Planned Allocation*
Frontal Crash Protection	300
Vehicle Compatibility	500
Side Crash Protection	500
Pedestrian Protection	250
Crosscutting Research	300
Total	1,850

This critical initiative will enable the agency to initiate the development of harmonized test procedures, test requirements, and a harmonized dummy for pedestrian protection. Research will be conducted for the development of harmonized injury criteria and an associated crash test dummy, harmonized test procedures including an approach to the offset crash test condition and for side impact crashes, and (if possible) harmonized test performance requirements. Research will examine the development of a harmonized test procedure for evaluating vehicle aggressivity/compatibility. Finally, research will evaluate the complexities of the existing safety standards promulgated around the world, identify those standards for which some degree of harmonization is possible, and develop harmonized test procedures and/or agree to the functional equivalency of testing procedures.

No funds were allocated to IHRA in fiscal years 1997 and 1998.

Question. What is the view of the U.S. automobile industry regarding the international harmonization program?

Answer. The automotive industry is on record as supportive of the international harmonization program and of a key agency criterion that international harmonization not lead to least common denominator standards. The manufacture of motor vehicles has evolved from a mostly domestic industry into a global one that is competing in a global market where safety and environmental regulations will continue to be nationally based. The harmonization of these regulations on a global scale has become a priority for the automobile industry. Thus the industry is very supportive of the agency's efforts towards the accomplishment of harmonized motor vehicle safety regulations. The industry has made several recommendations through the Transatlantic Business Dialogue concerning the regulatory process. The agency has been responsive to these recommendations by successfully negotiating a draft global agreement with the European Commission and the Japanese Ministry of Transport, on a process for the development of harmonized technical regulations to be subsequently adopted by the parties to the agreement. In response to industry's recommendation that functional equivalence be used as an interim measure while developing harmonized regulations, the agency has developed a process for the assessment of functional equivalence between a foreign regulation and the corresponding United States regulation and is using that process in responding to industry petitions. Finally, in response to the recommendation that new regulations be based on harmonized research data, the agency is actively and substantively involved in the International Harmonized Research Agenda which was agreed to at the Fourteenth International Conference on the Enhanced Safety of Vehicles (ESV). Progress will be reported at the Fifteenth ESV in May, 1998.

SAFETY SYSTEMS

Question. What is the analytical or empirical basis for the $10.555 million requested in this area? How was that amount determined? How will those funds be allocated compared to the fiscal year 1998 allocation?

Answer. The Crashworthiness Research Safety Systems' request of $10.558 million continues test procedures and baseline vehicle evaluations. The request includes funds for vehicle and component countermeasure hardware development that will demonstrate the potential to advance Crashworthiness policies and regulations for various impact modes. Frontal, side, and rollover crashes account for most of the deaths and injuries to passenger vehicle occupants. Ejections, crashes involving pedestrians, and fires also cause death and injury. Aggressive air bag deployment has been found to be a source of injuries and fatalities to people seated in close proximity to the air bag and to out-of-position children and occupants who are in contact with the air bag at the start of deployment. Research will help determine which air bag design characteristics can best reduce these injuries in the near term. Improvements in vehicle structure and occupant compartment design, in combination with near term improvements in seat and restraint systems, require research in test procedures, biomechanics, and countermeasure development and evaluation. The comparative allocations during fiscal year 1998 and fiscal year 1999 are as follows:

[In thousands of dollars]

Activity	Fiscal year—	
	1998	1999
Safety Systems:		
Upgrade Frontal Crash Protection	1,365	1,100
Upgrade Rollover Crash Protection	1,100	1,100
Vehicle Aggressiveness and Compatibility	1,300	1,677
Upgrade Side Crash Protection	1,338	1,300
Upgrade Seat and Restraint Systems	1,385	1,100
Advanced Air Bag Research	1,850	2,431
International Harmonization Research	.....	1,850
Totals	8,338	10,558

Question. Please describe recent advances in frontal crash protection resulting from your program.

Answer. The frontal crash protection research program is focused on mitigating the fatalities and injuries that will continue to occur each year even after full implementation of air bags in cars and light trucks and vans. The latest agency estimates are that frontal impacts in an all air bag fleet may still account for over 8,000 fatalities and over 120,000 moderate to severe injuries each year. The most recent finding in the research for improved frontal crash protection has been the continued support for the development of a test procedure that simulates a moving car-to-moving car oblique, frontal offset crash. This condition has been based on an analysis of the 1988 to 1996 National Automotive Sampling System data. Ongoing research is examining a number of potential test procedures that could be used for simulating this crash condition.

Question. What new research has been performed with the additional funds allocated last year?

Answer. The additional funds ($1.850 million) that were allocated last year were used to enhance the ongoing research program for the development and evaluation of advanced air bag systems that build upon the short-term technological solutions to air bag problems identified in the field experience, including those of injuries resulting from aggressive air bag deployments (especially to children). Advanced air bag systems generically can be divided into increasing levels of complexity. Generally, the advanced systems automatically suppress or tailor the air bag deployment using occupant and/or crash variables to reduce or prevent injuries caused by the air bag. The research has been focused to identify the necessary performance characteristics of an advanced air bag system that reduce or prevent air bag induced injuries. Based on these characteristics, a comprehensive set of tests is being defined to ensure the advanced air bag system will not cause injury. Further, these tests are being developed to ensure the air bag system provides effective restraint for normally seated occupants over the range of occupant sizes, while mitigating inflation injuries to out-of-position occupants. As part of this effort, research includes additional out-of-position occupant tests (static and dynamic) to evaluate and monitor the performance of new generation and advanced air bag systems. The research includes reconstructions of crashes in which the air bag deployment caused either fatalities or severe injuries. The results from these tests are being used to evaluate injury criteria for child dummies in out-of-position and other automotive environments.

Question. Please calculate the amount of cost sharing obtained from the private sector for both the fiscal year 1997 and fiscal year 1998 program for each of the following research areas: tailorable inflators, adjustable anchorages, side inflatable cushions, improved seat designs, energy absorbing surfaces, pre-crash sensing, and vehicle aggressivity.

Answer. The agency's best estimate for the amount of cost sharing that has been achieved during fiscal years 1997 and 1998 exceeds $1.5 million; however, the precise amount is unknown as the agency has been provided prototype hardware and test results from the private sector in a number of areas of crashworthiness research.

The area in which the greatest cost sharing has been achieved is the development of advanced air bag technology. Here, the agency has established cooperative research programs with a major restraint system supplier and with other groups that support the suppliers. Also, the agency has been the recipient of advanced prototype

technologies from the American Automobile Manufacturers Association, and has been supplied hardware by the Association of International Automobile Manufacturers. Other cost sharing has been achieved is in the area of advanced glazing to prevent occupant ejection. Here, the agency is working with a major glazing supplier in a cooperative research effort.

Question. What are the specific research avenues or questions you are pursuing regarding the following topics: frontal crash protection, advanced air bag technology, pedestrian protection, ejection reduction, and advanced occupant protection?

Answer. The frontal crash protection research program is focused on mitigating the fatalities and injuries that will continue to occur each year even after full implementation of air bags in cars and light trucks and vans. The latest agency estimates are that frontal impacts in an all air bag fleet may still account for over 8,000 fatalities and over 120,000 moderate to severe injuries each year. The research will upgrade the injury criteria and test devices, develop test procedures for evaluation of occupant injury, and develop countermeasures to improve the occupant safety.

The advanced air bag technology research program is focused on developing the technical bases for the specification of vehicle performance requirements which will lead to the elimination of fatalities and reduce the severity of the injuries resulting from aggressive air bag deployment to children and adults and to infants in rear facing child safety seats, and simultaneously optimize the benefits to normally seated restrained occupants while also restoring the full protection for unbelted adults in high severity crashes. Research is focused on addressing the injuries and fatalities due to aggressive air bag deployment and will include the analysis of injuries/fatalities with air bags, analysis of fatalities to children under 15 with air bags, and analysis of injuries/fatalities to drivers, to specifically identify cases of air bag aggressiveness contributing to the injuries/fatalities; will include laboratory testing to evaluate aggressiveness of new-generation air bags, will assess advanced air bag technology that provides protection over a wide range of conditions, and will develop test procedures for evaluating air bag system performance over the range of conditions.

Pedestrian crash injury reduction research is focused on three areas. Analysis of pedestrian crash data is being conducted to determine the influence of current vehicle design on contact locations and injury severities in pedestrian crashes. This will lead to research on countermeasure development. Test devices which comply with International Standards Organization requirements for pedestrian head and leg impact protection are currently under development. NHTSA is working with the International Harmonization Research Activities pedestrian safety working group in an effort to develop and implement a harmonized and coordinated research program with Europe, Japan, Australia, and North America.

There are several current research programs aimed at reducing occupant ejections. One of these is examining the feasibility of using advanced glazings in side windows to act as safety nets to reduce ejection, while minimizing the potential for these glazings to produce head, neck, and lacerative injuries. The other is exploring whether the Head Protection System currently being installed in some BMW models, which was designed to provide head protection in side impacts, can also be effective in reducing ejections in rollovers. Also, an upgrade to the safety standard regarding door latch strength is being considered, which would reduce the incidence of door openings and thereby the potential of occupant ejections.

The advanced occupant protection research program is focused on providing the necessary scientific bases for the development of improved occupant protection devices beyond the scope of those currently used in automobiles. The approach is to design studies which focus on the development of occupant protection concepts in isolation (i.e., developed not as an integral part of a larger system development). If successfully developed in laboratory tests, the concept would then be integrated into other projects developing an entire safety system. Generally, those areas of design improvement known to be under current near term development by industry will be watched closely and encouraged.

Question. Other than the issuance of the final rule allowing depowering of specified air bag systems, please further demonstrate the integration of NHTSA's research program and the regulatory program.

Answer. The agency anticipates issuing a Notice of Proposed Rulemaking (NPRM) on June 1, 1998, to provide protection above that provided by the March 19, 1997, action allowing new-generation air bag systems. As part of the research to support this pending NPRM, the agency has continued and enhanced its extensive Special Crash Investigations program to monitor the new generation air bag system fleet performance, has initiated efforts to introduce a variety of dummy sizes and associated injury criteria (both child and fifth percentile female) into the agency's compliance test procedures, and has initiated the development of new test procedures and

associated performance requirements that lead to the introduction of air bag systems that provide benign deployment to out-of-position occupants and/or suppress deployment of the air bag when deployment is determined to hazardous to the occupant. Research staff have worked closely with agency staff to ensure that the necessary support is provided.

Question. Please provide an updated discussion on the progress made in implementing the strategic plan for heavy truck research.

Answer. NHTSA's Strategic Plan for Heavy Vehicle Safety Research was prepared in 1995, at the request of Congress. It laid out proposed research programs through fiscal year 2000, to address identified heavy vehicle safety issues. Since 1995, the level of appropriated funding in the heavy vehicle area has not matched the needs identified in the plan. While significant progress in the heavy vehicle research area has been made, much of the planned research still remains undone. That is the major reason for the increased level of funding in the fiscal year 1999 budget request for heavy vehicle research.

Question. Please describe how you ensure that NHTSA's research does not overlap with that conducted by the private sector.

Answer. While the agency cannot know the details of all research being conducted by all private companies, our staff maintains constant liaison with professional organizations such as the Society of Automotive Engineers (SAE), ITS America, and the Truck Maintenance Council (TMC) of the American Trucking Associations. Through these contacts as well as a ongoing dialogues with heavy vehicle manufacturers and research organizations, NHTSA is aware of nearly everything that is being researched in the area of heavy vehicle safety.

BIOMECHANICS

Question. Why is it of critical importance to increase the number of CIREN centers?

Answer. The Crash Injury Research and Engineering Network (CIREN) is a unique collaboration of medical practitioners, engineers, and other related professions. Working with seven multidisciplinary, geographically diverse trauma centers, the agency hopes to learn more about the dynamics of highway crashes. What's more, these real world laboratories are linked by a computer network that allows researchers to review crash and injury data and share their particular expertise. The request includes funding which is essential to incorporate three additional CIREN centers, previously funded from the General Motors (GM) settlement funds, into the CIREN system to allow the agency to continue detailed biomechanical analyses of selected CIREN cases to validate the injury criteria being developed by the agency against real world crash situations. Funding for the three additional centers is essential for two reasons: (1) Funding from the GM settlement funds expires in March 1999. (2) The three CIREN centers funded through the GM settlement are critical pieces that supplement the input to make the CIREN network national in nature. They also provide the necessary expertise in the areas of specialities of burn trauma (Michigan), cervical spine trauma (Harborview), and emergency medical services interaction in multiple disciplines (San Diego).

Question. In Senate Report 104–325, NHTSA was urged to redouble its efforts to obtain cost-sharing commitments with other organizations which benefit from the national center. What progress has been made?

Answer. The National Transportation Biomechanics Research Center (NTBRC) has pursued a variety of cooperative/collaborative efforts with various governmental groups. Within the Department of Transportation, the NTBRC is developing a Memorandum of Understanding with the Federal Aviation Administration to pursue joint research efforts that study mechanisms of injury under crash conditions of interest to both agencies such as lateral impact. Additionally, the joint efforts of the NTBRC and the US Army and US Navy will be studying head injury mechanisms.

Question. Is NHTSA the only DOT modal administration requesting funds for the biomechanics program? How have other modal administrations used research results obtained from your investment?

Answer. As far as NHTSA is aware, the National Transportation Biomechanics Research Center's (NTBRC) program is the primary biomechanics effort underway in the Department. NTBRC's research results are used primarily by NHTSA in developing automotive safety regulations. However, the Federal Highway Administration has used injury criteria and dummies for enhancements in the safety of the highway. While NTBRC has had preliminary discussions with the Federal Aviation Administration on efforts of common interest and is currently developing a Memorandum of Understanding between the two agencies to pursue such efforts, NHTSA

is unaware of any other agency directly using the research results obtained from NHTSA's investment.

Question. The Biomechanics program has been growing rapidly during the last few years. How has that growth been managed? What outside peer review of the program have you received?

Answer. The NHTSA relies on two methods for managing the biomechanics program of the National Transportation Biomechanics Research Center (NTBRC). The primary management tool used is the agency's internal management process that insures that the efforts the Center proposes and pursues are addressing the agency's needs in an appropriate and timely manner. Peer review of NTBRC research is achieved through both NHTSA's Motor Vehicle Safety Research Advisory Committee's Biomechanics Working Group and through NHTSA's quarterly research meetings with the automotive industry, suppliers, and other interested parties where the scope, direction, and research findings of the NTBRC program are presented and comments and suggestions solicited.

Question. Please break down in extensive detail how the fiscal year 1999 funds will be used, being certain to indicate key projects and specific funding levels, and compare this breakdown to planned fiscal year 1998 expenditures and projects.

Answer. The following table summarizes the budget allocations for the major National Transportation Biomechanics Research Center research areas for both fiscal year 1998 and 1999:

	Fiscal year—	
	1998	1999
CIREN	$2,100,000	$3,010,000
Impact Injury Research	2,200,000	2,200,000
Human Injury Simulation and Analysis	1,937,000	2,170,000
Crash Test Dummy Dev	2,100,000	2,300,000
Biomechanics of Air Bag Injuries	2,250,000	3,000,000

The following major initiatives will be pursued in each of the above research areas:

Crash Injury Research and Engineering Network (CIREN).—Increase in the number of participating traumas center from four to seven to continue the current data collection efforts by including the three trauma centers currently funded by the General Motors Settlement Agreement. Continue medical and engineering data collection, documentation, and analysis of causes, conditions, and injury consequences in selected crashes. Complete development and implementation of the CIREN Data Network.

Impact Injury Research.—Continue studies of neck injury mechanisms and validate neck models with emphasis on airbag loading conditions. Continue initiatives to study and quantify skull and brain injury mechanisms. Continue and expand studies to advance knowledge of pediatric impact injuries to the head, neck, and chest. Continue studies of thoracic injury mechanisms for out-of-position occupants. Continue side impact injury and response studies. Continue initiative to optimize performance of belt/bag restraints.

Human Injury Simulation and Analysis.—Continue the development and validation of detailed finite element models of the human anatomy capable of predicting the extent and severity of human injury under impact conditions for the skull and brain, the neck, the thorax and abdomen, and the pelvis and lower extremities. Develop and verify detailed models of existing and developing dummy systems.

Crash Test Dummy Development.—Complete prototype development of Advanced Frontal 50th percentile Male Dummy and evaluate its performance and integrate the device into frontal crash protection research. Complete development of Advanced Lower Extremity devices and introduce them into research and testing efforts. Continue "federalization" and upgrading of existing dummies to qualify them for agency regulatory actions. Enhance biofidelity and injury sensing capabilities of the various child dummies. Complete development of prototype Advance Frontal 5th Percentile Female Dummy and begin evaluation phase. Continue the development of advanced injury sensing instrumentation while continuing the use of existing techniques.

Biomechanics of Airbag Injuries.—Continue and expand efforts to "federalize" existing dummy systems for regulatory efforts for improving airbag performance. Continue and expand efforts to understand and quantify the mechanisms of injury prevalent in airbag loading situations with emphasis on out-of-position situations. Continue and expand efforts to model the human under airbag crash circumstances. Ex-

pand research activities to supplement the instrumentation and injury sensing capabilities of existing test dummies and devices.

Question. Please discuss the research results that have emanated from the trauma centers during the last few years.

Answer. Though the Crash Injury Research and Engineering Network (CIREN)—funded by NHTSA and General Motors—is still in its infancy, much has already been learned. The agency and its CIREN partners have gained in-depth knowledge on injuries that are caused by safety devices themselves, including shoulder and lap restraints and air bags. An understanding of how real world crashes compare to the outcomes predicted in research through controlled crash tests is beginning to emerge. The agency has significantly improved its understanding of injuries affecting infants and children; however, the number of cases that have been acquired is small, and many more are needed for in-depth analysis.

Each member of the network is a regional Level 1 trauma center. All are teaching institutions affiliated with a major university. Each center is staffed by surgeons, research clinicians, crash investigators, and data coordinators. Data collected by each of the centers is fed into a computer network that was developed by the Volpe National Transportation Systems Center in Cambridge, MA. The computer network allows researchers to review data and share expertise. In addition to in-depth crash and injury research, each center trains hospital, law enforcement, and emergency response personnel. Among other things, the training helps identify restraint-related injuries that may not be readily apparent. The agency is also learning a great deal more about survivors and the consequences and costs of the long-term effects of injuries.

Question. Which trauma centers were funded in fiscal year 1997, fiscal year 1998, and fiscal year 1999? For what amounts?

Answer.

CIREN BUDGET

[In thousands of dollars]

	Fiscal year—		
	1997	1998	1999
William Lehman Injury Research Center, Miami, FL	290,000	652,000	655,000
U. of Maryland, Baltimore, MD	230,000	460,000	460,000
Children's National Medical Center, Washington, DC	.....	515,000	500,000
U. of Medicine & Dentistry, Newark, NJ	230,000	450,000	450,000
Harborview Medical Center, Seattle, WA	.....	.....	250,000
San Diego County Trauma System, San Diego, CA	.....	.....	250,000
U. of Michigan Medical Center, Ann Arbor, MI	.....	.....	250,000
Total	750,000	2,077,000	2,815,000

CRASH AVOIDANCE RESEARCH PROGRAM

Question. Please provide a table indicating the amount appropriated and the amount actually allocated for the various subprograms of the Crash Avoidance Research Program for fiscal years 1996, 1997, and 1998.

Answer. The following table shows the amounts requested and appropriated to the various subprogram areas for fiscal year 1996 through fiscal year 1998, and the corresponding amounts requested for fiscal year 1999:

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998		Fiscal year 1999 request
	Request	Enacted	Request	Enacted	Request	Enacted	
Driver Behavior & Performance	.....	.....	.....	.....	.....	.....	800
Brake Systems SPS Support	.....	.....	2,000	737	800	500	300
Handling & Stability SPS Support	.....	.....	1,000	250	200	500	500
Visibility SPS Support	.....	.....	500	13	.....	.....	248
Tires	.....	.....	500	.....	.....	.....	.....
Outreach SPS Support	.....	.....	.....	.....	.....	.....	100

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998		Fiscal year 1999 request
	Request	Enacted	Request	Enacted	Request	Enacted	
Total	.....	.....	4,000	1,000	1,000	1,000	1,948

Question. Please prepare a table for the various subprograms of the Crash Avoidance Research Program, showing how all of the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amount provided for similar activities for fiscal year 1998. On a separate page, please justify the need for the requested increases.

Answer. The following table shows the amounts allocated to the various subprogram areas for fiscal year 1998, and the corresponding amounts requested for fiscal year 1999.

[In thousands of dollars]

	Fiscal year—	
	1998	1999
Driver Behavior and Performance	.....	800
Brake Systems SPS Support	500	300
Handling & Stability SPS Support	500	500
Visibility SPS Support	.....	248
Outreach SPS Support	.....	100
Total	1,000	1,948

Prior to fiscal year 1996, this area of research within NHTSA had an annual budget of about $7 million to $7.5 million per year. With the shift in emphasis to ITS, that amount was decreased to zero in fiscal year 1996, and it has been steady at $1 million per year for fiscal year 1997 and fiscal year 1998. At that level of funding, the agency was not able to do research that is needed to support its ongoing safety research programs to support rulemaking initiatives in the area of crash avoidance. For example, in fiscal years 1997 and 1998, all of the available funding was consumed by research in only the two most critical areas, gaining a better understanding of driver's actions and vehicle responses during severe braking maneuvers with antilock brakes, and during maneuvers that result in rollover, particularly for sport utility vehicles. Research in the areas of lighting and visibility, other areas of vehicle handling and stability, or to answer other fundamental questions regarding driver behavior and performance relative to the driver/vehicle interface could not be done. The increased funding requested for fiscal year 1999 will also allow NHTSA to address enhancements to several vehicle subsystems (i.e., mirrors and rear signal lights) which may have potential for helping drivers avoid lane change and rear end crashes, respectively. The agency will also conduct human factors research to determine the best way to convey information to drivers that will be clearly and quickly understood, without confusion or ambiguity, and without creating too much workload for the driver.

Question. What progress has NHTSA made in implementing the five-year strategic plan for ITS crash avoidance research that was requested by the Committee?

Answer. Good progress is being made in the implementation of the plan. Operational tests of Intelligent Cruise Control (ICC) and Automatic Collision Notification (ACN) systems are nearing completion. Preliminary results indicate that both of these systems provide positive benefits. Users of the ICC system have suggested some features where improvement is possible, but in general both systems are well received by the users. Negotiations for implementation of an operational test of a rear-end crash avoidance system are underway. The ICC work is a major part of the foundation for this next operational test. Similarly, the results from the ACN test are a major contributor to the NHTSA plan for improving end-to-end health care associated with motor vehicle crashes. Work in other problem areas such as drowsy drivers, lane change crash avoidance, and heavy vehicle stability is continuing as outlined in the plan. The NHTSA leadership reflected in this plan is also being capitalized upon in the broader IVI program. Thus, other ITS program areas will benefit from the lessons learned while implementing this plan.

Question. What percent or portion of the IVI program is likely to be allocated towards crash avoidance technologies in passenger vehicles?

Answer. Decisions on distribution of IVI funds between the four platforms described in the Request for Information (light vehicles, commercial vehicles, transit vehicles, and specialty vehicles) have not been made. Input from commenters to the RFI are still being evaluated.

Question. What progress has NHTSA made in working with automobile manufacturers to encourage them to incorporate crash avoidance technologies into the U.S. car fleet?

Answer. NHTSA continues to work cooperatively with the motor vehicle industry on the development of improved understanding of the necessary performance of crash avoidance systems. A prime example of this work is the project being done with the Crash Avoidance Metrics Partnership (CAMP). The members of CAMP are General Motors and Ford Motor Company. This project is developing test procedures and other approaches to objectively evaluate the performance of rear-end crash avoidance systems. The proposed Intelligent Vehicle Initiative (IVI) is also a program that will heavily involve partnership between the Government and automobile manufacturers and their suppliers. NHTSA considers IVI as an essential step in facilitating deployment of crash avoidance systems and other advanced technologies. Based on interactions associated with the CAMP project and other contacts, we believe that manufacturers are actively developing crash avoidance products, but at this time have not announced any product plans.

Question. When do you expect various ITS crash avoidance technologies to be incorporated into new cars?

Answer. We believe that the first crash avoidance products to be introduced will be technologies to avoid rear-end crashes. It appears from the trade-press that a precursor to this introduction will be the introduction of Adaptive Cruise Control (ACC). ACC systems have been introduced in Japan and Mercedes Benz has announced that they expect to introduce an ACC system in Europe later this year. We believe other crash avoidance products will be introduced as experience is gained with the initial systems. The rate and schedule for these introductions is not predictable, but we believe that it is realistic to expect introduction of systems for addressing rear-end, lane change, and road departure crashes, as well as systems that address driver drowsiness and vision enhancement within the next 10 years.

Question. Please discuss the progress you have made in areas of ABS and rollover crashes.

Answer. NHTSA began a three-year Light Vehicle ABS Research program plan in early 1997 in coordination with the Motor Vehicle Safety Research Advisory Council's ABS Working Group. The objectives of the program are as follows: (1) to determine the reason for the increase in single-vehicle crashes for four-wheel, ABS-equipped cars; and (2) to determine whether this crash trend occurs for vehicles with newer generations of ABS and/or light trucks as they transition from rear-wheel to four-wheel Antilock Brake Systems.

Program tasks cover the following areas: ABS effectiveness based on crash data analysis; drivers experiences with and expectations about ABS; ABS hardware performance testing; and ABS human factors studies.

To date, three-fourths of the ABS hardware performance testing has been completed. The purpose of the test track study is to evaluate present-day ABS by measuring braking performance over a broad range of driving conditions. Preliminary results indicate that ABS improved vehicle stability in adverse braking conditions by allowing the driver to maintain directional control on most test surfaces. However, ABS hardware performance degradation has occurred, universally, on loose gravel surfaces.

In the area of human factors, the ABS studies are to examine driver braking and steering behavior in crash-imminent situations—addressing the theory that driver behavior may be contributing to crashes of ABS-equipped cars. To assess drivers' collision avoidance behavior using conventional and antilock brakes, an intersection incursion scenario is to be performed on a driver simulator and test-track for dry and wet pavement conditions.

Overall, preliminary findings have not yet revealed any single-cause for the increase in single-vehicle, run-off-road crashes. Results indicate that various issues (such as, human factors, ABS system logic, etc.) must be addressed and warrants further investigation. For example, drivers' reaction to pedal feedback, drivers' ability to perform avoidance maneuvers, etc. still need to be assessed.

NHTSA also has an ongoing Light Vehicle Rollover Research program. This program's primary focus has been on-road untripped rollovers. To date seven maneuvers have been investigated using three sport utility vehicles. It has been decided that two of these maneuvers were promising to determine a vehicle's rollover pro-

pensity and merited further investigation. A repeatability study has begun and will continue through fiscal year 1998. A vehicle steering controller is being purchased to help reduce test variability due to driver influence. Testing of an additional twelve vehicles will be initiated during 1998 using refined test procedures based on the results of earlier and current testing. The Light Vehicle Rollover Research program will continue in fiscal year 1999. Additional testing will be performed using the twelve vehicles mentioned above. Additionally, in 1999 NHTSA will have received the Variable Dynamics Test Vehicle (VDTV) from the contractor. One of the first programs planned for the VDTV is rollover research. The VDTV will be used to examine the effect of possible vehicle modifications on its rollover propensity and in developing suitable test procedures.

Question. Why is an increase in funding in the driver/vehicle performance area necessary at this time?

Answer. Prior to fiscal year 1996, this area of research within NHTSA had an annual budget of about $7 million to $7.5 million per year. With the shift in emphasis to ITS, that amount was decreased to zero in fiscal year 1996, and it has been steady at $1 million per year for fiscal year 1997 and fiscal year 1998. At that level of funding, the agency was not able to do research that is needed to support its ongoing safety research programs to support rulemaking initiatives in the area of crash avoidance. For example, in fiscal years 1997 and 1998, all of the available funding was consumed by research in only the two most critical areas, gaining a better understanding of driver's actions and vehicle responses during severe braking maneuvers with antilock brakes, and during maneuvers that result in rollover, particularly for sport utility vehicles. Research in the areas of lighting and visibility, other areas of vehicle handling and stability, or to answer other fundamental questions regarding driver behavior and performance relative to the driver/vehicle interface could not be done. The increased funding requested for fiscal year 1999 will also allow NHTSA to address enhancements to several vehicle subsystems (i.e., mirrors and rear signal lights) which may have potential for helping drivers avoid lane change and rear end crashes, respectively. The agency will also conduct human factors research to determine the best way to convey information to drivers that will be clearly and quickly understood, without confusion or ambiguity, and without creating too much workload for the driver.

Question. Please describe the scope and nature of any possible cost overruns regarding the NADS.

Answer. During the course of the last year, four Engineering Change Proposals (ECP) have been submitted by the NADS prime contractor TRW, which have increased the cost of the project. ECP No. 1 ($663,989) was for increased cost of the Harmony Image Generator being supplied by Evans & Sutherland. ECP No. 2 ($38,924) was to cover TRW's cost associated with resolving issues related to the NADS System Development Specification. ECP No. 3 ($273,516) was for cost associated with the purchase of the NADS real-time host computers as opposed to the originally proposed leasing arrangement. ECP No. 4 ($3,777,925) is to cover the cost of developing Scenario Definition and Control Software instead of using software offered by the University of Iowa (not part of their cost-sharing commitment), which TRW concluded would not meet NADS specifications. In addition, TRW is currently in the process of completing a cost and schedule re-baseline to complete the program, and it is anticipated that additional cost growth will occur in the areas of motion system hardware manufacture, image system display projectors, cab refit, software development, systems engineering, and program management. The amount of cost growth has not yet been provided to NHTSA by TRW.

Question. What strategic planning is being conducted for the eventual use and scheduling of the NADS?

Answer. NHTSA is creating a new Office of Human Centered Research within its Research and Development organization to consolidate research on driver performance, behavior, medical, health, and biomechanics issues. This Office will be the focus of future NADS related research within NHTSA and will also facilitate intermodal research from other administrations within the Department and other government agencies. The NADS Project Office is closely coordinating with the Intelligent Vehicle Initiative (IVI) project to determine the extent of human factors research that will require use of the NADS. In addition, NHTSA and the University of Iowa are jointly developing a comprehensive Marketing Plan that will contain a strategy for approaching private sector research organizations that could benefit from the utilization of the NADS capabilities. The TRW marketing department has developed a professional quality promotional video on the NADS as well as a marketing brochure and has provided them to NHTSA at no cost to the program. These materials will be used to promote the unique research capabilities of the NADS to

potential users at a variety of industry trade shows and government meetings and conferences during the preoperational phase of the NADS development.

Question. Does NHTSA have a firm commitment from the JPO that the Agency will receive $22,640,000 of the IVI funds? Is this contract or LGOE monies?

Answer. The original funding request of $22,640,000 includes $12,500,000 for research and development, $10,000,000 for operational tests, and $140,000 for publications and exhibits. Of these amounts, $140,000 would be LGOE and the remainder ($22,500,000) would be contract authority. The projects that would be funded under this request are now part of the IVI. NHTSA expects to be significantly involved in the IVI program. It is hoped that NHTSA will receive the requested funds when the IVI program gets underway.

Question. NHTSA is requesting $2 million for a project entitled "Application of NADS." Please provide extensive details on this project and discuss the relationship of this project to your request for NADS.

Answer. The request for NADS is for design and construction of NADS; whereas the $2 million request for application on NADS will fund the development of driving scenarios, visual data bases, and other application-specific elements of NADS use for driver behavior research and other research. The first ITS problem area that will be addressed will be the driver interface and refinement of the warning criteria for rear-end collisions.

Question. Please delineate in extensive detail how the $1.392 million requested for heavy vehicle research will be used, showing specific projects and associated amounts. Compare this research plan with fiscal year 1997 and fiscal year 1998 research projects and indicate funding amounts for each project.

Answer. The $1.392 million requested for heavy vehicle research will be used to support the following programs:

Improved Stopping Capability —$850 thousand

Assess the performance improvements and costs that would accrue from the use of air disc brakes combined with electronic control of brake modulation.

Develop and test instrumented brake anchor pins to sense brake torque at individual wheels.

Develop objective performance measures for electronically-controlled air brakes in normal operation and in failure modes, to support rulemaking.

Assess the braking performance of heavy trailers using electrically-actuated brakes.

Develop objective test procedures that could be used to regulate the performance of such systems.

Improved Stability—$142 thousand

Develop objective measures of performance of ABS on air-braked trailers, to support rulemaking.

Improved Visibility—$100 thousand

Evaluate the safety benefits of rear cross-view mirrors for medium-duty delivery trucks, to support rulemaking.

Study the possibility of improving side and rear visibility by using on-vehicle video cameras.

Improved Crashworthiness—$100 thousand

Investigate feasibility of countermeasures to reduce the severity of truck/car frontal collisions.

Continue development of improved truck occupant protection systems.

Other Programs—$200 thousand

Initiate studies to evaluate the potential of computer chips molded into truck tires to monitor tire pressures.

Begin an assessment of the human factors aspects of uniform control and display locations in truck cabs.

Study ways to better disseminate research findings to the heavy vehicle community.

The following table shows the amounts allocated to the various subprogram areas for fiscal year 1997 and fiscal year 1998, and the corresponding amounts requested for fiscal year 1999.

[In thousands of dollars]

	Fiscal year—		
	1997	1998	1999
Improved Stopping Capability	299	225	850
Improved Stability	150	50	142
Improved Visibility	.....	95	100
Improved Crashworthiness	46	131	100
Other Programs	100	94	200
Totals	595	595	1,392

Question. How is this program to be coordinated with OMC activities?

Answer. NHTSA maintains an ongoing dialog with OMC and other DOT agencies involved in heavy vehicle research, to ensure that the research programs are complementary and not duplicative. NHTSA has made a concerted effort in seeking and leveraging resources outside NHTSA to supplement the limited funding received for heavy truck research in previous years and has had some limited success.

Question. What cost sharing was obtained in this area during fiscal year 1997 and fiscal year 1998?

Answer. The following is the total funding obtained through cost sharing in fiscal year 1997 and fiscal year 1998 for the heavy vehicle research programs:

Other Govt-Agencies:	
FHWA	($136,400)
TACOM (U.S. Army)	(100,000)
Subtotal	236,400
Industry Organizations:	
AAMA (American Automobile Manufacturers Association)	.....
RMA (Rubber Manufacturers Association)	.....
Teamsters	.....
National Research Council, Canada	.....
Subtotal	165,600
Total	402,000

NATIONAL CENTER FOR STATISTICS AND ANALYSIS

Question. Please prepare a table indicating the amount requested and the amount actually appropriated for the six programs in the NCSA Budget for fiscal years 1996, 1997, and 1998.

Answer. The table that follows provides the dollar amounts by each of the six NCSA program areas for fiscal years 1996, 1997, and 1998.

[In thousands of dollars]

NCSA Program Area	Fiscal year—		
	1996	1997	1998
Fatality Analysis Reporting System (FARS):			
Requested	5,000	5,251	5,242
Appropriated	4,585	5,242	5,242
National Automotive Sampling System (NASS):			
Requested	9,500	9,675	13,800
Appropriated	9,200	9,658	9,658
Data Analysis:			
Requested	2,000	2,100	1,935
Appropriated	1,415	1,635	1,935
State Data Program:			
Requested	2,000	3,850	3,041
Appropriated	1,550	3,041	3,041

[In thousands of dollars]

NCSA Program Area	Fiscal year—		
	1996	1997	1998
Special Crash Investigations (SCI):			
Requested	315	331	556
Appropriated	315	331	1,031
Occupant Protection Use Survey:			
Requested	.....	300	300
Appropriated	.....	300	300

Question. Please prepare a table for each of the six programs in the NCSA Program, showing how all of the funds requested for fiscal year 1999 are intended to be spent; and please include in that table a comparison with the amount provided for comparable activities for fiscal year 1998. On a separate page, please justify the need for the requested increases.

Answer. Separate tables presenting fiscal year 1998 and fiscal year 1999 funding by products and activities for each of the six NCSA programs follow:

[In thousands of dollars]

Products and Activities	Fiscal year—	
	1998 budget	1999 request
Fatality analysis reporting system:		
Cooperative Agreements	4,090	4,090
Data Processing	890	849
Training	237	249
Quality Control	25	25
Total	5,242	5,213
National Automotive Sampling System:		
Data Acquisition; Data Entry and Field Quality Control	6,301	6,650
Update and Replacement Training	300	330
Database maintenance, Quality Control, Revision; Hard copy Storage and Distribution	2,293	2,331
New Initiatives: Electronic Data Collection, Digital Imaging, Interactive Video Imaging, Internet/Web-site Development	764	676
Total	9,658	9,987
Data Analysis Products and Activities:		
Analytic Support	500	500
Database Augmentation	125	125
Sampling Support and Quality Control	660	660
Customer Service Support	350	350
Clinical Study of Injuries Associated with Air Bag Deployment	300	289
Total	1,935	1,924
State Data Program:		
Data Acquisition and Processing	700	700
State Data Enhancement; Technical Assistance	175	300
Research into Using and Evaluation of Linked Medical Outcome and Crash Databases	.....	175
Promote Linked Medical Outcome and Crash Data among State and Local Agencies	125	200
Assist State and Local Agencies in Data Linkage	595	249

[In thousands of dollars]

Products and Activities	Fiscal year— 1998 budget	1999 request
Data Linkage Grant Program for New States	1,446	1,400
Total	3,041	3,024
Special Crash Investigations:		
Air Bag Crash Investigation Program (Fatal and Serious Injuries) Non-air Bag related Vehicle Safety Problems (School Bus, Defects, Alternative Fuels)	591	662
New Generation and Advanced Air Bag Systems	326	761
Database processing and Quality Control	58	90
Case Automation and Storage	56	40
Total	1,031	1,553
National Occupant Protection Use Survey:		
Survey and Sample Design Revisions and Other Survey Preparations	90	.....
Conduct a National Occupant Protection Use Survey	140	230
Tabulate, Analyze, and Publish Survey Results	70	70
Total	300	300

Cost increase justification

Special Crash Investigations

In fiscal year 1998, NHTSA is continuing, through its Special Crash Investigations (SCI) program, investigation of real-world crashes that qualify for NHTSA's Air Bag Investigations Program and non-air bag related vehicle safety problems (i.e., school bus crashworthiness and pedestrian safety problems, potential safety defects, and alternative fuel vehicles). The Agency has allocated $705,000 ($591,000 for data collection and $114,000 for maintaining and updating ADP operations) for this effort, which includes investigation of crashes involving fatal or seriously injured front seat occupants of vehicles equipped with new generation air bag systems. NHTSA is also spending $326,000, nearly one third of the funds allocated to the SCI program in fiscal year 1998, to investigate crashes involving vehicles equipped with new generation and advanced air bag systems that do not qualify under NHTSA's Air Bag Investigations Program. This funding level will allow the agency to investigate over 100 crashes involving vehicles equipped with new generation air bags where the air bag deployed and the occupant sustained minor, moderate or no injuries. These crashes will be investigated as part of an early assessment of the performance of new technologies introduced in motor vehicles.

If funded at the fiscal year 1999 Budget Request level of $1,553,000, NHTSA will investigate, through its SCI program, over 325 motor vehicle crashes that are of special interest. Approximately $792,000 ($662,000 for data collection and $130,000 for maintaining and updating ADP operations) will be used to investigate more than 125 crashes that qualify for NHTSA's Air Bag Investigations Program and non-air bag related vehicle safety problems (i.e., school bus crashworthiness and pedestrian safety problems, potential safety defects, and alternative fuel vehicles). NHTSA will also spend approximately $761,000, nearly half of its requested fiscal year 1999 budget on new generation and advanced air bag systems. At this funding level, it is anticipated that more than 200 new generation and advanced air bag cases would be investigated. In fiscal year 1999, the SCI contracts will be renegotiated and cost-of-living and other labor and operational adjustments incorporated, resulting in an increased cost for SCI case investigations.

National Automotive Sampling System

In fiscal year 1999, funding will be used to collect nationally representative data on fatal and nonfatal motor vehicle traffic crashes. The vehicle-trauma details from 5,000 crash investigations from the NASS CDS and the national crash data from 56,000 police reported traffic crashes from the NASS GES form the foundation for a comprehensive understanding of the relationship between vehicle crash severity

and occupant injury and the scope of the highway safety problem. The data will be collected and coded at 24 CDS sites, 60 GES sites, and two NASS Zone Centers. All NASS field contracts will be recompeted in fiscal year 1998. New contracts will be awarded during the first quarter of fiscal year 1999. The 3.4 percent increase above the fiscal year 1998 budget appropriation will be used to support renegotiated increases in labor costs of $349 thousand. The remaining funds to support renegotiated contracted increases are taken from costs savings in other line items.

Question. How much does NCSA spend on distributing its products, including reports and statistical studies?

Answer. The printing and distribution costs for NCSA reports are approximately $375,000.

Question. Would it be more cost efficient to place these materials only on the Internet?

Answer. NCSA maintains fifteen Fact Sheets on various motor vehicle crash statistics for 1996 (the latest year for which complete data are available), along with twenty of our latest technical reports and twenty-nine of our most recent Research Notes. In addition to these listings, NCSA's portion of the agency's website also provides an overview and program description for each of the following NCSA activities: the Fatality Analysis Reporting System (FARS), the National Automotive Sampling System (NASS), the State Data Program, Special Crash Investigations (SCI) and the Crash Outcome Data Evaluation System (CODES). Internet users are becoming an increasing share of NCSA's requests for statistical information and publications. Providing access to these materials via the Internet has enabled NCSA to decrease the numbers of printed publications that need to be made. Many requesters, however, continue to choose to request publications via telephone, fax-on demand, and by mail.

Question. What are you doing to move beyond the CODES project in the areas of injury assessment, costs, and relationships to the use of seat belts, air bags, and other engineering enhancements?

Answer. Through CODES, states are being encouraged to link motor vehicle crash data to other relevant medical outcome data, including emergency department (ED) data when available. Linking these databases to motor vehicle registration, driver licensure, roadway data files and other traffic records databases expands the usefulness of all individual data files for highway safety purposes. States that have linked to other state data besides EMS and hospital discharge have been able to institutionalize their data linkage capabilities because of an expanded user base. CODES data have been used to study the differences in medical and treatment outcomes for helmeted vs. unhelmeted motorcyclists involved in crashes, the effect of air bags in reducing injuries to motor vehicle occupants in crashes, and to investigate the occurrence, frequency and costs of brain injuries and lower extremity injuries in all motor vehicle crashes. The have also provided a wealth of information to states on the costs and injuries associated with motor vehicle crashes of different types, for different driver involvements, and for roadway characteristics. CODES States have not yet been investigated to determine how they could support investigation of injuries associated with specific vehicles or types of vehicles. The primary reason is that few states collect the information necessary for these studies—the vehicle identification number (VIN). Without the VIN, it is not possible to identify which engineering enhancements are present in a vehicle or to classify accurately that vehicle by make or model. A NHTSA project, being conducted cooperatively with the FHWA and the National Association of Governors' Highway Safety Representatives, will identify a Model Minimum Uniform Crash Criteria (MMUCC) for reporting motor vehicle crash data. The collection of the VIN is included in that Model.

Question. In addition to the CODES work, what are you doing to collect information on emergency department patients whose injuries result from motor vehicle crashes? Is the CIREN work sufficient to obtain a nationwide picture of new injury problems?

Answer. Unfortunately, there is no one system currently operational that would provide NHTSA with a comprehensive, national picture of every potential new injury problem associated with motor vehicle crashes. Several sources are now being used to address NHTSA's need for comprehensive information on the nature and characteristics of injuries associated with specific motor vehicle crash and safety problems.

CODES consists of crash, medical, and driver data linkages for 14 states with expansion to an additional five or six expected in fiscal year 1998. States are being encouraged to link motor vehicle crash data to other relevant medical outcome data, including emergency department (ED) data, when available, and to obtain outpatient information from insurance files such as Medicaid, Medicare and Workers' Compensation insurance files. The CODES projects, along with other injury control

efforts, have helped to encourage the development of emergency department data systems that are computerized and able to be linked to the crash data. When every state has developed data linkage capabilities, it will be possible to obtain population based data about victims of motor vehicle crashes, including information about the injuries that occur. CODES provides the state doing the linkage with a complete information on the occurrence of motor vehicle crash related injuries in that state.

CIREN, once fully operational, will provide NHTSA with a small sample of detailed data on the nature and character of motor vehicle related injuries treated in the trauma centers comprising CIREN. Because CIREN involves only injuries treated at selected trauma centers, it does not comprise a random sampling of all potential motor vehicle related injuries and cannot be used to develop forecasts of national injury problems. CIREN may be used to study the mechanisms involved in distinguishing severe injuries from those that are not as severe when they are treated in a trauma center.

In addition to CODES and CIREN, NHTSA has used data from the Consumer Product Safety Commission's (CPSC) National Electronic Injury Surveillance System (NEISS) to determine the nature and magnitude of specific types of injuries that may not be related to a crash but may be motor vehicle related, e.g., radiator cap burns, battery explosions, power window and roof failure. CPSC's NEISS collects data on a nationally representative sample of consumer product-related injuries treated in hospital emergency rooms. NEISS is a 3-level system consisting of surveillance of emergency room injuries, follow-back telephone interviews with injured persons or witnesses, and comprehensive investigations with injured persons and/or witnesses. NEISS obtains data from a sample of 91 of the 6,127 hospitals nationwide with at least six beds that provide emergency care on a continuing 24-hour basis. The data on injuries associated with specific types of motor vehicle hazards are obtained on an as-needed basis through an agreement between NHTSA and CPSC to collect data on injuries associated with specific motor vehicle hazards that are non-crash related.

Question. What are your views on the establishment of a national emergency department crash injury surveillance system that would collect data on injuries of victims of traffic crashes?

Answer. The agency has funded studies in the past through data collection systems such as the National Electronic Injury Surveillance System (NEISS) and has found the data useful. We are currently giving careful consideration to conducting a pilot study of a broader system to collect emergency department data that would serve as a crash injury surveillance tool. The agency has met with several experts in this field to better understand how such a system could complement our existing crash injury data collection systems.

PARTNERSHIP FOR A NEW GENERATION OF VEHICLES

Question. How has the original intention or justification for NHTSA's investment in the PNGV changed?

Answer. In fiscal year 1996, the goal was to ensure that the safety of occupants of the PNGV vehicle was not degraded. The goal of the fiscal years 1997 and 1998 efforts is to ensure that the overall safety of the fleet is not diminished with the introduction of the PNGV vehicle into the fleet. Thus, the justification for the funded program has changed from fiscal year 1996. This change is the result of automobile manufacturers participating in the PNGV program endorsing NHTSA's involvement. This change has resulted from the realization that while the lighter PNGV vehicles may pose a lesser threat to their potential collision partners, it is essential that the fleet of PNGV vehicles remains compatible with other vehicles in the fleet. Hence, the overall safety of the fleet needs to be balanced by losses incurred by the PNGV vehicles and the gains in benefits from their collision partners.

A more recent and additional justification is that much of the research being undertaken for the PNGV program directly supports the required efforts under the vehicle compatibility research program. The approach in both programs is to develop a system model from which fleetwide vehicle performance is evaluated and from which global optimization of safety performance may be possible.

Question. Why isn't NHTSA studying the safety of the specific vehicles that are being developed under the PNGV program?

Answer. The agency will study the safety of the specific vehicles being developed under the PNGV program as their design characteristics become available. It is necessary to determine the safety of the PNGV vehicle as well as the safety of its collision partners in the total evaluation of the fleet.

Due to the proprietary nature of their specific designs, it will be necessary for each automaker to insert their vehicle model into the system model tool being devel-

oped by NHTSA for the evaluation. Agency staff will work with the automakers to ensure that this is properly achieved.

Question. Why is it essential at this time to increase funding for NHTSA's role in the PNGV? Are the automobile manufacturers ready to test their PNGV concepts?

Answer. The increased funding is needed to ensure that the analytical tools being developed by the agency will be completed in time for the automobile manufacturers to evaluate the safety aspect of their PNGV concepts. It should be noted that the system model tool being developed allows for the evaluation of a variety of concepts and can be used to aid the automakers in their selection of technologies (a preferred option). To the best of the agency's knowledge automobile manufacturers are not yet ready to test their PNGV concepts.

Question. Exactly how far along is the PNGV program?

Answer. In that the agency does not monitor all aspects of the PNGV program, this question would be best answered by the Department of Commerce, which provides the Federal leadership for the Clinton Administration.

Question. Are the industry participants in the PNGV ready to use the analytical tools developed by NHTSA?

Answer. The agency has initiated a meeting with the pertinent USCAR (United States Council for Automotive Research) members responsible for the safety of the PNGV vehicles in order to coordinate and transition the analytical models and to enact USCAR involvement in assembling the system evaluation model. This meeting is to be held during May 1998.

Question. How does the PNGV work relate to the research that NHTSA is pursuing regarding light trucks and SUV's?

Answer. The research that has been undertaken and is underway for the PNGV program directly complements the efforts required for the vehicle compatibility research program, the area of research in which light trucks, SUV's, and vans have been identified as a growing safety problem. The approach in both programs is to develop a system model from which fleetwide vehicle performance is evaluated and from which global optimization of safety performance of the fleet may be possible. The activities that have been undertaken in the PNGV program for developing vehicle models representing the fleet correspond to the requirements for the compatibility study. Hence, the PNGV research activity provides the opportunity for leveraged research.

Question. Since the finite element analysis tools will be of direct benefit to the automobile manufacturers, should some of the associated developmental costs be borne by the private sector?

Answer. Agency staff have pursued automaker involvement in the development of the finite element models for the PNGV effort as well as under other programs. The major stumbling blocks that have precluded their participation in the finite element model development efforts are their concerns about sharing their proprietary modeling capabilities and the potential for product litigation resulting from the use of models developed by them.

Question. If yes, have you sought cost sharing?

Answer. Over the years, the agency has pursued automaker involvement in the development of finite element models. This has not been limited to the PNGV program. The automakers' concerns about sharing their proprietary modeling capabilities and the potential for product litigation resulting from the use of models developed by them has precluded their involvement.

Question. Is language in the bill report necessary to encourage this outreach?

Answer. Due to the expressed concerns of the automakers regarding their finite element models, language in the bill would result in increased contentiousness between the agency and the automakers.

Question. Is the private sector developing their own finite analysis tools to test their PNGV models? If so, why is it necessary to increase federal funding in that area?

Answer. The increased funding serves to complete the finite element model development effort that has been initiated during fiscal years 1997 and 1998, and to use these developments toward assembling the system model that will be used for the safety evaluation.

Question. How have NHTSA's efforts been coordinated with those of DOE and DOC?

Answer. In developing the fiscal year 1999 program for PNGV, agency staff participated in a joint meeting with the Departments of Energy and Commerce (DOE, DOC) as well as with the other participants in the program. This meeting was held specifically to discuss and coordinate the proposed activities among the various par-

ticipants. Additionally, agency staff met individually with DOE staff to coordinate activities in vehicle modeling.

Question. During fiscal year 1997 and thus far in fiscal year 1998, what is the amount and purpose of any NHTSA funds spent or planned to be spent on non-safety aspects of PNGV? Specifically, how much has been spent on economic analysis, market penetration studies, industry impact, and regulatory impact evaluations?

Answer. The agency has not expended any funds and has no plans to spend any of the requested funds toward the non-safety aspects of PNGV, such as economic analysis, market penetration, industry impact, and regulatory impact evaluations.

Question. Please break down in extensive detail how the fiscal year 1997, fiscal year 1998, and fiscal year 1999 monies were or will be used.

Answer. The following table provides the requested breakdown:

FUNDING

Description	Fiscal year—		
	1997	1998	1999
Finite Element Model Development and Validation	$1,533,940	$555,000	$1,250,000
Vehicle Articulated Mass Model Development	25,000	802,165	600,000
Vehicle Interior/Occupant Model Development	.....	200,000	400,000
System Model Development, Integration, and Fleet Studies	.....	400,000	700,000
Vehicle/Component Testing	190,000	355,835	450,000
Vehicle Purchase	137,740	37,000	100,000
Computer Hardware, Software Purchase	620,000	150,000	.....
Total	2,506,680	2,500,000	3,500,000

Question. You are requesting two FTE's for the Partnership for a New Generation of Vehicles to provide specialists in computer modeling. Since the PNGV program will only last another few years, wouldn't it be more cost effective to hire additional contractor support as necessary?

Answer. It is anticipated that the two FTE's will provide support for the PNGV program over a 5-year period. During that time, these persons also will begin to provide broad support for the analytical efforts being undertaken in the crashworthiness research program. Particularly, their involvement in the vehicle aggressivity and fleet compatibility research will be essential.

Question. NHTSA states that funding will ensure that PNGV-developed vehicles meet existing and anticipated federal vehicle safety standards. Please explain this assertion. Will you have actual vehicles to test? If not, how can you be certain that those vehicles will meet existing safety standards?

Answer. The agency's major effort is focused on ensuring that the overall safety of the fleet is ensured with the introduction of the PNGV vehicles. Regarding the aspect of meeting the existing and anticipated safety standards, with the help of the models, the safety performance of the PNGV vehicles will be evaluated per each of the major crash safety standards. The automakers themselves will be required to demonstrate compliance through testing.

GENERAL ADMINISTRATION

Question. Please prepare a table indicating the amount appropriated and the amount actually allocated for the three subcomponents of the General Administration budget for fiscal years 1996, 1997, and 1998.

Answer.

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Enacted	Request	Enacted	Request	Enacted
Program Evaluation	489	480	475	474	474	474
Strategic Planning	200	.....	325	75	75	75
Economic Analysis	75	75	175	75	75	75

[In thousands of dollars]

Program	Fiscal year 1996		Fiscal year 1997		Fiscal year 1998	
	Request	Enacted	Request	Enacted	Request	Enacted
Total	764	555	975	624	624	624

Question. Please prepare a table for each of the three subcomponents in the General Administration budget showing how all the funds requested for fiscal year 1999 are intended to be spent, and please include in that table a comparison with the amount provided for each of similar activities for fiscal year 1998. On a separate page, please justify the need for the requested increases.

Answer. The major cause of the increase of $39,000 for evaluation in the fiscal year 1999 budget request over the fiscal year 1998 is the need to track the consequences of the use of on/off switches for airbags. Other differences between the two years for evaluation are the normal completion and starting of projects. The extra funding in strategic and program planning will allow for the development of forecasting models of fatalities and injuries. Additional scope will be added to the initial economic analysis project to improve the validity of the data gathering procedures used in the study (it was discovered that an impartial person rather than a parent was required to make a valid determination of a child's recovery from injury).

	Fiscal Year 1999 Planned Funding	Fiscal Year 1998 Funding
PROGRAM EVALUATION		
Program Evaluation Project:		
Odometer Fraud—Estimate of Magnitude	.....	$30,000
Heavy Truck Conspicuity (Standard 108) Evaluation	$20,000	120,000
Domestic Content Labeling (49 CFR Part 583)	.....	70,000
Survey of use of airbag on/off switches	200,000	100,000
Child Safety Seat Registration Survey (Standard 208)	100,000	14,000
Improved Air Bag Technology cost study (Standard 208)	50,000	.....
Cost Studies of other safety standards (Standards 201, 202, 203, 204 in light trucks)	93,000	90,000
Support National Occupant Protection Use Survey (Standard 208)	50,000	50,000
TOTAL	513,000	474,000
STRATEGIC AND PROGRAM PLANNING		
Strategic and Program Planning Projects:		
Environmental Scan	.....	20,000
Alcohol Program Strategic Plan	.....	35,000
Survey of Alcohol Program Customers Opinions and Expectations	50,000	.....
Continuous Improvement materials, projects, equipment and conference fees	15,000	.....
Forecasting Models of Fatalities and Injuries	23,000	20,000
Course and Background Research on Activity Based Cost Accounting Systems	10,000	.....
TOTAL	98,000	75,000
ECONOMIC ANALYSIS		
Economic Analysis Project: Development of the pediatric derivative of the Functional Capacity Index (FCI) continued during fiscal year 1998. A national conference on measuring injury outcome was held. In fiscal year 1999 the application of the FCI and other methods of quantifying morbidity will be undertaken	98,000	75,000

STRATEGIC AND PROGRAM PLANNING

Question. Please state the reasons for hiring an outside contractor to improve the agency's strategic planning.

Answer. Many key highway safety performance measures (e.g., fatalities, fatality rates, belt use, alcohol involved fatalities), have recently produced flat trends. In addition, population, demographic, technology, fleet mix and other factors uncontrollable by agency management are threatening to drive fatalities and injuries higher and are forcing the agency to consider new programs and approaches. As indicated in its strategic plan the agency is challenged to assess its historic approaches in light of current trends, customer needs and a changing environment and where necessary develop new approaches that will result in a continued downward trend in fatalities and injuries.

To accomplish this objective the strategic and program planning group will develop strategic plans for selected agency programs. These plans will involve a review of external factors (i.e., environmental scans, customer needs, what others dealing with the problem are doing, etc), and assess internal factors (i.e., cost/benefit of existing programs, impact of existing programs on GPRA objectives, program delivery and management issues such as continuous improvement, etc). Projects of this nature are characterized by their breadth, depth, short time frames, and demanding process and analytical components. Since the resources (numbers, experiences and skills of staff) required to complete these projects are not fully resident in planning staff the agency will use outside consultants. An added benefit to using outside consultants is to develop non-traditional approaches to safety problems.

Question. In extensive detail, please explain how the additional funds specified on page O&R–13 will be used for the fiscal year 1999 TASC need. If the requested funding is not provided, what are the implications to NHTSA?

Answer. As a result of NPR reinvention efforts and other initiatives to decrease administrative staff, TASC has proposed to provide administrative services to Departmental operating administrations in a centralized and cost efficient manner. Under this concept, DOT operating administrations must procure services from TASC, unless operating administrations determine that is more feasible or cost effective to do so otherwise. Most of the services provided by TASC, to name a few are mail/messenger services; telecommunications (FTS 2000); DAFIS; building management; library; occupied space for storage of publications in the warehouse; building security; house and contracting printing and distribution, have overhead expenses included. Due to customer demand, the Agency anticipates substantial increases in publishing and disseminating mission and safety related materials, particularly in the areas of air bag safety, child safety seat use, occupant protection, and motor vehicle defects reporting. At present the Agency has no flexibility to control these costs due to the fact that usage plays a large part of the billing cycle. The Agency's emphasis is being placed on providing increased customer service to internal and external customers through distribution of safety and mission related materials to the public. Therefore, these and other services provided by TASC are essential to the support and services needed by NHTSA. Without the full requested funding NHTSA's mission will suffer tremendously. Internal and external customer service will be nonexistent.

Question. For fiscal year 1997, fiscal year 1998, and planned for fiscal year 1999, please provide a table similar to that provided previously to the committee, showing the amount of funds spent or allocated for non-mandatory awards and bonuses, PCS, and overtime pay, travel, and training.

Answer. The following table shows funding for actual amounts spent in fiscal year 1997 and amounts appropriated in fiscal year 1998 and fiscal year 1999.

[In thousands of dollars]

	Fiscal year—		
	1997 Actual	1998 Appropriated	1999 Appropriated
Awards and Bonuses	540	630	649
Permanent Change of Station	88	87	87
Overtime Pay	27	18	22
Travel	1,090	1,082	1,125
Training	208	190	198

Question. Please submit an updated table similar to that provided the committee previously, indication the amount of funds used for computer support.

Answer. The following tables show the funding for computer support for the last three fiscal years and proposed for fiscal year 1999.

COMPUTER SUPPORT

[In thousands of dollars]

	Fiscal year—				
	1995	1996	1997	1998	1999 (Proposed)
Computer Support	2,552	2,713	2,711	2,426	3,000

Question. Also provide a separate chart for communication systems for each of the last three fiscal years and proposed for fiscal year 1999.

Answer.

COMMUNICATIONS SYSTEMS

[In thousands of dollars]

	Fiscal year—				
	1995	1996	1997	1998	1999 (Proposed)
Communications Systems	298	312	330	375	390

Question. Please provide tables on operating expenses, personnel compensation, and benefits combined with operating expenses for each major NHTSA program. Please compare the fiscal year 1998 appropriation with the fiscal year 1999 request.

Answer. The information follows:

SALARIES AND EXPENSES

[In thousands of dollars]

	Fiscal Year 1997 Appropriation	Fiscal Year 1998 Request	Change
Use of Funds:			
Personnel Compensation:			
Permanent positions	38,567	38,979	412
Other than permanent positions	1,226	1,227	1
Other	676	695	19
Total, Salaries	40,469	40,901	432
Personnel Benefits	7,463	7,50	340
Total, Salaries and Benefits	47,932	48,404	472
Travel	1,082	1,082	.....
Total, Salaries and Expenses	49,014	49,486	472
Allocation to Programs:			
Safety Performance:			
Salaries and Benefits	6,862	6,938	76
Travel	60	60	.....

SALARIES AND EXPENSES—Continued

[In thousands of dollars]

	Fiscal Year 1997 Appropriation	Fiscal Year 1998 Request	Change
Subtotal	6,922	6,998	76
Safety Assurance:			
Salaries and Benefits	7,440	7,523	83
Travel	95	95	.....
Subtotal	7,535	7,618	83
Highway Safety Programs:			
Salaries and Benefits	14,634	14,735	101
Travel	616	616	.....
Subtotal	15,250	15,351	101
Research and Analysis:			
Salaries and Benefits	9,534	9,641	107
Travel	140	140	.....
Subtotal	9,674	9,781	107
Office of the Administrator/Staff Offices:			
Salaries and Benefits	2,961	2,994	33
Travel	129	129	.....
Subtotal	3,090	3,123	33
General Administration:			
Salaries and Benefits	6,501	6,573	72
Travel	42	42	.....
Subtotal	6,543	6,615	72
NHTSA:			
Salaries and Benefits	47,932	48,404	472
Travel	1,082	1,082	.....
Total	49,014	49,486	472
Use of Funds:			
Headquarters operating expenses:			
Personnel-related costs	325	305	(20)
Administrative services	2,790	2,791	1
Rent	.....	4,593	4,593
WCF/TASC	2,894	3,451	557
Computer support	2,711	2,426	(285)
Subtotal, headquarters	8,720	13,566	4,846
Field operating expenses	482	482	.....
Total, operating expenses	9,202	14,048	4,846

SALARIES AND EXPENSES—Continued

[In thousands of dollars]

	Fiscal Year 1997 Appropriation	Fiscal Year 1998 Request	Change
Allocation to Programs:			
Safety Performance: Headquarters expenses	1,479	2,301	822
Safety Assurance: Headquarters expenses	1,573	2,447	874
Highway Safety Programs:			
Headquarters expenses	2,085	3,184	1,099
Field expenses (Regions)	375	375	.....
Subtotal	2,460	3,559	1,099
Research and Analysis: Headquarters expenses	1,651	2,568	917
Office of the Administrator/Staff Offices: Headquarters expenses	638	993	355
General Administration: Headquarters expenses	1,401	2,180	779
NHTSA:			
Headquarters expenses	8,827	13,673	4,846
Field expenses	375	375	.....
Total	9,202	14,048	4,846

Question. Please provide an updated listing of Schedule C employees currently on board, by title, salary, office and location.

Answer. There are four Schedule C employees on board as of June 1998:

Title	Salary	Location
Director of Intergovernmental Affairs	$80,391	Office of Intergovernmental Affairs, Washington, DC.
Special Assistant to the Deputy Administrator.	82,985	Office of the Deputy Administrator, Washington, DC.
Chief, Consumer Affairs Division	85,579	Office of Public and Consumer Affairs, Washington, DC.
Special Assistant to the Administrator	55,969	Office of the Administrator, Washington, DC.

Question. Please provide a detailed breakout, on a contract by contract basis, how the $30.850 million on page GEN–23 under "other services" was spent.

Answer. The line item "Other Services" includes a variety of services ranging from reimbursements to the Working Capital Fund to contract program costs. The attached table is a listing of the amounts obligated under this category by contract program and administrative line item.

Other services

HQ ADMINISTRATION:	
Working Capital Fund	$2,680,564
Security Investigations	257,507
Training	281,604
Computer Support	2,140,511
Total, HQ Administration	5,360,186
SAFETY PERFORMANCE:	
Vehicle Safety & Consumer Standards	827,680
New Car Assessment Program	1,355,657
Fuel Economy	63,903

Other services—Continued

Theft	121,011
Total, Safety Performance	2,368,251
SAFETY ASSURANCE:	
Vehicle Safety Compliance	112,757
Defects Investigation	847,018
Hot Line	202,027
Total, Safety Assurance	1,161,802
TRAFFIC SAFETY PROGRAMS:	
Alcohol Drug & State Programs	9,293,291
National Occupant Protection Program	4,633,896
Enforcement & Emergency Services	2,147,675
Safe Communities	1,003,375
Child Safety Seat Program	757,497
Records	610,144
Total, Traffic Safety Programs	18,445,878
REGIONAL OPERATIONS:	
Enforcement & Emergency Services	105,213
Alcohol Drug & State Programs	1,366,044
National Occupant Protection Program	1,593,878
Total, Regional Operations	3,065,135
P&P CONTRACT PROGRAM:	
Program Evaluation	519,548
Strategic Planning	101,859
Economic Analysis	57,341
Total, P&P Program	678,748
NHTSA TOTAL	31,080,000

Question. Please prepare a table showing the amount of travel, permanent change of station, training, non-mandatory bonuses or awards, TASC, and commuter support monies allocated in fiscal year 1995, fiscal year 1996, and fiscal year 1997, and fiscal year 1998, and requested for fiscal year 1999. Please compare these amounts to appropriated amounts.

Answer.

ADMINISTRATIVE EXPENSES

[In thousands of dollars]

	Fiscal year 1995		Fiscal year 1996		Fiscal year 1997		Fiscal year 1998		Fiscal year 1999 Request
	Request	Approp.	Request	Approp.	Request	Approp.	Request	Approp.	
Travel	1,022	1,018	1,022	972	1,022	1,082	1,082	1,082	1,125
PCS	118	60	88	88	88	88	88	87	87
Training	192	173	256	242	262	212	192	190	198
Bonuses & Awards	593	486	611	611	630	589	650	630	649
TASC [1]	3,898	3,563	3,439	3,353	3,492	2,894	3,810	3,584	6,597
Computer Support	2,931	2,552	3,131	2,713	3,211	2,711	2,426	2,395	2,555

[1] Prior to fiscal year 1999, costs for TASC services for program related printing and graphics, computer support, and specialized training were included in the respective program office's budget. Beginning in fiscal year 1999, all of the costs that were previously spread across the program areas are now consolidated into a single TASC budget.

Question Please provide an updated table similar to that previously provided to the committee regarding positions and funding for the Office of the Administrator and staff offices.

Answer. The information follows:

OFFICE OF THE ADMINISTRATOR AND STAFF OFFICES FULL TIME POSITIONS[1] AND FUNDING, FISCAL YEARS 1996–1998

[DOLLARS IN THOUSANDS]

	1996[2]		1997[2]		1998	
	POSITION	FUNDING	POSITION	FUNDING	POSITION	FUNDING
Office of the Administrator	4	$353	4	$358	4	$396
Deputy Administrator	2	176	2	179	2	198
Executive Director	2	176	2	179	2	198
Intergovernmental Affairs	1	88	1	89	1	99
International Harmonization	2	176	2	239	3	357
Executive Secretariat	6	529	6	537	5	495
Civil Rights	4	353	4	358	3	297
Public and Consumer Affairs	12	1,059	12	1,074	13	1,286
Chief Counsel	30	2,647	30	2,684	30	2,968
Less: Mission Support	(22)	(1,941)	(22)	(1,968)	(22)	(2,176)
Total	41	3,618	41	3,728	41	4,116

[1] Positions are rounded for display purposes.
[2] Enacted levels.

Question. Please prepare a table indicating costs for permanent changes of station and provide a table of the number of people moved and associated expenses for each of the last three years and the amount requested for fiscal year 1999.

Answer.

PERMANENT CHANGE OF STATION DATA

Fiscal Year Moves	Allocated Amount	Number of Moves	Average Cost Per Move
1996	$88,000	4	$20,000
1997	88,000	3	30,000
1998	87,000	3.5	35,000
1999 est	87,000	3	35,000

NOTE: Inflation has caused an increase in the average cost of each permanent change of station move.

Question. Please display the amount and nature of reprogramming that occurred during fiscal year 1997, or fiscal year 1998 in any of the NHTSA accounts. Also in a separate table, please show any unobligated funds or carryover funds for those years.

Answer. In fiscal year 1997, the agency received Congressional approval to shift $2.86 million within the Operations and Research account, to be used for airbag safety research. Of this amount, $1.66 million was shifted from Research and Development carryover resulting from fiscal year 1996 contract savings and deobligations. In addition, $1.2 million was reallocated from a one-time savings in the area of salaries and benefits resulting from a reduced FTE usage rate in fiscal year 1996. This funding shift was necessary to perform critical work in assessing the need and performance requirements for advanced airbag systems. Because of the urgent nature of these airbag issues and the complexities involved in evaluating advanced airbag technology, these additional requirements could not have been planned for or handled during the regular budget process.

In fiscal year 1998, the agency received Congressional approval to shift $1.111 million within the Operations and Research account in order to fund the contractor support to process the application forms, database entry and tracking, which are essential steps in the NHTSA authorization process for installation of air bag on-off switches. Funding was derived using a portion of the carryover funds from the areas

of Safety Assurance ($564,000), Safety Performance ($166,000), Traffic Safety Programs ($200,000) and Plans and Policy ($181,000) for this purpose.

The following is a table showing unobligated balances brought forward from fiscal year 1996 and 1997 into fiscal year 1997 and 1998:

[In thousands of dollars]

	Fiscal year 1997	Fiscal year 1998
Contract Program:		
Safety Performance	84	66
Safety Assurance	404	60
Highway Safety	549	346
Research and Development	8,378	7,656
General Administration	261	1
On/Off Airbag Switches	.....	1,111
Salaries and Benefits	1,287	2,211
Miscellaneous operating expenses	610	459
Recoveries and Other Deobligations	1,863	1,152
Total	13,436	13,062

Question. Please provide a list of all vacancies at NHTSA and the corresponding amount of salaries and benefits dedicated for these positions.

Answer.

Vacancies	*Corresponding Salary Amount*
Information Specialist, GS–301–12/13	$56,000
Mathematical Statistician, GS–1529–11	41,000
Mathematical Statistician, GS–1529–7/9	36,000
Program Analyst, GS–343–12/13	56,000
Medical Officer, GS–602–15	[1] 102,000
Computer Specialist, GS–334–11/12	48,000
Budget Officer, GS–560–15	[2] 90,000
Highway Safety Specialist, GS–2125–15	[2] 86,000
Highway Safety Specialist, GS–2125–11/2	48,000
Highway Safety Specialist, GS–2125–12	48,000
Highway Safety Specialist, 2125–12/13	56,000
Highway Safety Specialist, GS–13/14	67,000
General Engineer, GS–801–15	[2] 90,000
General Engineer, GS–801–14	67,000
Safety Compliance Engineer, GS–801–11/12	48,000
Safety Compliance Engineer, GS–801–13	56,000
Safety Defects Engineer, GS–7/9/11	42,000
Mechanical Engineer, GS–830–12/13	56,000
Criminal Investigator, GS–1811–14	85,000
Safety Defect Specialist, GS–301–13	56,000
Economist, GS–110–14	67,000

[1] Salary reflects a possible recruitment incentive.
[2] Fluctuation in salaries depends on salary history of selectee.

NATIONAL DRIVER REGISTER (NDR)

Question. Please provide an updated status report of NHTSA's review of state driver licensing systems. How have the States progressed in that area?

Answer. The joint NHTSA, Federal Highway Administration (FHWA), and American Association of Motor Vehicle Administrators (AAMVA) review of the three operational driver license information systems was completed in the fall of 1997. It covered NHTSA's National Driver Register's (NDR) Problem Driver Pointer System (PDPS); the FHWA's Commercial Driver License Information System (CDLIS); and AAMVA's Driver License Reciprocity (DLR) The report's recommendations include the following: a pointer system for all drivers that includes PDPS and CDLIS functions should be developed; the recommended all-driver system should be federally mandated and funded; the Social Security Number should be the driver identification number; and the system should maintain the current 7 second message response time.

The states, through AAMVA, have expressed support for the all-driver pointer system. Other than supporting legislation related to such a system, the states have made no progress toward an all driver system. However, the states continue to improve their licensing systems by: implementing fraudulent application detection programs; verifying applicants' Social Security Numbers; installing systems to digitally store images of drivers; using more sophisticated security features to prevent tampering with the license; and other licensing system related activities.

Question. What improvements have been made since last year in the NDR? What challenges remain?

Answer. There have been three significant improvements or changes made to the NDR in the last year. The NDR's system programming was assessed for year 2000 compliance. As a result of this assessment and an internal assessment, the NDR's software has been modified and testing has begun to become year 2000 compliant. The entire system was moved to a larger mainframe and the interactive (on-line) communications software was upgraded. This has resulted in more efficient operation of the system. The system was also modified to allow air carriers access to the NDR through the states to make inquiries on pilot applicants.

Many challenges remain. As the volume of interactive inquiries continues to increase it will be a challenge to maintain our response time at current levels. The states support, and there is legislation pending, to eventually implement some sort of an all driver system. The development of that system will be a challenge over the next several years. The conversion of the last jurisdiction (DC) to the problem driver pointer system (PDPS) has been an on-going challenge. There are 50 different systems interacting with the NDR and a problem with one state can affect 50 others. These problems have to be identified and solved on a real-time basis. During the next year we will work with the states to determine the feasibility of interactive updating of pointer records. Currently updates are processed in batches. We will also be working with the air carriers, FAA, and states to resolve an issue related to state processing of pilot applicants not licensed by the inquiring state. By far the most pressing and immediate challenge is the testing and validation, through interaction with the states, of the system modifications made to assure that the system will not be affected by the year 2000.

Question. How have the data that are received by the NDR been improved? How are further improvements reflected in the fiscal year 1999 budget request?

Answer. As all states, except the District of Columbia, have converted to the Problem Driver Pointer System (PDPS) the license status and conviction data are as accurate as possible because under PDPS the inquiring state receives the substantive data directly from the state that created the NDR pointer. In addition, states are encouraged to submit "clean files" on a periodic basis to update and delete their NDR pointers.

Fiscal year 1999 funds will be used to operate the PDPS Help Desk that assists states in resolving problems, tests changes to state systems, and defines issues that need to be addressed (e.g. age of offenses, non-safety related suspensions on the NDR, etc.) by the licensing community. In addition, system changes will be made to increase the age range of drivers allowed on the system to 10 to 110 years of age (currently 13 to 100). The NDR will also consider programming changes that will allow the state to immediately add, delete, or make changes to pointers. Currently, changes are batched and processed daily .

Question. Please provide an update on the PDPS. What has NHTSA done to encourage all States to use that system? How many states are actively using that system?

Answer. In 1997, the NDR processed 34.9 million inquiries, an increase of 3 million more than in 1996, and 9 million more than in 1993, the last year all states participated in the old NDR system. In 1997, the NDR processed 29.5 million interactive (on-line/immediate) inquiries, an increase of 2.8 million more than in 1996, and 18 million more than were processed in 1993.

NHTSA provided grants to assist states in the conversion to the Problem Driver Pointer System (PDPS). In addition, a Help Desk with a staff of qualified personnel was funded to provide on-site and testing assistance to the states. The agency has also jointly sponsored, with the American Association of Motor Vehicle Administrators, users meetings to provide state personnel a forum to share experiences and discuss issues related to the PDPS.

All states, except the District of Columbia, have converted to the Problem Driver Pointer System (PDPS). All states, including the District of Columbia, actively use the NDR. A conversion program is used to facilitate the exchange driver status information between the non-PDPS state (DC) and the states. We are working with the District of Columbia to determine an accurate date for their conversion to PDPS. They will not meet their current target conversion date of May 15, 1998.

Question. How many States are not able to use PDPS. How is NHTSA assisting these states and how is it reflected in the fiscal year 1999 and fiscal year 1998 budgets?

Answer. The District of Columbia (DC) is the only state that has not converted to PDPS. However, through a NDR conversion program DC and the other states are able to exchange driver status information through the NDR. The District still has NHTSA grant money to assist in their conversion to PDPS. In addition, help desk staff are available to assist in the programming changes necessary to make the conversion to PDPS. Help desk staff will also assist the District of Columbia during testing to correct problems the state encounters. Because we expect the District to complete its conversion to PDPS prior to September 30, 1998, we do not expect to expend any fiscal year 1999 funds on this effort.

HIGHWAY SAFETY DATA SYSTEMS AND TRAFFIC RECORDS GRANT PROGRAM

Question. Why is there no fiscal year 1999 request for grants in this area as proposed by both the House and Senate reauthorization bills?

Answer. The Administration did not request funding for the new data incentive grant program in its fiscal year 1999 budget request, even though the program was included in the NEXTEA reauthorization proposal. NHTSA has been working in cooperation with FHWA and state and local partners to develop a core set of crash data elements which was requested by local, state and Federal traffic safety organizations. This model data set was not scheduled for completion until the middle of fiscal year 1999. Since NHTSA believed this model was needed in order to initiate the new incentive grant program, the agency planned to complete the model data set, and then develop guidance for the new grant program incorporating the data set during fiscal year 1999. Similarly, the House reauthorization bill has required that the Secretary determine the model data elements and that States must incorporate them in their plans under the data incentive grant program.

Question. How will NHTSA help the States in this area?

Answer. NHTSA will continue to offer support to states and communities for data improvement programs through a variety of technical assistance activities, including provision of traffic records assessments, peer-to-peer support for states interested in implementing the CODES program, and training programs on use of traffic records for traffic safety manager. Currently, data analysis and evaluation technical assistance is offered to the states and communities through each Regional offices. This effort will enable states to analyze their data to define meaningful goals and performance measures; target their programs to meet identified highway safety needs, including traffic records needs; and measure program impact. In addition, Regional staff will provide assistance to states in understanding and meeting the criteria for the new data incentive grants as soon as they are finalized.

SECTION 402

Question. Why is it necessary to increase funds for Grant Administration?

Answer. NHTSA has requested a 3 percent increase in Grant Administration funds, from $5.268 thousand in fiscal year 1998 to $5.434 thousand in fiscal year 1999, to cover cost-of-living increases in salaries and other costs of administering this grant program. NHTSA has only requested 3.3 percent of the total Section 402 request ($166.7 million) although permitted by law to request up to 5 percent of the Section 402 funding level for grant administration purposes.

DRUGGED DRIVING GRANT PROGRAM

Question. How many States do you expect to qualify for this grant program?

Answer. The proposed Drugged Driving Incentive Grant program would provide a state with a grant for drugged driving countermeasures provided that the state meets at least five of the following nine criteria: (1) has a zero tolerance driving law for illicit drugs; (2) has a drug impaired driving law that applies to any drug or substance, whether licit or illicit; (3) has a law mandating chemical testing for drugs of drivers in fatal or serious injury crashes when an officer has probable cause to believe the driver has committed a drug- or substance-related traffic offense; (4) has a system for administrative driver's license suspension or revocation for persons who drive under the influence of a drug or substance; (5) has a law requiring at least six months suspension or revocation of the driver's licenses of persons convicted of drug offenses, not necessarily connected with driving; (6) has a graduated licensing system for young drivers that includes drug use and drugged driving provisions; (7) provides for active enforcement and publicity of drugged driving laws; (8) has a system of drug intervention, providing for assessment and referral to treatment of persons who have been driving under the influence of a drug or controlled substance;

(9) has an effective educational program providing drug information to license applicants and renewals, and including drug-related questions on the driver's license examination. The agency estimates that 20 states would qualify for grants during the first year. The table below shows all states that the agency believes currently meet at least 5 of the 9 criteria, and indicates which criteria each state meets.

State	Criteria								
	#1	#2	#3	#4	#5	#6	#7	#8	#9
CO (6)	.....	X	X	X	.....	.....	X	X	X
CT (5)	X	X	.....	X	.....	.....	X	X	.....
DE (5)	.....	X	.....	X	X	.....	.....	X	X
DC (5)	.....	X	.....	X	X	.....	X	X	.....
FL (5)	.....	X	.....	.....	X	X	X	X	.....
IL (6)	X	X	X	X	.....	.....	X	X	.....
IA (5)	.....	X	X	.....	X	.....	X	X	.....
LA (5)	X	X	.....	.....	.....	X	X	X	.....
MD (5)	.....	X	X	.....	.....	X	X	X	.....
MN (6)	X	X	X	.....	.....	.....	X	X	X
MO (6)	.....	X	X	X	.....	.....	X	X	X
MT (5)	.....	X	.....	X	.....	.....	X	X	X
NV (5)	X	X	X	X	.....	.....	X	.....	.....
NC (5)	X	X	.....	.....	.....	X	X	X	.....
ND (6)	.....	X	X	X	.....	.....	X	X	X
OK (6)	.....	X	X	X	X	.....	X	X	.....
PA (6)	.....	X	X	.....	X	.....	X	X	X
TN (6)	X	X	X	.....	.....	.....	X	X	X
TX (5)	.....	X	X	.....	X	.....	X	.....	X
UT (7)	X	X	.....	X	.....	X	X	X	X
VA (6)	.....	X	X	.....	X	.....	X	X	X
WV (6)	.....	X	.....	X	.....	X	X	X	X

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

RSPA BILL LANGUAGE

Question. On page 13 of your fiscal year 1999 budget submission, the suggested bill language says that $574,000 shall be derived from the Pipeline Safety Fund for expenses necessary to discharge the functions of RSPA. What functions are supported by the $574,000 derived from the Pipeline Safety Fund?

Answer. The $574,000 requested in the Research and Special Programs appropriations bill language represents funding to support administrative functions provided by federal employees (7 FTE) within Program Support offices, particularly the Office of Chief Counsel. All offices within Program Support work with the Office of Pipeline Safety to provide administrative functions which enhance the nation's safety.

Question. What fees are represented by the "up to $1,200,000 in fees collected under 49 U.S.C. 5108(g)"? Why is $1,200,000 the appropriate amount to deposit in the General Treasury as offsetting receipts?

Answer. When the Emergency Preparedness Grants program was authorized, Congress determined that a grants program portion (currently $250 of the total $300 fee required) and a registration processing portion (currently $50 of the total $300 fee required) should be collected as registration fees. The registration processing fee is the $1,200,000 stated in the appropriation's language. The amount has offset part of RSP's General Fund appropriation for funds required to process the registration statements, including the establishment and maintenance of a registration system of certain shippers and carriers of hazardous materials.

The contract program level for establishing such a registration system initially required an appropriation of $1,200,000. In fiscal year 1999, contract funding alone in the amount of $750,000 is required to maintain the existing registration database. That amount does not include federal labor costs and administrative expenses. We plan to make any adjustments necessary to the processing fee when we increase collections for the grants program fee through rulemaking.

Question. What activities comprise the 3-year availability portion of the Research and Special Programs request ($3,460,000)? What activities comprised the 3-year availability amount in fiscal year 1998 ($4,950,000)? Why is the fiscal year 1998 figure higher, when the appropriation was lower than the funding level requested for fiscal year 1999?

Answer. The 3-year funding level of the Research and Special Programs (RSP) request ($3,460,000) represents all R&D contract funds requested in the RSP appropriation, as confirmed by RSPA's fiscal year 1999 Budget Request on page 12.

The 3-year funding level in fiscal year 1998 ($4,950,000) provides funding for the $3,100,000 enacted by Congress for all RSP R&D contract programs, as confirmed by RSPA's fiscal year 1999 Budget Request on page 12. The remaining $1,850,000 was not specified by Congress, and, since the expected amount of 1-year funds was not made available, we used 3-year funds to cover the enacted level of our operating expenses. RSPA's use of 3-year funds for operating expenses is atypical and has caused significant difficulties for financial management and has increased our workload with a need to establish and track such obligations.

RSPA's 3-year enacted funds were higher in fiscal year 1998, even though the appropriation was lower than the requested funds for fiscal year 1999, because in fiscal year 1998, the amount of 3-year funds enacted was greater than, and the amount of 1-year funds enacted was less than what RSP required by $1,850,000. The same situation occurred in the fiscal year 1997 RSP appropriation.

OFFICE OF HAZARDOUS MATERIALS SAFETY

Question. The only change between the fiscal year 1999 budget request for OHMS and the fiscal year 1998 enacted level is an increase of $521,000 in personnel compensation and benefits. What is the rationale for this allocation? Is the current services program so effective that no change is needed?

Answer. We believe the fiscal year 1999 budget request is sufficient to carry out an effective program to ensure the safe transportation of hazardous materials.

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the different categories and sub-components of the Hazardous Materials Safety budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. The following table shows the appropriated & actual amounts obligated for the major categories and sub-components of the Hazardous Materials Safety budget for each of the last three years.

FISCAL YEAR 1996

	Appropriated	Obligations
Program funds:		
Information Systems	$950,000	$950,000
Research & Analysis	256,000	256,000
Rulemaking Support	365,000	365,000
Inspection & Enforcement	180,000	180,000
Registration	750,000	750,000
HAZMAT Training	350,000	350,000
Information Dissemination	170,000	170,000
Emergency Preparedness	370,000	370,000
International Standards	140,000	140,000
R&D:		
Information Systems	300,000	300,000
Regulation Compliance	386,000	[1] 425,000
Research & Analysis	699,000	[1] 628,000

[1] Obligations may include carryover funding from prior years.

FISCAL YEAR 1997

	Appropriated	Obligations
Program funds:		
Information Systems	$1,075,000	$1,075,000
Research & Analysis	565,000	565,000
Rulemaking Support	382,000	383,000
Inspection & Enforcement	260,000	260,000
Registration	750,000	750,000
HAZMAT Training	475,000	475,000
Information Dissemination	485,000	485,000
Emergency Preparedness	370,000	370,000
International Standards	80,000	80,000
R&D:		
Information Systems	300,000	300,000
Regulation Compliance	236,000	[1] 531,000
Research & Analysis	464,000	358,000

[1] Obligations may include carryover funding from prior years.

FISCAL YEAR 1998

	Appropriated	Obligations [1]
Program funds:		
Information Systems	$1,075,000	$1,075,000
Research & Analysis	531,000	531,000
Rulemaking Support	282,000	282,000
Inspection & Enforcement	155,000	155,000
Registration	750,000	750,000
HAZMAT Training	475,000	475,000

FISCAL YEAR 1998—Continued

	Appropriated	Obligations [1]
Information Dissemination	520,000	520,000
Emergency Preparedness	370,000	370,000
International Standards	40,000	40,000
R&D:		
Information Systems	300,000	300,000
Regulation Compliance	236,000	150,000
Research & Analysis	464,000	430,000

[1] Projected to end of fiscal year.

Question. Please identify the amount and nature of any reprogramming that occurred during the last two years.

Answer. We have not reprogrammed funding in fiscal year 1997, and do not anticipate reprogramming funding in fiscal year 1998. Minor transfers occurred in fiscal year 1997 and fiscal year 1998 between object classes within operating expenses only, to meet changing priorities.

Question. What is the status of the reauthorization for RSPA's hazardous materials safety program? Has the administration submitted proposed reauthorizing legislation? What is the current status of the legislation in the House and Senate authorizing committees? What issues have generated the most discussion, controversy, or hearing questions in the reauthorization process?

Answer. We are waiting for Congress to take final action on reauthorization for RSPA's hazardous materials safety program. We anticipate that reauthorization of the hazardous materials safety program may be discussed during meetings of the conference committee on the Senate and House transportation bills.

On April 17, 1997, the Department of Transportation (DOT) transmitted to Congress, the ''Surface Transportation Act of 1997'' for inclusion as part of the National Economic Crossroads Transportation Safety Efficiency Act of 1997 (NEXTEA). Title X of DOT's proposal included provisions to strengthen our hazardous materials safety program as highlighted in the attached one-page fact sheet. In brief, we asked Congress to clarify DOT's inspection authority to open suspicious packages, take and analyze samples of materials and bar their transport if they pose a threat. We also asked that our oversight be extended to overseas shipments of U.S. air carriers. Finally, we asked for tougher penalties for those who tamper with hazardous materials labels and cause spills and other releases.

On March 12, 1998, the Senate completed action on S–1173, the Intermodal Surface Transportation Act of 1997 (ISTEA II), which largely contained the Department's hazardous materials reauthorization proposal as provided. The House passed H.R. 2400, the Building Efficient Surface Transportation and Equity Act (BESTEA), on April 1, 1998, reauthorizing federal transportation programs but it did not include a provision to reauthorize our hazardous materials safety program.

An issue that has been raised is an industry concern related to the potential impact of one of our proposed inspection provisions—to clarify DOT's enforcement authority to open packages in transportation, to take and analyze samples of materials, and prevent transportation when an imminent hazard may exist.

NTSB RECOMMENDATIONS

Question. Please provide a detailed list of the hazmat recommendations made by the NTSB during the last three fiscal years. Also provide a status update for each recommendation that has been closed acceptable or closed unacceptable, and those that remain open. How were each of these addressed, and by which agency?

Answer. In the last three years (1995, 1996, and 1997) NTSB made 5 safety recommendations to RSPA involving the transportation of hazardous materials. They were R–95–11, Periodic Inspections of Tank Car Linings and Coatings; H–95–37, Improve Crashworthiness of the Front Ends of Cargo Tanks; A–96–29 Chemical Oxygen Generators as Cargo on Aircraft; A–96–30, Oxidizers and Oxidizing Materials in Air Cargo Compartments; and A–97–78, Availability to Inspectors of Previously Issued Approvals by the Bureau of Explosives Transferred to RSPA.

These Recommendations are summarized below:

R–95–11

In R–95–11, NTSB recommended that RSPA, in cooperation with the FRA, require that any party using a tank car to transport corrosive materials determine the

periodic inspection interval and testing technique for linings and coatings, and require that this information be provided to the parties responsible for the inspection and testing of tank cars. A final rule under Dockets HM–175A and HM–201, issued on June 26, 1996, requires the owner of a tank car lining or coating to inform the inspection parties of the interval, test techniques, and acceptance criteria required to test the tank car integrity. This recommendation was classified as "Closed-Acceptable Action" by NTSB on February 10, 1997.

H–95–37

In H–95–37, NTSB recommended that RSPA, in cooperation with FHWA, study methods and develop standards to improve the crashworthiness of the front ends of cargo tanks used to transport liquefied flammable gases and potentially lethal nonflammable compressed gases. In response to NTSB Recommendation H–95–37, on July 15, 1996, RSPA contracted with Pressure Sciences Incorporated, Pittsburgh, Pennsylvania to conduct a feasibility study on means to enhance protection for MC–331 cargo tanks in frontal collisions. Methods of improving crashworthiness of front heads on MC–331 cargo tanks were suggested and appropriate standards for design and construction were identified. The study found that head shields backed by energy absorbing materials offer the greatest impact performance and cost effectiveness potential. In fiscal year 1998, RSPA initiated a follow-on study to include a parametric analysis of head shield and energy absorbing materials. This study will provide more comprehensive research and is designed to identify the extent of protection which maximizes safety while minimizing costs. RSPA expects the follow-on study will be completed by mid 1999. After RSPA and FHWA evaluate the results of the studies, we will initiate rulemaking or other appropriate actions, if warranted, to improve the crashworthiness of front heads of MC–331 cargo tanks which transport liquefied flammable gases and potentially lethal nonflammable gases.

A–96–29 and A–96–30

As a result of the ValuJet aviation accident on May 11, 1996, NTSB issued two safety recommendations to RSPA (A–96–29 and A–96–30). In A–96–29, NTSB recommended that RSPA, in cooperation with FAA, permanently prohibit the transportation of chemical oxygen generators as cargo on board any passenger or cargo aircraft when the generators have passed expiration dates and the chemical cores have not been depleted. A Final Rule was published on December 30, 1996, prohibiting the transportation of all oxygen generators as cargo on passenger carrying aircraft. This prohibition is broader than NTSB's recommendation. In A–96–30, NTSB recommended that RSPA, in cooperation with FAA, prohibit the transportation of oxidizers and oxidizing materials in cargo compartments that do not have fire or smoke detection systems. A Notice of Proposed Rulemaking was published on December 30, 1996, which permits air transportation of oxidizers only in accessible locations on cargo aircraft. Further, under a Final Rule published on June 5, 1997 and effective July 7, if the oxygen generator is attached to any type of initiation mechanism its transportation must be specifically approved by RSPA's Associate Administrator for Hazardous Materials Safety and the generator must be transported in a package prepared by the holder of the approval. A Supplemental Notice of Proposed Rulemaking was issued on August 20, 1997 specifically to analyze the prohibition of oxidizers in other than Class D cargo compartments with the comment period ending October 20, 1997. On November 28, 1997 a Notice of a Public Meeting and Reopening of the Comment Period was published and the comment period was extended to February 13, 1998. Comments are being evaluated and will be incorporated into a Final Rule in fiscal year 1998.

A–97–78

In A–97–78, NTSB recommended that RSPA develop records for all approvals previously issued by the Bureau of Explosives and transferred to RSPA and ensure all records, including designs and testing, and packaging requirements, are available to inspectors to help them determine that products transported under those approvals are transported safely and in accordance with the requirements of the approvals. RSPA agreed with NTSB and on September 24, 1997 RSPA published a Notice of Proposed Rulemaking, HM–166Y, which proposed to terminate most remaining Bureau of Explosives (BOE) approvals. Any person holding a BOE approval affected by the termination would be required to file a request for a new approval. This action will ensure that RSPA has all records on file for verification when a question is raised as to whether a particular explosive is being offered in conformance with the approval authorizing its transportation. NTSB subsequently classified Safety Recommendation A–97–78 as "Open-Acceptable Response."

In the last three years (1995, 1996 and 1997) NTSB has closed eight safety recommendations addressed to RSPA, while twenty four remain open.

RECOMMENDATIONS CLOSED ACCEPTABLE OR CLOSED ACCEPTABLE ALTERNATE ACTION

Number	Date closed	Subject
H–91–034	November 8, 1996	RSPA require all fittings and devices mounted on a manhole cover of cargo tanks meet the same performance standard to withstand static internal fluid pressure as that required for the manhole cover. ''Closed-Acceptable''
I–90–005	July 28, 1995	RSPA require all manufacturers of DOT specification containers that were not tested and inspected in accordance with regulatory requirements, and all that were properly tested but that failed to meet regulatory requirements, to retest randomly selected containers from each lot of these identified containers in accordance with DOT regulatory procedures; and to notify the owners of containers in lots that fail the tests to remove DOT specification markings. ''Closed-Acceptable Alternate Action''
I–90–006	July 28, 1995	RSPA modify its compliance program to determine that containers are removed from transportation when those containers are identified as not meeting specification requirements. ''Closed-Acceptable Alternate Action''
R–89–80	November 26, 1996	RSPA evaluate present safety standards for tank cars transporting hazardous materials by using safety analysis methods to identify unacceptable levels of risk and the degree of risk from the release of a hazardous material, and then modify existing regulations to achieve an acceptable level of safety for each product/tank car combination. ''Closed-Acceptable''
R–95–011	February 10, 1997	DOT and FRA determine periodic inspection interval and testing techniques for rail tank car linings and coatings, and provide them to parties responsible for inspection and testing of tank cars. ''Closed-Acceptable''

RECOMMENDATIONS (CLOSED-UNACCEPTABLE)

Number	Date closed	Subject
H–85–34	December 12, 1995	RSPA amend Federal Motor Carrier Safety Regulation 397.9 to eliminate ambiguities in routing requirements of HazMat vehicles on the highway. ''Closed-Un-Acceptable''
I–85–07	March 28, 1996	DOT and EPA develop and distribute to hazardous waste shippers (generators) information regarding shipper responsibilities under the Hazardous Materials Transportation Act when shipping hazardous waste. ''Closed-UnAcceptable''
I–90–11	October 4, 1995	RSPA develop and implement requirements for improving the visibility and effectiveness of HM placards, considering the orientation of vehicles after accidents. ''Closed-UnAcceptable''

Recommendations Open:

The Office of Hazardous Materials Safety has 24 open NTSB recommendations. RSPA, and the modal administrations, if warranted, is pursuing appropriate action to address each of the recommendations. The disposition and status of these recommendations are summarized in the following table:

	Recommendation	OHMS action	Status
A–96–29	Prohibit oxygen generators as cargo on passenger aircraft	Addressed in Docket HM–224 rulemaking	Open Acceptable Action.
A–96–30	Prohibit the air transportation of oxidizers and oxidizing materials.	Docket HM–224A rulemaking to address	Open Acceptable Action.
A–97–78	Develop records for all approvals issued by the Bureau of Explosives transferred to RSPA and ensure all records, including designs and testing, and packaging requirements, are available to inspectors.	Letter sent to NTSB 09/26/97. Docket HM–166Y rulemaking to address.	Open Acceptable Action.
H–90–91	RSPA require controls for internal shut-off valves to be installed at remote locations on all newly constructed and currently authorized DOT specification cargo tanks used for transport of HM.	Docket HM–183C, published in November 1994, required that controls for internal shut-off valves for the discharge system be installed at remote locations on all newly constructed authorized DOT specification cargo tanks used to transport HM. Retrofitting will be addressed in Docket HM–225A rulemaking.	Open UnAcceptable Action.
H–92–1	RSPA provide cargo tank manufacturers specific written guidance about cargo tank rollover devices and acceptable means to shield and protect top-mounted closure fittings on all bulk liquid cargo tanks.	FHWA Report ''Cargo Tank Guidance'' was developed and disseminated to cargo tank manufacturers which addresses the requirements in H–92–1. RSPA will request ''Closed-Acceptable Action''.	Open Acceptable Action.
H–92–2	RSPA assist FHWA in evaluating design of rollover protection devices installed on all cargo tanks manufactured by Acro Trailer Company and by New Progress, Inc., for compliance with DOT standards.	FHWA, in cooperation with RSPA, has contracted with the University of Michigan to conduct a rollover damage study. Expected completion date July 1998. Research is on-going.	Open Acceptable Action.
H–92–3	RSPA assist FHWA in improving performance of rollover protection devices on bulk liquid cargo tanks by modeling and analyzing the forces that can act upon rollover protection devices during a rollover accident.	See H–92–2	Open Acceptable Action.
H–92–4	RSPA assist FHWA in promulgating performance standards based on engineering modeling and analysis conducted in response to Safety Recommendation 92–003.	See H–92–2	Open Acceptable Action.
H–92–5	RSPA assist FHWA in phasing out from HM service the use of all cargo tanks that fail to meet new performance standards promulgated in response to Safety Recommendation 92–004.	See H–92–2	Open Acceptable Action.

H–92–6	RSPA implement, in cooperation with FHWA, a program to collect information identifying patterns of cargo tank equipment failures, including reporting of all accidents involving a DOT specification cargo tank.	ANPRM being developed and Recommendation H–92–6 will be included to obtain feedback and information with regard to updating and modifying the current Hazardous Materials Incident Report Form 5800.1, and enhancing RSPA's ability to monitor the integrity of packagings used to transport HM.	Open Acceptable Action.
H–93–34	RSPA require remote control mechanisms for internal shutoff valves be marked for emergency use on all cargo tanks authorized for the transportation of HM.	Docket HM–213 will address this recommendation	Open Acceptable Action.
H–95–14	RSPA revise inspection/testing requirements for all cargo tanks constructed of mild and high-strength, low-alloy steel that are used to transport HM to require at least once each year, or immediately when visual inspections indicate corrosion, measurement of the thickness of appurtenances (including ring stiffeners) that form air cavities adjacent to external cargo tank sheet material when the cargo tank sheet material cannot be visually inspected.	See H–93–34	Open Awaiting Response.
H–95–37	RSPA, in cooperation with FHWA, study methods and develop standards to improve the crash worthiness of front heads on cargo tanks used to transport liquefied flammable gases and potentially lethal nonflammable compressed gases.	RSPA, in cooperation with FHWA, contracted a feasibility study with Pressure Sciences, Inc. to address methods of improving crash worthiness of front heads on MC–331 cargo tanks. The study was sent to NTSB on 08/19/97. A further study including parametric analysis of head shield and energy absorbing materials is being conducted. Projected date for report fiscal year 1999.	Open Acceptable Action.
I–80–1	RSPA amend 49 CFR 174.25 to include a requirement that volume, in gallons, and the temperature at which the pressurized liquefied gases were loaded in tank cars be entered on bills of lading, waybills, and shipping orders.	RSPA & FRA reviewed guidance document developed by FRA & industry-Letter sent to NTSB 03/11/98 to request ''Closed-Acceptable Alternate Action''.	Open UnAcceptable Action.
I–90–8	RSPA require HM cargo to be secured in transportation with adequate restraint systems to prevent ejection of cargo from vehicles.	Docket HM–220 to address hazardous materials cargo specific to cylinders.	Open UnAcceptable Action.
I–90–9	RSPA require independent inspections of new and reconditioned low pressure cylinders that are consistent with the present independent inspection requirements for high pressure cylinders.	Docket HM–220 to address	Open UnAcceptable Action.

	Recommendation	OHMS action	Status
I–92–01	RSPA require attachments to all U.S. DOT authorized HM packagings be designed to minimize the risk of puncturing other HM packagings during an accident situation.	OHMS reviewed the recommendation and determined improvements were needed in the general requirements of Part 177. Rulemaking is pending.	Open Acceptable Action.
I–92–2	RSPA revise requirements for pressure-relief venting on U.S. DOT specification 57 portable tanks used to transport dicumyl peroxide and other products with similar rapid decomposition characteristics to ensure the pressure relief systems prevent over pressure rupture of tanks from a rapid product decomposition reaction.	OHMS is cooperating with the Organic Peroxide Producers Association who are developing a method to determine minimum vent size for organic peroxides. Testing of three organic peroxides were performed at the Energetic Materials Research & Training Center at the New Mexico Technical Institute in February 1998. Also the UN has recently adopted an example of a test method for vent sizing. OHMS will review and consider these options. Research is on-going. Extensive testing is scheduled for May 1998.	Open Acceptable Action.
I–93–1	RSPA coordinate with the Compressed Gas Association, Inc.,(CGA) in amending pamphlet C–6, Standard for Visual Inspection of Compressed Gas Cylinders, to require the use of a thread gauge, such as an L9 or equivalent, to measure the interior section neck threads for acceptance or rejection during periodic examination of cylinders used to transport gases with corrosive properties.	OHMS met with CGA representatives and we are awaiting a draft revised pamphlet for review.	Open Acceptable Action.
I–93–2	RSPA prohibit the use of cylinders that do not meet the acceptance criteria for cylinder neck threads established in CGA pamphlet C–6.	Possible rulemaking activity is dependent on the outcome of I–93–1.	Open Acceptable Action.
R–89–52	RSPA establish procedures requiring carriers reporting HM incidents under 49 CFR Part 171.16 to notify shippers whose HM shipments are involved.	ANPRM being developed and Recommendation R–89–52 will be included to obtain feedback and information with regard to updating and modifying the current Hazardous Materials Incident Report Form 5800.1, and enhancing RSPA's ability to monitor the integrity of packagings used to transport HM.	Open UnAcceptable Action.
R–89–53	RSPA assist and cooperate with FRA in amending 49 CFR Part 179 to require closure fittings on HM rail tanks be designed to maintain their integrity in accidents typically survivable by rail tank.	RSPA and FRA, in cooperation with AAR, continue to establish design performance requirements for all closures and fittings to ensure the integrity of closures and fittings in accidents.	Open Acceptable Action.

R–89–83	RSPA develop procedures to update and correct, in a timely manner, errors in the Emergency Response Guidebook.	RSPA developed improved communication techniques to implement requirements in recommendation R–89–83. Letter sent to NTSB 01/16/98 requesting ''Closed Acceptable Alternate Action''.	Open UnAcceptable Action.
R–92–23	RSPA develop and promulgate, with FRA requirements for the periodic testing and inspection of rail tank cars that help to ensure the detection of cracks before they propagate to critical length by establishing inspection intervals based on the defect size detectable by the inspection method used, the stress level, and the crack propagation characteristics of the structural component (requirements based on a damage-tolerance approach).	RSPA, in cooperation with FRA published Docket HM–175A and HM–201 requiring each tank car facility to develop procedures for evaluating inspection and test techniques, sensitivity and reliability of the techniques and the minimum detectable crack length. FRA and industry are exploring methods for performing a reliability assessment of the tank car structure. Research is on-going. Letter sent to NTSB on 02/02/98 requesting recommendation remain ''Open Acceptable Action''.	Open Acceptable Action.

Question. What steps have been taken to fully comply with the staffing level that was approved the conferees in fiscal year 1998?

Answer. The Office of Hazardous Materials Safety (OHMS) and the Research and Special Programs Administration's (RSPA) personnel office worked closely together to recruit suitable candidates for all current and anticipated vacancies, and for new vacancies as they opened up. Since the beginning of fiscal year 1998, five employees have been hired, and we have selected four employees under the Welfare-to-Work program. Currently, OHMS is recruiting for five vacancies, two of which reflect recent departures from the agency, in order to reach the OHMS fiscal year 1998 FTE ceiling of 122.

Question. Please provide a table showing the authorized number of inspectors for each of the three fiscal years, and the number of inspectors on-board during those periods.

Answer. The following table shows the authorized number of inspectors and the actual number of inspectors on-board for the last three years.

Fiscal year	Authorized	On-board
1996	22	22
1997	37	36
1998	37	[1] 34

[1] On board as of April 22, 1998.

Question. For each of the key offices under the Associate Administrator for Hazardous Materials Safety (OHMS), please prepare a breakout of the number of personnel to each office for each for each of the last three fiscal years, the grade level, and number of current vacancies.

Answer. The following table summarizes the on-board staff count, grade levels, and current vacancies in OHMS for the last three years.

Office	Fiscal year 1996—as of 6/10/96		Fiscal year 1997—as of 6/4/97		Fiscal year 1998—as of 4/15/98	
	No. of FTP/VAC	Grade levels	No. of FTP/VAC	Grade levels	No. of FTP/VAC	Grade levels
Associate Admin. & Int'l Standards	8–0	2–SES	6–1	2–SES	6–1	2–SES
		2–15		1–15		1–15
		1–14		1–14		1–14
		1–13		1–13		1–13
		1–11		1–7		1–7
		1–6				
Standards	18–1	1–15	16–4	1–15	20–1	2–15
		3–14		3–14		5–14
		3–13		1–13		2–13
		7–12		4–12		4–12
		1–11		1–11		3–11
		2–7		3–9		3–7
		1–6		2–7		1–6
				1–6		
Technology	15–4	1–15	14–5	1–15	18–1	2–15
		4–14		4–14		3–14
		8–13		7–13		8–13
		1–7		1–7		2–12
		1–6		1–6		1–11
						1–7
						1–6

Office	Fiscal year 1996—as of 6/10/96		Fiscal year 1997—as of 6/4/97		Fiscal year 1998—as of 4/15/98	
	No. of FTP/VAC	Grade levels	No. of FTP/VAC	Grade levels	No. of FTP/VAC	Grade levels
Exemptions & Approvals	15–0	1–15	15–2	1–15	15–2	1–15
		1–14		1–14		1–14
		5–13		5–13		6–13
		4–12		4–12		3–12
		1–10		1–9		1–11
		1–8		2–7		1–9
		1–7		1–6		1–7
		1–6				1–6
Enforcement	23–1	1–15	29–10	1–15	35–3	1–15
		3–14		6–14		7–14
		4–13		6–13		5–13
		9–12		8–12		10–12
		4–11		6–11		10–11
		2–7		1–9		1–9
				1–7		1–7
Initiatives & Training	10–0	1–15	8–3	1–15	9–2	1–15
		2–14		1–14		2–14
		1–13		1–13		1–13
		4–12		4–12		4–12
		1–9		1–7		1–7
		1–7				
Planning & Analysis	14–2	2–15	14–2	2–15	14–2	2–15
		1–14		1–14		1–14
		5–13		5–13		5–13
		3–12		3–12		4–12
		1–11		1–11		1–7
		1–7		1–7		1–6
		1–6		1–6		
Totals	103–8	.....	101–28	.....	117–12	.....

RESEARCH AND ANALYSIS

Question. What technical advances have resulted from research sponsored during the last three fiscal years by the OHMS?

Answer. Most OHMS-sponsored research is focused on developing national and international safety standards, assessing rulemakings and exemptions, characterizing material hazards, analyzing risk, and developing information on hazardous materials transport. Research results in the technical basis to develop, assess, guide and support program activities. For example, in the past several years we have gained a better understanding of:

—Risk and safety factors affecting choice of mode and route for the transport of spent nuclear fuel.

—Flows of selected hazardous materials by highway.

—The quality of information obtained through Hazardous Materials Information System (HMIS) release reports, and the implications the report data have for targeting hazmat safety regulatory and enforcement resources.

—The ability of advanced communication technologies to improve emergency response at hazardous materials incident sites, as well as to help reduce costs and consequences of such incidents.

Technical advances were made in several other areas, generally resulting in improved regulations or other program measures that enhance overall hazmat safety. These other advances were achieved in areas that include:

—Research of health criteria, source characterization, and dispersion modeling as they relate to inhalation poisons risks and appropriate isolation and protective action distances. These advances were reflected in 1996 revisions to the North American Emergency Response Guidebook. Related research on toxic gases

caused by hazmat spills into rivers, ponds, etc. resulted in improved requirements for dealing with water reactive chemicals.

—Hazardous materials testing, including development of methods for evaluating deflagration-to-detonation (DDT) potential of energetic materials. Results are enabling RSPA to review critically the adequacy of current safety standards used in the authorization of the transport of energetic materials. They will also enable RSPA to incorporate alternative small scale tests and new criteria into future rulemakings. Evaluation of Self-accelerating Decomposition Temperature (SADT) test methods renewed confidence in current requirements and United Nation's recommendations. Similarly, research to evaluate equivalency of the UN's recently adopted solid oxidizer test with the existing United States test provided a basis for adopting a refined version of the UN protocol. Testing of dry cell batteries to help determine safety hazards they might pose in transportation will help OHMS evaluate requests by manufacturers and shippers to revise hazardous material transportation classification of dry cell batteries.

—OHMS research and development in the area of risk management, with particular regard to poisons and inhalation hazards, explosives, flammables, and materials in aircraft cargo departments, are enabling better application of risk management principles to hazardous materials transportation safety. A more systematic and explicit focus on risk management in the hazardous materials transportation program offers the opportunity to refine and strengthen how the program operates and how it can better accommodate international standards and regulations.

—OHMS research and analysis on carbon-fiber reinforced aluminum lined cylinders resulted in the conversion of defense and aerospace technologies to commercial use. This type of composite cylinder has a higher strength to weight ratio than fiberglass composite cylinders, making the carbon type attractive in markets such as breathing air for firefighting and emergency responders. A DOT-Carbon Fiber Full Composite document that resulted provides requirements for the design, manufacturing, and performance of these cylinders. This document, along with five related exemptions granted so far, provides the regulatory authorization being actively sought by a quickly emerging industry.

Question. Please describe how each component of your research request relates to pending or future rulemakings.

Answer. The Office of Hazardous Materials Safety's (OHMS) Research and Development (R&D) Program provides the technical and analytical foundation necessary to support the hazardous materials program. The R&D Program is composed of three activity areas: Information Systems, Research and Analysis, and Regulations Compliance. The information, technical and analytical analyses, and data produced by the R&D Program support national and international standards development, exemptions, information dissemination, training, emergency response guidance, compliance, and the development of program strategies and their implementation.

The three activity areas of the R&D Program support pending and future rulemaking in the following ways:

—The Information Systems Activity Area directly supports studies, software development, and maintenance to facilitate the analysis and use, by Federal, State, and public users, of information collected in the Hazardous Materials Information System (HMIS). OHMS uses HMIS data to support its mission activities; develop regulations; issue exemptions, approvals, and interpretations; and promote compliance with safety regulations. Information derived by analysis of hazardous materials spill incident data in the HMIS is used to determine the need for and justify rulemakings. Incident data are used in risk and benefit/cost analyses by Federal, State and public analysts to support rulemaking proposals and comments.

—The Research Analysis Activity Area directly supports rulemaking and is used to assess the need for new regulations and the effectiveness of current regulations, and to perform studies mandated by Congress. The knowledge gained is essential to understanding risks associated with hazardous materials transportation and to develop regulations that minimize both public safety risks and compliance burdens on industry, while allowing maximum operational flexibility and enhancing our global competitiveness.

—The Regulations Compliance (Testing) Activity Area provides for compliance testing of Packagings used to transport hazardous materials. Packaging performance is critical to the safe transportation of hazardous materials. This work provides an assessment of the level of compliance with packaging specifications and performance standards. It also identifies sections of packaging specifications and performance standards where rulemaking revisions could improve compliance.

A number of current and pending rulemakings will be influenced by research and analysis in the following areas:

—Cylinder testing and research into new types of non-destructive testing has been and will continue to be essential in rulemaking for cylinder consolidation (HM–220). Such non-destructive testing technology provides better evaluations of cylinder safety and cost savings.

—Classification testing in support of international standardization activities that will facilitate harmonization with US requirements.

—Research related to the North American Emergency Response Guidebook or for the National Advisory Committee for Developing Acute Exposure Guideline Levels could result in material classification, packaging, or operational changes.

—Research on impact and fire resistance performance standards for cargo tanks may result in changes in vehicle requirements.

—Studies of radiation doses received by employees and the public in the transportation of radioactive materials will provide the basis for procedures and plans for improved safety through the rulemaking process.

Question. How much money did OHMS allocate for Operation Respond in fiscal year 1997? How much is planned for fiscal year 1998 and fiscal year 1999?

Answer. No OHMS funding was allocated for Operation Respond in fiscal year 1997, nor has any been allocated for Operation Respond activities in fiscal year 1998 or fiscal year 1999. RSPA has identified Operation Respond Institute's computer software and training courses as eligible uses of grant funds made available annually to the Department's Hazardous Materials Emergency Planning (HMEP) grant recipients.

Question. Is DOT developing a coordinated approach to funding Operation Respond? Please comment on other agencies' support, and display the total coordinated fiscal year 1999 request for the program.

Answer. FRA, FHWA, and RSPA have taken a coordinated approach to Operation Respond. With the transition of Operation Respond from its developmental and demonstration phase to an independently operated foundation, the Operating Administrations continue to evaluate the extent of their prior support and the potential for further direct support of Operation Respond activities. At this time, it is our understanding that FRA is requesting $103,000 for Operation Respond in the fiscal year 1999 budget. Neither FHWA nor RSPA have included funds for Operation Respond in their fiscal year 1999 budgets. RSPA has identified Operation Respond Institute's computer software and training courses as eligible uses of grant funds made available annually to the Department's Hazardous Materials Emergency Planning grant recipients.

INSPECTION AND ENFORCEMENT PROGRAM

Question. In fiscal year 1997, $1,339,600 in penalties were assessed. Were these funds collected? What happens to monies collected in penalties by the Office of Hazardous Materials?

Answer. The corrected total for 1997 assessments is $1,341,329. The amount which was collected in 1997 was $1,341,329. The penalties which RSPA collects are placed in the general fund at the U.S. Treasury.

Question. Please present detailed data for the last three years on the number of hazmat inspectors on board.

Answer. The following table shows the authorized number of inspectors and the actual number of inspectors on-board for the last three years:

Fiscal year	Authorized	On-board
1996	22	22
1997	37	36
1998	37	[1] 34

[1] On board as of April 22, 1998.

Question. Please describe how OHMS measures productivity. Include average number of enforcement cases, warnings issued, amounts of civil penalties assessed, and the amounts collected. Please evaluate these data on a per inspector or similar normalized basis.

Answer. The following table provides the requested information:

	1995	1996 [1]	1997
Cases Initiated	246	239	192
Tickets Initiated	.....	84	171
Cases Closed	189	189	200
Tickets Closed	.....	62	145
Case Penalties Collected	$1,047,842	$900,418	$1,164,154
Ticket Penalties Collected	.....	$70,725	$177,175
Total Penalties Collected	$1,047,842	$971,143	$1,341,329
Warning Letters	168	166	249
Work Years of Effort	18.0	19.75	28.0
Cases Initiated/Work-Year	13.7	12.1	6.9
Cases Closed/Work-Year	10.5	9.6	7.1
Penalties	$58,213	$45,693	$41,577
Warning Letters/Work-Year	9.3	8.4	8.9
Tickets Issued/Work-Year	.....	.....	6.1
Tickets Close/Work-Year	.....	.....	5.2
Ticket Penalties/Work-Year	.....	.....	$6,328

[1] Tickets are not included in the per-work-year statistics because the first activity did not occur until June 1996.

Question. Please calculate the average settlement percentage [amount of civil penalties collected for valid claims divided by the amount of civil penalties originally assessed for valid claims] for these hazmat cases. Please provide compatible data to that provided last year.

Answer. The following table provides the requested information:

	1995	1996 [1]	1997 [1]
Penalties Proposed	$1,540,391	$1,358,225	$1,608,095
Penalties Collected	$1,047,842	$900,418	$1,164,154
Percentage Collected	68	66	72

[1] Does not include tickets.

Question. As evidenced by OHMS inspections, what is the overall level of compliance with the Hazardous Materials Regulations? What innovative or new strategies are you using to improve your impact on compliance?

Answer. RSPA can continue to report that a majority of its inspections have found no violations of the regulations, although it is difficult to determine a precise rate of compliance (or noncompliance) for any given year. This is due in part to the fact that enforcement actions initiated in a given year may be based on inspections conducted in the previous year. Also, many inspections are initiated on the basis of prior allegations of non-compliance and thus are not an unbiased sample of the regulated community. An approximate measure can be derived, however, from the total number of inspections, cases and workload processed. For example, from 1993 through 1997, RSPA conducted 5,922 inspections, and initiated 1,184 civil penalty cases and issued 850 warning letters based on those inspections. Using the previously mentioned simplistic method, this would equate to a 34 percent rate of noncompliance for that five-year period.

With the training of the last of the inspectors hired in fiscal year 1997 by the end of fiscal year 1998, RSPA is increasing the number of compliance inspections conducted, particularly inspections of shippers. RSPA's regional hazardous materials offices also have an important mission to provide technical assistance and training to State and local enforcement and response personnel, and industry and the public through presentations, seminars, and workshops. The additional inspector resources will allow these offices to perform more of these activities to improve compliance. In fiscal year 1998, we are working with our State partners to better target both enforcement and informational efforts to maximize compliance with HM–200. RSPA is working with the Cooperative Hazardous Materials Enforcement Development's (COHMED) Research, Feedback and Evaluation Committee to identify and evaluate compliance with the Hazardous Materials Regulations using State Enforcement Personnel. This initiative will provide data necessary for developing future training and outreach materials directly targeted at areas of noncompliance. RSPA hosted outreach meetings in the States of Nebraska, Texas, Georgia, and Washington to advise participants of the new intrastate regulations and how those regulations will affect

the hazardous materials transportation industry. We are also working with FHWA to develop an electronic intrastate database which will be used by FHWA to develop an enforcement strategy and to determine the effectiveness of HM–200 in contributing to a reduction in highway-related incidents involving the intrastate transportation of hazardous materials.

Also, as part of our efforts to improve compliance, RSPA implemented an interagency agreement with the Department of Defense for package testing. Package testing is on-going. RSPA is continuing its limited materials testing program to determine if shippers are properly classifying the hazardous materials they are offering for transportation.

Finally, RSPA has strengthened the Hazardous Materials Information Center which assists shippers, carriers, packaging manufacturers, enforcement personnel, and others in their understanding of requirements in the Hazardous Materials Regulations for the purpose of maximizing voluntary compliance. In addition, the Center staffs the statutory mandated toll-free number for transporters of hazardous materials, and others, to report possible violations of the HMR or any order or regulation issued under Federal hazardous materials transportation law.

Question. Please provide a detailed explanation on how compliance will increase, or decrease with the implementation of HM–200. How will this affect the RSPA workload?

Answer. The majority of companies who will be subject to the Hazardous Materials Regulations when HM–200 is implemented will be small companies who lack detailed knowledge about the regulations. RSPA does not expect the workload to increase under HM–200. RSPA's inspection workload is based on inspectors performing a specified number of weeks of inspection travel per year. RSPA plans to take steps to increase awareness of the Hazardous Materials Regulations through additional training and outreach activities. Over 500,000 copies of HM–200 "Intrastate Transportation" brochures were distributed through FHWA, the Chemical Education Foundation (CEF), the Cooperative Hazardous Materials Enforcement Development (COHMED) and through direct mailings to Federal, State and local governments, industry associations and private sector organizations. These informational brochures on HM–200 provide emphasis on agricultural operations, materials of trade exceptions, and regulatory requirements. Over 300,000 copies of RSPA's Safety Alert, which highlights five Federal Register publications, including HM–200, were distributed to targeted audiences through COHMED, CEF and direct mailings. RSPA will continue to work with Farm Bureau News, published weekly by the American Farm Bureau Federation, in reprinting and distributing HM–200 information to its membership of over 4.5 million farm families through 2,700 Farm Bureaus in 50 states. The National Association of State Departments of Agriculture has also agreed to reprint and distribute the information in its newsletter. RSPA will also initiate a partnership with the Commercial Vehicle Safety Alliance's Public Affairs Outreach Strategy Team to prepare and implement an information outreach plan that will target shippers and carriers now subject to HM–200 and law enforcement transportation officials at Federal, State, and local governments to promote compliance and improve highway safety by ensuring the quality and uniformity of roadside inspections and other enforcement activities.

Question. What will be the associated costs to the hazmat industry for intrastate carriers and shippers to come into compliance with this new provision?

Answer. The final regulatory evaluation prepared in support of Docket HM–200, Hazardous Materials in Intrastate Commerce, estimated increased annual costs in the amount of $612,050 associated with required revisions to shipping papers, training, marking and placarding of motor vehicles, preparation of hazardous materials incident reports, and maintenance of emergency response telephone numbers. In addition, operators of approximately 10,000 non-specification cargo tank motor vehicles are expected to incur additional costs of approximately $1,080,000 per year ($108 per cargo tank) for required inspections and testing.

Question. How does the Office of Hazardous Materials prioritize and select hazmat shippers and manufacturers for inspections?

Answer. RSPA targets shippers of high risk hazardous materials, such as explosives and materials highly toxic by inhalation, and reviews hazardous materials incident reports to identify shippers frequently mentioned in incident reports filed by carriers. Since fiscal year 1997, RSPA has been placing extra emphasis on inspecting shippers who offer hazardous materials for air transportation. We give priority to complaints and to re-inspections of companies previously subject to penalty actions. We follow-up on leads developed during inspections, particularly in regard to new shippers that have not been previously inspected. We continue to prioritize our selection of hazmat packaging manufacturers and re-conditioners for inspection. We attempt to strike a balance between inspections of the manufacturers of potentially

high-consequence, low-incident frequency packagings, such as compressed gas cylinders, and low-consequence, high-incident frequency packagings, such as steel and plastic drums.

Question. How do you measure and evaluate the overall safety of the U.S. hazmat Industry?

Answer. RSPA measures the overall safety of the U.S. hazmat industry by the number of deaths and injuries directly related to hazmat releases in commercial transportation and the amount of hazmat released to the environment. The U.S. hazmat industry has an impressive safety record. Not only in absolute terms, but given the high levels of hazmat traffic and compared with the safety performance of other freight transport sectors, the hazmat safety record is very strong.

Hazmat traffic pervades the U.S. economy, with the number of hazmat shipments exceeding 800,000 per day (300 million shipments annually). Compared with other freight sectors, hazmat trucking aptly demonstrates the industry's safety performance. For example, hazmat truck traffic is about 5 percent of total trucking industry truck traffic, yet hazmat related trucking fatalities are well below 1 percent of the trucking industry's total fatalities.

Hazmat traffic, along with freight traffic in general, is likely to grow along with in the U.S. economy as a whole. Moreover, the complexity of this additional traffic is likely to increase, as export/import flows increase; driver turnover in the trucking sector persists; and the use of intermodal shipping expands. RSPA'S safety monitoring and evaluation efforts will necessarily heighten their focus in such as areas as border traffic; other import/export gateways; and in the transfer of cargos between modes within the U.S.

Question. What changes in enforcement philosophy or practice have you made since last year?

Answer. RSPA has dedicated up to one work-year of effort in each of its five regional offices to expanded outreach to the DOT modal administrations, other Federal agencies, State and local enforcement agencies, and the regulated industry. RSPA's regional hazardous materials offices provide technical assistance and training to State and local enforcement and response personnel, and industry and the public through presentations, seminars, and workshops. Our additional inspector resources will allow these offices to perform more of these activities to improve compliance. We are also working more closely with the DOT modal administrations through information sharing, planning and joint inspections. In addition, we are actively soliciting information from State enforcement agencies about noncompliance in areas under RSPA's jurisdiction and conducting joint inspections with various State enforcement agencies.

Question. What is DOT doing to ensure timely prosecution of all parties responsible for the ValuJet crash? Please present a chronology of enforcement actions.

Answer. The Federal Aviation Administration is responsible for initiating enforcement actions based on the ValuJet accident, and is in the final stages of their review.

RULEMAKING SUPPORT

Question. Please describe the status of performance-based rulemaking at OHMS.

Answer. Experience gained since 1990 when RSPA first issued a final rule in Docket HM–181, Performance-Oriented Packaging Standards, shows that the new performance standards are very effective in preventing the release of hazardous materials under normal conditions of transportation. Additionally, the rules are well understood by packaging manufacturers, shippers, and carriers alike, thereby resulting in an increased level of voluntary compliance by the affected parties. Based upon its positive experience with respect to non-bulk packaging standards, RSPA subsequently applied performance-based standards to the use of intermediate bulk containers. Here, also, our experience is very positive.

Currently, RSPA is in the process of developing a notice of proposed rulemaking in Docket HM–220, Requirements for DOT Specification Cylinders, that would apply where possible performance-based standards in place of detailed specifications for design and materials of construction that have been in place for most of this century. We believe that the performance-based standards will result in improved safety while allowing industry the opportunity to exercise greater flexibility in adapting their products to new technological developments.

Question. Could you prioritize your rulemakings in a manner similar to the RAP process of OPS?

Answer. While OHMS does not employ a complex scoring system like that used by OPS in its Risk Assessment Prioritization (RAP) process, we have a dynamic process for allocating resources to particular rulemaking activities which provides

the flexibility we believe is necessary to respond effectively to long-term safety initiatives, as well as urgent safety issues like those revealed following the ValuJet incident in 1996. Currently, OHMS reviews data contained in the Hazardous Materials Incident Reporting System (HMIS), evaluates the merits of petitions for rulemaking submitted by industry and other interested persons, and periodically meets with the public in town meetings and other outreach forums to hear concerns regarding our management of the hazardous materials transportation safety program. We assess all of that information in light of overall priorities established by the Secretary and then rank each active rulemaking initiative on a priority scale of 1 to 3. The results of our prioritization of rulemakings is publicly communicated twice yearly through the Unified Agenda of Federal Regulatory and De-regulatory Actions.

Question. How could OHMS make more effective use of negotiated rulemakings?

Answer. Currently, OHMS is evaluating two rulemakings as candidates for negotiated rulemaking: Cargo Tank Motor Vehicles in Liquefied Compressed Gas Service (HM–225A) and Hazardous Materials Registration and Fee Assessment (HM–208C). In both cases, there is no clear consensus among RSPA, the regulated industry, and other affected parties on how to achieve the desired outcomes in a manner that achieves the greatest benefits. RSPA believes that the negotiated rulemaking process may be a more appropriate forum for resolution of the issues surrounding these two rules than the traditional approach to rulemaking. OHMS is aware of the value of negotiated rulemakings and will continue to assess future candidate rulemakings, as warranted.

Question. Please list all pending dockets and rulemakings before the Office of Hazardous Materials Safety. Please specify the date of origin of those regulatory dockets and their expected completion dates.

Answer. A listing of pending rulemaking actions for calendar year 1998 is provided as follows:

Rulemaking project	Summary	Current status
Miscellaneous Amendments (HM–166Y)	To make miscellaneous revisions to the HMR that are not significant or controversial.	Initiated: 5/93 NPRM published: 9/24/97 Final rule anticipated: 6/98.
Withdrawal of Radiation Protection Program (HM–169B)	Removes requirement for establishment of an in-depth radiation protection program.	Direct-Final rule published: 9/2/97 Comment period closed: 9/30/97 Adverse comments received. Final rule withdrawing Direct-Final Rule published: 9/30/97 Final rule extending compliance date published: 9/30/97 NPRM published: 9/30/97 Comment period closed: 2/13/98 Final rule anticipated: 9/98.
Hazardous Materials Regulations: Miscellaneous Corrections (HM–189O).	Yearly revision to the regulations to make non-significant corrections of typos, spelling, etc.	Project identified: 10/97 Final rule anticipated: 9/98.
Hazardous Materials Registration and Fee Assessment (HM–208C)	To propose changes in the registration and fee assessment requirements for persons engaged in the transportation of hazardous materials.	Project identified: 5/97 NPRM anticipated: 9/98—Considering negotiated rulemaking.
Safeguarding Food from Contamination During Transportation (FS–1).	Requests comments concerning options relative to regulations to ensure that food and other consumer products are not made unsafe as a result of certain transportation practices.	SFTA: 11/90 ANPRM published: 2/20/91 NPRM published: 5/21/93 Further action undetermined pending legislation to transfer program.
Tank Cars and Cargo Tank Motor Vehicles: Attendance Requirements (HM–212).	To allow the use of signaling systems (sensors, alarms, electronic surveillance equipment) to satisfy the attendance requirements unloading tanks cars and for loading cargo tank motor vehicles.	Initiated: 2/92 NPRM published: 9/14/92 Final rule anticipated: 12/98.
Requirements for Cargo Tanks (HM–213)	To make revisions and updates to the requirements for the manufacture, maintenance and use of specification cargo tanks.	Project Identified: 6/96 FHWA's OMC has lead. NPRM anticipated: 6/98.
Harmonization with UN Recommendations, ICAO Technical Instructions, and IMO Code (HM–215C).	Revises the HMR by incorporating changes based on the most recent changes to the UN Recommendations, ICAO, and IMO requirements.	Project identified: 10/97 NPRM anticipated: 6/98.
Specification 3AL Aluminum Cylinders (HM–176A)	To revise § 173.34 and Spec. 3AL to correct a specification deficiency related to an aluminum alloy.	Initiated: 7/87 Combined with HM–220.
Labeling Requirements for Poisonous Materials, PG III (HM–217).	To propose to revise labeling requirements for Div. 6.1, PG III materials consistent with international requirements.	Initiated: 6/93 ANPRM published: 11/8/93 NPRM anticipated: 7/98.
Quantity Limitations on Aircraft (HM–192)	To review utility of quantity limitations and provisions for cargo compartments on aircraft.	ANPRM published: 4/6/84 Public hearing: 5/30/85 Future action undetermined.

Shipping Paper Retention Requirements (HM–207B)	To implement self-executing requirement of HMTAA, Sec. 115, that shippers and carriers retain copies of shipping papers for 1 year after termination of transportation.	HMTAA 1994 enacted: 8/29/94 Project initiated: 9/26/94 Further action pending legislation revision.
Miscellaneous Amendments (HM–218)	Addresses minor regulatory problems, petitions for rulemaking, and elimination of certain exemptions.	Project identified: 10/97 NPRM anticipated: 6/98.
Consolidation of Specifications for High-Pressure Cylinders (HM–220).	To revise the requirements for reinspection, retesting, and repairing cylinders and consolidate seamless cylinder specifications.	Initiated: 1/94 Outreach meeting: 2/18/95 NPRM anticipated: 9/98.
Filling of Propane Cylinders (HM–220C)	Responds to petitions for rulemaking to allow propane cylinders to be filled by volume rather than by weight.	Project initiated: 4/96 ANPRM published: 8/23/96 Termination of rulemaking action anticipated: 5/98.
Hazardous Materials Program Issues—Jurisdiction (HM–223).	To resolve regulatory jurisdictional issues regarding applicability of the HMR.	Project initiated: 1/96 ANPRM 7/29/96 Three public meetings held. Further action to be determined.
Prohibition of Oxidizers on Aircraft (HM–224A)	To prohibit the carriage of oxidizers on passenger carrying aircraft and in certain cargo holds on cargo aircraft.	Project identified: 6/96 NPRM published: 12/30/96 Final rule on proper shipping name for oxygen generators published: 6/5/97 Final rule correction published: 6/27/97 Effective Date: 8/7/97 SNPRM published: 8/20/97 Notice reopening of comment period and public meeting published: 11/28/97 Comment period closed: 2/13/98 Final Rule anticipated: undetermined.
Cargo tank motor vehicles in Liquefied Compressed Gas Service (HM–225).	Final rule specifies conditions under which certain cargo tank motor vehicles may continue to be used on an interim basis, even if the emergency discharge control system may not function as required by the regulations.	Project identified: 11/96 I-FR published: 2/19/97 Three public meetings or workshops held. Notice published: 6/6/97 Authorization expires: 8/15/98 Final rule published: 8/18/97 effective date 8/16/97 Advisory notice published: 9/19/97 Final rule-response to petitions published: 12/10/97 Final rule compliance date extended until: 7/1/99 Pending legal actions.
Emergency Discharge Control Systems, Hoses, and Attendance Requirements for Cargo Tank Motor Vehicles (HM–225A).	Continuation of effort to resolve issues concerning cargo tank operations and safety equipment.	Project identified: 6/97 NPRM anticipated: 9/98—Considering negotiated rulemaking.
Infectious Substances: International Harmonization and Bulk Packaging (HM–226).	Proposes to revise the requirements for infectious substances to harmonize the requirements with international standards and propose bulk packaging requirements.	Project identified: 1/97 NPRM anticipated: 6/98.

Rulemaking project	Summary	Current status
Revision and Consolidation of Requirements for Carriage By Railcar and Motor Vehicle (HM–227).	Joint petition by ATA and AAR to consolidate 49 CFR Parts 174 and 177.	Project identified: 6/96 Petition received: 1/98 NPRM anticipated: 10/98.
Revision of the Requirements for Carriage by Aircraft (HM–228).	Addresses air related transportation issues including quantity limits, obsolete regulations, and consolidation of requirements.	Project identified: 1/97 ANPRM anticipated: 10/98.

Question. Is OHMS considering the feasibility of a risk management demonstration program similar to that conducted by OPS? How is this reflected in your fiscal year 1998 budget request? If it isn't, how much would be needed to initiate planning for such a program?

Answer. The Office of Hazardous Materials Safety continues to identify situations where innovative procedures, cooperative government-industry partnering, or the application of new technologies would provide an appropriate venue for demonstrating new, effective risk management techniques.

There are many differences between the Hazardous Materials and Pipeline Safety programs and industries these two programs. The hazardous materials industry consists of hundreds of thousands of packaging manufacturers and carriers and shippers moving thousands of different materials. The scope of the traffic is both national and international, and often traverses densely populated areas via highway, rail, water, air, and various intermodal combinations. Still, the similarities between the programs and the industries suggest that comparable risk management innovations may be applicable to both programs.

The Hazardous Materials Safety Program is increasingly linking its risk data collection and analysis functions with the risk management practices best structured to yield cost-effective safety benefits. Careful evaluation of HMIS incident data, for example, helps identify where safety problems are concentrated and how regulations, training materials, and enforcement can best be targeted to improve safety performance.

This integration of risk analysis and risk management is being further improved through the use of innovation, government-industry cooperation, and updated technology. For example, we are presently working closely with the Compressed Gas Association, Inc. to consolidate and update the Hazardous Materials Regulations on cylinders which have not been changed in 80 years. We are considering different cylinder inspection and testing methods which have been recommended by industry. Other appropriately designed demonstration projects could facilitate the implementation of more cost-effective safety measures. These ongoing risk management programs can be accommodated within our existing budget request.

Question. What would be the benefits of participating in joint government-industry task forces on reinventing OHMS? What would be the benefits of additional outreach meetings?

Answer. We believe that OHMS is currently benefiting from its participation in joint government-industry activities and numerous outreach meetings. OHMS continues to build effective partnerships as an integral part of its planning, design, delivery and feedback stages of hazardous materials regulatory and outreach activities. This is accomplished through activities such as the Cooperative Hazardous Materials Enforcement Development (COHMED) conferences, multimodal seminars, public meetings, publication of hazmat safety brochures, safety alerts and newsletters, web site postings and educational teleconferences.

OHMS works extensively with industry in developing performance-based standards, and is exploring the possibility of entering into two negotiated rulemakings. OHMS works extensively with the Hazardous Materials Advisory Council and other interested organizations in developing domestic regulations and in harmonizing international standards with our domestic regulations.

Since March, 1997, OHMS has held nine public meetings with our industry and public sector partners across the nation seeking industry input into our regulatory and compliance programs. We plan to continue these meetings in the future. In fact, OHMS expects that it will expand its efforts to listen and respond to our stakeholders about how we can ensure safe and environmentally sound transportation of hazardous materials.

Question. What might a Hazardous Materials Advisory Committee contribute to a reinvention process? How might it be used to help OHMS reinvent itself? Improve its regulatory process? Strengthen its outreach? Review its functions?

Answer. OHMS relies on the breadth of experience and expert advice OHMS now receives from its extensive contact with individuals within the hazardous materials transportation industry and with the varied organizations that represent different segments of the industry, public interest groups, the public sector, private citizens, and the enforcement community. Through extensive contacts and public outreach efforts, we benefit from and respond to the needs of our broad and varied constituents. Because OHMS' clients range from large shippers and carriers of industrial chemicals and petroleum products to manufacturers of fireworks and cigarette lighters, and include plumbers, hospitals, farmers, package manufacturers, cylinder retesters, environmental interests, and the emergency response community, we believe that use of an advisory committee would be most useful if formed to focus on specific issues, such as compliance with HM–200.

Question. Please discuss the underlying issue of excess flow valve failure. What new automatic emergency shut-off equipment technologies are being considered by RSPA and the industry? What about remote shut-off technology?

Answer. During investigation of a 1996 propane spill at Sanford, North Carolina, it was learned that most cargo tanks used in liquefied compressed gas service do not conform to safety regulations for emergency discharge control systems that have been in place for over 50 years. The regulations require that the flow of lading must be stopped automatically if hoses or piping are separated.

During the past year, RSPA and industry worked on the design, development, testing, and evaluation of a number of new automatic shut-off systems. Some of the new controls automatically stop the transfer of product upon detection of a sudden drop of pressure in the hose or other components of the discharge system. Other systems automatically stop the transfer in the event of operator incapacitation, as determined by the operator's failure to maintain radio communication with discharge controls installed on the cargo tank.

RSPA is committed to working with the industry to develop a long-term solution to this important safety issue. We share industry's concern about the cost of compliance and need to find a one-time fix that will not require multiple retrofits. However, there have been a number of incidents where leaking propane trucks resulted in death, injury, or substantial property damage. We believe these safety concerns can be addressed in a cost-effective manner, and we look forward to continuing our work with industry and other interested parties.

Question. How many companies have actually had to hire an additional driver to comply with RSPA's new safety regulation? Has RSPA or the propane industry developed an estimate of the costs to the industry to comply with this rulemaking?

Answer. This rule does not impose new requirements upon suppliers of liquefied compressed gases (e.g., propane and anhydrous ammonia). Rather, it gives temporary relief by providing alternatives to compliance with longstanding requirements for emergency discharge control systems on cargo tank motor vehicles. A key element of this rule is the requirement for prompt closure of the main discharge valve in event of an unintentional release of lading to the environment during transfer. The rule provides three alternatives by which operators may comply with that requirement: (1) use of excess flow features incorporated into the discharge system, (2) positioning a qualified person within arm's reach of the mechanical means of closure throughout the unloading operation, and (3) use of a fully operational remote-controlled system carried by a qualified person attending the unloading operation. Other than a verbal account provided by one propane dealer, RSPA has not been advised that other propane dealers have actually hired an additional attendant in order to comply with this performance standard.

Concerning the cost of this rule, RSPA determined that the vast majority of propane deliveries may be accomplished by a single attendant by equipping each cargo tank motor vehicle with a radio controlled emergency shut-off system at an estimated cost of $250 to $500. The first year aggregate cost to the regulated industry was estimated by RSPA to range between $4.5 million and $9 million.

Question. What is your view on the creation of a joint government-industry partnership to assess the adequacy of technologies available to comply with new OHMS regulations in this area? What would be the scope and nature of such a partnership? How much would it cost?

Answer. Since the 1996 propane spill in Sanford, North Carolina, RSPA and FHWA have worked closely with both the National Propane Gas Association and The Fertilizer Institute to develop a permanent solution to this problem. We are also considering entering into a negotiated rulemaking with interested parties on the issue. The regulated industry has agreed that it is in the best position to develop new emergency discharge control systems since it is aware of the operational constraints and costs associated with developing new systems or modifying existing systems. RSPA is considering entering into a negotiated rulemaking or other government-industry collaborative effort in revising the cargo tank requirements.

Question. Has RSPA identified any additional hazardous materials research and analysis needs that would assist the timely development of improved liquefied gas delivery safety equipment?

Answer. During the development of the final rules under Docket HM–225 and the advanced notice of proposed rulemaking under Docket HM–225A, RSPA, and commenters to the docket, identified several areas where additional research and analysis may be needed. These include attendance at the cargo tank and operation of the emergency discharge control system upon the detection of small leaks that do not result in the total separation of a hose or piping. The development of performance

criteria for automatic remote controlled shut-down systems and independent approval/certification of such devices may also require additional research and analysis.

HAZMAT TRAINING

Question. Please discuss the scope, nature, and frequency of assistance that OHMS regional staff provided to State hazmat personnel during the last year. Please include data on the number of training programs conducted by the regional inspectors for the benefit of State inspectors.

Answer. OHMS headquarters and regional staffs receive phone calls from State and municipal agencies on a regular basis. These calls involve requests for clarification of regulations, for other informational material, and, occasionally, a request that RSPA investigate a matter outside the State's jurisdiction. Because most State inspectors work in areas other than those of OHMS inspectors, we receive relatively few requests for training.

In 1997, OHMS headquarters and regional inspectors participated in multi-day inspections with State personnel in California, Guam, Hawaii, New Jersey, New York, and Texas. OHME inspectors also conducted individual inspections with State inspectors in Arkansas, Florida, Georgia, and Tennessee. OHMS inspectors provided training, information, and/or assistance to the California Fire Marshall's Office, the Florida Fire Marshall's Office, the Georgia Public Service Commission, the New Jersey Department of Environmental Protection, the New Jersey State Police, the New Jersey and New York Port Authorities, the Pennsylvania Department of Environmental Protection, the Philadelphia Fire Marshall's Office, and the Texas Environmental Enforcement Task Force. OHMS inspectors also conducted a number of inspections based on referrals or leads from State and municipal agencies, including the California Fire Marshall's Office, the Florida Fire Marshall's Office, and the Norfolk, VA, Fire Department.

Question. Please discuss the extent of interest that State and local governments have expressed in the Hazardous Materials Specialist Program. How many applications did you receive for the available positions during fiscal year 1997 and thus far during fiscal year 1998? What do you anticipate for fiscal year 1999?

Answer. OHMS received one application for the Hazardous Materials Specialist Program in fiscal year 1998. We have made a concerted effort to get enforcement and emergency response personnel interested in this program by placing information about the program on the hazardous materials website, by distributing brochures at seminars and Cooperative Hazardous Materials Enforcement Development conferences, and by targeted mailings to prospective candidate organizations. With the application of the Hazardous Materials Regulations to all intrastate commerce, effective in fiscal year 1999, we anticipate a heightened interest in this program, which provides an outstanding means to enhance Federal/State communication and cooperation.

Question. Will OHMS coordinate with the FRA Office of Rail Safety in the development and dissemination of the planned compliance training module for safe rail hazardous materials transportation?

Answer. Yes, OHMS is currently coordinating efforts to establish a working group consisting of OHMS, FRA, industry, and State and local enforcement agencies for the compliance training module for safe rail hazardous materials transportation (MOD–6C).

INFORMATION DISSEMINATION

Question. Please break out the subcategories of anticipated spending by activity for the information dissemination contract program.

Answer. The $520,000 requested for fiscal year 1999 to fund the Information Dissemination program is broken down as follows:

—$315,000—Hazardous Materials Information Center. The Center assists shippers, carriers, packaging manufacturers, enforcement personnel, and others in their understanding of requirements in the HMR for the purpose of maximizing voluntary compliance. In addition, the Center staffs the mandated toll-free number for transporters of hazardous materials, and others, to report possible violations of the HMR or any order or regulation issued under Federal hazardous materials transportation law.

—$100,000—COHMED program support costs. Funds Spring and Fall conferences and the COHMED Reporter which provides for the exchange of hazardous materials safety information among States, local governments and industry on compliance and enforcement issues. We will initiate a Pilot Project to evaluate and determine shipper compliance with the Hazardous Materials Regulations using

State enforcement personnel. This initiative will encourage States to enforce the Hazardous Materials Regulations with respect to shippers. Most state and local enforcement is directed at carriers.

—$35,000—Hazardous Materials Safety Publications. Funds customer service outreach and safety information dissemination efforts which include the revision and distribution of safety training materials, fact sheets, newsletters and other safety-related information; 400,000 distributed annually.

—$40,000—Hazardous Materials Specialist Internship Program (IPA) support costs. Funds the six-week internship program for State and local emergency response personnel.

—$30,000—Hazardous Materials Awareness Video—Rail Transportation. Development and distribution of a safety training video to assist States, local agencies and industry to comply with the Hazardous Materials Regulations for Rail transportation.

SHIPPER AND CARRIER REGISTRATION PROGRAM

Question. Please provide a detailed breakout of the costs and expenditures—on a contract basis—for the shipper and carrier registration program for fiscal year 1997 and fiscal year 1998.

Answer. The registration program is implemented through four contractual arrangements. Forms and fees are submitted to a lockbox bank, which deposits checks and credit card payments into the Treasury, provides data-entry services, and forwards data files and the submitted paperwork to RSPA at the Volpe National Transportation Systems Center (VNTSC) in Cambridge, Massachusetts. The lockbox bank contract is supplied through the Treasury Department's Financial Management Service (FMS). RSPA is billed by FMS for services in excess of those customary for recording financial information. In fiscal year 1997 those costs amounted to $42,000. A similar expense is anticipated for fiscal year 1998.

VNTSC provides data management services, and operational support, including a 24-hour 800-number service. The vehicle used to obtain these services is a Multi-Year Project Plan Agreement, which is adjusted annually to reflect the level of effort required. In fiscal year 1998, $600,000 was budgeted for these services. The same amount will be budgeted for these services in fiscal year 1999.

Additional programming and information request response services, including a full-time help desk available during business hours, are provided through an on-site contract at the headquarters office. In fiscal year 1998, $100,000 was budgeted for these services, and a similar amount will be used to provide these services in fiscal year 1999.

The remaining $8,000 is budgeted for printing and distributing the registration brochure and form, and other mailings.

Question. Please display the total in registration fees collected for each of the last five fiscal years, broken out by use (emergency response activities and administrative costs).

Answer. The information is provided as follows:

EMERGENCY PREPAREDNESS FUNDS RECEIPTS

Registration year	Processing fee receipts	Grants program receipts	Total receipts
1993	$1,910,000	$9,550,000	$11,460,000
1994	1,397,000	6,986,000	8,383,000
1995	1,365,000	6,873,000	8,238,000
1996	1,605,000	6,910,000	8,515,000
1997	1,300,000	7,372,000	8,673,000

Question. How much do you expect to collect during fiscal year 1998? During fiscal year 1999?

Answer. RSPA expects to collect $7.3 million in grants program fees and $1.2 million in registration fees in fiscal year 1998 and, if a rulemaking revising the registration requirements is implemented, $14.3 million in grants program fees and $1.2 million in registration fees in fiscal year 1999.

Question. For each of the modal administrations that enforce the registration requirement, please present data on the number of enforcement actions taken against those that have not registered or paid the required fee, or failed to present the registration number as required.

Answer. The Federal Highway Administration (FHWA) opened 339 cases between June 1993 and September 1997 that included citations for violations of the registration regulations. Additionally, FHWA has issued 96 "Notices of the Requirement to Register," an informal notice developed for use during Roadcheck 1993, but used beyond that exercise. FRA has issued 159 of these informal notices. Since the beginning of fiscal year 1994, RSPA's Office of Hazardous Materials Enforcement has initiated 53 enforcement actions which included violations for failure to register.

Question. What is the scope of cooperation and assistance that you are receiving from the Office of Motor Carriers regarding enforcement of the hazmat registration program?

Answer. RSPA and FHWA's Office of Motor Carriers (OMC) continue to work together to improve compliance with the registration program. For example, OMC has incorporated the registration regulations into its routine compliance review procedures and has issued at least 339 citations for failure to register or for related record-keeping requirements. When cases for failure to register are completed, OMC frequently issues a press release to highlight the enforcement actions taken. RSPA supplies copies of the registration brochure to the OMC regional offices for them to distribute. Additionally, RSPA and OMC worked together during Roadcheck 1995 to further identify parties failing to register and to obtain more current and accurate compliance information.

Question. What are RSPA, OMC, and FRA doing to publicize enforcement actions against companies that are required to pay, but are not paying, the registration fee required under the HMTUSA?

Answer. RSPA provides copies of its civil penalty case orders to six trade press publishers. It also publishes an annual Penalty Actions Report that includes all actions taken by RSPA and the Department's modal administrations for violations of the hazardous materials regulations. This report is also incorporated into RSPA's biennial report to Congress on the transportation of hazardous materials. OMC frequently issues press releases to highlight enforcement actions taken.

Question. What compliance rates were achieved in the 1995–96 registration cycle, estimated for the 1997–98 registration cycle, and projected for the 1998–99 registration cycle for the hazardous materials registration program?

Answer. We believe compliance with the registration requirement is greater than 90 percent. This conclusion is based upon analysis by use of the Truck Inventory and Use Survey (TIUS) (1987), which provides specific data on truck characteristics and other data on characteristics of the hazardous materials industry. Included in TIUS are data on the number of trucks involved in hazardous materials transport, and the number of trucks and/or trailers owned and/or operated at the same home base. We were able to extrapolate from these data the approximate number of companies, not under lease, using one or more placarded trucks weighing 26,000 pounds or more. Airlines and railroads are well known, and we are confident that they are registered. Compliance enforcement with the registration requirements was a key element of ROADCHECK–93 and ROADCHECK–95, nationwide inspection efforts sponsored by the Federal Highway Administration. Of 2,300 placarded trucks that were checked for proof of registration during the 1993 inspection, 88 percent were registered and had proof on board. Of the 12 percent that did not have proof on board, 80 percent were already registered. Thus, there was approximately 98 percent compliance with the registration requirement. Of the 1,220 placarded trucks that were checked during the 1995 inspection, 91 percent were registered and had proof on board. Of the nine percent that did not have proof on board, 60 percent were already registered. Therefore, there was approximately 96 percent compliance with the registration requirement. Similarly, during fiscal year 1995 the Office of Motor Carriers conducted 2,338 compliance reviews of carriers of hazardous materials and initiated 100 enforcement cases that cited the registration regulations. This indicates a 96 percent compliance rate. During fiscal year 1996 the Office of Motor Carriers opened 79 enforcement cases citing the registration regulations as a result of 3,215 compliance reviews of hazardous materials carriers, indicating a 97 percent compliance rate. During fiscal year 1997 the Office of Motor Carriers opened 44 enforcement cases citing the registration regulations as a result of 1,369 compliance review of hazardous materials carriers, indicating a 97 percent compliance rate. During CY 1995 RSPA's Office of Hazardous Materials Enforcement conducted 586 inspections of hazardous materials shippers and initiated 18 cases that involved the registration regulations. In CY 1996 610 inspections were performed, resulting in 15 citations of the registration regulations. In CY 1997 875 inspections were performed, resulting in 20 citations of the registration regulations. These two sets of inspection results indicate a compliance rate of 97 percent. We expect that the compliance rate for 1998 will remain consistent with the previous years.

IMPLEMENTATION OF HAZARDOUS MATERIALS TRANSPORTATION ACT

Question. Please provide a detailed update of how RSPA has implemented Section 116 of the Hazardous Materials Transportation Authorization Act (Public Law 103–311), which requires the Secretary to designate a toll-free telephone number for the reporting of possible violations of hazardous materials transportation laws and regulations. How has the implementation provision shown to be beneficial, and how well is the system working?

Answer. RSPA's toll free number (1–800–HMR–4922) was established on May 8, 1995. Each modal Administration (i.e., USCG, FRA, FAA, FHWA) and RSPA has established its own toll-free number to handle the reporting of possible violations in its respective enforcement area. RSPA's toll-free number is a computer operated system that allows a caller to transfer to any of the modal administrations without having to place another call. In addition, through RSPA's toll-free number, a person can receive clarification on the Hazardous Materials Regulations (HMR), copies of training materials and copies of recent Federal Register publications. Callers can also leave a message requesting information on the HMR. We have set a standard that calls requesting assistance with the HMR will be returned within 24 hours.

RSPA receives more than 30,000 phone calls to the Hazardous Materials Information Center (HMIC). Since callers can access the HMIC either by a standard long distance telephone number or by dialing the 800 telephone number we can not identify accurately the number of callers using the 800 number. Additionally since callers have a series of selection options, we do not have information on the number of callers that select an individual option. We project that approximately 25,000 of these calls are received using the 800 number. Most of these calls (an estimated 80–90 percent) are requests for information on compliance with the HMR, the remaining calls to the 800 number are requests for rulemaking actions, requests for training materials, and reports of possible violations. The Hazardous Materials Information Center has been well received and is a very successful outreach and customer service program.

Question. How much did it cost to establish that system? How is it staffed?

Answer. The cost of establishing a system to report possible violations of the hazardous materials transportation laws or regulations was included in the overall costs of establishing the toll-free telephone number for the Hazardous Materials Information Center. Overall the cost of establishing the "800" telephone system was minimal and is estimated to be less than $5,000.

As previously described, callers to the Hazardous Materials Information Center can choose from a number of options, one of which is to report violations. The Information Center now is staffed 8 hours a day (9:00 a.m. to 5:00 p.m. eastern time) by three trained and knowledgeable specialists (2 contractors and 1 HM safety staffer) who are responsible for responding to incoming calls requesting assistance on and clarification of the Hazardous Materials Regulations.

Callers wishing to report violations can choose the appropriate modal administration and are automatically transferred to that mode by the automated system. No staffing for the transfer process is necessary.

Question. How is the information that is gathered through that system shared with other modes and agencies?

Answer. Callers wanting to report violations of the regulations can be automatically transferred to the appropriate modal administration.

Question. How does RSPA, OMC and FRA follow-up on complaints or notices of possible violations that are received through this system?

Answer. Complaints received by RSPA through the toll-free number which allege violations by persons under the jurisdiction of RSPA are electronically routed to the Office of Hazardous Materials Enforcement (OHME) through a "blind" transfer feature incorporated into the system. OMC and FRA receive calls in a similar manner.

OHME enters the complaint into its COMPLAINT data set. The complaint is then assigned and investigated. OHME investigates all complaints that it receives.

The message routing calls to OMC advises complainants that their complaint must be in writing and contain specific information about dates, times, material facts, violator name and address and/or location. Complainants must clearly state the alleged violation and/or problem. OMC provides its headquarters address for submission of these written complaints. Upon receipt, OMC forwards them to the appropriate division for handling.

FRA follows a process similar to RSPA's. Complaints (hazmat and otherwise)are logged in and assigned to the appropriate region for an investigation.

Question. What are the fiscal year 1998 and fiscal year 1999 costs associated with this system?

Answer. RSPA has obligated the $315,000 enacted in fiscal year 1998 for the Hazardous Materials Information Center and is requesting the same funding level for fiscal year 1999.

HAZARDOUS MATERIALS RESEARCH

Question. Please distinguish between the Hazardous Materials research and analysis function ($531,000 requested) and the Hazardous Materials research and development function ($1,000,000 requested). Is there any duplication of effort?

Answer. Our research and analysis request for operational funds complements research and development funding. Research and analysis funding has been used typically for shorter term projects in support of daily operations, such as responding to immediate needs or developing analysis requirements. Evaluating the causes of DOT 3Al cylinder ruptures as failures occur, the analysis of testing methods related to specific on-going proposals in the international standards arena, the analysis of risks associated with transportation of hazardous materials in aircraft cargo compartments, refinement of guidelines for acute exposure to toxic chemicals, and investigation of automatic emergency shutdown systems stemming from recent cargo tank incidents where they failed to operate are examples of this category of projects.

Research and development funding is used typically for longer term, planned research spanning a number of years. Examples include a national assessment of transportation risk posed by designated materials, development of a framework for use of risk management in hazardous materials transportation, and research into the impact resistance of cargo tank heads in accidents.

Research and analysis funds often support current rulemaking or exemption requests, while research and development funds more often support future rulemaking. Research and analysis projects may evolve into longer term research and development efforts or transition from feasibility studies to more elaborate research. Occasionally the distinctions are not significant; however, efforts in either category do not duplicate the other.

Question. Couldn't the research and analysis program be funded and managed through the research and development program (particularly within the research analysis subaccount)?

Answer. We believe the research and analysis program better matches the short term, operational nature of the accounting class in which it currently resides. Perhaps a more descriptive title, such as Program Technical and Operational Analysis and Support, would help avoid possible confusion between these efforts.

OFFICE OF EMERGENCY TRANSPORTATION

Question. How much of your budget request supports maintenance of the Crisis Management Center?

Answer. We try to annually provide approximately $40,000 for routine maintenance in the Crisis Management Center (CMC). Funding for routine maintenance provides for a labor contract to ensure that the CMC equipment and related software packages receive scheduled maintenance and repair to always be in working order. This, however, does not provide for life cycle equipment replacement.

Question. How many times last year (calendar year 1997) was the Center activated? For what reasons? How many times thus far this year has the Center been activated? For what reasons?

Answer. The CMC is a multimodal response center fully activated when a catastrophic disaster occurs. Less than catastrophic events allow for partial activation of the CMC. The center is used daily in some capacity by OET and DOT staff members for monitoring or responding to crisis events. Luckily the U.S. did not experience catastrophic hurricanes or earthquake disasters in 1997. However, the Crisis Management Center (CMC) was partially activated three times in 1997 for Typhoon Paka, the potential Amtrak strike and the potential American Airlines Strike. Thus far in 1998, it was partially activated for Operation Desert Thunder, a potential DOD miliary deployment due to political tension in IRAQ. DOT supports DOD military deployments should there be a military transportation shortfall. The center was also activated for training sessions throughout the year, primarily for the DOT Crisis Management Center Augmentation Cadre.

The OET staff and the DOT Emergency Coordinators must remain in a state of readiness to respond to a crisis using the CMC.

Question. What support and coordination did the OET provide in the wake of the February 1998 tornadoes in Florida? What other tornado response activities has OET performed?

Answer. In response to the February 1998 tornadoes in Florida, DOT's Regional Emergency Transportation Representative (RETREP) was deployed to the Disaster

Field Office to assist with completing damage assessments from the DOT operating administrations, and responded to requests for information from the Federal Coordinating Officer. OET prepared situation reports for DOT senior staff members and FEMA headquarters.

In a tornado or any serious natural disaster that affects the transportation infrastructure, OET continually tracks and monitors these disasters and ensures a timely response to all requests for assistance. Situation reports are prepared and disseminated throughout DOT and to the Federal response community. OET works with designated points of contact in each Operating Administration to ensure the timely collection and analysis of information, as well as overseeing the normal day-to-day activities within the office which continue during crisis events.

Question. Please provide a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the Emergency Transportation budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. The table below shows the three requested years.

	Appropriation	Obligation
Fiscal year 1996:		
Contract Programs: Crisis Response Management	$250,000	$250,000
R&D: Operational Management Support	50,000	81,000
Fiscal year 1997: [1]		
Contract Programs: Crisis Response Management	200,000	221,211
R&D: Operational Management Support	50,000	36,648
Fiscal year 1998:		
Contract Programs: Crisis Response Management	200,000	200,000
R&D: Operational Management Support	50,000	76,084

[1] The Crisis Response Management program was increased by $21,211 to provide for a new contract startup ($15,000) and to complete the purchase of equipment for the OET staff office ($6,211). Funds were transferred from available PC&B funding that resulted from a vacancy in the office.

Question. Please specify what research and development activities the Office of Emergency Transportation plans to accomplish with a budget of $50,000.

Answer. Funds requested for research efforts in Emergency Preparedness are for contract support for the development of new training materials or concepts, for research on transportation vulnerability studies for the Central U.S. Earthquake Consortium and the Western States Seismic Policy Council, and for contract support for the development of new systems to support our NATO/US Classified Document system and the keyword reference system. In addition, research is performed to identify new data sources for use in the CMC. Question. For the Crisis Response Management program, please provide a breakdown of how $200,000 was used in fiscal year 1998 and how $200,000 will be used in fiscal year 1999.

Answer. Funding breakdown follows. Crisis Response Management:

	Fiscal year—	
	1998 estimate	1999 request
Regional Team Trng	$69,500	$89,000
RETCO Support	63,000	63,000
Transp. Policy Doc	20,000	20,000
CMC Maintenance/repair (Labor contract)	47,500	28,000
Total	200,000	200,000

OFFICE OF RESEARCH AND TECHNOLOGY

PERSONNEL AND ADMINISTRATIVE EXPENSES

Question. Please describe the responsibilities of each of the 13 FTP's in the R&T program.

Answer. The responsibilities of each of the 13 full-time employees in the R&T program are as follows:

One Associate Administrator—manages the Office of Research, Technology and Analysis

One Deputy Associate Administrator—manages the Office, with a focus on university research and education programs

One Administrative Management and Program Assistant—conducts Office administration functions

One Transportation Specialist—coordinates research and development activities within the Department and with other Federal agencies and the White House

One Transportation Specialist—coordinates and facilitates public-private partnerships

One Director, Transportation Safety Institute, Oklahoma City, OK—manages TSI

One Secretary, Transportation Safety Institute, Oklahoma City, OK—staff assistant to Director

Two University Program Specialists—manage University Transportation Centers and University Research Institutes Programs

One General Engineer—supports National Science and Technology Council (NSTC)/Research and Technology Coordinating Council (RTCC)/R&D planning/Small Business Innovation Research Program

One General Engineer—manages NSTC/DOT inter/multi-modal transportation R&D programs

One General Engineer—DOT international transportation science and technology coordination and assessments, DOT strategic planning and performance measurement

One Program Analyst—NSTC/DOT/RSPA R&D web development and DOT Technology Transfer/Sharing and Outreach Programs.

Question. The Federal Highway Administration budget includes $10,000,000 for a new research initiative called the joint partnership for advanced vehicles, components, and infrastructure. FHWA has indicated that this program and the associated funding will be administered by RSPA. Will this program be administered by the Office of Research and Technology? Will the program be administered within the current staffing level, or will some of the $10,000,000 request be utilized for PC&B expenses? If so, how much?

Answer. The joint partnership for advanced vehicles, components and infrastructure, also known as the "advanced vehicle program," will be co-managed by the Departments of Energy and Transportation. Within the Department of Transportation, RSPA's Office of Research, Technology and Analysis will administer the program within its current staffing level. Some of the $10,000,000 will be used for program support and travel expenses. Based on the current level of support for the program managed by the Defense Advanced Research Projects Agency, approximately $225,000 will be spent by DOT in program support and travel. This assumes that the Department of Energy will provide the same level of funding for program support.

JOINT PARTNERSHIP FOR ADVANCED VEHICLES, COMPONENTS, AND INFRASTRUCTURE

Question. Since the program's establishment in fiscal year 1993, seven regional consortia have partnered with the Department of Defense Advanced Research Program Agency (DARPA) on the Electric and Hybrid Vehicle Program, which is being transferred to the Departments of Energy and Transportation as a new advanced vehicle program. Who are the seven regional consortia? Please list the complete memberships of each.

Answer. The seven regional consortia are:

Calstart—Burbank, CA

Hawaii Electric Vehicle Demonstration Project (HEVDP)—Honolulu, HI

Electricore—Indianapolis, IN

Mid Atlantic Regional Consortium for Advanced Vehicles (MARCAV)—Johnstown, PA

Northeast Alternative Vehicle Consortium (NAVC)—Boston, MA

Sacramento Municipal Utility District (SMUD)—Sacramento, CA

Southern Coalition for Advanced Transportation (SCAT)—Atlanta, GA

The consortia's membership fluctuates on a periodic basis. The following information provides a list of member companies under each consortium in 1997.

Advanced Transportation: An Industry Taking Root Across America

HEVDP

Alturdyne
APS Systems
Aspect Software Engineering
Battery Automated Transportation
California Air Resources Board
City and County of Honolulu
Classic Trolleys, Inc.
Delco Electronics
Detection Limit Technology
Detroit Center Tool, Inc.
El Dorado National
Electrosource Batteries
E Noa Corporation
GHL
GNB Battery Technologies
H Power
Hawaii Electric Light Company
Hawaii Software Service Center
Hawaiian Electric Company
High Technology Development Corp.
Honolulu Public Transit Authority
Horizon Battery Technology
Hughes Power Control Systems
Kaman Electromagnetics Corp.
Kauai Community College
Kauai County
Kauai Electric Division
Los Angeles Dept. of Water & Power
MacNeal-Schwendler Corp.
Martin Information Systems
Maui Electric Co.
Maxwell Laboratories, Inc.
Molorized Manufacturing, Inc.
Norvik
Nova Bus of America
Oahu Transit Services
Optima Batteries
PowerCell Batteries
Pinnacle Research Institute
RapidTech, Inc.
SAFT Batteries
Saminco
Scderholm Sales & Leasing
South Coast AQMD
Southern California Edison
Sportech International
Suntera
Taylor-Dunn
TICOM Corporation
Trojan Batteries
Twin Disc
University of Hawaii at Manoa
U.S. Air Force, Hickam AFB
U.S. Electricar
U.S. Navy, Pac. Missile Range Facility
U.S. Navy, Pearl Harbor Naval Stn.
Westinghouse Electric Corp.

AC Transit
ACT International
Adaptrans
Advanced Electric Vehicles Co., LTD
Advanced Projects Research, Inc.
AlliedSignal, Inc.
Allison Product Management
Alternate Electric
Amerigon, Inc.
Analogy, Inc.
APS Systems
Arias Research Associates
Ashman Technologies
AVCON
Avery Dennison
A-Z Bus Sales
Bachmon Engineering
Bank Of America
Battery Automated Transportation
Battery Powered Electric
Bay Area AQMD
Bay Area Rapid
Transit District
Bolder Technologies Corporation
Brazell & Company
Bus Manufacturing U.S.A., Inc.
California Air Resources Board
California Conference of Machinists
California Energy Commission
Cal EPA
California State University Institute
California State University, L.A.
Caltrans
Capstone Turbine Corporation
CCL & Associates, Inc.
Christie Electric Corp.
City Cab, Inc.
City of Anaheim
City of Anaheim Public Utilities
City of Burbank
City of Chula Vista
City of Lancaster
Clean Air Vehicle
Technology Center
CM International
Coherent Power, Ltd.
Control Systems
Technology
CyberTran International
DivTech
ElDorado National
Electric Bicycle Company
Electric Fuel Corp.
Electric Vehicle Information Services
Electrobike, Inc.
Emfree Motors
Engine Corp of America
Environmental Defense Fund
Environmental Grant Specialists, Inc.
Epilogics, Inc.
Espar Heater Systems
Etak Inc.
EVEE Enterprises
FAS Engineering, Inc.
FCI Systems Corp.
Federal Transit Administration
Five Star Legal Compliance Systems, Inc.
FMC Corp.
G&A Associates
Gas Research Institute
General Motors
Gencorp-Aerojet
Giese, Inc.
Gillig Corp.
Ginler Technologies, Inc.
Glacier Bay, Inc.
Golden Bear Equipment Co.
Golden Gate Transit District
Goleta Union School District
Green Motorworks
Helios International, Inc.
Hewlett-Packard
Hub Engineering, Inc.
Hughes Electronics
ISM Corporation
Intel Corporation
Intelligent Measurement, Inc.
Intercraft, Inc.
International Rectifier Corp.
ISE Research
ITT Cannon
IWon Motronics Corporation
IXYS Corporation
Jefferson Programmed Power
Jinriksha
JPL Battery Systems Group
Kaiser Aluminum & Chemical Corp.
Kassabian Motors
Kaylor Energy Products
Keystone Batteries
Kilovac Corp.
Kummerow Corp. of North America
L.A. Dept. of Water & Power
Lawrence Livermore National Lab
Lockheed Martin IMS
Maxdem, Inc.
MendoMotive Electric Vehicles
MicroPulse Controls, Inc.
Mirage Systems
Modular Electric Vehicles, Inc.
Mosaic Industries
NASA Far West
Technology Transfer Ctr.
Natural Resources Defense Council
Naval Facilities Engin. Service Ctr
NEVCO
Next Century Power, Inc.
NGV U.S.A.
Nova Management, Inc.
ODU USA Inc.
Pacific Electric Vehicles
Pacific Gas & Electric
Paul Ray Berndtson
Pavlics Engineering
PCI
PIVCO
Planet Electric
Possibilities Tech.
Powers Design International
Pro Electric Vehicles, Inc.
Prototype Technologies
PS ECO, Inc
Raychem Corporation
Rechargeable Battery Corporation
Reliant Testing Laboratory
Research & Development Labs
RLA Power and Electronics
RoboDisk Corporation
Rockwell International
Rocky Research
Rosen Motors
Saft America
SAIC
Sacramento Municipal Utility Distric:
San Bernardino Assn. of Govts
San Diego Gas & Electric
San Joaquin Valley Unified APCD
Santa Barbara APCD
Santa Barbara MTD
Santa Barbara Transportation, Inc.
Santa Clara University
Mechanical Engineering
Santa Maria-Bonita School District
Schock Power Conversion
Scientific-Atlanta
South Coast AQMD
Southern California Edison
Southern California Gas Company
Specialty Vehicle Manufacturing Corp.
SRI International
Strategic Environment, Inc.
SuperShuttle International
Swan Group, Inc.
Swanson Electric Vehicle Enterprises
Taylor-Dunn
Technology Resource Industries
Teledyne Electronic Technologies
Terranomics
Titian Industries
Traffic Assist
TransGlobal Technologies
Trinity Flywheel Batteries, Inc.
Trojan Battery Company
Union Motor Company
U.C. Berkeley Inst. of Transportation Studies
University of California, Davis

UCLA School of Eng. &
Applied Science
U.S. Department of Commerce
U.S. Electricar
U.S. Flywheel Systems, Inc.
Vector Mobility
Ventura County APCD
VoltAge
Western Waste Industries
Whittaker Controls, Inc.
XCORP
Zap Power Systems

Ride ELECTRIC

Aerojet-Gencorp
American Flywheel Systems, Inc.
Auto Tech Manufacturing, Inc.
CAL/EPA
Calif. State University, Sacramento
California Energy Commission
Caltrans
Ciba Composites/Hexcel
CityCom A/S
Detection Limit Technology, Inc.
Drake Associates
Electric Vehicle Infrastructure, Inc.
Electrosource, Inc.
FMC Corporation
GNB Battery Technologies
H Power Systems
Honeywell, Inc.
Horlacher A/G
Hydrogen Burner Technology
Inductran Corporation
Lemoore Naval Air Station
Lotus Engineering
McClellan Air Force Base
Oak Ridge National Labs
Pacific Electric Vehicles
Passive Restraint Systems
RDC, Inc.
Sacramento Metropolitan AQMD
Solar Car Corporation
Solectria
Specialty Vehicle Manufacturing Corp.
Teledyne Battery Products
Trans2
Travis Air Force Base
University of California, Davis -ITS
U.S. Electricar

ELECTRICORE
"Powering the Future"

Advanced Vehicle Systems
AeroVironment
Allison Trans. Division of GMC
American Electric Power
B/W Engineering Enterprises
Chattanooga Area
Rural Transit Authority
Cinergy
Delphi Energy & Engine
Management Systems
EPRI
ETVI
Indiana / Purdue Univ., Indianapolis
IPALCO Enterprises
Nartron
NIPSCO
Naval Surface Warfare Center,
Crane Division
Patuxant Wildlife Refuge
Purdue School of Engineering
& Technology
Rutgers University
Satcon Technology Corp.
Solectria
Snape Energy Resources
State of Indiana
Tank Automotive &
Armament Command
Tennessee Valley Authority
University of Iowa

SCAT

Aberdeen Test Center
Advanced Vehicle Systems
Alabama Power Company
AlliedSignal Aerospace Systems &
Equipment
Allison Transmission Division of GM
American Maglev Technology of
Florida, Inc.
Analog Devices Inc.
Anniston Army Depot
Argonne National Laboratory
Association of America Railroads
Atlanta Chamber of Commerce
Austin Power & Light
AVCON
Bitrode Corporation
Blue Bird Body Company
Central and Southwest Service, Inc.
Chattanooga Area Reg. Transit
Authority

Dax Industries
Delco Electronics
Delpi Energy &
Engine Management Systems
Draper Laboratory
Electric Transit Vehicle Institute
Electrosource, Inc.
Fisher Technologies
Florida Alliance for
Clean Technologies
Florida Power & Light Company
Florida Solar Energy Center
General Electric Company
Georgia Power Company
Georgia Institute of Technology
GNB Technologies
Houston Metropolitan Transit Authority
IES Industries Inc.
IXYS Corporation
Mckee Engineering
Municipal Electric Authority of Georgia
Northrop Grumman
Parker Kinetic Designs, Inc.
Pentastar, Inc.
Pinellas Suncoast Transit
Authority
Robins Air Force Base
SAFT America Inc.
Solar Car Corporation
SOLARMAX Corporation
Spartan Motors, Inc.
Sustainable Power Systems, Inc.
Test Devices Inc.
Thomas Built Buses, Inc.
Tran2 Corporation
Trojan Battery Company
Troy Design & Manufacturing Co.
Tug Manufacturing Corporation
Unique Mobility
University of Alabama, Huntsville
University of South Florida
University of Texas
Virginia Power
Virginia Tech
York Tech

MARCAV

Concurrent Technologies
Corporation (CTC)
Ergenics, Inc.
Keystone Consortium
Sigma Labs, Inc.
Synkinetics, Inc.
Tribology Systems, Inc.
United Defense, L P.

NAVC

Advance U.S.A.
Advanced Vehicle Systems
Atlantic Ctr. for the Environment
Arthur D. Little, Inc.
Bangor Hydro-Electric
Boston Edison
Boston Gas
Brooklyn Union Gas
Cart-A-Ways
Central Vermont Public Service
CT Municipal Electric Energy Coop.
Connecticut State Govt.
Conservation Law Foundation
DC Transformation
Distrigas
Dow-UT
Charles Stark Draper Laboratory
EPRI
Electric Vehicles of America
ETS EVermont
Federal Fabrics Fiber
GE Plastics
Green Mountain Power
Hughes Aircraft
Kaman Electromagnetics Corp.
Long Island Lighting Company
Maine State Government
Massachusetts State Government
MassPort
Modine Manufacturing Co.
New England Gas Association
New England Governors' Conference
New Hampshire State Government
New Hampshire Tech.Inst.
New York City Department of
Environmental Protection
New York Power Authority
NESCAUM
NESEA
Northeast Utilities
Rhode Island State Government
Sanden International
Solectria
TECHConn
Texas Instruments, Inc.
Textron Automotive Company
Tillotson Pearson, Inc.
United Illuminating Company
U.S. Army Research Laboratory
U.S. Air Force Base, Hanscom Field
U.S. Naval Undersea Warfare Center
United Technologies
University of Connecticut
University of Massachusetts
University of Vermont
Vermont Public Power
Vermont State Government

Question. Please provide the office, contact name(s), and phone numbers at the Department of Energy for the coordinating officials for this project.

Answer. The coordinating officials for the advanced vehicle program at the Department of Energy are provided as follows:

—Office of Energy Efficiency and Renewable Energy, Deputy Assistant Secretary for Transportation Technologies, Thomas Gross, (202) 586–8027;

—Office of Energy Efficiency and Renewable Energy, Office of Transportation Technologies, Office of Heavy Vehicle Technologies, Director, James J. Eberhardt, (202) 586–9837; and

—Office Energy Efficiency and Renewable Energy, Office of Transportation Technologies, Office of Heavy Vehicle Technologies, Heavy Engine Technologies, Program Manager, William Siegel, (202) 586–2457.

Question. Fiscal year 1999 would be the first year of a multi-year program in DOT and DOE. Both DOT and DOE are requesting $10,000,000, for a total of $20,000,000 in federal funds, and industry is expected to at least match this level. Please detail the agreements now in hand for industry matching funds for this program.

Answer. Because the program has not yet been transferred from the Department of Defense Advanced Research Projects Agency to DOT and DOE, neither DOT or DOE have any agreements in hand with the consortia for matching funds for the advanced vehicle program. DARPA, however, is currently managing the consortia using cooperative agreements or other transactions authority. DOE and DOT plan to use the same approach with each consortium and will require authorization for other transactions authority for this program.

Question. This would be the first year of a multi-year program. What first-year obligations can reasonably be expected? Will funds be allocated as discretionary grants, through research contracts with Volpe or private contractors, or will they be spent in-house?

Answer. Both the Departments of Energy and Transportation anticipate obligating all appropriated funds in the first year of the program.

The funds will be allocated through a competitive, peer-reviewed selection process currently employed by DARPA in its Electric and Hybrid Vehicle Program with the seven regional consortia. Hence, the funds will not be allocated as discretionary grants, through research contracts with Volpe, or be spent in-house.

Concept papers based on broad performance guidelines will first be solicited from the eligible regional consortia. From a technical review of these papers, DOT and DOE will ask the consortia to submit full proposals for those concept papers that are ranked the highest. Awards for funding will be made based on the merit of the full proposals.

Funding will be awarded through cooperative agreements and other transactions authority, which operates outside the Federal Acquisition Regulations and involves payments based on cost-shared accomplishment of agreed-upon milestone objectives. Using other transactions authority, for example, will enable DOT, DOE and the consortia to continue this highly efficient and effective process.

Question. Why is the emphasis of this program on the development, demonstration and deployment of "medium and heavy-duty trucks, buses, and trains?"

Answer. The Advanced Vehicle Program (AVP) will focus on the development, demonstration and deployment of technologies for advanced vehicles, components and infrastructure for medium and heavy-duty vehicles to avoid duplication with other Federal programs. Emphasis on these areas is needed to convert and apply valuable gains in advanced vehicle development for military use under the DARPA program to vehicles for non-military and commercial use. As such, the AVP will complement the activities of the Partnership for a New Generation of Vehicles (PNGV), a program led by the Department of Commerce, with the U.S. Council for Automotive Research, primarily focusing on 5-passenger sedans (light-duty vehicles). In addition, the proposed AVP will serve different sectors of the transportation system, and will involve partnering with a broader mix of U.S. companies and research institutions.

Question. Could costs associated with the development, demonstration and deployment of magnetic levitation train technology be funded through this program?

Answer. The proposed Advanced Vehicle Program does not proscribe or mandate specific technologies. The Defense Advanced Research Projects Agency has funded rail projects under its Electric and Hybrid Vehicle Technology Program, such as advanced turbines and flywheel batteries. Under the Advanced Vehicle Program, the Departments of Transportation and Energy will consider development, demonstration and deployment of advanced vehicle technologies for medium and heavy-duty vehicles, including but not limited to trucks, buses, trains, and ships.

Question. Absent Congressional earmarking, how will decisions be made regarding allocation of funds? What level of input in the decision-making process will the industry partners have?

Answer. To stimulate innovation and ensure broad involvement of industry, state and local governments, and the research community, the program will continue the current bottom-up approach to project selection, in which all of the eligible consortia and their members drive the research agenda by providing initial concept papers for proposed areas of research and development, deployment and demonstration established by DOT and DOE. DOT and DOE will conduct a technical review and ranking of the concept papers, soliciting full proposals for the highest-ranked submissions. The program will use a peer-review and competitive selection process, much like that of the DARPA Electric and Hybrid Vehicle Technology program. Awards for funding will be based on the full proposals submitted.

Question. What is the expected life of this program? Please break out the assumed funding levels (DOT, DOE, industry match, total) for fiscal years 1999 through 2003.

Answer. The Advanced Vehicle Program, as currently envisioned, will continue throughout the duration of the ISTEA reauthorization period. Extension of the program beyond that time will be considered as appropriate. The fiscal year 1999 level for this program is $10 million. Outyear funding decisions are made on an annual basis. The current assumption on matching shares is that DOE intends to seek similar levels to DOT. The consortia will be required to continue matching the federal funding at a minimum ratio of 1:1.

1997 OMNIBUS FUNDING

Question. An amount of $2,500,000 was provided for RSPA to conduct a transportation system vulnerability assessment. Was that assessment completed? Please summarize the findings (or include the executive summary verbatim if the report is complete).

Answer. RSPA and the Department's Office of Intelligence and Security (S–60) are jointly conducting the vulnerability assessment of the U.S. surface transportation system. A report that summarizes the findings of the Assessment, identifies key threats and vulnerabilities, and recommends effective countermeasures to protect the U.S. is expected to be complete in July 1998. The scope of the study covers the U.S. surface transportation system: passenger and cargo, military and civilian, private and government-owned and the domestic and international elements of the U.S. system. Proper coordination between other transportation infrastructure studies, such as the President's Commission on Critical Infrastructure Protection, has allowed us to tailor the use of these funds to address security issues at a more in-depth level and to develop a common methodology for assessing the vulnerability of the system.

In addition, this effort involves several directed studies to evaluate the vulnerabilities to specific transportation systems and modes. The assessment provides information necessary to develop policies to protect surface modes of transportation from both physical and information-based threats. These studies will also be completed in July 1998.

Question. An amount of $500,000 was provided for a contract with the National Academy of Sciences for an advisory committee on surface transportation security. What are the accomplishments of this advisory committee? Please detail the committee's actions, schedule, and any recommendations made thus far.

Answer. The National Advisory Committee on Surface Transportation Security will meet for the first time in May 1998. The Committee is being created by the National Research Council's Commission on Engineering and Technical Systems (CETS) (i.e., National Materials Advisory Board) with participation from the Commission on Physical Sciences, Mathematics and Application (e.g., Computer Science and Telecommunications Board) and the Transportation Research Board (TRB). DOT (i.e., RSPA Administrator and Office of the Secretary, Director, Office of Intelligence and Security (S–60)) will be liaison members to the Committee.

The Committee will produce a report in April 1999 that will assist DOT in identifying defense, mitigation and forensic processes and technologies that could improve surface transportation security and in developing a research agenda and strategy to develop these capabilities. Because of the immense scale and complexity of the surface transportation system and the many potential areas of vulnerability, a key component of the Committee's activities is to determine promising policies, best practices and technologies that could be affordable and acceptable to the public and private owners, operators, and users of the system. The report will also assist DOT in developing support for and in defining the elements of a longer-term strategy.

Question. What role does the RSPA Research and Technology Office have in coordinating transportation research and development across the federal government? Please describe in detail the process of proposing, approving, planning, and deploying research programs and projects, and disseminating the resulting knowledge to interested parties in the public and private sector.

Answer. As Executive Secretary of the National Science and Technology Council Committee on Technology and Executive Director of its Subcommittee on Transportation Research and Development (R&D), RSPA coordinates and facilitates applied research and technology activities of Federal agencies participating on the Committee and its Subcommittee on Transportation R&D. In addition, RSPA chairs the Department's Research and Technology Coordinating Council (RTCC). Similar to its role in the NSTC, as Chair of the RTCC, RSPA ensures cross modal collaboration on the Department's research and technology programs and activities.

The process of proposing, approving, planning and deploying research programs and projects and disseminating the results are elements of a government-wide strategic planning process for transportation R&D. The following outlines the comprehensive strategic planning process that RSPA promotes for the Department and the Federal Government:

Strategic Direction

In fiscal year 1998, RSPA is leading the development of a National Transportation Science and Technology Strategy which: (1) takes a long-term and systemic view of the Nation's transportation needs (e.g., safety, security, sustainability); (2) forecasts trends; and (3) provides strategic direction for transportation R&D to address those needs. The Strategy expands on the Federal Strategy developed in fiscal year 1997 and includes broad participation of State and local governments, industry, academia and other transportation users and operators.

This effort, in addition to the individual Strategic Plans developed by the Federal agencies in response to the Government Performance and Results Act (GPRA), forms the basis for transportation R&D planning, programming and budgeting activities for Federal agencies and DOT operating administrations.

Planning, Programming and Budgeting

Interagency plans (Transportation Technology Plan and Transportation Strategic Research Plan) will provide the mechanism for transportation system-level R&D planning across the Federal Government and with State and local governments, industry and academia to implement the Strategy.

A DOT Transportation R&D Plan will expand on the ISTEA-mandated Surface Transportation R&D Plans, to include all modes of civil and commercial transportation. The DOT Transportation R&D Plan replaces the Surface Transportation R&D Plan and will focus on major multi-agency, multi-modal and modal initiatives that support the five strategic goals of the DOT Strategic Plan.

These two planning efforts will be used by Federal agencies and DOT operating administrations to develop their own detailed plans, adjust their programs, and develop their budgets.

Program/Project Implementation

Each agency and DOT operating administration is responsible for executing its programs. Procedurally, this step is unchanged. Substantively, the Strategy and implementing Plans help all agencies and operating administrations develop partnerships, where appropriate, with other Federal organizations, state and local governments, academia and industry to address national transportation goals of safety, mobility, economic growth, environmental quality and national security. This will help focus Federal R&D programs, minimize duplication, and foster the dissemination of information and technology.

Program/Project Evaluation

Each Federal agency and DOT operating administration will conduct program and project evaluations, as they currently do. Starting in the fiscal year 1999 budget cycle, all Federal agencies and DOT operating administrations are being encouraged to perform self assessments of their transportation R&D programs using recognized Federal (i.e., President's Quality Award criteria), industry (i.e., Malcolm Baldrige criteria) or international standards (i.e., ISO 9000).

Transportation Assessments

In the past, DOT has had limited data on the system-wide performance of the Nation's transportation system (e.g., safety, security, and efficiency) and the impact

transportation R&D has had on it. Furthermore, DOT has limited data on other Nations' R&D and its potential application to U.S. transportation needs.

In fiscal year 1998, RSPA is completing a comprehensive "Transportation System Vulnerability Assessment" and a Surface Transportation R&D Assessment. The Transportation System Vulnerability Assessment provides information on key vulnerabilities in the Nation's surface transportation system and necessary to recommend countermeasures to make the Nation's transportation system more secure from both physical and information-based threats. The Surface Transportation R&D Assessment examines the research, technologies and related programs aimed at improving surface transportation infrastructure monitoring, maintenance and rapid renewal, and recommends next steps for research and technology to help the Nation address infrastructure issues.

In fiscal year 1998–1999, RSPA will conduct the first assessment of international R&D needs, trends, capabilities, and opportunities. The assessment will include an overview of international R&D, research needed to maintain the competitiveness of U.S. transportation industries as well as opportunities for international cooperation and technology exchange. The assessment will be done with participation of all appropriate Federal agencies and DOT operating administrations. This data will be used extensively in strategy development and in planning, program and budget development.

Peer and Independent Reviews

In the past, the Federal Government has not conducted peer and independent reviews of: (1) its transportation R&D portfolio from a systemic perspective; (2) the process used to define and manage the portfolio; and (3) system-level assessments. Examples of these types of reviews include: (1) the Congressionally directed National Academy of Sciences (NAS) "Advisory Committee on Surface Transportation Security" (ACSTS), a Committee of experts who will provide independent inputs to DOT on ways to improve the security of the U.S. transportation system; and (2) the National Research Council (NRC) and the Transportation Research Board (TRB) Committee on the Federal Transportation R&D Strategic Planning Process. As in fiscal year 1997 and 1998, the NRC/TRB Committee will review the Strategy implementation activities across the government for the NSTC and DOT.

Dissemination of Program/Project Results

The RSPA fiscal year 1998 funds have been used to initiate the development of a DOT R&D Tracking System to provide accurate information about DOT R&D project status and accomplishments. Currently, there is no such system. This will enable the DOT to provide more complete and accurate inputs into internal and external data calls, including the Federal-wide R&D tracking system (Research and Development in the United States (RaDiUS) database), and enable more informed decision making within the Department and Federal Government on transportation R&D issues.

In addition, RSPA allocates funding to maintain a National Transportation S&T Homepage for the NSTC and the Department that provides a one-stop resource for information on Federal, national and international transportation planning, research, technology, and education activities. In fiscal year 1999, the Homepage will be expanded to include information on private and public sector transportation R&D as well as provide an interactive forum for public involvement in the strategic planning process for transportation R&D. Other mechanisms for disseminating information will also continue to be encouraged (e.g., reports and other publications, conferences and seminars).

Question. You have stated that RSPA needs to do cross-cutting and intermodal research. Please give specific examples of key needs in cross-cutting or intermodal research that you propose to fund during fiscal year 1999.

Answer. Based on a GAO Report: Surface Transportation: Research Funding, Federal Role and Emerging Issues, September 1996, DOT should perform cross-cutting, intermodal and long-term and high-risk research. Because of RSPA's intermodal responsibilities, it has taken the lead in proposing such a research program for the Department in the Administration's NEXTEA proposal. The Intermodal Transportation Research and Development Program under NEXTEA will fund cross-cutting, intermodal and long-term research. Although specific projects have not yet been identified, previous work by the NSTC and DOT RTCC has led to a consensus on six general areas of cross-cutting and intermodal transportation research and development. These areas include: (1) environment and energy; (2) human performance and behavior; (3) computing, information and communications; (4) advanced materials; (5) sensing and measurement; and (6) tools for transportation modeling, design and construction. These areas have been identified through a transportation R&D

strategic planning process, as described in a previous response, that RSPA has been leading for the NSTC and the Department.

Of these six enabling research areas, funding in fiscal year 1999 will support those multi-agency or multi-modal projects that are expected to yield the highest benefit. Potential areas are described in more detail below:

Environment and energy.—The transportation sector accounts for about one-third of domestic contributions to greenhouse gas emissions and is the fastest growing contributor both domestically and internationally. Transportation sector impacts upon the health of soils and aquatic resources, as well as habitat disruption, are often irreversible, with unknown long-term ecological consequences. The land use decisions made by governments and individuals are long lasting and to a large extent determined by the availability of inexpensive transportation choices.

Finding solutions that enhance the sustainability of transportation systems requires applications of technology as well as an understanding of the behavioral and social sciences. Research is needed to determine the technology necessary to design transportation systems and development patterns that provide access to economic, social, and recreational opportunities such that permanent (i.e., unsustainable) environmental degradation is minimized or avoided.

Human Performance and Behavior.—Human performance-related problems play a significant role in the safety of U.S. transportation systems. In particular, given that approximately 70 to 90 percent of transportation crashes involve human error, there is no doubt that reducing or mitigating human error will reduce the human and financial costs associated with crashes. Human factors provide a way to address issues, particularly in regard to safety, that affect the millions of people in transportation. As such, research related to human performance and behavior (e.g., fatigue) and to the application and integration of advanced instructional technologies could dramatically enhance transportation system safety, efficiency and effectiveness. The primary goal of human performance and behavior research in transportation is to ensure that transportation systems are tailored to account for user needs, capabilities, and limitations. This will lead to a transportation system that adapts to the human as opposed to the human adapting to the system.

Computing, Information and Communications.—Worldwide, information technologies are being integrated into virtually all elements of the transportation system to enable greater efficiency, safety, and improved performance. Effective and rapid exploitation of these innovations will require a substantial and ongoing enabling research and development effort associated with system concepts, characterization of alternative configurational and technical choices, and development and harmonization of a wide range of standards.

Working with the software industry and the transportation community, DOT will conduct research to identify areas of particular concern and develop guidelines and tools for maximizing system robustness. In addition, coordinated Federal research will be conducted, drawing extensively on expertise from non-transportation applications, to characterize primary technical areas of vulnerability and develop guidelines and tools to provide users with high levels of security, reliability, and restorability.

Question. Please give specific examples of RSPA's successes in intermodal research and in cross-cutting research. Please discuss how those research results were used.

Answer. RSPA has worked extensively to promote intermodal and cross-cutting research and coordinate the Department's transportation research programs. As a result, DOT has been able to avoid duplicative projects among the research agendas of the various Federal agencies and DOT operating administrations. In addition, research cost savings have resulted from more sophisticated program design, planning and multimodal applicability of modal-specific technologies. Specific examples of RSPA's successes include:

University Transportation Centers and University Research Institutes Programs

The University Transportation Centers (UTC) and University Research Institutes (URI) Programs are managed by RSPA for the Department. The UTC Program has engaged research personnel and facilities in more than 1,000 research projects with the help of $187 million in Federal and non-Federal matching funds. To date, the UTC Program supports 14 centers with 67 participating universities nationwide, has issued more than 1,000 reports and involved more than 3,200 university students and faculty.

The URI Program, established under the Intermodal Surface Transportation Efficiency Act of 1991, is similar in mission to the UTC Program but differs significantly in that all of the Institutes are located at named universities, and they address topics specified in the legislation, such as surface transportation policy, infrastructure technology, urban transit, and intelligent transportation systems.

The URI Program has initiated and completed over 100 intermodal research projects and provided financial support to at least 70 students in the transportation field. Both the UTC and URI Programs have: held several technology conferences and symposia on intermodal surface transportation topics; briefed thousands of transportation practitioners on new technologies and the latest research results; and developed and offered dozens of interdisciplinary transportation courses.

Small Business Innovation Research (SBIR) Program

RSPA has taken a leadership role in managing the DOT SBIR Program to promote the involvement of small businesses in developing innovative multi-modal solutions to transportation challenges. As part of its participation in the DOT SBIR Program, RSPA awarded one SBIR contract in 1997 on the use of natural basalt to reinforce concrete, which has great potential for markedly cutting transportation system installation costs for highways, airports, and terminal construction. Proposals for innovations in nanotechnology and transportation system security were included in the fiscal year 1998 solicitation, and are now under evaluation.

Partnership with the Defense Advanced Research Projects Agency (DARPA)

RSPA also served as the focal point for interactions with DARPA on its technology re-investment program. Many of these projects are now completed: an ultraviolet LIDAR system to measure air pollution, and an uncooled infrared sensor for night security applications were particularly successful.

RSPA's Volpe National Transportation Systems Center performs cross-cutting research for all modal administrations and other Federal agencies, such as the Department of Defense

For example, the Volpe Center supports the Postal Service in its management of one of the largest motor vehicle fleets in the world. As part of this support, in fiscal year 1998 the Center distributed the Environmental Management Information Systems (EMIS) Mobile System Software to the Postal Service's 100 field environmental coordinators. The EMIS Mobile System provides "Office-on-the-Road" automation for these environmental program supervisors nationwide. The software was developed for the USPS Office of Environmental Management Policy, which develops policies and programs to assist with federal, state, and local environmental compliance.

In addition, a core group of individuals at the Volpe Center recently formed a team to identify future utilization of this technology, as well as any impediments to its implementation. Examples of projects at the Volpe Center involving GPS include development of GPS coverage models and outage reporting systems for civilian and military aviators, use of GPS for vessel tracking and navigation in harbors and waterways, human factors studies of GPS applications, development of GPS integrity monitoring algorithms for aviation, investigation of GPS interference sources and development of detection and monitoring methods, application of GPS to Intelligent Transportation Systems (ITS), and use of GPS for positive train control, hazardous materials tracking, and tracking of supplies in support of military operations.

Question. The Committee directed the initiation of appropriate mechanisms to ensure that the Department's Research and Development management and strategic planning process is broadened to include more input from the States, private sector, and general public. How was that directive implemented?

Answer. RSPA's efforts to establish a government-wide strategic planning process for transportation R&D has enabled broader participation by public and private sectors in the Nation's science and technology policy and priority-setting process. In particular, RSPA, in its role in the NSTC Committee on Technology and its Subcommittee on Transportation Research and Development (R&D), is partnering with the National Governors' Association, the State Science and Technology Institute, the Civil Engineering Research Foundation, the National Research Council/Transportation Research Board, American Society of State Highway Officials, Surface Transportation Policy Project, National Cargo Security Council, professional societies, university transportation centers, and other state and local government, university and industry organizations to expand the Federal Transportation Science and Technology Strategy into a national Strategy. These activities include workshops and outreach events for the NSTC and Department to expand the Strategy as well as to define partnerships and enabling research to meet national transportation goals.

In support of the NSTC Committee on Technology U.S. Innovation Partnership, RSPA is leading efforts in the Department to enhance Federal-State collaboration to meet science and technology policy goals. Specifically, RSPA is targeting Departmental technology-based transportation initiatives that could benefit through improved coordination with and among the States. Potential initiatives include the partnership for monitoring, maintenance and rapid renewal of physical infrastruc-

ture and partnership for a national intelligent transportation infrastructure. Efforts are underway between the National Governors' Association and DOT to work closer with the States in refining strategies to implement these and other regional and national initiatives.

Other mechanisms that RSPA has employed to enhance the participation of state and local governments, universities, and industry organizations include creating a National Transportation Science and Technology Homepage and forum capability. The Homepage is a one-stop resource for information on national and international transportation planning, research, technology, and education activities. The forum capability enables the exchange of information among the private and public sectors on transportation-related S&T issues of interest to DOT and the Nation. Emphasis in fiscal year 1998 is to provide additional online access to the transportation-related R&D activities of other Federal agencies, DOT, colleges and universities, state and local governments, industry and other private and public sector entities.

In fiscal year 1999, RSPA will expand the National Transportation S&T Homepage to provide a Science and Technology Forecasting Capability. This effort will expand the initial capabilities of an electronic consultation tool to allow the transportation research and development community repetitive, cyclical consultation with a range of technology experts (Delphi forecasting). The responses will provide a baseline for future forecasts and for transportation R&D planning.

Question. Have you decided to open to the public more of the meetings of the various research coordinating committees and council meetings? If so, how will this be accomplished?

Answer. Meetings of the National Science and Technology Council (NSTC) Committee on Technology, its Subcommittee on Transportation R&D and the DOT Research and Technology Coordinating Council (RTCC) are not open to the public. The NSTC Committee on Technology and its Subcommittee on Transportation R&D are interagency forums for development and coordination of science and technology policies within the Executive Branch. The DOT RTCC serves a similar function within the Department. Meetings of the NSTC and RTCC are Government-only meetings, involving review of the Administration's science and technology policy goals and budgetary and predecisional information that cannot be disclosed to the public.

While the Committee and Council meetings are not open to the public, initiatives that stem from these meetings are carried out in cooperation with the public and private sectors. For example, the NSTC Committee on Technology and the National Governors' Association are co-sponsoring a meeting in May 1998 to help the Federal Government assess and expand the Transportation Science and Technology Strategy, released by the NSTC last year, into a national strategy. The meeting will include policymakers from state and local governments, Federal agency officials, industry, and university researchers. Inputs from the meeting will be used by the NSTC in developing the National Transportation Science and Technology Strategy.

Question. The Committee encouraged RSPA to give favorable consideration to requests for university transportation centers grants from the National Center for Advanced Transportation Technology (NCATT) at the University of Idaho. How did you respond?

Answer. RSPA has received no such requests from the National Center for Advanced Transportation Technology (NCATT) at the University of Idaho, but continues to list NCATT as a National University Transportation Center in all literature describing the program.

NEW CONTRACT AUTHORITY PROGRAM FOR INTERMODAL TRANSPORTATION RESEARCH

Question. Please update the Committee on the status of the proposed Intermodal Transportation Research and Development Program (ITRD). What is the current status of the legislation in the House and Senate authorizing committees?

Answer. The Administration's NEXTEA proposal would establish an intermodal/multimodal transportation research and development program at $10 million per year. The Senate bill (S. 1173), which was passed on March 12, 1998, would establish a multimodal transportation R&D program at $2.5 million per year. The House Transportation and Infrastructure Committee bill (H.R. 2400 (BESTEA)), which was passed on April 1, 1998, does not contain such a provision.

The proposed Intermodal Transportation Research and Development Program is currently in conference by the House and Senate authorizing committees.

Question. Please break out the approximate funding levels of the planned activities for the ITRD Program (pages 85 through 88 of the budget justification), assuming a funding level of $15,000,000, as proposed in the administration's NEXTEA legislation. Please provide the analytical basis for the amount requested for each of

those study areas. Please also make the same allocation break out assuming a total fiscal year 1999 funding level for this new program of $5,000,000, and of $2,000,000.

Answer. The Intermodal Transportation Research and Development (R&D) Program, as proposed in RSPA's fiscal year 1999 budget request and in the Administration's NEXTEA legislation, will focus on six areas of enabling research: (1) environment and energy; (2) human performance and behavior; (3) computing, information and communications; (4) advanced materials; (5) sensing and measurement; and (6) tools for transportation modeling, design and construction. Specific activities under these enabling research areas have not yet been identified. They as well as funding levels will be determined through a competitive, peer-reviewed selection process.

FISCAL YEAR 1999 APPROPRIATIONS REQUEST

Question. Please break out the amount requested for each of the R&T activities for fiscal year 1999 that would be funded with the $2,410,000 requested (pages 81 through the top of 85 of the budget justification). Please provide the analytical basis for the amount requested for each of those study areas.

Answer. Estimated funding levels for RSPA's R&D planning and management activities in fiscal year 1999 are as follows:

Activity	*Fiscal year 1999*
Strategic planning and system assessment	$850,000
Coordination and facilitation	1,210,000
Intermodal and multimodal research and education	350,000
Total	2,410,000

RSPA estimates slight increases from the fiscal year 1998 levels in each of these areas based on the following:

Strategic planning and system assessment activities being conducted in fiscal year 1998 will continue in fiscal year 1999 with the same level of effort. Emphasis in fiscal year 1999 will be on expanding the Federal transportation R&D strategic planning process to a national level, and developing the second Transportation Technology and Strategic Research Plans, based on extensive outreach conducted in fiscal year 1998. In addition, RSPA will conduct the first assessment of international R&D needs, trends, capabilities, and opportunities in fiscal year 1999. While the assessment is scheduled to begin in fiscal year 1998, the bulk of the work will be done in fiscal year 1999.

For research and technology coordination and facilitation, emphasis in fiscal year 1999 will be on enlisting nation-wide support for technology partnerships and high-priority enabling research. To accomplish this, RSPA will be conducting and engaging in workshops and public outreach events across the country. RSPA also will enhance its Internet capabilities to provide the transportation community with complete and accurate information on the Department's and Federal Government's transportation research and technology initiatives and activities.

The funding levels for Intermodal/Multimodal Transportation Research and Education will be increased primarily to provide additional support of the Small Business Innovation Research Program.

Question. Please provide a table indicating the amount appropriated and the amount actually spent for the different major categories and subcomponents of the Research and Technology budget for each of the last three years. Please explain any deviation or reallocation of funds.

Answer. RSPA's fiscal year 1996, 1997 and 1998 budgets provided needed funding to support an approach which focuses on: strategic planning, systems assessment and policy research; research and development coordination and facilitation; and inter/multi-modal research and education programs. The following table indicates the allocation of funds for R&D activities in fiscal years 1996, 1997 and 1998:

Activity	Appropriated	Obligated
Fiscal year 1996:		
Strategic planning	$416,000	$416,000
Research and technology coordination and partnerships	979,000	979,000
Intermodal and multi-modal research and education	471,000	471,000
Total	1,866,000	1,866,000

Activity	Appropriated	Obligated
Fiscal year 1997:		
Strategic planning	825,000	825,000
Research and technology coordination and partnerships	1,110,000	1,110,000
Intermodal and multi-modal research and education	295,000	295,000
Total	2,230,000	2,230,000
Fiscal year 1998: [1]		
Strategic planning	725,000	725,000
Research and technology coordination and partnerships	1,025,000	875,000
Intermodal and multi-modal research and education	300,000	200,000
Total	2,050,000	1,800,000

[1] Obligations as of April 30, 1998.

Question. On page 77 of your fiscal year 1999 budget justification submission, RSPA is asking for an increase of $360,000 for R&D planning and management. What was the empirical basis for this increase?

Answer. In fiscal year 1999, RSPA is requesting $2.41 million for its research and technology planning and development activities, an increase of $360,000 over fiscal year 1998 levels. This increase in funding will be used predominantly to strengthen and broaden the federal strategic planning process to a national level, as recommended by the National Research Council Committee on the Federal Transportation R&D Strategic Planning Process. To do this, RSPA will lead several initiatives, such as Government-wide and multi-agency planning efforts, workshops and public outreach events aimed at enlisting support for technology partnerships and developing detailed plans for high-priority enabling research to accomplish national transportation goals.

Question. How much is requested to prepare and distribute the Annual Surface Transportation R&D plan?

Answer. RSPA is requesting $150,000 in fiscal year 1999 to prepare and distribute the DOT Transportation Research and Development (R&D) Plan. In fiscal year 1998, RSPA is leading the development of the first DOT Transportation R&D Plan, which builds upon the surface transportation R&D plan. To address the Department's strategic goals, identified in the DOT Strategic Plan, from a long-term and system-level perspective, the DOT Transportation R&D Plan must expand beyond surface transportation. Surface transportation R&D is a major element of the DOT Transportation R&D Plan, but other modes of transportation, such as aviation and maritime, play an integral role in the Nation's surface transportation system and need to be included in the Plan, especially the interfaces among the modes.

UNIVERSITY GRANTS PROGRAM

Question. What are the current challenges and opportunities facing the University Grants Program? How do you ensure that only high priority projects are funded at these institutions?

Answer. The greatest challenge facing the University Grants Program is the reauthorization of the University Transportation Centers and University Research Institutes programs. Changes in program structure, funding levels, or other requirements could all have serious impacts on the ability of individual institutions to participate in the program. Reauthorization also provides the greatest opportunity for enhancing the University Grants Program. The reissuance, and possible recompetition, of the grants will enable RSPA to adopt changes that will reduce paperwork while increasing accountability. By establishing relevant, quantifiable performance measures for the university grants, RSPA will be better able to assess their effectiveness, both individually and collectively.

RSPA requires each University Transportation Center and University Research Institute to devise and implement a project selection process that responds to criteria such as regional needs, national priorities, priorities of matching fund sponsors, modal balance, availability of matching funds, and student and faculty involvement. Many of these criteria are statutorily mandated and require a balancing of priorities. Each year during the annual review, RSPA evaluates the effectiveness of the project selection process in the previous year and approves any changes to the process for the coming year. RSPA also requires that research projects undergo review by academic peers or other experts in the field to ensure that they advance

the body of knowledge or otherwise contribute to the advancement of transportation. Note, RSPA does not directly manage project selection at University Transportation Centers and University Research Institutes.

Question. Please bring us up to date on how RSPA has improved the management and oversight of the university centers and research institutes program.

Answer. RSPA took over management of the University Transportation Centers and University Research Institutes Programs in 1992. Since that time, RSPA has required each Center and Institute to prepare an annual plan setting forth the major activities by which the Center or Institute intends to achieve progress toward the mission and goals of the overall program. After review by DOT staff, the plan is discussed with the Center or Institute, necessary changes are agreed upon, and the plan becomes the basis for both award of the grant and evaluation of the grantee's performance.

RSPA also requires each Center and Institute to submit an annual report describing how well they implemented the previous year's annual plan. This is also reviewed by DOT staff and discussed with the particular Center or Institute to commend successes and identify areas where some redirection is required.

These actions have resulted in a high level of confidence in the effectiveness and value of the University Transportation Centers and University Research Institutes programs.

In 1996, RSPA conducted a program-level review of the Department's University Transportation Centers Program. The purpose of the review was to determine whether the program was meeting its statutory goals to promote transportation education, research and technology transfer. A final report, issued in February 1997, concluded that the program was successfully meeting its legislative mission and merited further consideration at the time of reauthorization.

RSPA undertook a similar program-level review of the University Research Institutes Program in 1997. Unlike the Centers Program, the Institutes did not share a single legislative mission. Neither did they share the same goals, so their synergistic potential was less than that enjoyed by the Centers. Each Institute had a statutorily-defined research mandate which, taken together, suggested a collective purpose: contribution to the Nation's transportation research agenda. The final report issued in the fall of 1997 concluded that the University Research Institutes Program was meeting that mission and merited further consideration, possibly in a revised framework, at the time of reauthorization. This conclusion is reflected the Administration's reauthorization proposal to merge the Institutes into an expanded University Transportation Centers Program.

Question. How much is spent on conducting numerous annual on-site evaluations? What is the sources of these monies? What are the benefits of these assessments and how does RSPA ensure that the universities respond to the comments?

Answer. Each year RSPA staff conduct an annual review of each University Transportation Center and University Research Institute. Whenever possible, that review entails a site visit. The cost of travel for two RSPA staffers to visit the 19 sites once a year is approximately $12,000.

The direct costs of the site inspections are administrative expenses which are charged against RSPA's administrative account for travel. The University Transportation Centers Program, but not the University Research Institutes Program, authorizes the use of 1 percent of grant funding for the costs associated with administering the program. The program's two funding sponsors, the Federal Highway Administration and the Federal Transit Administration, routinely retain a portion of that amount to defray the costs they incur in connection with the program. And RSPA uses the balance to comply with the mandate to establish a centralized clearinghouse for the program.

The site inspections serve many purposes, providing the reviewers an opportunity to assess the quality of the facilities, equipment, and personnel associated with the program. Site inspections permit the reviewers to meet all of the people associated with the Center or Institute and to judge from their interaction the extent to which they comprise a unified center. Meeting the students is another way to assess the validity of the described education program. Finally, site visits far exceed written or telephonic exchanges as effective means to communicate a center's actual achievements.

Annual site visits enable the reviewers to determine how effective a Center or Institute has been in the prior year; and they set the stage for negotiating the annual plan that will be the basis for the next year's award. Each approved annual plan is incorporated by reference in the grant awarded by RSPA. If the Center or Institute does not amend its plan or take a particular action to reflect RSPA's comments, then RSPA will suspend, reduce or disapprove the grant.

Question. RSPA is requesting an increase of $605,000 from the enacted level for program support (not including a slight increase for PC&B and administrative expenses). Please display the components of these programs in tabular form, showing fiscal year 1998 enacted, fiscal year 1999 request, amount of increase, and giving a brief description of each program.

Answer. The answer is provided as follows:

Garrett A. Morgan Technology and Transportation Futures Program

Fiscal year 1998 enacted	.....
Fiscal year 1999 request	$200,000
Amount of increase	200,000

Through the Garrett A. Morgan Technology and Transportation Futures Program, the Department and its partners will make 1 million students aware of transportation careers and help ensure that they have the skills and knowledge required to pursue these careers. We must attract employees to the transportation field with a strong understanding of technology and with the math and science skills which underpin such knowledge.

Rather than create a separate program with a high demand for resources, the Secretary charged all operating modes to build on current DOT programs and to maximize our investment by working with our partners outside the Department. To accomplish this, DOT works through the DOT Education Taskforce and the Morgan Education Roundtable. The requested funding will allow RSPA to establish and maintain a database of Morgan Education Roundtable members and their projects that support the program's goals, support working group meetings of the Morgan Education Roundtable partners, maintain a web site, and pay for costs associated with disseminating information about the program.

Building on Core Programs

RSPA's plans include operational partnering with the Departments of Education and Labor; expanding communication links between Morgan Education Roundtable partners so that they may better collaborate on regional and local efforts; identifying two or three new community college partnerships with non-federal stakeholders; under reauthorization, ensuring that Departmental efforts targeted at college and graduate students increase attraction of students to the transportation field; and, expanding multi-disciplinary transportation curricula at the undergraduate and graduate level.

Through the Morgan program we will help implement suggestions made in conjunction with last year's White House Conference which pulled together 200 transportation employers and representatives of all levels in the transportation and education communities. We will continue to connect transportation employers with students through programs at the local level. Those efforts provide work experience for students to help them learn about career opportunities and to give them hands-on work experience. Projects include career days and speakers, internships, summer jobs, a clearing house for education materials, net days, computer donations, and teacher externships.

Information Resources Management

Fiscal year 1998 enacted	$400,000
Fiscal year 1999 request	680,000
Amount of increase	280,000

For the past few years, RSPA's IRM program has cost approximately $1 million a year. Our fiscal year 1998 funding level of $400,000 covers only 40 percent of RSPA's IRM program which includes user help support, LAN administration, equipment acquisition and upgrades, programming, training, policy development, security, and IRM strategic planning. The increase requested in fiscal year 1999 is not for more equipment or enhanced capacity. The additional funding is needed to support our primary IRM program.

Previously, we have funded the program through available operating expenses. In fiscal year 1999, due to reductions in our program support account and full staffing we will have less flexibility to cover our basic IRM program.

Electronic Grants Pilot Project

Fiscal year 1998 enacted	.....
Fiscal year 1999 request	$100,000
Amount of increase	100,000

The Department's Electronic Grants Project is a pilot test recommended by the Access America: Reengineering Through Information Technology report issued by the National Performance Review (NPR) and Government Information Technology Services Board to Vice President Gore.

Through the leadership of the Office of the Secretary, RSPA plans to partner with most of the Department (OST, FAA, Coast Guard, FHWA, NHTSA, FTA, and FRA) on this pilot.

The project's purpose is to streamline and improve the grants process for both agencies and grantees, and cut long-term costs for Federal agencies and grant customers by taking advantage of the Internet, intranets and other electronic tools.

Productivity improvements are anticipated through:

—reduced paperwork for processing grants,

—reduced duplication for grantees needing to coordinate with more than one agency, and

—simplified/standardized forms and approaches for grantees working with different agencies.

To date, RSPA has processed grant applications manually, though some information about our grants programs is contained on the Internet.

Acquisition Training Resources

Fiscal year 1998 enacted	.....
Fiscal year 1999 request	$25,000
Amount of increase	25,000

In compliance with the Clinger-Cohen Act of 1996, the Department is required to provide training to its acquisition work force. The law tasks the Senior Procurement Executive of each agency with the responsibility for implementing the acquisition work force requirements and certifying the capability of DOT's acquisition work force to meet Government-wide education and training standards. RSPA must ensure that its acquisition work force has adequate funding to permit mandatory training for specific grade levels in the contracting series (GS–1102).

This funding will provide acquisition core training courses for RSPA's acquisition work force as required by the Clinger-Cohen Act of 1996.

If funding is not provided, and training is not completed, RSPA contracting personnel will not be able to meet Government-wide certification standards and will therefore not be eligible for career progression nor will they be adequately trained to perform the essential contracting support functions required of them.

Question. Please explain the scope and nature of your commitment to the Garrett A. Morgan Technology and Transportation Futures Program. What other DOT agencies are contributing to this transportation outreach program? At what funding levels?

Answer. Through the Garrett A. Morgan Technology and Transportation Futures Program, the Department of Transportation and its partners in the transportation work force will make 1 million students aware of transportation careers and help ensure that they have the skills and knowledge required to pursue these careers. We must attract employees to the transportation field with a strong understanding of technology and with the math and science skills which underpin such knowledge.

While all DOT agencies are involved in the Morgan program, they have been asked to build on existing programs. With the exception of the $15,000 sought by OST for printing costs, no additional funds are being sought.

EMERGENCY PREPAREDNESS GRANTS

Question. What empirical evidence do you have of the need to almost double the amount of funds provided for Emergency Preparedness Grants(page 132 of the budget justification, grants increase from 6,572,000 to 12,800,000 requested for fiscal year 1999)?

Answer. The current level of funding is not sufficient to adequately provide for the training and planning needs of the Nation's nearly 3.2 million emergency responders. In fact, only a small portion of this population is being served by our program. Only 130,000 to 200,000 emergency responders receive even partial training each year and only some of the Nation's 3,000 local emergency planning committees receive assistance in preparing emergency response plans.

While the situation has improved somewhat from 15 years ago, a 1984 FEMA survey of emergency response personnel found that emergency responders frequently do not consider the possibility that hazardous materials may be involved or do not know how to determine what hazardous material is involved. In addition, command personnel and those involved in decision making usually were found to not understand the potential hazards of the material or the diverse problems to be addressed

in a major hazardous material release. This research also found that the majority of emergency worker casualties occur within the first few minutes of a hazardous material release. This demonstrates the importance of reaching additional emergency response personnel, and providing them with the information that they need as first responders.

Question. What would be the implications of increasing the limitation on obligations for this program to $10,000,000, as opposed to $14,100,000?

Answer. States and Indian tribes would not be able to train as many emergency responders or provide as much funds to Local Emergency Planning Committees. Also, limiting obligations for this program to $10,000,000 would still fall below the level of funding originally contemplated by Congress when the registration program was established.

Question. What are the pros and cons of gradually increasing the total amount of funding for the Emergency Preparedness Grants?

Answer. We do not see any advantages in gradually increasing the total amount of funding for the Emergency Preparedness Grants program. RSPA believes that such an approach could further complicate and possibly delay the planned rulemaking and States would have less money for emergency response planning and training.

Question. Has the agency determined how the increased level of hazardous materials shipper and registration fees will be assessed? Will the universe of registered shippers be increased, the fee structure changed, or enforcement of current fee assessments improved?

Answer. RSPA is currently considering the use of a negotiated rulemaking process or other collaborative effort to effect changes in the registration program requirements. We are open to a variety of options for increasing the grant funds for emergency response planning and training. Options include expanding the universe of persons required to register, increasing the fee for all or some registrants, or a combination of the two. RSPA will strive for simplicity in the fee assessment structure to enhance State and local enforcement of the regulations.

Question. Please describe the current fee assessment structure. Do all registered hazardous materials operators pay the same registration fee? Is this fee assessed on a per operator or per vehicle basis? Please list the five statutory requirements determining who must file a registration statement.

Answer. Under the current regulations each company that engages in any of five specific activities involving the offering or transporting of hazardous materials is required to register and pay a uniform fee of $300, regardless of the type or quantity of hazardous materials that is involved. These five activities are offering or transporting: (1) a highway route controlled quantity of a radioactive material; (2) 55 pounds or more of a class 1.1, 1.2, or 1.3 explosive; (3) more than 1 liter per package of a material poisonous by inhalation that meets the criteria for hazard zone A; (4) any quantity of hazardous material in a bulk container with a capacity of 3,500 or more gallons for liquids or gases, or 468 or more cubic feet for solids; or (5) a shipment in other than a bulk packaging of 5,000 pounds gross weight or more of one class of hazardous materials that requires placarding of the vehicle, rail car, or freight container.

Question. Has DOT considered linking the hazardous materials registration fee structure to risk, by taking into account type of shipment, number of movements, compliance records, or other variables? Would such a fee structure be more equitable? Has the hazardous materials industry requested moving to a more risk-based fee structure?

Answer. In a 1995 rulemaking which was subsequently withdrawn, RSPA proposed linking the hazardous materials registration fee structure to risk. We believe that using a measurement of the risk imposed by a company's business to establish the amount of the fee would definitely increase the equity of the fee assessment. Because both shippers and carriers are subject to the registration requirements, and because the nature of the hazardous materials activities in which the registering companies engage varies so widely, finding a universally applicable indicator of risk that would not impose an overly burdensome record keeping requirement and that would not adversely affect particular segments of the industry, particularly the smaller companies, remains a matter of concern for RSPA. The industry has been consistent in supporting the concept of simplicity in amending the registration requirements in order to minimize the filing and record keeping requirements imposed by registration. Simplicity of administration and enforcement are also concerns of RSPA. The negotiated rulemaking process or another collaborative process currently under consideration will provide the industry and governmental parties that have a direct interest in the registration and the related grants programs an opportunity

to consider how the goals of equity and simplicity can best be incorporated into the regulations.

Question. Please describe the allocation formula for emergency preparedness grants.

Answer. RSPA allocated grant funds for fiscal year 1997 based on objective factors using verifiable publicly available data which represented community risks and needs. With the exception of the States and territories that did not apply, and the three percent of the training funds that were set-aside for Indian tribes, each grantee received an award equal to its share based on RSPA's allocation factors.

RSPA used the following factors for allocation of training grants:

—Fifty percent of the funds were allocated to States (including territories) based on their percentage of total population. Population is a surrogate for the number of responders needing training.

—Thirty percent of the funds were allocated to States based on their percentage of total highway miles, which is a surrogate for highway risk.

—Twenty percent of the funds were allocated to States on the basis of their percentage of the total number of chemical facilities, as reported by the U.S. Census Bureau. This allocation measure is a surrogate for fixed-facility risk.

We used an appropriately different approach in allocating planning funds:

—Twenty percent of the funds were allocated to States based on their percentage of total population.

—Forty percent of the funds were allocated based on the State's percentage of total hazardous materials truck miles.

—Forty percent of the funds were allocated on the basis of the State's percentage of the SuperFund Amendments and Reauthorization Act of 1986 § 302 chemical facility reports.

Question. What are the measures of success or accomplishments for this program? How do you know whether the grant funds are used effectively by the States?

Answer. RSPA measures the success of the program by the States' accomplishments in terms of training and planning for emergency response to hazardous materials incidents. To the present time, 542,867 hazmat emergency responders have been trained, in part, using grant funds. Also in the latest year, 520 commodity flow studies, which identify where hazardous materials are being transported to facilitate emergency response planning, were accomplished; 796 exercises were held, and 5,647 response plans were created or updated.

RSPA's grants have supported emergency response training along the U.S.-Mexican border in support of NAFTA. Grants have totaled $3.9 million over four years (fiscal years 1993–1996) to the States of California, Arizona, New Mexico, and Texas. RSPA also used the program to fund translation of the North American Emergency Response Guidebook into Spanish, thus helping Spanish-speaking first responders in the U.S. and Mexico.

RSPA grantees have used their grant funds to train a large number of emergency responders at a modest cost. For example, Arkansas used an educational TV network to provide hazmat training to emergency responders in its communities. North Carolina uses mobile training facilities to provide technician training, and Idaho provides hazmat training in a training center developed at an unused airport.

RSPA continues to work closely with other Federal agencies through criteria to evaluate the overall benefits and effectiveness of the planning and training programs and to determine what types or methods of Federal technical assistance would be most valuable in support of local Hazardous Materials (HM) planning and training programs.

Question. Is the $700,000 requested for the Emergency Response Guidebook the total cost of updating, printing, and distributing this publication? If not, what other costs are associated with the guidebook? When will the updated guidebook be published?

Answer. No, the $700,000 is requested to cover only the costs of printing and distributing the guidebook in fiscal year 1999. In addition, approximately $150,000 of Research and Development funds are used to maintain state of the art guidance, update the toxicological and health criteria, update technical data, verify improvements in dispersion modeling methodology and improve the Table of Initial Isolation and Protective Action Distances for Toxic Gas and Liquids. The next guidebook is scheduled to be published during the fourth quarter of fiscal year 1999.

OFFICE OF PIPELINE SAFETY (OPS)

Question. Please prepare a table indicating the amount appropriated and the amount actually spent for the major categories and sub-components of the pipeline

safety budget for each of the last three years, as well as the fiscal year 1999 request levels.

Answer. The following information is provided:

Program	Fiscal year 1996	
	Appropriated	Obligated
Information & Analysis	$1,200	$1,194
Risk Assess & Technical Studies	1,750	1,747
Compliance	300	300
Training & Information Dissemination	850	850
Emergency Notification	100	100
Damage Prevention (Nat'l Public Education)	500	500
Environmental Indexing	500	500
OPA: Derived from OSLTF	2,520	2,517
R&D:		
Information Systems	400	400
Risk Assessment	300	300
Mapping	1,200	432
Non-Destructive Testing	100	100
Grants	12,000	[1] 12,354

[1] Includes carryover.

Program	Fiscal year 1997 [1]	
	Appropriated	Obligated
Information & Analysis	$1,200	$1,200
Risk Assess & Technical Studies	1,800	1,765
Compliance	300	300
Training & Information Dissemination	860	860
Emergency Notification	100	100
Damage Prevention (Nat'l Public Education)	200	193
OPA: Derived from OSLTF	2,336	2,326
R&D:		
Information Systems	400	400
Risk Assessment	300	242
Mapping	400	.....
Non-Destructive Testing	400	400
Grants	13,200	13,090

[1] Obligations thru 4/21/98.

Program	Fiscal year 1998 [1]	
	Appropriated	Obligated
Information & Analysis	$1,200	$834
Risk Assess & Technical Studies	1,200	997
Compliance	300	300
Training & Information Dissemination	820	820
Emergency Notification	400	.....
Damage Prevention (Nat'l Public Education)	.....	.....
OPA: Derived from OSLTF	2,328	742
R&D:		
Information Systems	400	400
Risk Assessment	300	.....
Mapping	400	.....
Non-Destructive Testing	65	65

Program	Fiscal year 1998 [1]	
	Appro-priated	Obligated
Grants	13,600	1,000

[1] Obligations thru 4/21/98.

Program	*Fiscal year 1999 request*
Information & Analysis	$1,365
Risk Assess & Technical Studies	1,200
Compliance	450
Training & Information Dissemination	921
Emergency Notification	100
Damage Prevention (Nat'l Public Education)	200
OPA: Derived from OSLTF	2,443
R&D:	
Information Systems	400
Risk Assessment	300
Mapping	800
Non-Destructive Testing	419
Grants	15,000

Question. What are the current unobligated balances in the Office of Pipeline Safety? What is anticipated to be unobligated at the end of fiscal year 1998? Will any unobligated funds be returned to the pipeline safety fund?

Answer. As of April 21, the total unobligated balance for the Office of Pipeline Safety was $20.6 million. This includes $5.6 million for operation expenses; $.9 million for contract program activities (1 year funds); $1.9 million for R&D program activities (3 year funds); and $12.5 million for grants. We plan to obligate all contract program funding by close of fiscal year 1998. We estimate that our 3-year funding for R&D will have an unobligated balance of approximately $600,000.00 at the end of fiscal year 1998. At this time, we are estimating a lapse of approximately $100,000 (less than 1 percent) of 1 year operating expenses. By law, unobligated "one-year" funds for a given fiscal year are returned to the Pipeline Safety Fund 5 years after the close of the fiscal year in which they were appropriated.

Question. Given the recent improvements in pipeline safety, why is it critical to increase the pipeline budget by $2.7 million at this time.

Answer. The largest area of increase we request is in our state grant program. States inspect over ninety-three percent of the pipelines in the United States, mostly distribution systems. Distribution systems have experienced a significant growth in mileage in recent years, increasing from 1.2 million miles in 1984 to almost 1.7 million miles today, a half million mile increase. The number of customers served by these lines has increased accordingly. Our top priorities continue to be reducing to zero the number of accidents caused by non-compliance with pipeline regulation and working with operators to reduce threats to pipeline integrity. In addition to this work, we now ask States to take on additional roles in helping us with the risk management initiative on interstate pipelines and improving the efficiency of one-call systems. Now more than ever, it is vital to preserve basic state pipeline program funding as close as possible to the 50 percent level authorized and provide sufficient and separate funding for their efforts to support the national risk management and one-call initiatives. Our request reflects the significance of this support.

Additionally, we have requested small increases in program funding in the areas of information systems, compliance and training. We need to cover increasing contract costs in analyzing incident, inventory and inspection data to be sure that appropriate safety measures are taken to prevent and respond to incidents. With 20 planned pipeline projects starting this year, we need additional support to witness new construction, to assure that contractor engineering practices at least comply with our standards. Training activities need to address new skills required to evaluate the effectiveness of alternative safety activities being proposed in the current operating environment.

In the research area, we have requested a small increase in the mapping program to respond to the workload in digitizing paper maps to complete our national coverage of data on pipeline locations. Additional funding is needed for the non-destructive evaluation project. We need to complete testing at the pipeline simulation facility of technologies which detect mechanical damage in the circumferential direction, in addition to the longitudinal direction of the pipeline.

Question. What activities comprise the 3-year availability portion of the Pipeline Safety request ($16,919,000)?

Answer. The 3-year funding level of the Pipeline Safety request ($16,919,000) represents all R&D contract funds plus all grant program funds requested in the Pipeline Safety appropriation, as defined by RSPA's fiscal year 1999 Budget Request on page 148.

AUTHORIZATION ISSUES

Question. Please prepare a table summarizing each of the new responsibilities specified in the Accountable Pipeline Safety and Partnership Act of 1996 and indicate how and when you will complete these items. Be certain to summarize the specific components of your budget request that are necessary to implement each of these specific tasks?

Answer. The following table is provided:

Public Law 104–304	Requirement(s)	RSPA response(s)	Components of budget
Section 3(b)	Changes requirement to define 'regulated gathering line' from 'the Secretary shall' to 'the Secretary shall, if appropriate'.	Now preparing SNPRM in Docket No. PS–122, 'Gas Gathering Line Definition' for Federal Register publication by October 1998.	PC&B (fiscal year 1999).
Section 4(a)	Emphasizes requirement to ensure that individuals performing O&M on pipelines be qualified. Main change here is in §60102 (a) (1)(C) and §60102 (a) (2); requirement to 'test and certify' becomes 'qualified'.	The Secretary convened a Negotiated Rulemaking (RegNeg) committee on qualification of pipeline personnel performing operations & maintenance and emergency response functions. The committee reached a consensus on a proposed rule on operator qualification in January 1998. A proposed rule will be published in fiscal year 1998.	PC&B (fiscal year 1999).
Section 4(b)	Adds new language to clarify requirements for consideration of risk assessment, environment, cost/benefit analysis, and recommendations of advisory committees.	RSPA's cost/benefit analyses already comply with this requirement. A government/industry, cost/benefit framework working group is refining procedures to address environmental and other costs and benefits.	PC&B (fiscal years 1997 and 1998). OPA fiscal year 1997.
Section 4(b)	Requires consideration of costs and benefits; exploration of regulatory and nonregulatory options; explanation of selection; identification of information on which risk assessment is based.	Most of the specific items required for consideration under 'risk assessment' are already required by E.O. 12866 (October 4, 1993), Regulatory Planning and Review. All new cost/benefit studies will be in compliance with this requirement.	PC&B (All future fiscal years).
Section 4(b)	Requires submission of any risk assessment supporting cost/benefit analysis to the pipeline safety advisory committee(s). Risk assessment information must be available to the public.	All risk assessments supporting cost/benefit analyses are being submitted to the pipeline safety advisory committees and are being docketed for public comment. The next advisory committee meetings are in May 1998.	PC&B (All future fiscal years).
Section 4(b)	Requires advisory committees to function as 'peer review panels' for risk assessment information; must submit this information to advisory committees; advisory committee reviewing risk assessment information has 90 days to submit a report on risk assessment evaluation and recommendations on associated rulemaking.	RSPA is providing risk assessment and cost/benefit analysis information on proposed rules to the pipeline safety advisory committee(s) for review in their role as 'peer review panels.'.	PC&B (All future fiscal years). Risk Assessment & Technical Studies. Fiscal year 1999 Operations/Travel.

Public Law 104–304	Requirement(s)	RSPA response(s)	Components of budget
Section 4(b)	Requires Secretary to respond to advisory committee(s) regarding their peer review report and their advice on the proposed rule.	RSPA will respond to each peer review report on the risk assessment and the features of the rulemaking before issuing any final rule.	PC&B (All future fiscal years).
Section 4(b)	Provides an exception to risk assessment requirement for rules that are the product of a negotiated rulemaking or a rule, such as a Direct Final Rule adopting updated industry standards, that receives no adverse comments; for a recommendation by a three-fourths vote of the advisory committee(s); or for rules that the Secretary determines do not require a public procedure.	RSPA will implement exceptions as appropriate	PC&B (None).
Section 4(b)	Report on risk assessment and rulemaking program by March 31, 2000; include suggestions for making risk assessment a useful means of assessing benefits and costs of regulatory and nonregulatory options.	RSPA will prepare report to Congress on risk assessment, regulatory, and nonregulatory approaches by March 31, 2000.	PC&B (fiscal year 1998; fiscal year 1999; fiscal year 2000).
Section 4(e)	Requires new and replacement natural gas transmission and hazardous liquid pipelines to accommodate 'smart pigs'; allows extension of such standards to require accommodation in existing pipelines.	The final rule in Docket No. PS–126 directed that all new lines be built to accommodate 'smart pigs'; RSPA is preparing a final rule in response to the petitions for reconsideration from AGA and INGAA.	PC&B (fiscal year 1999).
Section 4(e)	Allows Secretary to determine if periodic inspections using 'smart pigs' are necessary.	RSPA is cooperating with industry groups on advanced 'smart pig' research to determine if a requirement for periodic inspections using 'smart pigs' can be justified. Any regulatory action would be no earlier than fiscal year 1999.	R&D (fiscal years 1995–99).
Section 4(f)	Directs the Secretary, as necessary, to update industry standards that are incorporated by reference in the pipeline safety regulations.	An annual process to update industry standards that are incorporated by reference in the pipeline safety regulations was established in 1996; the 1997 update was published in the Federal Register on February 17, 1998; the 1998 update will be published in fiscal year 1999.	PC&B Operations—Travel (fiscal years 1996–99).

Section 4(g)	Requires owners of interstate gas pipelines to provide all 'municipality(ies)' (defined a any political subdivision of a state per §60101(a)(15)) through which its pipeline passes with a map showing the location of the pipeline facility(ies); requires by June 1, 1998, the security to survey and assess the public education programs under section 60116 and the public safety programs under section 60102 and determine their effectiveness and applicability as components of a model program; not later than one year after the survey (6/1/99) the security must initiate a rulemaking to determine effective public education program components and, if appropriate, must amend regulations; if regulations not needed, send report to Congress with reasons.	RSPA is working with industry, professional associations, and the public to evaluate existing public education programs to determine which are most effective in reaching excavators, operators, the public, and local communities. A survey is now underway. RSPA's Damage Prevention Quality Action Team (DAMQAT) will design nationwide campaign using appropriations and industry resources. After the survey is completed, a rulemaking may be instituted to promulgate new regulations to promote public awareness of excavation damage and one-call systems.	National Public Education Campaign (fiscal year 1997, fiscal year 1998 and fiscal year 1999).
Section 4(h)	By June 1, 1998, survey and assess remote control valves on an interstate gas pipeline; include determination on whether remote valves are technically and economically feasible to reduce risks after a rupture. By June 1, 1999 (one year after survey and assessment), if remote valves are determined to be useful, the Secretary shall prescribe regulations for their use on interstate natural gas pipelines.	RSPA conducted a public workshop on the application of remote control valves (RCV) in interstate natural gas pipelines on October 30, 1997. By fiscal year 1998, RSPA will complete an assessment of the appropriateness of the expanded use of remote control valves in interstate natural gas pipelines. If this assessment indicates that the use of remote control valves is both technically and economically feasible, RSPA will propose regulations specifying the conditions under which interstate natural gas pipelines must use RCV's.	Operations—Travel (fiscal year 1999). PC&B.
Section 5(a)	Authority to establish risk management demonstration projects. Authority to exempt owner or operator of demonstration facilities from regulations that would otherwise apply. New regulations do not apply to the demonstration facilities during period of demonstration.	RSPA's Notice of Request for Letters of Intent (3/27/97) requested eligible operators to express their interest in participating in the risk management demonstration program. RSPA has issued a Risk Management Program Framework, a Program Standard, a Communications Plan, and a Training Curricula to assist operators in preparing their risk management demonstrations.	Risk Assessment & Technical Studies (fiscal years 1998 & 1999). OPA Fund fiscal years 1998 & 1999.

Public Law 104–304	Requirement(s)	RSPA response(s)	Components of budget
Section 5(b)	Risk management demonstrations must exhibit 'equivalent or greater overall level of safety'; President's October 12, 1996, memo requires only 'superior levels of safety' and only participants with a 'clear and established' safety and environmental record.	RSPA is complying with these requirements in preparing for its risk management demonstration programs.	Risk Assessment & Technical Studies (fiscal year 1999). Information Systems fiscal year 1997, 1998, & 1999.
Section 5(b)	Secretary may revoke or amend any exemption granted in a RM plan for noncompliance with terms or failure to achieve greater safety. RM demonstrations must provide for public comment in the approval process. Must take into consideration the 'past safety and regulatory performance' of all applicants.	RSPA will comply with these requirements in the individual risk management demonstrations. RSPA is complying with these requirements	Risk Assessment & Technical Studies (fiscal year 1999). PC&B (fiscal year 1999).
Section 5(b)	Any exemption may be revoked for substantial noncompliance with an approved risk management plan.	This will be an explicit provision in the order authorizing any risk management demonstration program.	Risk Assessment & Technical Studies (fiscal year 1999).
Section 5(d)	Secretary may consult with states with certifications and may make an agreement with a state to carry out a risk management program on intrastate pipelines.	RSPA is closely coordinating with the state pipeline safety representatives in implementing risk management demonstration programs.	Risk Management Grants (fiscal year 1997, 1998 & 1999).
Section 5(e)	Report on risk management demonstration projects by March 31, 2000.	RSPA will prepare a report before March 31, 2000	Risk Assessment & Technical Studies (fiscal years 1998, 1999). PC&B (fiscal years 1998 & 1999).
Section 6	Eliminates requirement for two-year mandatory inspection cycle; also eliminates 'navigable waters (as defined by the Secretary)' and replaces it with a 'substantial likelihood of commercial navigation' standard.	RSPA's inspection program is in compliance with this requirement.	PC&B (fiscal year 1999).
Section 7	Eliminates 'shall include' language in favor of 'shall consider' under AREAS TO BE INCLUDED AS UNUSUALLY SENSITIVE; adds drinking water resources as a consideration; deletes earthquakes and other ground movement.	Considering definition of areas unusually sensitive to environmental damage through public process in Docket No. PS–140, Areas Unusually Sensitive to Environmental Damage.	Environmental Indexing OPA (fiscal years 1996–99).

Section 8	Requires that excess flow valve (EFV) rules consider not just installation, but also maintenance and replacement costs; provides authority to adopt industry standards for EFV performance.	A final rule on excess flow valve (EFV) performance standards was adopted in Docket No. PS–118 (61 FR 31449; June 20, 1996); revised industry standards will likely be adopted as they are developed. In addition, RSPA received comments in response to an NPRM in Docket No. PS–118A (EFV Customer Notification) (61 FR 33476; June 27, 1996) and published a final rule (63 FR 5464) requiring natural gas distribution companies to notify customers of the availability of EFV's for installation in gas service lines, with the cost of installation to be borne by the customer.	PC&B (fiscal years 1997–99).
Section 9	Drops requirement to take action to promote the adoption of measures to improve the safety of customer-owned service lines.	RSPA has already taken action to require notification of customers owning their own service lines.	PC&B (fiscal years 1996 & 1997).
Section 10	Advisory committees are the peer review committees for risk assessment and cost/benefit analyses.	RSPA will submit risk assessments and cost/benefit analyses to the advisory committee(s) as required.	Risk Assessment & Technical Studies (fiscal year 1999). Operations.
Section 10	Requires the membership of each advisory committee to be one-third industry, one-third public, and one-third government; requires at least one of the public and one of the industry members to have risk assessment and/or cost/benefit analysis background.	Advisory committee appointments will be designed to maintain the broadest possible representation consistent with the required composition.	Risk Assessment & Technical Studies (fiscal year 1999). Operations/Travel (fiscal years 1998 & 1999).
Section 10	Advisory committees can meet up to four times a year	RSPA will maintain twice a year meetings and keep advisory committees informed between meetings through newsletters, mailings, and informal working groups. Additional meetings of the advisory committees will be held as necessary.	Operations/Travel (fiscal years 1998 & 1999).
Section 12	Establishes 'cooperative agreement authority'	RSPA requested and will use this authority to expand cooperation with industry, the states, and others in the advancement of pipeline safety.	R&D (fiscal years 1998 & 1999).
Section 15	Requires that RSPA issue an annual report biennially, beginning August 15, 1997.	RSPA will publish the first biennial report (1995–1996) by August 1998.	PC&B, Administration Expenses (fiscal year 1998).

Public Law 104–304	Requirement(s)	RSPA response(s)	Components of budget
Section 16	Requires OPS to make available Transportation Research Board (TRB) Special Report 219 to appropriate official(s) in each state; requires an evaluation of the recommendations in the report, especially to what extent they are being implemented, ways to improve implementation, and other initiatives to further awareness of local planning and zoning entities regarding population encroachment on pipeline rights-of-way.	TRB Special Report 219 is being made available to appropriate officials in all states. A public workshop on population encroachment will be held. Feedback from the states will assist in RSPA's evaluation of population encroachment issues. A report on RSPA's evaluation of population encroachment issues will be completed in late 1998.	Administration Expenses (fiscal year 1999).
Section 17	Report to Congress by October 12, 1997, on user fee assessment measures, bases, and appropriateness; consider wide range of assessment factors and comments from public.	A draft report was presented to the pipeline safety advisory committees in May 1997. Advisory committee comments and comments by the general public were carefully considered in preparing a final report for submission to Congress.	Administration Expenses (fiscal year 1999). PC&B.
Section 19	Establishes specific authority to engage in promotional activities relating to the underground damage prevention.	RSPA's Damage Prevention Quality Action Team (DAMQAT) has evaluated existing public education materials to determine their effectiveness in reaching excavators, operators, the public, and local communities. A national survey of these groups was completed in 1997. DAMQAT will conduct a pilot campaign in Virginia, Tennessee, and Georgia in mid-1998 before launching a national campaign.	National Public Education Campaign (fiscal years 1997–99).

Question. How does your fiscal year 1999 budget reflect some of the initiatives in the Senate one-call bill? What could be done in fiscal year 1999 to expedite implementation of some of the objectives of this bill?

Answer. The fiscal year 1999 budget provides grants to states for enhanced public education, excavator training and enforcement. All of these are damage prevention activities as indicated in the one-call bill. The best way to expedite implementation of the objectives of this bill is for Congress to enact this legislation which establishes a program to motivate states to improve their one-call notification systems and damage prevention activities.

USER FEES

Question. Please prepare a comparative historical table displaying the per mile user fee assessed to gas transmission and liquid pipeline operators, and the total collected in user fees from each industry in fiscal years 1995 through 1998 and anticipated for fiscal year 1999.

Answer. A table follows which shows the per mile rate and the total collections for fiscal years 1995 through 1998. We are in the process of collecting for fiscal year 1998 now, so the amount shown is what we assessed from gas and liquid operators. We estimated the fiscal year 1998 figures based on the amount of $29,487,517.84. This includes the President's Budget Request for the Pipeline Safety Program of $32,765,000, less funds derived from the Oil Spill Liability Trust Fund $3,300,000 and $1.1 million derived from existing user fees, plus an offset to the Research and Special Programs Appropriation for labor costs to support the Pipeline Safety Program. Other variables include the offset from previous year collections, the allowance by law to collect 105 percent of the appropriation, and pipeline mileage, are subject to change prior to the December 1998 assessment date.

Fiscal year	Per mile rate	Total collected
Gas Transmission:		
1995	$95.57	$27,830,000
1996	77.49	22,475,000
1997	67.46	18,927,423
1998	67.98	[1] 19,835,635
1999 [1]	78.12	[2] 22,793,000
Liquid:		
1995	47.03	7,215,000
1996	49.67	7,683,000
1997	61.27	8,869,716
1998	59.59	[1] 9,269,383
1999	67.78	[2] 10,543,599

[1] Fiscal year 1998 based on assessment.
[2] Fiscal year 1999 anticipated assessment.

Question. Please describe the billing cycle for industry user fees. What procedural changes are being considered? What is industry's reaction to these proposals.

Answer. In fiscal year 1997 and 1998, we assessed user fees in mid-December (the first quarter of our fiscal year). This time frame was selected in response to discussions with our customers about their fiscal management concerns. Since Treasury regulations require payments within 30 days, and since the industry's fiscal year is not concurrent with the Federal fiscal year, issuing the assessments in mid-December gave our customers the flexibility to either pay at the end and/or beginning of its fiscal year. We have had a favorable response from industry and have no immediate plans to change the billing cycle.

Question. How did you allocate the user fee between gas transmission lines and product lines for fiscal year 1997 and fiscal year 1998? Does this accurately reflect the true allocation of your efforts and resources? Please document your answer.

Answer. In fiscal year 1997 and fiscal year 1998, gas operators paid 55 percent of program costs and 87 percent of grants. Liquid operators paid 45 percent of program costs and 13 percent grants. These percentages closely reflect the allocation of our efforts and resources as shown in the table that follows.

Program activity	Fiscal year 1997		Fiscal year 1998	
	Gas	Liquid	Gas	Liquid
PC&B [1] for the Inspectors (Regions)	50	50	50	50
PC&B for HQ personnel	67	33	60	40
Administration	50	50	50	50
Information and Analysis	50	50	50	50
Risk Assess & Technical Studies	50	50	50	50
Compliance	50	50	50	50
Training & Info. Dissemination	75	25	75	25
Emergency Response (NRC)	50	50	50	50
Public Education Campaign (One-call)	50	50	50	50
Research & Development	50	50	50	50
Average	54	47	54	47
Actual apportionment	55	45	55	45
Grants	87	13	87	13

[1] Personnel, Compensation & Benefits

Question. It is the Committee's understanding that the pipeline user fee charged liquid and natural gas pipelines for fiscal year 1998 was $29,487,000. This includes the appropriated amount of $28,000,000; an additional charge of $574,000 for RSPA staff oversight of OPS, a charge of 3 percent of the total budget collected in recognition that not all fees will be collected; and an additional charge for fees not collected in fiscal year 1997. Is this understanding correct? Can you supply the records of charges to pipelines for the last five years including the appropriated user fee, the RSPA charge and break down any additional charges mentioned above?

Answer. Yes, the way RSPA determined the fiscal year 1998 fees is consistent with your statement. For years in which we collected the appropriation plus the 2–3 percent, the operators are credited the following assessment year. Attached are the records from fiscal year 1994 to present which indicate how RSPA calculated user fees.

Calculation of Pipeline User Fee for FY-1994 **05/06/98**

Appropriation	$19,376,000.00	
SLUC/Rental FY 94	$576,000.00	
Administrative Support Activities	$180,000.00	
Total Appropriation for Pipeline Activities	$20,132,000.00	
Less Oil Polution Act	($2,449,000.00)	
Aggregate Appropriation for Pipeline Activities		$17,683,000.00
1993 User Fees Received (not including interest)	$15,363,219.94	
Less 1993 Total Program/Grant-in-Aid Costs	$15,696,000.00	
1993 Collections costs/offset		($332,780.06)
1994 Assessment Base (Aggregate Appropriation minus Offset)		$18,015,780.06
Plus 2% of Aggregate Appropriation	$353,660.00	
Total 1994 Assessments		**$18,369,440.06**
Grants in Aid		**$7,500,000.00**
General Program Costs (Total 1994 Assessments minus Grants in Aid)		**$10,869,440.06**

Total Gas General Program/Grant-in-Aid Costs

Gas Portion of General Program Costs (60%)	$6,521,664.04	
Gas Portion of Grants in Aid (90%)	$6,750,000.00	
Total Gas Program/Grants-in-Aid Costs		**$13,271,664.04**

LNG Assessments

	No. of Storage Capaci	Assessment/ Plants	Total Assessment
less than 10,000	18	$1,250.00	$22,500.00
10,000 - 100,000	17	$2,500.00	$42,500.00
100,000-250,000	16	$3,750.00	$60,000.00
250,000-500,000	28	$5,000.00	$140,000.00
over 500,000	15	$7,500.00	$112,500.00
	94		$377,500.00

Gas Transmission Assessments

Total Gas General Program Costs		$13,271,664.04
Less LNG Assessments	$377,500.00	
Total Gas Program/Grants in Aid Assessment		$12,894,164.04
Divided by total transmission miles (10+ miles)	289824	
Assessment per mile of gas pipe		$44.49

Total Liquid General Program/Grants in Aid Costs

Liquid Portion of General Program Costs (40%)	$4,347,776.02	
Liquid Portion of Grants in Aid (10%)	$750,000.00	
Total Liquid General Program/Grants in Aid Costs		$5,097,776.02
Divided by total liquid miles (30+ miles)	157671	
Assessment per mile of liquid pipe		$32.38

Calculation of Pipeline User Fee for FY-1995 (75/25 - Natural Gas/Liquid) **05/06/98**

Appropriation	$37,424,000.00	
SLUC/Rental FY 95	$713,000.00	
Administrative Support Activities	$185,000.00	
Total Appropriation for Pipeline Activities	$38,322,000.00	
Less RSPA Working Capital Fund Payback	($84,000.00)	
Less Oil Polution Act	($2,449,000.00)	
Aggregate Appropriation for Pipeline Activities		$35,789,000.00
1994 User Fees Received (not including interest)	$18,307,513.40	
Less 1994 Total Program/Grant-in-Aid Costs	$18,015,780.06	
1994 Collections costs/offset		$291,733.34
1995 Assessment Base (Aggregate Appropriation minus Offset)		$35,497,266.66
Plus 2% of Aggregate Appropriation	$715,780.00	
Total 1995 Assessments		**$36,213,046.66**
Grants in Aid		**$12,000,000.00**
General Program Costs (Total 1995 Assessments minus Grants in Aid)		**$24,213,046.66**

Total Gas General Program/Grant-in-Aid Costs

Gas Portion of General Program Costs (75%)	$18,159,785.00	
Gas Portion of Grants in Aid (90%)	$10,800,000.00	
Total Gas Program/Grants-in-Aid Costs		**$28,959,785.00**

LNG Assessments

	No. of Storage Capacity	Assessment/ Plants	Total Assessment
less than 10,000	17	$1,250.00	$21,250.00
10,000 - 100,000	17	$2,500.00	$42,500.00
100,000-250,000	16	$3,750.00	$60,000.00
250,000-500,000	28	$5,000.00	$140,000.00
over 500,000	15	$7,500.00	$112,500.00
	93		$376,250.00

Gas Transmission Assessments

Total Gas General Program Costs		$28,959,785.00
Less LNG Assessments	$376,250.00	
Total Gas Program/Grants in Aid Assessment		$28,583,535.00
Divided by total transmission miles	299077	
Assessment per mile of gas pipe		$95.57

Total Liquid General Program/Grants in Aid Costs

Liquid Portion of General Program Costs (25%)	$6,053,261.67	
Liquid Portion of Grants in Aid (10%)	$1,200,000.00	
Total Liquid General Program/Grants in Aid Costs		$7,253,261.67
Divided by total liquid miles	154233	
Assessment per mile of liquid pipe		$47.03

Calculation of Pipeline User Fee for FY-1996 (65/35 - Natural Gas/Liquid) 05/06/98

Appropriation	$31,448,000.00	
SLUC/Rental FY 96	$836,000.00	
Administrative Support Activities	$574,000.00	
1996 Budget Authority Reduction	($213,000.00)	
Total Appropriation for Pipeline Activities	$32,645,000.00	
Less Oil Polution Act	($2,698,000.00)	
Aggregate Appropriation for Pipeline Activities		$29,947,000.00
1995 User Fees Received (not including interest)	$35,689,537.97	
Less 1995 Total Program/Grant-in-Aid Costs	$35,497,266.66	
1995 Collections costs/offset		$192,271.31
1995 Assessment Base (Aggregate Appropriation minus Offset)		$29,754,728.69
Plus 3% of Aggregate Appropriation	$898,410.00	
Total 1996 Assessments		**$30,653,138.69**
Grants in Aid		**$12,000,000.00**
General Program Costs (Total 1996 Assessments minus Grants in Aid)		**$18,653,138.69**

Total Gas General Program/Grant-in-Aid Costs

Gas Portion of General Program Costs (65%)	$12,124,540.15	
Gas Portion of Grants in Aid (90%)	$10,800,000.00	
Total Gas Program/Grants-in-Aid Costs		**$22,924,540.15**

LNG Assessments

	No. of Storage Capacity	Assessme Plants	Total Assessment
less than 10,000	17	$1,250.00	$21,250.00
10,000 - 100,000	17	$2,500.00	$42,500.00
100,000-250,000	16	$3,750.00	$60,000.00
250,000-500,000	29	$5,000.00	$145,000.00
over 500,000	15	$7,500.00	$112,500.00
	94		$381,250.00

Gas Transmission Assessments

Total Gas General Program Costs		$22,924,540.15
Less LNG Assessments	$381,250.00	
Total Gas Program/Grants in Aid Assessment		$22,543,290.15
Divided by total transmission miles	290924	
Assessment per mile of gas pipe		$77.49

Total Liquid General Program/Grants In Aid Costs

Liquid Portion of General Program Costs (35%)	$6,528,598.54	
Liquid Portion of Grants in Aid (10%)	$1,200,000.00	
Total Liquid General Program/Grants in Aid Costs		$7,728,598.54
Divided by total liquid miles	155649	
Assessment per mile of liquid pipe		$49.65

Calculation of Pipeline User Fee for FY-1997 (55/45 - Natural Gas/Liquid) 05/06/98

Appropriation	$31,998,000.00	
Less Draw Down on PS Fund (One-Call Grants)	($1,000,000.00)	
Less Oil Polution Act	($2,528,000.00)	
Less General Provision Reduction	($102,000.00)	
Prior Year Unobligated Appropriation (1989)	($74,453.34)	
SLUC/Rental FY 97	$840,000.00	
Administrative Support Activities	$574,000.00	
Aggregate Appropriation for Pipeline Activities		$29,707,546.66
1996 User Fees Received (not including interest)	$30,525,757.98	
Less 1996 Total Program/Grant-in-Aid Costs	$29,754,728.69	
1996 Collections costs/offset		$771,029.29
1996 Assessment Base (Aggregate Appropriation minus Offset)		$28,936,517.37
Plus 3% of Aggregate Appropriation	$868,095.52	
Total 1997 Assessments		**$29,804,612.89**
Grants in Aid		**$12,200,000.00**
General Program Costs (Total 1997 Assessments minus Grants in Aid)		**$17,604,612.89**

Total Gas General Program/Grant-in-Aid Costs

Gas Portion of General Program Costs (55%)	$9,682,537.09	
Gas Portion of Grants in Aid (87%)	$10,614,000.00	
Total Gas Program/Grants-in-Aid Costs		**$20,296,537.09**

LNG Assessments

	No. of Storage Capacity	Assessment/ Plants	Total Assessment
less than 10,000	18	$1,250.00	$22,500.00
10,000 - 100,000	17	$2,500.00	$42,500.00
100,000-250,000	16	$3,750.00	$60,000.00
250,000-500,000	29	$5,000.00	$145,000.00
over 500,000	15	$7,500.00	$112,500.00
	95		$382,500.00

Gas Transmission Assessments

Total Gas General Program Costs		$20,296,537.09
Less LNG Assessments	$382,500.00	
Total Gas Program/Grants in Aid Assessment		$19,914,037.09
Divided by total transmission miles	295217	
Assessment per mile of gas pipe		$67.46

Total Liquid General Program/Grants in Aid Costs

Liquid Portion of General Program Costs (45%)	$7,922,075.80	
Liquid Portion of Grants in Aid (13%)	$1,586,000.00	
Total Liquid General Program/Grants in Aid Costs		$9,508,075.80
Divided by total liquid miles	155180	
Assessment per mile of liquid pipe		$61.27

Calculation of Pipeline User Fee for FY-1998 (55/45 - Natural Gas/Liqui 05/06/98

Appropriation	$32,765,000.00	
Less Draw Down on PS Fund (One-Call Grants/Contracts)	($1,465,000.00)	
Less Funds derived from OSLTF	($3,300,000.00)	
Less General Provision Reduction (wcf)	($44,000.00)	
Prior Year Unobligated Appropriation (1990)	$0.00	
Administrative Support Activities	$574,000.00	
Aggregate Appropriation for Pipeline Activities		$28,530,000.00
1997 User Fees Received (not including interest)	$29,705,955.05	
Less 1997 Total Program/Grant-in-Aid Costs	$29,804,612.89	
1997 Collections costs/offset		$98,657.84
1997 Assessment Base (Aggregate Appropriation minus Offset)		$28,628,657.84
Plus 3% of Aggregate Appropriation	$858,859.74	
Total 1998 Assessments		**$29,487,517.58**
Grants in Aid		**$12,500,000.00**
General Program Costs (Total 1998 Assessments minus Grants)		**$16,987,517.58**

Total Gas General Program/Grant-in-Aid Costs

Gas Portion of General Program Costs (55%)	$9,343,134.67	
Gas Portion of Grants in Aid (87%)	$10,875,000.00	
Total Gas Program/Grants-in-Aid Costs		**$20,218,134.67**

LNG Assessments

	No. of Storage Ca	Assessmen Plants	Total Assessment
less than 10,000	18	$1,250.00	$22,500.00
10,000 - 100,000	17	$2,500.00	$42,500.00
100,000-250,000	16	$3,750.00	$60,000.00
250,000-500,000	29	$5,000.00	$145,000.00
over 500,000	15	$7,500.00	$112,500.00
	95		$382,500.00

Gas Transmission Assessments

Total Gas General Program Costs		$20,218,134.67
Less LNG Assessments	$382,500.00	
Total Gas Program/Grants in Aid Assessment		$19,835,634.67
Divided by total transmission miles	291765	
Assessment per mile of gas pipe		$67.98

Total Liquid General Program/Grants In Aid Costs

Liquid Portion of General Program Costs (45%)	$7,644,382.91	
Liquid Portion of Grants in Aid (13%)	$1,625,000.00	
Total Liquid General Program/Grants in Aid Costs		$9,269,382.91
Divided by total liquid miles	155558	
Assessment per mile of liquid pipe		$59.59

Question. Why does the agency assess user fee charges in addition to the appropriated (and authorized) user fee level? Why does RSPA charge for staff oversight of OPS, but not other programs funded by user fees? Did the assessed user fees for fiscal year 1998 include a charge for fees that were not collected last year? How can this charge be justified if pipelines are already charged 3 percent for uncollected money? Don't both these charges penalize those who pay? What happens to those who don't pay?

Answer. The Pipeline Safety Program is required by law to assess certain pipeline operators an amount equal to the amount appropriated by Congress for the Pipeline Safety Program and the amount transferred to the Research and Special Programs (RSPA) appropriation, as stated in the RSPA appropriation language, for legal support and administrative oversight of the Pipeline Safety program. OPS is also authorized by law to collect up to five percent more than the appropriation in an attempt to facilitate collection of the full appropriation during that same collection year. Since OPS has experienced that not all operators assessed are able to pay, we include an amount of only three percent more than the appropriation to cover uncollected assessments during the year.

Companies that are not able to pay their fees are indirectly subsidized by those who pay. Some operators are unable to pay the assessment because of circumstances other than bankruptcies (for example: erroneous reporting of the number of miles of pipelines or classification of the pipelines; duplicate reporting of mileage; sale/purchase of pipelines; and/or abandonment of pipelines). OPS makes every available effort to ensure collections from all companies assessed, and we mail three delinquency notices to companies before turning the accounts over the Department of

Treasury for collection. All available legal remedies are pursued to collect assessments.

The annual fee assessment also includes an amount for assessments unable to be collected during last year's collection period. Any collections above the amount of the appropriation, including collections from prior years' assessments, go into the fund and are credited to operators' assessment the following collection year. Within an average of two to three years, operators provide for only the OPS appropriation, OPS rent, and legal/administrative support from the RSPA appropriation.

RSPA's only other special fund, which also collects fees from industry, is the Emergency Preparedness Fund (EP Fund). The Emergency Preparedness Grants program receives its funding through an authorization that also appropriates funding from the EP Fund, permanently. The Emergency Preparedness Grants program is implemented exclusively by the Office of Hazardous Materials Safety (OHMS), which receives most of its funding from the RSPA appropriation. OHMS also receives funding from the EP Fund to provide administrative resources for the implementation of the Emergency Preparedness Grants Program. Therefore, the fees from the Emergency Preparedness Fund pay for operating costs (labor and administrative expenses), through permanent appropriations language in the authorization, which would be provided otherwise by the RSPA appropriation. That transfer is invisible to all who are unfamiliar with the authorization language and is not addressed in the appropriations process. There is no other way to implement the program, since the appropriation is not authorized to have its own FTE or positions.

Similarly, Pipeline Safety would not be able to function without the legal support and other administrative functions provided by RSPA.

PIPELINE SAFETY FUND

Question. What is the current balance in the pipeline safety reserve fund? Please provide a historical table displaying the annual unappropriated balance in the fund from the end of fiscal year 1988 through 1998, with an estimated level for 1999. Please describe how much of the unappropriated balance could safely be drawn down.

Answer. The following table shows funds entering and leaving the Pipeline Safety Fund from October 1, 1997 through March 30, 1998.

Pipeline Safety Fund (PSF) Balance

[Dollars in millions]

Starting Balance—Oct. 1, 1997	$17.4
Partial amount warranted out for program costs—Mar. 30, 1998	−17.6
Collections through Mar. 30, 1998	28.5
Remaining Balance—Mar. 30, 1998	28.3

An additional $13.2 million will be warranted (removed) from the PSF within the third quarter to provide the full appropriated amount. Also, additional collections and adjustments to collections (overpayments/under payments) will impact the balance through September 30, 1998.

At the beginning of each fiscal year, OPS needs a balance in the fund of at least $11 million to sustain operations until fees can be collected to replenish the fund. Because appropriations were passed early in fiscal year 1998, fee assessments were able to be sent out much earlier in the fiscal year than usual—December 1997. Fortunately, OPS was able to bill the fee assessments early in fiscal year 1998. Since the fee assessments are based on the level of appropriations, it would be too risky to assume that we would receive appropriations in October each year, as we did in fiscal year 1998.

As of the end of fiscal year 1999, the amount held in the fund in excess of the $11 million needed to sustain OPS operations is projected to be about $5 million. This $5 million is far less than the general fund appropriations that this program had to rely upon in 1986 and 1987 while the pipeline safety fees were disputed in court. Therefore, we consider the fiscal year 1998 and fiscal year 1999 estimated reserve fund level of $15.9 million to be justified by both operational needs ($11 million reserve needed to sustain operations) and as a partial "reimbursement," in effect, to the General Fund.

The following table provides the annual unappropriated PSF balances from the end of fiscal years 1988 through 1997, with an estimated level provided for fiscal years 1998 and 1999.

Fiscal year	Unappropriated balance [1]
1988	$17,179,509
1989	17,672,184
1990	17,982,653
1991	17,469,218
1992	17,694,592
1993	16,971,943
1994	18,684,690
1995	18,485,209
1996	20,291,839
1997	17,353,940
1998 (estimate)	15,888,940
1999 (estimate)	15,888,940

[1] End of fiscal year.

Question. Please recalculate your answer from last year regarding the minimum dollar amount that should be retained in the pipeline safety fund balance in order to maintain the integrity of the pipeline safety program. What is the justification for the recalculated amount?

Answer. The minimum dollar amount needed is approximately $11 million. However, for the reasons cited previously, we conclude that the estimated balance at the end of fiscal year 1999 of approximately $15–16 million is a more appropriate level.

OIL POLLUTION ACT ENVIRONMENTAL PROGRAM COSTS AND OTHER ENVIRONMENTAL MATTERS

Question. Please allocate and describe all OPS actual expenses that legally could be associated with Oil pollution Act (OPA) requirements in fiscal year 1998, and anticipated in fiscal year 1999. How does this compare in each fiscal year with the amount derived from the Oil Spill Liability Trust Fund?

Answer. The cost allocation and description of activities of expenses we can estimate that could be associated with OPA are:

Positions & FTE.—FTE address environmental policy, regulatory development, spill response plan review & exercise, pipeline inspection & spill response technical monitoring; special task force/studies of oil pipeline company risk management programs & operations	$500,000
Data Analysis.—Over half the incident reporting, data collection, analysis & trending labor; and identifying accident cause & consequence, evaluating & acting on environmental impacts, particularly related to protecting drinking water sources	500,000
Compliance & Spill Response Monitoring.—Technical field engineering support for monitoring major spills & remediation; and dedicated personnel for integrating public & private sector OPA response activities, communications coordination & decision support for protective actions	150,000
National Pipeline Mapping Systems Operations & Maintenance.—Collecting & digitizing more accurate liquid pipeline location information as it becomes available; and to be used in conjunction with data on population, drinking water intakes, terrain. Needed to set priorities for prevention & response actions	400,000
Environmental Index.—Work with state agencies to identify & categorize information on unusually sensitive environmental areas. Establish central repository in each state to be focal point for exchange of data	250,000
State Grants for Hazardous Liquid Programs.—Fund 13 states oversight of intrastate pipelines operations & maintenance, construction, repairs	1,500,000
Total	3,300,000

Allocations for fiscal year 1998 and fiscal year 1999 are provided on the following table:

OPA	Fiscal year—	
	1998 enacted	1999 request
PC&B	$214,000	$187,000
Administrative Expenses	45,000	45,000
Program	713,000	625,000

OPA	Fiscal year—	
	1998 enacted	1999 request
Implementing OPA	2,328,000	2,443,000
Total	3,300,000	3,300,000

Question. What new challenges were faced in the implementation of OPA? In each fiscal year since the enactment of the OPA, what was the Oil Spill Liability Trust Fund level requested by RSPA prior to the OMB passback?

Answer. There are numerous ongoing challenges in responding to the requirements of OPA. Our goal has been and continues to be integrating pipeline operator capabilities with the entire response community and being consistent with national standards for evaluating preparedness. We assumed new roles in interagency coordination with the National Response Team and the other federal and state agencies with regulatory responsibilities in response planning. We maintain those relationships today and will in the future. The agencies worked together to provide guidance to operators on what comprises environmentally sensitive areas and to develop a more efficient "one plan" approach to all federal response planning.

In taking on the OPA program, OPS determined what requirements would be appropriate for onshore pipeline spill response planning, develop a regulation and establish a plan review process. Since the program inception, we have been reviewing and approving plans and operating a program to test the plans though drill and exercises, in conjunction with the other agencies. We still work to assure a uniform approach, minimize burden on industry and ensure conformity with the National Contingency Plan and Area Contingency Plans. Other pipeline-specific challenges include understanding the large geographic areas traversed, location of water intakes, operating conditions and pipeline spill history. We have built a systematic approach to assure that our plan review and exercise process appropriately considers risk of pollution, operators' capabilities to respond, and needs for planning improvements.

Looking to the future, we hope to use our improving analytical capabilities to more fully consider risk-based factors. We are considering taking a system wide look at environmental protection throughout companies. We seek opportunities to better understand how management systems can be used to improve monitoring of pipeline conditions, systems and facilities to reduce risk to the environment.

The table below depicts RSPA's requests prior to the OMB passback. Historically, the funding derived from the OSLTF included funds for operational expenses—PC&B, travel, equipment, training, and printing as well as funds which support table-top exercises and response plan review, and the 1999 request to Congress continues to follow this historical practice.

Request Level to OMB

Fiscal year:	
1994	$2,425,000
1995	2,465,000
1996	2,698,000
1997	1,912,000
1998	2,528,000
1999	7,422,000

Question. Please describe progress made in the environmental indexing effort. What was accomplished with funding provided in fiscal year 1997? How much is being spent in 1998 for this activity, and for what purpose? What will be done during fiscal year 1999 and how much will this cost? When will this activity be completed?

Answer. The environmental indexing effort is well under way. RSPA has been working with the Environmental Protection Agency (EPA), as mandated by statute, and the Departments of Interior (DOI), Agriculture (USDA), and Commerce (DOC), environmental organizations, technical experts, and the pipeline industry to identify and locate resources that are most susceptible to a hazardous liquid release, or for which consequences would be most adverse if affected by a release. This includes drinking water, ecological, and cultural resources.

RSPA has used the funding provided in 1997 to create a draft Drinking Water Data Catalog. The data catalog covers each of the fifty states and includes data on groundwater wells, surface water intakes, aquifers, sole source aquifers, wellhead protection areas, and geology. For each of these categories, the catalog includes the

name of the government agency that has created the data, a description of the data, noted problems with the data, and a ranking of the quality and completeness of the data for creating an electronic data layer of unusually sensitive drinking water resources. The catalog also includes the methodology for generating data on unusually sensitive drinking water resources, a flowchart for gathering the data and creating the drinking water resources data layer, and maps showing the quality of the different data layers for all of the states. Finally, the catalog ranks each of the fifty states for drinking water data quality and completeness. The EPA Groundwater and Drinking Water Protection Division reviewed the catalog for completeness and accuracy, recommended only minor corrections, and determined it was a useful data tool that could assist EPA staff. EPA has requested and has been granted permission to provide the catalog to the EPA headquarter and regional staff in the Groundwater and Drinking Water Protection Division and the Oil Spill Division.

RSPA also used the funding provided in 1997 to begin gathering drinking water data "layers" for digital information display and has created a map of unusually sensitive drinking water resources for a few of the states. RSPA has also used the 1997 funding to research the information and digital data that is available on sensitive ecological and cultural resources. RSPA has located information and digital data layers on threatened and endangered species, species that are at risk of global extinction, and areas where a large percentage of the world's migratory birds congregate. RSPA has also located information and digital data layers on national historic sites, archaeological sites, national monuments and landmarks, and other cultural resource.

RSPA expects to spend $500,000 on this initiative in fiscal year 1998. This money will be used to continue to gather digital data on drinking water resources, threatened and endangered species, species at risk of global extinction, areas where a large percentage of the world's migratory birds congregate, and national cultural resources. This data will be used to determine the locations of the unusually sensitive drinking water, ecological, and cultural resources, and to create maps of these unusually sensitive areas that can be provided to the pipeline industry, other government agencies, and the public for better protection of these resources. The funding will also be used to work with the state agencies responsible for creating data on the resources to verify that the final maps of the proposed unusually sensitive areas truly depict the most unusually sensitive drinking water, ecological, and cultural resources.

All of the drinking water resource data are created and maintained by state government agencies. Because the data are not created and maintained by a single government agency, the data varies in format, completeness, and accuracy. Extra work is therefore required to collect the data and to put it into a common format.

All of the location data on threatened and endangered species and species at risk of global extinction are also created and maintained at the state level by State Heritage Programs or State Nature Conservancies. This data is private information and, therefore, agreements must be established with each agency in order for RSPA to access the data. RSPA is working with EPA and several other agencies and environmental organizations and co-funding an initiative to standardize this state data, convert the paper data on the sensitive resources to digital data, gather the digital data into a common national database, and make the data available to the public and other government agencies at various mapping scales. RSPA is also working on this initiative with the Departments of Interior, Commerce, Agriculture, Defense, and Army; The Nature Conservancy; the State Heritage Programs; and the Association for Biodiversity Information. RSPA anticipates standardization and digitizing of the state data will be completed in 1999, and a national data layer will be available at a county scale in the year 2000. A more detailed and accurate data layer is expected by the end of the year 2000. This database will provide the information necessary to locate unusually sensitive ecological resources upon completion of the definition.

RSPA expects to spend $500,000 on this initiative in fiscal year 1999, if the funding for this project is approved. RSPA will use the requested funds to complete most of the work on drinking water resources, the standardization and digitizing of state ecological data, and the creation of unusually sensitive cultural resource maps. RSPA expects the environmental index initiative will be completed in the year 2000 when the more detailed and accurate data layer on threatened and endangered species and species at risk of global extinction is completed. All of the data that is created by RSPA will be available to other Federal, state, and local government agencies, the pipeline industry, private groups, and the public to better protect these sensitive resources through increased prevention and response measures, enhanced emergency response planning, and an increased awareness of the location and character/status of these sensitive resources.

Question. Please provide the Committee with the results of last year's review of the pipeline operators' emergency response plans. Include the number of plans reviewed, the number accepted, and the number of plans which required corrective measures. How do you ensure that your suggestions are incorporated into the plans? What are your performance measures or goals for this effort?

Answer.

NUMBER OF EMERGENCY RESPONSE PLANS AND REVISIONS [1] REVIEWED

	10/01/96–09/30/97	10/01/97–03/31/98
New Plans Reviewed	53	23
New Plans Requiring Revisions after Initial Review	49	20
New Plans Approved	20	3
Existing Plan Revisions Reviewed	306	164
Existing Plan Revisions Accepted	306	164

[1] For operators posing a risk of significant and substantial harm to the environment.

RSPA works closely with operators as we work to revise plans to improve response capability. Before approving a plan, or revisions to a plan, RSPA reviews any changes to ensure that the operator has adequately addressed our review comments. We also take a sample of existing plans and verify that the emergency response data is accurate. We conduct table top exercises and area emergency drills to test the effectiveness of the planning. During emergency response exercises, RSPA verifies that operators have incorporated our suggestions in their response plan or have taken other appropriate precautions.

Our primary goal for the Oil Pollution Program in the future is to make it more risk-based. Our emergency response plan review process will focus on the operator's management systems: how they manage their people, their equipment, their response contractors, and other resources.

We are discussing with the American Petroleum Institute, new initiatives to determine the impact of planning and prevention initiatives, cooperative government/industry training, and system-wide audits of environmental protection programs.

Question. Please discuss the amount of funds spent on spill response exercises during each of the last three years. How much do you expect to spend during fiscal year 1999?

Answer. We continue to review operator response plans by overseeing field and table top exercises to strengthen operator readiness to respond to spills from pipelines. We use our plan review, analysis of incident data, projections of areas at high risk from natural disasters, and findings from accident investigations to target geographic areas where exercises are likely to benefit operators and the response community. Separate contractor costs include: data analysis; modeling; investigation and follow-up of incidents; development of scenarios; planning, conducting and evaluating exercises; and training programs on spill response to familiarize OPS inspectors with the OPA program.

Additionally, operational costs are expended for OPS staff to travel to exercises sites and to training. Inspectors need to be able to fully participate in exercises to evaluate response plans effectively, and to respond to actual incidents. Since fiscal year 1996 we have spent about $1.5–$2 million dollars annually on this broad range of activities which contribute to exercises and other related program efforts which also benefits from the same analysis. We estimate that the same amount will be spent in fiscal year 1999.

Question. You state: ''Experience in actual incidents has demonstrated the OPA Program is having very positive results.'' Please document and further explain this assertion.

Answer. Our efforts under the Oil Pollution Act of 1990 are directed at improving pipeline operators' abilities to protect the environment from spills. Our response plans program and the exercises we conduct have helped operators to respond more effectively to pipeline releases. Although there have not been any catastrophic spills over the last year, there have been several incidents which have required operators to implement their response plans. In each case, the operators' response efforts demonstrated the value of having developed spill plans and having effective planning programs.

In June of 1996, Colonial Pipeline had a major spill in Simpsonville, South Carolina. The magnitude of the spill required the operator to call in response contractors from all over the southeast region of the U.S. Because the company already identi-

fied the resources in their facility response plan, they were able to rapidly bring in the equipment they needed.

When Williams Pipeline discovered in March of 1997 that it had a leak at a tank farm near Des Moines, Iowa, the company implemented its response plan and immediately began to secure the source of the release and to recover the product that had been lost.

Colonial Pipeline had a spill in a landfill near Atlanta, Georgia, in March of 1998. Even though the product was contained in the immediate area around the leak site, the company implemented its response plan and took precautionary action to ensure that the product did not migrate into a nearby river. In all three cases, the pipeline operators were able to take immediate action to protect the environment because they had developed their facility response plans in advance.

OPERATING EXPENSES

Question. Please indicate the exact amounts appropriated for travel and transportation in the last three years, and indicate the amount requested for fiscal year 1999.

Answer.

Travel and transportation

Fiscal year:	
1996 enacted	$499,000
1997 enacted	839,000
1998 enacted	1,003,000
1999 request	978,000

Question. For fiscal year 1996, 1997, 1998 and budgeted for fiscal year 1999, please prepare separate expense charts for resources obligated on overtime, bonuses, travel, non-mandatory bonuses, permanent change of station, and communications.

Answer. The following table is provided.

OBLIGATIONS BY CATEGORY

	Fiscal year			
	1996 actual	1997 actual	1998 estimate	1999 estimate
Overtime [1]	$4,191	$8,895	$4,200	$4,200
Bonuses [1]	36,400	45,100	42,000	40,400
Travel [2]	820,000	1,167,000	1,231,000	978,000
Permanent change of station	25,210	21,615	57,050	50,000
Communications	427,000	468,000	470,000	470,000

[1] RSPA budget requests do not include funding for bonuses (special act and on the spot cash awards)and overtime. If available, funding from unoccupied positions is used within a modest internal administrative limit. All bonuses given were non-mandatory.

[2] Fiscal year 1998 includes $300,000 for operating expenses carried over (3-year funding) from prior years.

Question. How many staff personnel does OPS have in the Anchorage Joint Pipeline Office? How have their responsibilities or activities changed since last year?

Answer. OPS has three inspectors in Alaska. One person is assigned full time to monitoring the Alyeska Pipeline and represents OPS in the Joint Pipeline Office. The second person is tasked with monitoring all other pipelines in Alaska. The third person, a junior inspector, assists the other two inspectors as needed. The responsibilities of these inspectors have not changed since last year.

Question. Please update us on the implementation of the Alyeska memorandum of agreement regarding valves and corrosion. Are there any new issues in this area?

Answer. The corrosion program was initiated in November of 1992 based on a "Memorandum of Agreement for a Task Force on Oversight of the Trans-Alaska Pipeline System (TAPS)", executed by the State of Alaska, U.S. Department of the Interior, and U.S. Department of Transportation on November 21, 1990. On February 12, 1998, Alyeska Pipeline Service Company issued its final report titled, 1997 TAPS mainline Cathodic Protection Coupon Monitoring Program, Final Report. Results of the study confirm coupons represent the best available technology for monitoring the cathodic protection (CP) system on TAPS.

Traditional cathodic protection evaluation methods, such as annual voltage readings, are not effective because of the unusual environmental conditions TAPS

crosses. To address these issues, TAPS developed an extensive corrosion coupon program, whereby coupons are placed at 1 mile intervals on the pipeline. The coupons are metallic representatives of the pipeline and are subject to the same environmental and cathodic protection conditions as the pipeline. They are periodically checked for adequate cathodic protection and analyzed for corrosion. If corrosion is not found on the coupon, it is theorized corrosion is not present on the pipeline.

However, environmental conditions (wet/dry conditions), zinc proximity, and coating defect distribution and geometry precludes using coupons as a stand alone method to monitor the effectiveness of CP on TAPS. Where conditions warrant, CP coupons will be used in conjunction with other sound engineering practices, such as internal inspection tools, telluric current nulled close interval surveys, and local knowledge of environmental conditions. Alyeska plans to install additional coupons on TAPS in 1998. Alyeska has installed additional impressed current cathodic protection covering approximately 125 miles of the total 380 miles of underground pipe on TAPS and plans to install another 125 miles of protection in 1999.

RSPA/OPS is overseeing all facets of the corrosion program and has agreed to the utilization of coupons to monitor the cathodic protection as long as this use is combined with a close interval survey and an annual internal inspection.

In January of 1997, the Alyeska Pipeline Service Company and the Joint Pipeline Office entered into a Memorandum of Agreement regarding assessment of valves on the TAPS. During 1997, Alyeska conducted a risk assessment on mainline valves in order to prioritize mainline valves for testing, and to establish performance standards for internal leak through.

Alyeska identified and tested valves with the highest testing priority, i.e. those most critical to the overall system safety, including leak-through tests on 44 mainline valves and secondary sealing tests on a Remote Gate Valve. During 1998, Alyeska will conduct leak-through tests on an additional 44 mainline valves and will perform additional secondary sealing tests using "Gel Block," a method whereby the sealant is pumped into the valve cavity and forms a seal.

Alyeska has presented their mainline valve maintenance, testing and repair program to RSPA/OPS. This program addresses precautionary measures for valves of unknown condition, performance criteria for evaluation of in-service valves and means of determining their overall risk factors. RSPA/OPS continues to closely monitor the mainline valve evaluation progress.

INFORMATION SYSTEMS

Question. Please prepare a table showing the amount of funding used and the amount actually appropriated to improve your information systems during each of the last three years.

Answer. Please see tables that follow:

Pipeline safety information systems expenditures

1996

Budget item	*Funding*
Upgrade regions to Wide Area network	$160,000
Equipment costs: desktop and notebook computers to meet expanding staff needs	110,000
Contractor support for Hazardous Materials Information Systems	340,000
VAX maintenance costs	150,000
Site licenses costs for software	40,000
Data Baseline Project: Establish performance measures, support risk-based planning, G.P.R.A., identify outside sources of data	400,000
Total 1996 Information Systems and Analysis	1,200,000

1997

Hardware/Software for increased staff	$110,000
Contractor support for Hazardous Materials Information Systems	500,000
VAX maintenance costs	140,000
Site licenses costs for software	45,000
Data Baseline Project: Establish performance measures, support risk-based planning, G.P.R.A., identify outside sources of data	330,000
Software, hardware, and training support to State pipeline safety programs	75,000
Total 1997 Information Systems and Analysis	1,200,000

1998

VAX maintenance costs	$125,000
Contractor support for Hazardous Materials Information Systems	350,000
Site licenses costs for software	65,000
Data Baseline Project: Establish performance measures, support risk-based planning, G.P.R.A., identify outside sources of data	300,000
Software, hardware, and training support to State pipeline safety programs	50,000
Wide area network costs	50,000
Total 1998 Information Systems and Analysis	1,200,000

Question. What specific improvements have been made in your information systems and analytical capabilities since last year?

Answer. Since last year, OPS has begun using a new vastly improved information system for tracking operator inspections and related information known as the Integrated Operator Compliance System (IOCS). The system uses a wide area network (WAN) also brought online since last year, to allow the Regions to access to a Windows NT Oracle based central repository in Headquarters. The IOCS System was designed for data entry and access on-site during inspections on notebook computers. Analytical capabilities continue to be improved with a redesign of our antiquated VAX-based data system from a text-based database system language (System 1032) which also is being redesigned in Oracle. Integration with all operator data bases, including the National Pipeline Mapping System, incident, inspection and operator annual report data is underway. Since the new system is Windows NT based, it integrates easily with other PC-based applications such as Microsoft Office products, providing much improved access and distribution of data throughout OPS. Additionally, Microsoft Office was provided this year for our state pipeline safety office computers so data is easily shared between all offices. Our initiative to provide computers in state offices has proven to be very successful, greatly improving communications and data sharing between state offices, with our regional and district offices, and with our Federal offices.

We are improving the scope, accuracy, and usefulness of our data by working with joint Federal/state/industry data teams to review the adequacy of currently available data, determine the best way to have access to newly needed data, and document existing data in other governmental agencies or elsewhere that may be useful. For example, the Federal Energy Regulatory Commission (FERC) has much data on pipeline ownership and mileage that is of use. We found and obtained a source for this data in electronic format. Additionally, DOE's Energy Information Administration has useful data that we now understand more fully which also is useful for analytical purposes. We are building a National Pipeline Mapping System to locate pipelines with reasonable accuracy in relation to population, water, environment, jurisdiction borders, transportation and topography. We have made our data available on our World Wide Web page, reducing the number of FOIA requests we receive and making the data more available to the public. The Web page provides a useful feedback mechanism allowing public comment on all our activities, rulemakings, and easy access to pipeline statistics.

Additionally, we are working to create a standard for data which operators would maintain on site. A comprehensive understanding of operations and maintenance history, valve locations, inspection findings, pipe manufacture and installation focuses our inspection attention on the most important integrity management issues. We are working with industry on innovative ways of accessing this kind of information without burdensome collection processes.

Question. What is the empirical basis for the additional $300,000 for information system operations? Why can't the upgrade to the state computer platform be funded within the base?

Answer. An increase in Information System Operations funding of $300,000 is needed to upgrade the computer platform in State pipeline safety offices. Existing systems originally purchased in 1995 have insufficient speed and capacity to accommodate requirements of today's software and hardware standards. Additionally, the equipment is out of warranty and maintenance and support costs are increasing rapidly because the equipment is old and unreliable. An upgrade of the computer platform will assure that systems are capable of meeting date requirements relating to the Year 2000 date conversion problem, and that the systems will be adequate for meeting software requirements beyond the year 2000. Faster computer communications between OPS and state offices is needed to assure that states will have the ability to access OPS' National Pipeline Mapping System (NPMS) and the Integrated Operator Compliance System (IOCS). Access to these information systems

will enable states to more effectively find and fix pipeline safety problems, more efficiently enforce compliance and target safety risks, and enhance state participation in development of new safety regulations and standards.

The upgrade to the state computer platform cannot be funded within the base without drastically impacting our current schedule for completing the transition of our System 1032 VAX computer data to Oracle. This major redesign of our information system from the old archaic system to a new Windows NT-based system in Oracle is about 50 percent complete, with the new inspection data collection phase already on-line. Existing accident and incident databases, safety-related conditions databases, and operator annual report databases and program interfaces must be recorded in the new system in order to have all data necessary to run our Pipeline Inspection Prioritization Program (PIPP) on schedule. The PIPP process requires access to all operator databases and is an essential tool in prioritizing and targeting inspection activity.

COMPLIANCE PROGRAMS

Question. Please provide fiscal year 1997 and fiscal year 1998 program goals for the risk-based Pipeline Inspection Priority Program (PIPP) and specify which regions were unable to meet these goals, and please explain why.

Answer. RSPA/OPS is providing greater public safety and protection of the environment by concentrating our inspection resources on the areas of greatest risk. We continually improve our risk-based compliance and inspection policies to emphasize pipeline integrity management and incorporate lessons we have learned from previous inspection cycles. RSPA/OPS uses the Pipeline Inspection Priority Program (PIPP) as a tool to prioritize routine inspections supplementing our identification of non-routine safety inspection focus areas.

For example, an unprecedented amount of new pipeline construction is being proposed for fiscal year 1998. The majority of these projects involve building pipelines to bring Canadian natural gas and crude oil to the midwestern and eastern part of the United States. RSPA/OPS plans intensive oversight of these construction projects to assure proper construction practices.

We continue to assess the outcomes of the risk management and the system integrity pilot programs to determine if and when expansion of these programs is feasible. RSPA/OPS is considering moving from a fixed interval inspection unit basis to a more variable inspection basis, based on performance. Additionally, we are performing more inter-regional inspections that provide OPS a comprehensive review of operator procedures and allow more time for performing independent field verifications and evaluating possible problem areas. RSPA/OPS is exploring the possibility of allowing conditional self-assessment for operators with strong quality assurance programs accompanied by excellent safety records. This will allow us to focus on pipeline systems needing improvement.

Those regions that were unable to meet the standard inspection goals are as follows:

Eastern Region: The Eastern Region was unable to meet its 1997 standard inspection goals due to the loss of three trained inspectors. The new employees hired to fill the vacant inspector slots required training to perform the planned inspections.

Western Region: The training and mentoring of five new inspectors in addition to the continuing long-term illness of another inspector prevented the Western Region from meeting its 1997 standard inspection goals.

Question. Please bring us up to date on the enforcement activities of OPS. For each of the last three fiscal years, please provide data on all enforcement actions taken by OPS, including the number of enforcement cases opened, closed, and the amount of civil penalty assessments collected. Please compare these data with the number of reportable events, number of deaths and injuries, and any other measures of pipeline safety for both hazardous liquids and gases.

Answer. The following table is provided:

ENFORCEMENT

Measures	Calendar year—		
	1995	1996	1997
Cases Opened	132	185	179
Cases Closed	107	167	186
Civil Penalty Assessment [1]	$264,835	$46,750	$228,171

ENFORCEMENT—Continued

Measures	Calendar year—		
	1995	1996	1997
REPORTABLE EVENTS			
Incidents Reported	350	374	362
Deaths	19	20	11
Injuries	64	85	93
Property Damage	$54,000,000	$64,000,000	$65,000,000

[1] The method of determining this number has been changed from previous years.

Question. What non-regulatory approaches to improve "pipeline integrity" are you exploring? How has the fiscal year 1998 program been improved compared with the fiscal year 1997 effort?

Answer. RSPA/OPS continues to focus on improvements to pipeline integrity which will assure greater levels of safety, environmental protection, and service reliability. In fiscal year 1998, we will implement a three to five year, voluntary System Integrity Inspection (SII) pilot program designed to test whether a more broad-based examination of a company's safety and pipeline integrity programs will result in improved performance and a more effective use of inspection resources. Up to five candidates will be selected who offer the best opportunity to test the SII pilot program under a broad range of conditions. Inspectors will work cooperatively with each company to address the most significant pipeline system integrity issues, addressing areas that go beyond the regulations to assure improved protection. The SII is intended to result in improved communication and information sharing between operators and government, and focus resources on the most important risks to pipeline safety.

Question. During fiscal year 1997, how many companies were inspected that did not have enforcement actions taken against them? How many were provided technical education on how to come into compliance with the regulations, when enforcement action could have been taken?

Answer. RSPA/OPS inspected 186 companies (746 pipeline units) during fiscal year 1997. Of those, 116 companies (465 pipeline units) did not receive enforcement actions. Many companies were inspected at several different locations throughout their system. During every inspection, pipeline companies are advised of methods to improve compliance with the Federal pipeline safety requirements and industry practices. The issues discussed usually involve minor items not warranting enforcement action, such as a single missing pipeline marker or performance less than industry best practice policies. No official record is maintained of the items verbally relayed to the company because they are not substantive violations.

For issues that are slightly more serious but not deserving of civil penalty assessment, RSPA/OPS uses a Letter of Concern or a Warning Letter to bring the matter to company management attention. In 1997, RSPA/OPS issued 110 Letters of Concern and Warning Letters.

Question. How many of those companies provided with technical education were reinspected? Did you find these companies still out of compliance? If so, how many enforcement actions were taken against those companies?

Answer. Twenty-four of the companies inspected in fiscal year 1996 were inspected at different locations in their system during fiscal year 1997. Enforcement action was initiated on thirteen of the companies which received Letters of Concern or Warning Letters in fiscal year 1996. However, it should be noted that the concerns found in fiscal year 1997 were not necessarily the same items found in fiscal year 1996.

Question. Please prepare an updated table indicating the number of pipeline safety inspectors on board and the number of pipeline safety inspector positions authorized for each of the last three fiscal years. Please explain whether the number of authorized positions has or has not increased relative to congressional directives. If not, why not?

Answer. The total number of filled inspector positions varies during the year due to personnel turnover and hiring of new inspectors. RSPA/OPS is in the process of hiring additional inspectors in the Southern and Central Regions.

NUMBER OF INSPECTORS ONBOARD

Region	1998 [1]		1997 [1]		1996 [1]	
	Authorized	Onboard	Authorized	Onboard	Authorized	Onboard
Eastern	8	8	7	5	9	7
Southern	8	7	8	8	8	8
Central	12	11	12	11	11	9
Southwest	11	11	11	11	11	9
Western	13	13	13	13	12	8
Total	52	50	51	48	51	49

[1] These numbers do not include headquarters inspector positions that supply technical support.

The number of authorized positions is consistent with congressional directives allowing for internal promotions and personnel turnover.

Question. How many accident investigations were conducted during each of the last three fiscal years? Please include information on the number of follow-up accident investigations and the results.

Answer.

ACCIDENT INVESTIGATIONS

	1995	1996	1997
Number of Investigations	21	64	51
Follow-up Investigations	60	58	65
Accident Reports Generated	6	6	[1] 4

[1] Additional reports are forthcoming.

Question. Please assess your influence on the safety and compliance of those companies not participating in the risk demonstration project.

Answer. Improving pipeline integrity is critical to enhancing safety, environmental protection, and service reliability. RSPA/OPS uses a variety of activities to focus on integrity issues. These include our inspection program, system integrity inspection pilot program and involvement in industry standard-setting organizations. Through changes in our compliance activities, we are able to demonstrate a willingness to work with industry to create an superior safety atmosphere. This willingness is based on mutual respect, a key ingredient in promoting a greater exchange of information which leads to a safer environment.

Our compliance program includes different types of inspections (i.e. standard, special, follow-up, system-wide, system integrity, etc.) and focuses on opportunities to positively impact safety. Each inspection contributes to our understanding of pipeline integrity issues and increases awareness and attention to regulatory requirements. In times of company downsizing and personnel reduction, our presence helps ensure maintenance and safety activities are not neglected. In most cases, the companies are quick to comply with any deficiencies noted. Some operators, now familiar with our requirements for corrective and protective measures following certain types of accidents, embark immediately on that type of corrective action prior to RSPA/OPS requiring the action. However, we are quick to take enforcement action if a company will not cooperate and safety is being jeopardized.

RSPA/OPS seeks to provide appropriate levels of oversight based on safety performance. Companies with excellent enforcement and safety records are given opportunities for self-assessment and less frequent inspections. Companies which struggle to comply are receiving increased monitoring and attention. Applying risk management internally, RSPA/OPS is devoting the greatest resources to the greatest risks.

RESEARCH AND DEVELOPMENT AND MAPPING INITIATIVE

Question. Based on the results of the mapping pilot, what do you anticipate the voluntary national pipeline mapping system will cost federal and state governments and the industry? When do you anticipate that the project will be completed?

Answer. Based on the results of the mapping pilot, OPS anticipates that the remaining funds appropriated in 1996, 1997, and 1998, and the funds requested in 1999 will allow OPS to complete 70 percent of the National Pipeline Mapping Sys-

tem (NPMS). OPS will set up cooperative agreements with various state agencies to jointly fund the creation of the NPMS. OPS will fund up to 50 percent of the state's cost of creating and maintaining the digital pipeline layer for the state in a format that meets the national pipeline mapping standards.

Approximately 15 state agencies have received funding from their state or another agency and are currently creating a digital pipeline map of their state's pipelines, or they have requested and expect to receive state funds to create a digital pipeline map of their state's pipelines. The cooperative agreements will allow OPS and these state agencies to maximize federal and state resources and minimize duplication. Based on discussions with the various state agencies and the results of the pilot test, OPS estimates the states will spend approximately $800,000—$1,000,000 in state funds to convert the data that they currently have in house to a format that meets the national pipeline mapping standards, to request data from pipeline and liquefied natural gas operators, to digitize the paper maps, to convert the electronic data to a common format, and to purchase the hardware and software needed to run the system.

The pilot indicated that an individual pipeline operator's cost to submit data that meets the standards is dependent on the format of the operator's data. Operators that have collected digital information and have stored it in a geographic information system (GIS) indicated that they would incur a minimal cost to submit data that meets the standards. Operators that have collected digital location data on the pipeline but have not incorporated it into a GIS also indicated that they would incur minimal cost to submit data that meets the standards. Operators that have old maps that do not accurately show the location of the pipeline indicated that they would incur a medium to high cost to submit data that meets the standards. With the cost of the Geographical Positioning System coming down, RSPA expects more operators to upgrade the accuracy of data in computers with field monitoring activities.

OPS anticipates 70 percent of the NPMS will be completed by the year 2000. OPS anticipates the remaining 30 percent of the system will be for segments of the pipeline network where the operator is in the process of migrating from a paper system to a digital database, or where the operator cannot accurately locate the pipeline and has chosen to update their records through field verification. After the year 2000, OPS will continue to work with pipeline operators and the repositories to complete the NPMS, and to upgrade and update data in the system as more accurate information becomes available.

Question. What are the Office of Pipeline Safety expected costs for this project over the next ten years?

Answer. OPS anticipates that the appropriated funds received in 1996, 1997, and 1998, and the funds requested in 1999 will complete 70 percent of the system. OPS expects to complete, over the next ten years, the remaining 30 percent of the system and to update and maintain the system if the level of funding that we are currently requesting is sustained.

Question. What technical advances have resulted from research sponsored during the last three fiscal years by the OPS?

Answer. Technical advances that have resulted from research sponsored by OPS during the last three fiscal years include a study on Supervisory Control and Data Acquisition (SCADA) systems. SCADA systems are used to monitor pipeline operations. The SCADA study determines the feasibility and costs of requiring pipeline operators to install a leak detection system, which would allow for the detection of impediments or needed system improvements. Also, a study investigating the establishment of leak-before-rupture criteria for gas and hazardous liquid pipelines establishes pipeline design and operations conditions to limit catastrophic failures. In addition, another report examines analytical and experimental research into fatigue behavior of pipelines that have mechanical damage, such as dents and gouges, which will help pipeline operators decide when to repair pipelines by establishing parameters that can be used in determining damage acceptance or rejection criteria.

A future technical study that should result in technical advances is being conducted in collaboration with the Gas Research Institute on detection of pipeline mechanical damage by in-line inspection equipment, or "smart pigs." The study, which was started in 1996, will facilitate the design of smart pigs that can be used for in-line inspection of pipelines to detect cracks, dents, gouges, and stress corrosion cracking. All of these conditions are potentially detrimental to the safe operation of pipelines. The research will specify sensor technologies and data evaluation methods to reliably distinguish between various types of mechanical damage.

Question. Please describe the progress made since last year of your mapping initiative. When will the project be completed? How much was appropriated and spent

on this effort in fiscal years 1996, 1997, 1998, and planned for fiscal year 1999? What are the remaining challenges?

Answer. The Joint Government/Industry Pipeline Mapping Quality Action Team (MQAT II) was formed in December 1996 and is sponsored by RSPA's Office of Pipeline Safety (OPS), the American Petroleum Institute (API), and the Interstate Natural Gas Association of America (INGAA). Representatives on the Team include the U.S. Geological Survey, Department of Energy, Federal Energy Regulatory Commission, DOT's Bureau of Transportation Statistics, the states of Texas, Louisiana, California, and New York, and the natural gas and hazardous liquid pipeline industry.

MQAT II was formed to implement MQAT I's "Strategies for Creating a National Pipeline Mapping System (NPMS)." The strategies outline how OPS can develop reasonably accurate pipeline location data without creating an undue burden on the pipeline industry. The strategies include developing, promoting, and aggressively communicating pipeline mapping data standards; forming alliances with other government agencies and industry to create and maintain the NPMS; and creating a distributed mapping system that allows government agencies and the pipeline industry to upgrade and exchange data from remote locations.

By March 1997, MQAT II had developed draft mapping standards to be used in creating the NPMS. The Team conducted an initial pilot test of the standards to test the collection and transfer of industry data to pilot repositories, and the processing of the data by these repositories. In May 1997, MQAT II held a public meeting to present the draft standards to interested stakeholders. Feedback from this meeting and the initial pilot was used to refine the standards and the functions of a repository. OPS, API, and INGAA sent the revised standards to the pipeline industry, states and mapping vendors for review and comment.

OPS published two requests for bids in the Commerce Business Daily to solicit state and vendor participation in a second pilot test of the revised standards. Ten State agencies and six pipeline mapping vendors were awarded contracts to act as pilot repositories and to test the draft standards and NPMS model. The selected States were Louisiana, Minnesota, Utah, California, Kentucky, Ohio, Texas, West Virginia, New Jersey, and the Interstate Oil and Gas Compact Commission. The API, INGAA, and OPS solicited industry participation and twenty-two pipeline companies took part in the second pilot. These companies were asked to submit, to the pilot repositories, data on portions of their pipeline system in a format that met the standards. The operators were also asked to describe the ease or difficulty of meeting the standards, the costs incurred and the problems encountered in meeting the standards, and the operator's predicted time and effort to submit data in a format that met the standards for their entire pipeline system.

MQAT II recently finished this second pilot. The results have helped to determine the remaining problems with the mapping data standards and NPMS model, and MQAT II is refining the standards and model accordingly. The results also indicate that most pipeline operators can cost beneficially meet the draft standards.

MQAT II will publish revised pipeline mapping data standards by May 1998. The Team will consider public comments before publicizing the final standards. OPS will publish two requests for bids to determine which state agencies and pipeline mapping contractors are interested in, and qualified to become, the State repositories and the National repository. OPS will finalize contracts with the repositories by September 1998.

OPS will begin requesting data from pipeline operators early in 1999. OPS will begin by asking operators with digital pipeline data to submit this data first. Data in a digital format is the most cost beneficial for a repository to process. OPS will request that operators submit paper data after all digital data has been received and processed.

OPS anticipates that the funding requested in 1999 will allow 70 percent completion of the NPMS. This 70 percent completion will take place during the years 1999 and 2000. OPS anticipates the remaining 30 percent that is not completed by the year 2000 will be for segments of the pipeline network where the operator is in the process of migrating from a paper system to a digital database, or where the operator cannot accurately locate the pipeline and has chosen to update their records through field verification. After the year 2000, OPS will work with pipeline operators and the repositories to complete the NPMS, and to upgrade and update data in the system as more accurate information becomes available.

The challenges that remain for the OPS and the MQAT II are:

—Finalizing the NPMS standards;

—Setting up the state and national repositories;

—Working with pipeline operators and assisting them with migrating from paper to digital; and

—Collecting other digital data layer so that OPS can depict pipelines in relation to other vital national resources, such as drinking water, threatened and endangered species, human populations, cultural resources, environmentally sensitive areas, and other transportation networks.

The following chart depicts the amount appropriated in fiscal year 1996, 1997, 1998 and planned for 1999.

Fiscal year	Amount appropriated	Amount spent to date
1996	$1,200,000	$415,000
1997	400,000	.....
1998	400,000	.....
1999	800,000	.....

Question. What progress has been made on the memorandum of understanding (MOU) with the Gas Research Institute on non-destructive evaluation technology? What are the accomplishments to date of this partnership? Are there any unobligated balances?

Answer. The first study under the MOU to be conducted in collaboration with the Gas Research Institute addresses non-destructive testing by in-line inspection tools or "smart pigs." This study commenced in June 1996. The study will improve the analytical ability to detect pipe wall cracks, dents, gouges, and stress corrosion cracking, mechanical damage which may lead to pipe failure if not detected. The research will determine which sensor technologies to utilize, and then will adapt the sensor to a test vehicle so that non-damaging metallurgical inclusions in pipe and the more serious mechanical damage can be distinguished. The unobligated balance on this study is $447,000, which we plan to obligate in fiscal year 1998.

Question. Why is it of critical importance to increase funds for mapping by $400,000 in fiscal year 1999?

Answer. MQAT II has conducted several pilot tests over the past year. Part of the purpose of these tests was to determine the costs involved in converting the electronic data and digitizing the paper maps that operators will submit, and bring all of this data into a single digital pipeline layer. After reviewing the results of the pilot tests on the costs associated with data conversion and creating a common pipeline layer, MQAT II recommended that OPS request an increase in funding for fiscal year 1999.

MQAT II believes the increased funding is necessary to complete the majority of the NPMS. It is believed that the current level of funding for fiscal year 1996 and 1997, and the increase of $400,000 in fiscal year 1999, will allow 70 percent completion of the NPMS. The completion of the remaining 30 percent of the NPMS will take place over several years as pipeline operators and the repositories continue the initial, costly process of converting the pipeline data to a digital format.

STATE GRANT PROGRAM

Question. How are the States using funds for risk management and assessment activities?

Answer. The States have used funds for risk management training and travel necessary to participate in the OPS risk management demonstration projects and stakeholder outreach efforts. State participation in these demonstration projects is essential to bring the most site-specific, geographic, and socio-economic information into the risk evaluation process.

Question. Please discuss the five key challenges that your grant program needs to address during the rest of fiscal year 1998 and in fiscal year 1999.

Answer. From today through fiscal year 1999, OPS hopes to manage these five key challenges for the grant program:

—reducing to zero pipeline incidents caused by noncompliance with regulations strengthening damage prevention efforts at the State-level;

—transitioning States to a risk-based pipeline safety program;

—integrity of an integrity focus in the state inspection programs;

—enhancing communication between Federal and State agencies through improved information systems; and

—improving damage prevention programs.

Question. Please discuss the five major accomplishments of your grant program during the last year.

Answer. OPS played a major role in realizing these five major accomplishments in the grant program this past year:

—Texas enacts one-call legislation after years of efforts;
—Two additional States, Kentucky and South Carolina, participate in the hazardous liquid pipeline safety program, and California expands its jurisdictional authority over municipals;
—Relations are established with Maine and Hawaii to reenter the program;
—Thirty-seven applications are processed for State one-call grant funds in 1997; and
—States participate with OPS in risk management demonstration projects.

Question. For fiscal year 1997 and 1998, please list the states that participated in your hazardous liquids and hazardous gas state grants programs. For each participating state, display the amount requested by state, the amount of federal funds received, and the percentage of federal contribution to total costs represented by that grant. What efforts were taken to increase participation in the grant program?

Answer. The following table is provided:

1997 NATURAL GAS PIPELINE SAFETY GRANTS ALLOCATION

State	Request	State points	Allocation	Percent of funding
Alabama	$339,009	100	$304,024	45
Arizona	362,000	100	324,643	45
Arkansas	175,913	100	157,759	45
California	1,182,836	95	1,007,733	43
Colorado	174,362	100	156,368	45
Connecticut	188,125	100	168,711	45
Delaware	24,405	95	20,792	43
Florida	50,000	95	42,598	43
Georgia	269,147	100	241,372	45
Illinois	269,723	100	241,889	45
Indiana	147,439	100	132,223	45
Iowa	144,200	100	129,319	45
Kansas	344,623	100	309,059	45
Kentucky	230,880	100	207,054	45
Louisiana	332,000	100	297,739	45
Maryland	156,860	100	140,673	45
Massachusetts	292,634	95	249,313	43
Michigan	317,030	95	270,098	43
Minnesota	515,180	100	462,015	45
Mississippi	129,250	100	115,912	45
Missouri	256,005	95	218,107	43
Montana	30,123	90	24,313	40
Nebraska	75,660	95	64,460	43
Nevada	120,269	100	107,857	45
New Hampshire	78,365	100	70,278	45
New Jersey	332,693	100	298,360	45
New Mexico	170,835	75	114,904	34
New York	1,257,065	100	1,127,340	45
North Carolina	161,850	100	145,148	45
North Dakota	43,061	100	38,617	45
Ohio	476,268	100	427,118	45
Oklahoma	285,766	100	256,276	45
Oregon	128,193	100	114,963	45
Pennsylvania	274,579	100	246,243	45
Puerto Rico	30,643	95	26,106	43
Rhode Island	66,511	90	53,683	40
South Dakota	34,980	90	28,233	40
Tennessee	235,106	100	210,844	45
Texas	1,014,094	95	863,971	43
Utah	154,000	100	138,108	45
Vermont	43,363	100	38,888	45
Virginia	306,165	100	274,570	45

1997 NATURAL GAS PIPELINE SAFETY GRANTS ALLOCATION—Continued

State	Request	State points	Allocation	Percent of funding
Washington, DC	71,761	95	61,137	43
Washington	202,334	100	181,453	45
West Virginia	216,041	95	184,059	43
Wisconsin	186,900	85	142,471	38
Wyoming	76,500	95	65,175	43
Totals	11,974,738	.....	10,501,975	44

Question. RSPA and the states have agreed to attempt to provide 50 percent of the states' pipeline safety program funding from the federal government. As an aggregate, what percent of the states' pipeline safety program funds were appropriated through the OPS state grant program in fiscal years 1997 and 1998? Is the total national program level increasing due to more active pipeline safety programs at the state levels?

Answer. The "core program" grant funds appropriated for fiscal years 1997 and 1998 were $12,000,000. The request from the states for fiscal year 1997 was $27,327,000 and the funding level was 44 percent. The request for fiscal year 1998 was $29,649,000 and the funding level is 41 percent. The total national program level is increasing due mostly to increased requirements by OPS on jurisdiction and damage prevention enhancements and to inflation of program costs.

Question. Part of the original justification for the increase in the pipeline grant program was that with increased funds the states would be encouraged to expand their enforcement responsibilities. Please provide quantitative data on a state-by-state basis indicating whether this has happened.

Answer. OPS has encouraged states to expand their enforcement jurisdiction in the past few years by adding seven new gas and liquid programs and twelve new areas of Municipal, LPG or master meter operator jurisdiction in their states.

Question. Please provide an assessment of your monitoring of the state grant program. How has OPS improved various state programs?

Answer. Field evaluation scores and other performance measures are used to determine the grant allocation for each State. Each year, OPS evaluates the states' pipeline safety programs based on current performance measures. OPS monitors state inspections to ensure that the Pipeline Safety Regulations are being appropriately enforced. The annually submitted State certifications contain data on such factors as adequacy of one-call efforts, field inspection days, the number of regulations adopted, and inspector qualification.

Over the last five years, OPS has taken steps to improve our oversight of the state pipeline safety programs including the full time designation of an inspector in each region office to monitor and evaluate activities.

These inspectors, the state liaison representatives, have worked together to improve the monitoring and evaluation process so that areas of needed improvement can be more readily identified and corrected. When OPS identifies a potential weakness in a state pipeline program, we work closely with the program manager to correct the circumstances and provide technical support.

Question. For each participating state, indicate the number of times during each of the last three years that OPS conducted an audit, a joint inspection, or a training activity.

Answer. The following chart illustrates the number of times OPS has conducted an audit, a joint inspection, and seminar or training activity in each state participating in an OPS pipeline safety program.

The number of joint inspections include the number of joint accident response investigations in which OPS has participated. The high number of joint inspections for Puerto Rico in 1996 was due to the incident in San Juan.

OPS has given state inspectors training required for certifying a pipeline safety program. The numbers of students trained are 279, 218 and 279 for 1995, 1996 and 1997 respectively.

State	Number of audits			Number of joint inspections			Training/seminars		
	1995	1996	1997	1995	1996	1997	1995	1996	1997
AL	2	2	2	2	2	3	1	1	1

State	Number of audits			Number of joint inspections			Training/seminars		
	1995	1996	1997	1995	1996	1997	1995	1996	1997
AZ	2	2	2	3	3	3	2	1	2
AR	1	1	1	1	1	2	1	1	.....
CA	2	2	2	2	2	2	5	6	8
CO	1	1	1	1	1	2	3	1	2
CT	1	1	1	2	2	1	.....	.....	.....
DE	1	1	1	1	1	1	.....	.....	.....
DC	1	1	1	1	1	2	.....	.....	.....
FL	2	2	2	2	2	2	1	2	.....
GA	1	1	1	1	1	1	1	.....	1
IL	1	1	1	1	1	1	.....	1	.....
IN	1	1	1	1	1	2	.....	.....	1
IA	1	1	1	1	1	2	1	.....	.....
KS	1	1	1	1	2	1	1	1	1
KY	1	1	2	2	1	2	1	1	.....
LA	2	2	2	2	2	2	2	5	1
MD	1	1	1	1	1	1	.....	1	1
MA	1	1	1	1	1	1	1	.....	1
MI	1	1	1	3	1	1	.....	.....	1
MN	2	2	2	5	2	7	2	.....	2
MS	2	2	2	2	2	2	1	.....	2
MO	1	1	1	1	1	1	.....	1	1
MT	1	1	1	1	1	1	.....	1	1
NE	1	1	1	2	1	1	2	.....	1
NV	1	1	1	1	1	4	.....	1	.....
NH	1	1	1	1	1	1	.....	1	1
NJ	1	1	1	1	1	1	.....	.....	.....
NM	1	1	2	1	2	2	3	1	.....
NY	2	2	2	7	3	2	.....	.....	2
NC	1	1	1	1	1	1	1	.....	.....
ND	1	1	1	1	1	2	.....	1	.....
OH	1	1	1	1	1	2	3	2	.....
OK	2	2	2	2	2	4	3	1	.....
OR	1	1	1	1	1	2	.....	.....	3
PA	1	1	1	2	1	1	2	.....	.....
PR	1	1	1	1	[1] 49	1	.....	.....	1
RI	1	1	1	1	1	1	.....	.....	1
SC	1	1	1	1	1	1	3	.....	.....
SD	1	1	1	1	1	1	2	.....	.....
TN	1	1	1	1	1	1	1	.....	2
TX	2	2	2	2	3	4	1	5	1
UT	1	1	1	1	1	2	.....	2	2
VT	1	1	1	1	1	1	.....	.....	2
VA	1	2	1	3	3	1	1	.....	.....
WA	1	2	2	1	2	2	2	.....	3
WV	2	2	2	2	2	3	.....	2	.....
WI	1	1	1	1	1	1	1	.....	1
WY	1	1	1	1	1	1	.....	1	3

[1] This increase was due to the major incident in San Juan in 1996.

Question. Does your general counsel believe it would be legal to draw down some OPA funds to pay for an increase in the liquids portion of the grant program.

Answer. Yes. State programs work jointly with OPS in fulfilling the OPA mission of preventing oil spills from pipelines. OPA funds may be used for prevention activities of OPA.

RISK MANAGEMENT PROGRAM AND RISK ASSESSMENT

Question. What is the status of the risk management demonstration projects that were authorized in the Accountable Pipeline Safety and Partnership Act?

Answer. RSPA issued an Order approving its first risk management demonstration project on March 18, 1998 (Shell Pipe Line Corporation). RSPA is working with seven other companies in the program at this time and we are engaged in consultative evaluations. These projects are multi-year with many components detailed in work plans. We will monitor the work plans over a four year period.

Several other qualified companies have expressed an interest in participating and we have had preliminary meetings with them. We may start working with some of them in 1999 provided that we have completed the approvals begun in 1998 with the seven already in the process. Presently, RSPA may approve up to ten demonstration projects during the four year period, consistent with a presidential directive.

RSPA bases its choice of participating companies on several program objectives. While each company has its various strengths and distinguishing features, all companies approved or under consideration are proposing projects that have the potential to (1) provide superior safety, environmental protection, and service reliability; and (2) systematically test risk management as a regulatory alternative through objective evaluation under a broad range of conditions. Other project factors we evaluate include new technologies being tested, ability to communicate with OPS, states and the public, geographic diversity, corporate commitment to the quality of programs, and the company's safety and environmental record. All projects are subject to public comment and extensive review by RSPA and affected states.

Question. Who are the participants in those demonstration projects? What progress has been made in each of those projects? Is funding for those demos provided through the risk assessment/technical studies contract program, or through the risk management grants program?

Answer. The eight companies RSPA is working with in 1998 are: Shell Pipe Line Corporation (RSPA issued the Order approving the Shell project on March 18, 1998); Chevron Pipe Line Company (RSPA has completed consultations with Chevron and has asked Chevron to submit a formal written application); Phillips Pipe Line Company (RSPA has completed consultations with Phillips and has asked Phillips to submit a formal written application); Mobil Pipe Line Company (RSPA has completed consultations with Mobil and has asked Mobil to submit a formal written application); Columbia Gas Transmission Corporation/Columbia Gulf Transmission Company (RSPA is still engaged in consultations with Columbia); Florida Gas Transmission Company (RSPA is still engaged in consultations with Florida Gas); Natural Gas Transmission Company (NGPL) (RSPA is still engaged in consultations with NGPL); and Northwest Pipeline (RSPA plans to continue consultations with Northwest in the fall).

The companies RSPA may work with in 1999 include CNG Transmission Corporation, Duke Energy, and Tennessee Gas Pipeline/East Tennessee Natural Gas.

Funding for support of these demonstration projects is provided under both Risk Assessment & Technical Studies (RATS) and Risk Management Grants. Funding from Risk Assessment & Technical Studies (partially derived from the Oil Spill Liability Trust Fund) is used for contractor support for evaluation and monitoring of demonstration projects.

The Risk Management Grant funding enables affected States to take part in a number of activities that support risk management. These include risk management training, demonstration project evaluations, and participation in teams improving pipeline data forming the basis for risk assessments. State participation brings the most site-specific, geographic, and socio-economic information into the risk evaluation process.

Question. How much funding was associated with those demonstration projects in fiscal year 1998, and how much is requested for fiscal year 1999?

Answer. The funding requested for the demonstration projects in fiscal year 1999 remains unchanged from the funding enacted in fiscal year 1998.

Of the $1.2 million RSPA requested under Risk Assessment & Technical Studies in fiscal year 1998 and fiscal year 1999, RSPA expects to dedicate approximately $900,000 to the demonstration projects. For both years, $200,000 of this amount will be derived from the Oil Spill Liability Trust Fund (OSLTF).

In fiscal year 1998, RSPA dedicated the $500,000 appropriation under Risk Management Grants to activities supporting the risk management initiative. RSPA has requested $500,000 in Risk Management Grants for fiscal year 1999.

Question. Please provide a list of each of the contracts funded by the fiscal year 1997 and fiscal year 1998 appropriations for risk assessment and technical studies, indicating purpose and amount of each.

Answer. In fiscal year 1997, RSPA funded Cycla Corporation $1.1 million using Risk Assessment & Technical Studies appropriations.

So far in fiscal year 1998, RSPA funded Cycla Corporation $800,000 using these appropriations ($200,000 of these funds were derived from the Oil Spill Liability Trust Fund). RSPA expects to add another $100,000 to this contract from Risk Assessment & Technical Studies appropriations before the end of fiscal year 1998.

Cycla Corporation supports RSPA efforts to: guide all participating companies in developing and implementing risk management programs consistent with the Program Standard; provide mechanisms for meaningful community involvement; and administer the Program consistent with the Program Framework. Cycla supports the multiple meetings required between companies, OPS headquarters and regional staff, and affected state pipeline officials, enabling all participants to reach agreement on demonstration project provisions or modifications. Cycla support helps ensure that all issues raised are shared among all evaluators or auditors, resolved with the company, summarized for interested stakeholders, posted and updated in the various communication mechanisms (including the Internet information system which receives an average of 1600 hits per week, Federal Register notices, prospectus, and electronic town meetings), and thoroughly documented for OPS files. In fiscal year 1999, OPS expects to use Cycla support in evaluating a few additional demonstration projects, in monitoring the seven projects expected to be approved in fiscal year 1998, in refining demonstration project performance monitoring measures and approaches, and in investigating the feasibility of risk management for local distribution companies (LDC).

Risk Assessment & Technical Studies appropriations are also used for smaller contracts for communication activities using state-of-the-art technologies combining satellite and the Internet (4300 viewers participated in our last live broadcast), miscellaneous administrative support, support for public meetings and conferences, publication of Federal Register notices, and development and delivery of training.

Question. How will the OPS ensure that equal or greater levels of safety are achieved by companies that are participating in the demonstration projects? How will the safety performance of these companies be evaluated?

Answer. Although the statute requires "equal or greater" safety, the Demonstration Program developed by OPS and its stakeholders is consistent with a Presidential Directive that each project achieve "superior levels of public safety and environmental protection when compared with regulatory requirements that otherwise would apply."

OPS has designed several mechanisms into the review and approval of demonstration projects that will ensure their superior performance. For example, each project must have built-in and predefined accountability mechanisms—called performance measures—that ensure the expected results. The performance measures will be part of a company's project proposal, will be specific to each project, and will be used by OPS to audit companies' safety. Companies must define and achieve safety goals, rather than simply comply with regulations.

The base criteria for project-specific measures OPS will accept are:

—Support the intent of achieving superior safety relevant to the risk control activities.

—Track short- and long-term effectiveness.

—Document starting conditions to establish a performance baseline.

—Establish expected outcomes in the form of discrete values or ranges.

—Enable auditing, monitoring and documentation.

During the evaluation of demonstration projects, OPS also sees if companies are employing the new process described in the Program Standard and Program Framework. These new processes result in a comprehensive, systematic, and integrated approach to assessing and addressing pipeline risks. The processes also ensure that the most broad-based input possible—from throughout the company, from State and Federal government agencies, and from affected communities—can be factored into the provisions of a demonstration project.

Finally, the risk reduction activities companies implement must also lead to superior safety. OPS follows its review protocols in determining if a demonstration project proposal can lead to superior safety.

ONE-CALL

Question. What work does OPS have underway regarding the "best practices" employed by one-call systems in operation in the states? How are you encouraging states to adopt those "best practices"? How much is planned for this activity in fiscal year 1999?

Answer. The Underground Damage Prevention Act of 1997, which prescribes best practices for one-call systems, was submitted to the Senate and House as Title I of DOT's Transportation Safety Act of 1997. This proposed bill promotes one-call sys-

tems with statewide coverage, effective mechanisms for enforcement, 24-hour coverage, and provisions for public and excavator education. The bill provides incentives to States to adopt these best practices by prescribing widely-accepted and flexible elements for a State one-call program, supporting grants to fund such improvements, and defining a federal model program to assist States.

OPS also assists the States to implement these best practices by building greater awareness of damage prevention and one-call systems with its plans for a national damage prevention campaign, and participating in hearings to support State one-call legislation. For fiscal year 1999, RSPA is requesting $200,000 for a national public education campaign on damage prevention.

Question. What are you doing to motivate states to improve their one-call notification systems and excavation damage prevention activities? How much is planned for that activity in fiscal year 1999?

Answer. In the past few years, many States have improved their one-call notification systems and damage prevention activities by strengthening State one-call legislation, increasing enforcement efforts, and continuing public education. This notable increase in one-call efforts have occurred since OPS has made one-call grant funds available to States. OPS is requesting $1 million in one-call grant funds to States for fiscal year 1999.

In addition, States participating in the pipeline safety program receive grants based on performance, which is partially assessed by the State's advancement of one-call legislation and enforcement.

Question. What are you doing to examine the effectiveness and accuracy of the mapping techniques currently used by one-call notification systems? How much is planned for that activity in fiscal year 1999?

Answer. The Joint Government/Industry Pipeline Mapping Quality Action Teams (MQAT I and MQAT II) have contacted the one-call centers and One-Call Systems International to determine how each one-call center catalogs and stores the pipeline location data that operators submit. The Teams determined that most one-call centers store the pipeline location according to a location grid stored in tabular databases with no reference to geographic coordinates. Grid or corridor size varies significantly between one-call systems and, as a result, so do pipeline location accuracy levels. Much of the detailed pipeline location information originally submitted by pipeline operators is generalized by the use of grids.

Only a few State one-call systems have computerized mapping systems or pipeline information that identifies longitude and latitude on a base map. For these systems, pipeline operators indicate a buffer zone around the pipeline that can be as large or as small as the pipeline operator desires. When the center receives an excavation call, the one-call center identifies which members have polygons or corridors that fall within the dig site polygon and notifications are issued. Since this type of system is more accurate, it decreases the number of phone calls the one-call center has to make or to which the pipeline operator has to respond.

With the recent decreases in the cost of mapping systems, and the benefits of the mapping systems, some of the one-call centers are migrating to graphical-database mapping systems. OPS will monitor this activity in fiscal year 1999 and beyond and will encourage one-call centers to migrate to more locationally accurate geographic information systems.

Question. What is the status of your national one-call campaign? When will the pilot tests be conducted?

Answer. The Damage Prevention Quality Action Team (DAMQAT)completed its assessment of existing damage prevention materials. DAMQAT conducted a nationwide survey to assess the level of damage prevention awareness and damage prevention practices among professional excavators. This in-depth survey also identified which damage prevention materials are most effective. This information was used to design the print and broadcast materials for the pilot campaigns. The pilot tests will be conducted from May through October 1998 in Virginia, Tennessee and Georgia.

Question. What could be done to accelerate those efforts? Why has it taken so long to get that campaign off the ground?

Answer. All DAMQAT Team members are employed full time in other capacities. DAMQAT first met in October 1996. By the spring of 1997, the Team had completed its review of existing materials and identified the need to design more effective ones. Before committing a considerable amount of public monies to this effort, we thought it prudent to assess the level of damage prevention awareness and damage prevention practices. The results were used to modify existing materials and design new ones, as necessary. Assessment of existing materials, conduct of the nationwide survey, and design of new materials are all labor intensive efforts which have to be completed prior to conducting the pilot campaign.

Question. During fiscal year 1997 and fiscal year 1998, what were the specific uses, on a contract-by-contract basis, of the funds provided for one-call?

Answer. Cycla Inc. is the prime contractor for all damage prevention activities through an IDIQ (indefinite duration indefinite quantity) contract. Cycla has subcontracts with other entities to conduct activities outside the scope of Cycla's expertise. Contract funds were used to assist in evaluating existing damage prevention materials, conduct the national survey of damage prevention awareness and practices, develop a marketing campaign for the pilot program, produce print and broadcast media for the pilot and public relations for the pilot campaign. Edge Research conducted the national survey. Traken, Burden and Charles is the advertising/PR firm selected to conduct the pilot campaign.

Question. Please discuss the five key challenges that your internal (as opposed to the state grant) one-call program needs to address during the rest of fiscal year 1998 and in fiscal year 1999.

Answer. The challenges are: (1) orchestrating a comprehensive response to damage prevention which gains the support of all key interests; (2) collecting comprehensive data on excavation damage to underground facilities including the full costs of repair, lost business and other downstream losses; (3) generating matching funds from interested parties to underwrite costs of the pilot; (4) working with individual states to strengthen their one-call laws; (5) passing national damage prevention legislation.

Question. Please discuss the five major accomplishments of your (internal) one-call program during the last year.

Answer. The agency has adopted the term 'damage prevention' rather than 'one-call' because one-call is just the first of several steps in the damage prevention process. First, OPS submitted comprehensive Damage Prevention legislation to Congress; second, OPS provides administrative support for DAMQAT activities and oversees DAMQAT contracts for evaluating materials, the national survey, advertising and public relations activities, etc.; third, in organizing DAMQAT, OPS moved beyond the pipeline community to include all groups which are key players in damage prevention: states, professional excavators, one-call centers, insurance and telecommunications. Fourth, OPS conducted the first in-depth nationwide survey of key groups: professional excavators, state, county and municipal public works employees, facility operators and the public. The survey provides baseline data on damage prevention awareness and practices for design of materials for the pilot campaign and enables OPS to gauge the success of the pilot. Fifth, OPS will launch its pilot Damage Prevention campaign.

Question. What percentage of natural gas and liquid pipeline releases and accidents can be attributed to 3rd party damage?

Answer. For 1997, 20 percent of all incidents involving hazardous liquid lines was attributable to third party damage. For natural gas, 26 percent of transmission line incidents and 38 percent of distribution line incidents were caused by third party damage. Third party damage was the cause for 27 percent of all pipeline incidents.

Question. OPS is requesting to use $1 million of funds from the reserves of the Pipeline Safety Fund to pay for grants to States for setting up and improving the efficiency of one-call systems. How did you determine that this was an appropriate amount?

Answer. The $1 million requested by OPS is not from the reserves of the Pipeline Safety Fund, but the user fee collection OPS has utilized this requested amount in the last three years to assist with establishing and improving one-call programs within the States.

Question. Did you try to get OMB or OST to allow you to draw down more of the balance in the pipeline safety fund for this purpose? How much did you originally request in your submission to OST as well as OMB? How would you spend an additional $500,000 if it were provided?

Answer. Yes, our request to OST and OMB asked for $1 million to be derived from the prior year balance of the pipeline safety fund for One-Call Grants. We subsequently determined that the current level of reserve funding was justified in light of OPS' need to draw down about $11 million from the reserve each year to sustain OPS operations until new user fees are collected, and the $16 million in general find support that this program received in 1986 and 1987 while the pipeline safety fees were disputed in court.

In 1998, with restricted grant application amounts (a maximum of $50,000 per state), we were able to fund at an average of 80 percent of the request. All applying states requested funding of $1,375,190. The additional funding would further encourage states to work on one-call legislation, additional compliance activities, facility identification and location improvement projects, coordination of areas with mul-

tiple one-call centers, membership in one-call centers, and public and excavator education.

Question. Last year, the Committee stated that OPS and its damage prevention quality team needed to accelerate its efforts to assist States in advancing one-call systems, and expand the scope of its efforts toward a more systematic approach to the one-call challenge. How did you respond to that direction?

Answer. OPS, through the Department of Transportation, submitted legislation to Congress requiring states to mandate participation by all facility operators in local one-call systems in order to qualify for certain one-call grants. This legislative proposal was designed to eliminate differences in one-call participation among facility operators from state to state. The DAMQAT national survey identified problems in one-call usage and made recommendations to the states through the National Association of Pipeline Safety Representatives to expand facility participation in their states as well as use of one-call systems by professional excavators.

Question. For each of the suggestions specified by the Committee in the first paragraph of page 151 of Senate report 105–55, please indicate how OPS has responded and how OPS will continue to respond?

Answer. The first suggestion is that OPS work with the States, industry and various public agencies to increase participation by facility operators as members of notifications systems. The DAMQAT team includes representation from all the groups suggested in the report. Team members support participation by their organizations in notification systems. This has been especially true of the National Association of Regulatory Utility Commissioners (NARUC) and the National Association of Pipeline Safety Representatives (NAPSR), both state groups, who have strongly supported participation by all operators of underground utilities. The second suggestion was that OPS should redouble its efforts to work with excavators. The Association of General Contractors is represented on DAMQAT. The AGC member provides valuable recommendations on the appropriate techniques to educate excavators on damage prevention. DAMQAT has responded to a finding in our national survey that professional excavators want more training materials. We are producing a training video which emphasizes the importance of having lines marked prior to excavation, hand digging when appropriate, as well as print ads in construction trade journals. The report also suggested that DAMQAT should identify best practices and help develop model programs. The survey identified best practices among excavators; our training materials and print and broadcast media all emphasize the critical steps in safe digging. The DOT's damage prevention legislation contained a provision for developing a model program. This provision was not included in the version of the bill which was passed by the Senate and is now before the House. OPS also provides other technical assistance and guidance to states on improving their damage prevention programs through its state liaisons and by working with states to strengthen their damage prevention laws.

Question. Please update past data provided to Congress on the status of one-call systems, their completeness, effectiveness, legislative status, and enforcement capabilities of the States. How many, and which, States have utilized one-call grant funds to establish one-call programs? Have any States established one-call programs without the use of federal grant funds?

Answer. Within the past four years, fourteen States have passed or improved one-call legislation: Alabama, Kentucky, Montana, North Dakota, Nebraska, New Jersey, New Mexico, New York, South Dakota, Texas, Utah, Virginia, West Virginia, and Wyoming.

Since the incident in San Juan, Puerto Rico in 1996, we have been working closely with Puerto Rico (PR) to seek legislative authority to create a one-call center.

There is also a growing number of states with a strong one-call enforcement mechanism (Arizona, Connecticut, Massachusetts, Minnesota, New Hampshire, New Jersey, Virginia) that includes:

—A specific agency with jurisdiction over excavators and facility operators.

—Authority to issue immediate citations and the power to collect penalties.

—Administrative encouragement and staff assigned to enforce the law.

Fewer than 20 States do not require all underground facility operators to belong to one-call organizations. We expect several state legislatures to enact or modify one-call legislation for this purpose.

About half of the States have emergency service available on a 24-hour basis. In States without 24-hour emergency service, excavators have to notify operators of impending excavation after business hours.

OPS also utilizes one-call grant funds to support States to establish one-call programs. This past year, 33 State programs have requested one-call grants to further their efforts with one-call activities in the following States: Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Georgia, Kansas, Kentucky,

Louisiana, Michigan, Minnesota, Mississippi, Montana, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Washington, West Virginia, Wyoming and the District of Columbia.

Question. How are you using new authorities provided in the Accountable Pipeline Safety and Partnership Act to improve one-call systems?

Answer. These authorities allow us to fund one-call systems directly rather than giving funds to states for distribution to one-call centers.

Question. Please update the Committee on the status of RSPA's one-call damage prevention team, and highlight any recommendations that have been made.

Answer. DAMQAT has completed its assessment of existing damage prevention materials and sponsored a nationwide survey to assess levels of damage prevention awareness and practices. Findings from the survey were used to design materials for the pilot campaigns in Virginia, Tennessee and Georgia. The team has recommended that key interests contribute to funding to the pilot campaign, and that key figures within their industries use their highly visible positions to encourage participation in one-call systems and use of the key damage prevention elements identified by the Team. The Team also recommends that, without exception, all facility operators be required to participate in one-call systems, and that all excavators be required to call before digging. In particular, the Team has identified the need for state, county and municipal public works departments to use one-call systems and additional measures, such as hand digging and observing the markings when they excavate.

Question. Please describe the results of the one-call survey and how the data were used in developing a national campaign or in other ways.

Answer. The results of the survey showed the level of awareness of damage prevention practices among four groups: professional excavators, state, county and municipal public works employees, facility operators, and the general public. There is a very high level of one-call awareness even among the general public. The survey also gauged the practices of the three specialty groups: excavators, public works employees, and facility operators. Professional excavators are most likely to observe best practices in addition to one-call. These include: waiting the required time as set in each jurisdiction before digging; observing the marks made by the facility operators, i.e. digging within a set tolerance of the lines; hand digging when approaching the lines. Each of these steps is necessary to avoid damage to underground facilities. In addition, professional excavators often held meetings at the construction site with facility operators. These findings made it clear that damage prevention efforts have to emphasize steps in addition to use of one-call. The materials developed for the pilot campaign focus on damage prevention as a multi-step process and note the responsibility that each party has to communicate with others involved at the particular excavation site to avoid damage.

Question. How did you use the additional funds provided last year to improve the one-call system?

Answer. In addition to encouraging states to pass or reinforce one-call legislation, OPS has invested in state one-call programs that have increased public awareness and education programs through seminars, literature, and electronic databases like the Internet. OPS has helped map state pipelines and support other state projects such as:

—digitizing pipeline information for use with GIS systems;
—producing a statewide excavator's manual;
—enhancing one-call center membership;
—improving one-call violation case processing; and
—increasing field investigations to identify one-call violations.

Question. What specific commitments for cost sharing have you gotten from the private sector to help pay the one-call/damage prevention outreach effort.

Answer. The American Petroleum Institute has earmarked $5,000 for the purchase of phone cards to be used as promotional material. We expect that some long distance carriers will also underwrite this effort. The One Call Systems International representative has been very generous with her expertise in conducting damage prevention campaigns. Virtually all members of the team provided sample damage prevention materials for our evaluation; several provided research that had been done for industry and trade groups. In terms of participation on DAMQAT, private sector participants, both pipeline and other industries, have absorbed the costs of salaries and travel, as well as providing meeting space, staff support and essential supplies for Team meetings. It would be very difficult to quantify these outlays. According to one estimate, the cost of underwriting participation in each meeting is $2,500. This is based upon an estimate of two days of meetings, one day of prepa-

ration and one day of travel at annual salary of $90,000 for a pipeline engineer, plus airfare and hotel. OPS does not receive any direct cash contributions.

For example, the American Petroleum Institute has an annual budget of $300,000 for damage prevention public education that it undertakes directly. API and other trade associations and companies expect to pool their resources in support of the campaign developed by the Team.

REGULATORY ACTIVITIES

Question. Please specify the nature of any National Transportation Safety Board pipeline safety recommendations that remain open or have been closed because of an unsatisfactory response. What is OPS doing about each of them?

Answer. OPS currently has 31 NTSB recommendations that are classified by NTSB as 'Open'. Open NTSB recommendations and OPS' actions are outlined by category below. OPS continues to have productive discussions with NTSB to resolve all open recommendations.

Inspection/Testing Requirements

P–87–4: Require periodic testing and inspections to identify corrosion and other time-dependent damages.

P–87–5: Establish criteria to determine appropriate intervals for inspections and tests.

We do not require hydrostatic retesting on a periodic basis. Current technical and economic data do not support the establishment of an arbitrary period to retest or conduct instrumented pig surveys. OPS is approaching this testing and inspection on an as-needed basis to identify corrosion-caused and other time-dependent damages. RSPA published an Advance Notice of Proposed Rulemaking to open up for public comment an assortment of proposed solutions to potential pipeline safety problems (52 FR 4361; February 11, 1987). The notion of requiring operators to inspect or test pipelines periodically to determine their operational integrity was one of those solutions. Based on the public comments, opinions of our pipeline safety advisory committees, and the results of a study we had sent to Congress under Sec. 210 of the Hazardous Liquid Pipeline Safety Act of 1979, we concluded that inspection and testing of all pipelines at preset intervals to assess integrity was not justified (55 FR 23515; June 8, 1990). This conclusion was confirmed by a subsequent study of periodic smart pig inspection that we sent to Congress under Sec. 304 of the Pipeline Safety Reauthorization Act of 1988. Contributing to this decision was our belief that the uncertainties involved in predicting the behavior of time-dependent defects make it impossible to develop valid criteria for calculating the appropriate frequency of inspections and tests.

OPS believes the development of such criteria is beyond the current state-of-the-art because criteria to determine what intervals are appropriate for inspections and tests would have to account for all flaw-growth mechanisms and growth rates. Many flaw-growth mechanisms, such as stress corrosion cracking, depend on environmental and metallurgical conditions about which operators have little knowledge. In an upcoming NPRM, OPS intends to propose that operators judge what inspections and testing are needed based on operational and geographical factors that indicate the level of risk a pipeline poses. This determination will be based on specified and measurable risk factors, established in the NPRM.

P–87–23: Establish criteria for determining safe service intervals between hydrostatic retests.

OPS does not require hydrostatic retesting of existing pipelines, unless such action is indicated by major repairs. OPS believes that hydrostatic retests should be performed on a case-by-case basis, taking into account leak history and other relevant operational factors. This approach is consistent with the requirements of Sections 108 and 207 of the Pipeline Safety Reauthorization Act of 1988, which directed OPS to determine the frequency and type of mandatory pipeline tests on a case-by-case basis. OPS is evaluating this recommendation to determine if a risk-based approach to hydrostatic retesting can be adopted.

Hydrogen Sulfide Pipelines

P–88–1: Establish maximum allowable concentration of H_2S in gas pipelines.

P–88–2: Require reporting of all incidents where concentration of H_2S is in excess of maximum allowable concentrations.

P–88–3: Require installation of equipment to detect excess concentrations of H_2S.

In March 1996, OPS withdrew an NPRM that proposed changes in the Pipeline Safety regulations to address the hazard of excessive levels of hydrogen sulfide in natural gas transmission pipelines. A review of information and comment from many sources, including advice from the Technical Pipeline Safety Standards Com-

mittee (TPSSC), indicated that a regulation to address hydrogen sulfide in transmission lines is not warranted.

Recommendations from the Edison, New Jersey, Incident

P–95–4: Expedite the completion of the study on methods to reduce public safety risks in the siting and proximity of pipelines.

OPS completed a two-year contract with the New Jersey Institute of Technology (NJIT) to study the probability and consequences of pipeline failures on gas and hazardous liquid pipeline facilities located in high risk areas. Because OPS has no authority regarding the siting of pipelines, the NJIT analysis was limited to identifying methods to reduce public safety risks in relation to the proximity of pipelines to public facilities and high population density areas. In addition, the parts of Transportation Research Board (TRB) Special Report 219 that address pipeline right-of-way safety issues is being made available to appropriate officials in all states. Feedback from the states will assist in RSPA's evaluation of population encroachment issues. A report on RSPA's evaluation of population encroachment issues will be completed in fiscal year 1999.

P–91–1: Establish standards for detecting leaks.

OPS sponsored a study by the Volpe National Transportation Systems Center (VNTSC) on the potential of leak-detection systems to reduce the risks from hazardous liquid pipeline leaks. The report, entitled "Remote Control Spill Reduction Technology: A Survey and Analysis of Applications for Liquid Pipeline Systems," was issued by VNTSC in September 1995. In addition, OPS will soon publish a final rule to incorporate by reference a publication of the American Petroleum Institute entitled, API 1130 "Computational Pipeline Monitoring." This requires operators of hazardous liquid pipelines use API 1130 in conjunction with other information in the design, evaluation, operation, maintenance, and testing of their software-based leak detection systems. This will result in a significant advancement toward the acceptance of leak detection technology on hazardous liquid pipelines, but will not require the installation of computational leak detection systems where they are not already installed.

P–95–2: Develop toughness standards for new pipe installed in gas and hazardous liquid pipelines.

OPS is working with the American Petroleum Institute (API) Committee API 5L to update pipe toughness requirements. OPS expects to adopt into the pipeline safety regulations the latest standard accepted by the API committee.

P–95–1: Expedite requirements for installing automatic or remote-operated mainline valves on high pressure pipelines.

Congress has mandated the use of remote control valves (RCV) on interstate natural gas pipeline facilities if, after a survey and assessment, it is determined that the use of RCV's is technically and economically feasible and would reduce risks associated with a rupture of a natural gas pipeline facility. Similarly, the Joint Inspection Task Force recommendations, as outlined in OPS' New Jersey Comprehensive Inspection Report, recommended that technical study be initiated to establish criteria for the installation of automatic or remote valves on gas transmission pipelines.

In response, the Research and Special Programs Administration (RSPA) held a public meeting on October 30, 1997, in Houston, Texas, with representatives of industry, state and local government, and the public on the use of remotely controlled valves (RCV's) on natural gas pipeline facilities to gather information on relevant technical and economic issues. OPS has also been monitoring the valve study of INGAA's Valve Task Group, and has reviewed a final report sponsored by the Gas Research Institute (GRI) entitled, "Remote and Automatic Main Line Valve Technology Assessment." OPS has requested the Gas Piping Technology Committee, which produces the Guide for Gas Transmission and Distribution Piping Systems, to develop guidance for the placement of automatic and remote-controlled valves. A report on the technical and economic feasibility of requiring RCV's on interstate gas transmission lines will be completed in late fiscal year 1998.

Relationship w/MMS and Other Federal Agencies

P–90–29: Require inspection, burial, and protection of submerged pipelines.

OPS contracted with Texas A&M University to conduct a study of underwater inspection of offshore pipelines to determine if pipeline depth and condition constitute a hazard to navigation. The final report of the study reviewed current methods and recommended intervals for risk-based, periodic inspections of offshore pipelines. The results of the study are being evaluated as part of a rulemaking to require operators of natural gas and hazardous liquid pipelines to conduct periodic underwater inspections of offshore pipelines and those in navigable waterways. This action would also

define what constitutes an exposed underwater pipeline and what constitutes a hazard to navigation or public safety. This could include requirements for the reburial of exposed pipelines.

P–90–31: Evaluate need for emergency planning and coordination between offshore pipeline operators and producers.

OPS issued an Advisory Bulletin (ADB–94–04) on April 5, 1994, regarding the need for emergency planning and coordination between pipeline operators and offshore producers. OPS is increasing its efforts with the Coast Guard, the Environmental Protection Agency, the Minerals Management Service (MMS) and others to clarify jurisdiction and authorities. Most notably, OPS has signed and implemented a Memorandum of Understanding to clarify agency responsibilities for offshore pipeline safety and inspection.

Leak Detection/One-Call: Public Education & Performance Standards

P–90–21: Assess industry programs for educating public on dangers of gas leaks.

OPS, industry, states, and local government representatives are cooperating in the Damage Prevention Quality Action Team (DAMQAT) to identify the audiences most in need of education about excavation damage prevention and gas leaks and to find the most effective ways to reach each audience. We have adapted available materials and are developing new ones for use in the pilot education campaign that will be launched in May 1998 in Virginia, Tennessee, and Georgia.

The Senate passed S. 1115, the Comprehensive One-Call Notification Act of 1997, which would set minimum performance standards for one-call notification programs to improve participation and performance of existing state programs. Incentive grants would encourage states to strengthen laws that protect excavators, the public, and underground facilities from damage. The bill allows the Secretary to initiate a study of best practices among one-call notifications systems and would authorize one million dollars in fiscal year 1999 and five million in fiscal year 2000 for grants to states that improve one-call programs. The bill has been introduced in the House as HR 3318.

Office of Pipeline Safety state liaisons work with the states in their regions to improve existing one-call legislation by testifying at state legislative hearings and providing supporting material which documents the effectiveness of one-call systems and comprehensive damage prevention legislation.

Guidance in the Pipeline Safety Regulations

P–84–26: Require level of safety for HVL pipelines comparable to natural gas pipelines.

OPS issued a Final Rule (Docket PS–113; 59 FR 6579, February 11, 1994) on "Operation & Maintenance Procedures for Pipelines," which requires greater consistency of operation & maintenance procedures for natural gas and hazardous liquid pipelines. The rule also requires that operators update their Operations and Maintenance manuals each calendar year. Currently, OPS and NTSB are discussing similar measures that may be needed for other areas such as establishing criteria for the performance of systems used to monitor the operation of pipelines.

P–87–2: Require operators to annually qualify employees.

P–97–7: Complete a final rule on employee qualification, training, and testing standards within one year.

The Secretary convened a Negotiated Rulemaking (RegNeg) committee on qualification of pipeline personnel performing operations & maintenance and emergency response functions. The committee reached a consensus on a proposed rule on operator qualification in January 1998. A proposed rule will be published in Spring 1998. The rule will require that all persons performing certain safety-related operations and maintenance tasks on a gas or hazardous liquid pipeline be qualified to safely perform these tasks.

P–87–3: Require operators to examine exposed pipelines for external corrosion.

Although pipeline companies already examine exposed pipelines for external corrosion, OPS will consider requirements for both natural gas and hazardous liquid pipelines as part of a larger examination of protection against corrosion. This examination will examine all aspects of corrosion protection for pipelines and possibly revise the corrosion protection requirements of both the gas and hazardous liquid pipeline regulations.

P–87–26: Obtain data on ERW pipe to determine hazards to public safety.

As a consequence of the unique safety problems with longitudinal seams on certain Electronic Resistance Welded (ERW) pipe manufactured before 1970, OPS published a Final Rule (Docket PS–121; 59 FR 29370; June 7, 1994) on Pressure Testing Older Hazardous Liquid and Carbon Dioxide Pipelines. The final rule provides that operators may not transport a hazardous liquid in a steel interstate pipeline

constructed before January 8, 1971, a steel interstate offshore gathering line constructed before August 1, 1977, or a steel intrastate pipeline constructed before October 21, 1985, unless the pipeline has been pressure tested hydrostatically according to current standards or operates at 80 percent or less of a qualified prior test or operating pressure. In addition, OPS has prepared a proposed rule on risk-based alternatives to pressure testing that may result in a further decrease of the risks posed by pre-1970 ERW pipe.

P–87–34: Require operators to maintain maps and records.

P–90–04: Identify the type, number location and owner of all offshore pipelines in the Gulf of Mexico.

OPS co-sponsors a joint Government/Industry Pipeline Mapping Quality Action Team (MQAT) which has analyzed various mapping alternatives and determined a cost-effective strategy for creating an accurate depiction of natural gas and hazardous liquid transmission pipelines and LNG facilities in the United States. The team's report, which OPS is reviewing, included:

—Investigating the pipeline mapping issues in detail and identifying the challenges of creating a National Pipeline Mapping System (NPMS);

—Determining the status of mapping today and understanding current mapping practices and specific mapping products;

—Evaluating various mapping alternatives and their cost effectiveness;

—Identifying the U.S. Geological Survey's 1:100,000 scale map series as the appropriate base map for the NPMS;

—Developing a strategic plan for a NPMS; and

—Agreeing on evaluation criteria; in particular, agreeing that pipeline coverage and integration with other data is more important than positional accuracy.

In addition, MQAT II has created mapping standards that will be used to create the NPMS. OPS will begin collecting pipeline and LNG data, using these standards, in 1999.

OPS is also working with state and other federal agencies to create the NPMS. OPS is working with several state agencies to gather data on offshore pipelines, including data from the states of Texas and Louisiana, who have completed data collection on most, if not all the pipelines in the Gulf that fall within their jurisdiction.

Finally, OPS completed a full collection of CAD-generated blue print block mapping of all pipelines in the Gulf of Mexico. These maps depict the type, number, location, and owner of all offshore Gulf of Mexico pipelines by lease block.

P–89–6: Establish requirement to maintain proper functioning of check valves.

P–90–24: Define various terms used for valves.

Through its risk-based efforts, OPS is supporting installation of check valves or remote control valves on liquid pipelines in all high risk areas to provide for rapid isolation of failed pipeline segments. In addition, OPS completed a report on a check valve study that addresses the issues outlined in the two recommendations.

P–90–15: Identify regulations not containing explicit objectives/criteria.

P–90–16: Develop guidance for operator compliance with regulations not containing explicit objectives/criteria.

OPS is presently undergoing extensive regulatory reform efforts resulting from the President's "Regulatory Reinvention Initiative" (RRI) that focus on reducing the burden of government regulations and requires that agencies review all regulations and eliminate or revise those that are outdated or in need of reform. OPS has reviewed the pipeline safety regulations and has published regulatory actions that will lessen unnecessary burdens on the pipeline industry by revising or updating areas including gas pipeline and liquefied natural gas safety standards, administrative practices, and industry standards incorporated by reference. In keeping with RRI, these regulatory revisions are performance based; they provide much latitude for pipeline operators to address risks. The risk-based requirements contemplated for the future regulatory regime will develop risk-based guidance to assist operators in complying with regulations not containing explicit design requirements.

Further, OPS revised and redistributed the Guidance Manual for Operators of Small Natural Gas Systems. This manual provides a broad overview of compliance responsibilities, and is designed for non-technically trained people who operate master meter systems, small natural gas systems, and small municipal or independent systems.

P–90–19: Extend regulations to cover buried lines from outlet of meter to customer building.

OPS published a Final Rule, (60 FR 41821; August 14, 1996) on "Customer-Owned Service Lines," which addressed buried pipelines from the outlet of the meter to the customer building, consistent with a Congressional directive. In addition, OPS is completing a Congressionally directed study of these lines to determine if further action is warranted.

P–90–20: Require, by time certain, that unprotected gas piping be protected against corrosion or be replaced.

OPS believes that a realistic cast iron pipe and ductile iron pipe replacement program should be conducted on a risk basis, recognizing the various pipeline characteristics and risks to public safety, and that replacement should be based on need rather than on an arbitrary date.

P–93–9: Develop safety requirements for underground highly volatile liquids and natural gas storage facilities.

Based on safety practices recommended by the Interstate Oil and Gas Compact Commission and the American Petroleum Institute on standards for underground storage, OPS has recommended that the states and storage operators take individual action, as necessary, based on local geologic and hydrologic conditions.

P–96–2: Require gas-distribution operators to notify all customers when excess flow valves are available.

OPS published a Final Rule (63 FR 5464; February 3, 1998), titled "Excess Flow Valves (EFV)—Customer Notification." The final rule requires operators of natural gas distribution systems to notify certain customers in writing of the availability of EFV's that meet DOT-prescribed performance standards, the safety benefits of the valves, and the costs of installation. If a customer requests installation and pays the costs of installation, the operator is required to install an EFV.

Enhancing Pipeline Accident Databases

P–96–1: Develop and implement a comprehensive plan for collecting and using gas and hazardous liquid pipeline accident data.

RSPA recognizes the need for a comprehensive plan for identifying and obtaining adequate gas and hazardous liquid data to support our pipeline risk management demonstration program development. A comprehensive data plan was submitted to NTSB in February, 1998. The plan details how RSPA is analyzing current database capabilities and working to improve its collection and use of gas and hazardous liquid pipeline accident data. Cooperation with industry groups such as the Interstate Natural Gas Association of America (INGAA), the Gas Research Institute (GRI), the American Petroleum Institute (API), and the Association of Oil Pipelines (AOPL) is the cornerstone of RSPA's effort to identify and obtain needed data. RSPA is currently working with these industry groups and other industry representatives on joint Federal/industry teams to identify needed data. RSPA is supporting development of an electronic reporting system to collect this data directly from operators. The need for normalizing data previously unavailable for liquid pipeline issues is being evaluated. Adequacy of existing liquid pipeline accident is being considered. Work with the data teams will continue through Summer 1998. When the data team recommendations are complete, RSPA will pursue methods for obtaining and evaluating proposed data.

RSPA continues to improve currently collected data by aggressively seeking supplemental reports for incident and accident data, identifying trends, and determining areas in which more data is needed. Additionally, RSPA is normalizing all databases and auditing historical data systems and reports. Performance metrics have been identified from existing data sources that will be used for the Government Performance and Results Act (GPRA) purposes. Existing data systems have been re-engineered to make data more useful and accessible.

In February, 1998 RSPA submitted a comprehensive plan that details efforts to collect, use, and normalize accident data to perform accident trend analyses and evaluations of pipeline operator performance.

Guidance on State Pipeline Safety Oversight

P–97–6: Modify monitoring of State pipeline safety programs to ensure that the States are timely in monitoring the correction of identified safety deficiencies and to ensure that they implement enforcement action as necessary.

RSPA monitors state programs to ensure that timely correction of safety deficiencies and appropriate enforcement action is taken. This policy was followed in Puerto Rico. We annually review our written guidance to the State programs and State evaluation criteria to confirm that appropriate emphasis is being given to these issues.

P–97–8: Require that the San Juan Gas Company, Inc., take action necessary to ensure that abandoned pipelines are properly disconnected, purged of propane, and adequately secured to prevent the transmission of flammable vapors and gases, and to ensure that abandoned pipelines are properly identified on maps.

San Juan Gas has submitted and received approval from the Puerto Rico Public Service Commission (PR PSC) to abandon approximately 90 percent of the existing distribution system and to up-grade the remainder of the system. This program is

underway and is being closely monitored by the PR PSC to ensure proper abandonment procedures are being followed.

Question. Please prepare a table listing all current rulemakings, indicating the date the rulemaking was started, its current status, topic, expected completion date, and statutorily set deadline, if any.

Answer. The following chart describes all outstanding pipeline safety rulemakings. See notes at bottom of the chart for identification of priority rulemakings, rulemakings in response to the Pipeline Safety Act of 1992, and rulemakings in response to the Regulatory Reinvention Initiative (RRI).

Docket No.	Title	Current phase	Scheduled completion
PS–941 [1] [3]	Qualification of pipeline Personnel.	Negotiated rulemaking completed; NPRM will be published.	05/98
PS–101A [3]	Mandatory Participation in Qualified One-Call Systems by Pipeline Operators.	Final Rule published	11/97
PS–102	Control of Drug Use and Alcohol Misuse in Natural Gas, Liquefied Natural Gas, and Hazardous Liquid Pipeline Operations.	Direct Final Rule published	12/97
PS–117	Hazardous Liquid Pipelines Operated at 20 percent or Less of Specified Minimum Yield Strength.	NPRM published 2/98; Final Rule being prepared.	12/98
PS–118 [1] [3]	Excess Flow Valve (EFV) Customer Notification.	Final Rule published	02/98
PS–121	Pressure Testing of Older Hazardous Liquid Pipelines.	Response to Petition for Reconsideration published.	02/98
PS–122	Gas Gathering Line Definition.	Supplemental NPRM being prepared.	[3] 10/98
PS–124 [2] [3]	Further Regulatory Review; Gas Pipeline Safety Standards.	NPRM being prepared	06/98
PS–126	Passage of Instrumented Internal Inspection Devices.	Response to Petitions for Reconsideration being prepared.	07/98
PS–128	Drug and Alcohol Testing: Substance Abuse Professional Evaluation for Drug Use.	NPRM being prepared	03/98
PS–130	Response Plans for Onshore Oil Pipelines.	Interim Final Rule published 1/93; change in filing period published 3/98; Final rule being prepared.	01/99
PS–133 [1]	Emergency Flow Restricting Devices (EFRD's).	NPRM on leak detection being prepared; further action will follow.	12/98
PS–140 [1]	Areas Unusually Sensitive to Environmental Damage (USA's).	Public meetings underway; NPRM to follow.	[3] 06/99
PS–141 [1]	Increased Inspection Requirements.	Public input being sought; NPRM to follow.	12/98
PS–144	Risk-based Alternative to Pressure Testing Rule.	NPRM published	02/98
PS–153	Pipeline Safety: Metrication	Final rule being prepared	08/98

Docket No.	Title	Current phase	Scheduled completion
RSPA–97–2094 [1]	Underwater Abandoned Pipeline Facilities.	NPRM being prepared	06/98
RSPA–97–2095	Pipeline Safety: Adoption of Industry Standards for Breakout Tanks.	NPRM being prepared	04/98
RSPA–97–2096	Pipeline Safety: Regulations Implementing Memorandum of Understanding with the Dept. of the Interior.	Direct Final Rule published	11/97
RSPA–97–2251 [2]	Periodic Updates to Pipeline Safety Regulations (1997).	Direct Final Rule published	01/98
RSPA–97–3001 [1]	Periodic Underwater Inspections.	Study being conducted; public meeting and NPRM may follow.	10/98

[1] Requirement of Pipeline Safety Act of 1992.
[2] Response to Regulatory Reinvention Initiative.
[3] 'Priority' Rulemakings.

Question. Please prepare a table listing all rulemakings that you are considering to initiate and the expected date of ANPRM or NPRM.

Answer. The table provided in response to the preceding question includes rulemaking activities that are set to be completed or initiated through 1999. In addition, a request for comments on proposed revisions to the hazardous liquid pipeline (Part 195) regulations based on suggestions from the National Association of Pipeline Safety Representatives (NAPSR) will soon be published in the Federal Register. After considering the comments from the public, a proposed rule may be forthcoming. RSPA plans to hold additional public meetings on corrosion, plastic pipe, and liquefied natural gas that could lead to proposed rules.

Question. Please update last years response to the question regarding the major recommendations or key findings resulting from the pipeline safety summit.

Answer. RSPA's responses to each of the key findings resulting from the National Pipeline Safety Summit in Newark, NJ on June 20, 1994 are as follows:

Finding 1.—The need for partnerships between pipeline operators, regulators and the public (i.e. local officials, potential impacted residents).

Solutions/Directions: RSPA maintains a number of initiatives in its pipeline safety regulatory program to foster cooperation, collaboration and partnerships with the pipeline industry and the public. Past initiatives included partnerships with the New Jersey Institute of Technology (NJIT), the Gas Research Institute and a research consortium of Battelle Memorial Institute, Iowa State University, Southwest Research Institute. We have conducted outreach efforts in Houston, Dallas and Denver to obtain local public participation in regulatory reform. We have held public workshops on placement of emergency valves, leak detection systems, increased inspection by smart pigs, the definition for unusually environmentally sensitive areas, standards for corrosion control and use of plastic materials, standards for liquefied natural gas and a risk-based alternative to hydrotesting hazardous liquid pipelines. We used the regulatory negotiation process to develop standards for operator qualification. In the past, RSPA led joint government/industry quality teams to develop guidelines on formulating risk management programs which would be used as alternatives to the present prescriptive federal regulations. We are still using the quality team approach to develop solutions to our national pipeline mapping requirements. We also use the quality team approach for designing and testing our national damage prevention campaign. Other government/industry workgroups are now focusing on data improvement plans and building a framework to guide cost/benefit analyses. Quality teams are composed of representatives of industry, other federal agencies, state agencies, and the public.

Finding 2.—Minimizing of Third Party Damage with An Enhanced One-Call System.

Solutions/Directions: RSPA issued a final rule (62 FR 61695) requiring that operators of onshore gas, hazardous liquid and carbon dioxide pipelines participate in qualified one-call systems as part of the required excavation damage prevention programs. In addition, RSPA supports one-call legislation at the Federal and state levels, including Title XI (Underground Damage Prevention) in the proposed NEXTEA

legislation, and the recent legislation passed in the Senate. Our damage prevention team progress is addressing national educational requirements.

Finding 3.—Improved monitoring techniques to reduce potential pipe failures.

Solutions/Directions: RSPA, in collaboration with Advanced Research Projects Agency (ARPA), Department of Defense, is working with the consortium of OCA Applied Optics and Los Alamos Science Inc. to develop a diagnostic tool using laser technology which can be strapped on an aircraft to identify gas and hazardous liquid leaks from pipelines. In addition, RSPA is in its third year of a study in cooperation with the Gas Research Institute to advance the state-of-the-art of smart pig technology to assess pipe walls for mechanical damage and to assess the existence of stress corrosion cracking which could lead to failure.

Finding 4.—Need for a centralized comprehensive database related to accidents and incidents in the pipeline industry.

Solutions/Directions: RSPA and the natural gas and hazardous liquid industry have been assessing the accident, incident and annual data which RSPA has been collecting for over 25 years to determine how it can be used in risk assessment, to identify gaps in the data and what additional data is necessary. RSPA is working with the API to pilot test the voluntary collection of data on all leaks, regardless of reporting threshold on all lines, whether or not they are regulated. New emphasis is being placed on being able to diagnose, address and monitor safety issues at the early stages. In addition, RSPA is developing, through a GIS system, the ability to depict the geographic location of pipelines in relation to areas of high-density population, environmental sensitivity, water intakes and other areas of importance. This data is needed to assess pipeline systems in determining appropriate responses to identified risks, including the decisions of land use officials, and emergency and environmental planners and responders.

Finding 5.—The pipeline transport industry is safer than other means of transport (e.g., truck, rail) of natural gas or hazardous liquids.

Solutions/Directions: RSPA will continue to articulate the safety of the pipeline mode of transportation through initiatives leading to more openness with our stakeholders and customers and closer cooperation and collaboration with each group. The new emphasis on developing regulations using risk-based principles will enable the pipeline industry to commit its limited resources to those areas of highest risk to maintain and improve on the already high level of safety in the industry.

VOLPE CENTER

Question. For fiscal year 1996 and fiscal year 1997, what percent of funds were contracted out? For fiscal year 1998 what percent of funds do you plan to contract out?

Answer. For fiscal years 1996 and 1997 about 74 percent and 76 percent percent, respectively, of the Center's obligations were contracted to the private and university sectors. The percentage is expected to remain stable for fiscal year 1998.

Question. What percent of your personnel costs are for contract administration, technical program direction, and in-house research?

Answer. About 3 percent of personnel costs is for contract administration. About 73 percent is tied to specific technical project work, including both technical direction and technical performance. No funds or staff were devoted to in-house research (i.e. independent research and development not tied to a client project) in fiscal year 1997 and none is planned for fiscal year 1998–99. The remaining 24 percent of personnel costs covers facility operations and all other Center administrative and management services.

Question. Since the total Departmental R&T budget has increased substantially, especially during the last three years, is it time to raise the FTP and FTE ceiling at the Center?

Answer. Since the Volpe Center relies 100 percent on funding from voluntary customers, it in effect manages to budget. The Center must add Federal managerial and technical value to every project it accepts, and it balances its use of Federal staff and contractor staff accordingly. Under NPR, the Center has since fiscal year 1993 been particularly successful in reducing Federal administrative positions, so that FTE and FTP reductions have been achieved without proportional reductions to its managerial and technical capabilities. FTP and FTE ceilings are not anticipated to be a constraint on sound Center management in fiscal year 1999.

Question. What have you done to stop "pass throughs" to the Volpe Center? How is your new policy working?

Answer. Neither the Volpe Center Working Capital Fund nor RSPA work acceptance policy permits the Center to accept funds earmarked by the customer for a specific contractor, commonly known as "pass-throughs." The responsibility for the se-

lection, technical direction, and performance of all Volpe Center contracts rests with the Volpe Center (except for the Small Business Innovation Research (SBIR) Program in which the funding agency usually provides the technical team to select and oversee the contracts.) In fiscal year 1997 less than 3 percent of the Center's contract obligations were sole-sourced.

The work acceptance policy (Volpe Order 5000.4A) requires that documentation be prepared showing that the new funds are accepted only for work that meets four criteria which, when taken together, ensure that there are no "pass-throughs" and that the work is appropriate for the Center. The criteria are: (1) That the proposed work conforms to the Center's working capital fund statute. (2) The work supports the current transportation enterprise and its future development. (3) The Volpe Center adds value. And (4) Programmatic and/or institutional risks are manageable.

This policy is working well. It has been in place for over three years and is being applied to all projects.

Question. Please break out, in tabular form, obligations by each of the DOT modal administrations to the Volpe Center for each of the last three years. What is the significance of these funding trends?

Answer. The following table shows obligations of DOT Modal Administrations to the Volpe Center in millions of dollars.

	Fiscal year—		
	1996	1997	1998 (est.)
FAA	86.5	85.1	85.6
FHWA	10.0	13.9	14.0
USCG	5.3	7.4	7.5
FRA	9.5	9.6	11.6
FTA	4.8	4.8	7.8
NHTSA	7.9	8.5	8.7
RSPA	4.2	6.4	6.7
Other DOT	2.8	2.5	2.2
OST	1.5	1.0	0.6
Total	132.7	139.2	144.7

Note: Each amount includes that customer's participation in DOT's SBIR program, which the Volpe Center manages.

The trends generally reflect and changes in our customers program emphasis or (as in the case of SBIR) changes to the DOT's appropriations.

Question. When was the last time that Volpe conducted customer surveys? What were the results?

Answer. All Volpe Center DOT customers, as well as a sample of non-DOT customers, participated in our first round of structured customer satisfaction interviews in 1995 and 1996. The summary results, based on interviews with 219 customers' project managers and 62 senior-level customers, are shown as follows. More detailed results were reported to all customers in a report, "Round 1 Executive Summary of the Customer Satisfaction Monitoring Initiative," October, 1996. The Volpe Center plans to initiate its second round of customer satisfaction monitoring during the spring of 1998.

The overall customer satisfaction rating is on a scale of 0 to 10 where 10 equals extremely satisfied.

Satisfaction rating	Interviews (percent)—	
	Project-level	Senior-level
10	7	.....
9	22	23
8	40	43
7	19	17
6	7	7
5	1	7
4	2	.....
3	2	3

Satisfaction rating	Interviews (percent)—	
	Project-level	Senior-level
<3		

Question. Please prepare a table showing the percent of the Volpe work that has been conducted for non-DOT agencies for each of the last four years.

Answer. The following table shows Volpe Center Obligations for Non-DOT Agencies.

	Fiscal year (percent)—			
	1995	1996	1997	1998 (est.)
DOD	12	12	12	12
Other Non-DOT	15	16	20	18
Total	27	28	32	30

Question. What are the Volpe overhead charges and how have you tried to reduce these charges? Please provide a detailed explanation and dollar figures of all overhead costs for each of the last three fiscal years.

Answer. Following is the distribution of the Center's indirect expenses:

[In millions of dollars obligated]

Indirect activity	Fiscal year—		
	1996	1997	1998 (est.)
Facility Operations	4.0	4.5	4.5
Business Services	7.6	8.3	7.7
Line Management	2.3	2.5	2.5
Center-wide Services	0.9	1.2	1.4
Computer & LAN Services	3.8	[1] 2.3	3.8
Industry Outreach	.3	0.4	0.7
Capability Development	.3	.3	.8
Plans & Pgm Development	1.1	.8	.7
Chief Counsel	.4	.6	.5
Executive Management	.8	.6	.6
Total Indirect	21.5	21.5	23.1
Total Obligations [2]	186.1	204.3	205.0
Indirect to Total (percent)	11.6	10.5	11.3

[1] Excludes deferred expenses of $1.3 million. In fiscal year 1997 the Center began to depreciate capital investments in accordance with OIG recommendations. If not deferred, the fiscal year 1997 Total Indirect would have been $22.8 million and fiscal year 1998 would be estimated at about the same as fiscal year 1997.

[2] Net of recoveries of prior year obligations.

The estimated fiscal year 1998 indirect expenses reflect increases for salaries, benefits, negotiated contract price adjustments and other normal cost growth plus an amount for depreciation of prior year capital investments. Increases have been partially offset by continuing cost reduction efforts with major emphasis on process simplification, improved automation and introducing current energy conservation technology.

Question. Please provide a detailed listing of all fiscal year 1998 new start reimbursable agreements that the Volpe Center has with other Federal agencies. Include all costs that are paid out to contractors hired by the Volpe Center.

Answer. Through six months of fiscal year 1998 there has been one new start with other Federal agencies totaling $100,000. It is identified as follows:

Project: Restructure the configuration data received with the new Coast Guard Polar Research Vessel (CGC *Healy*) from the Navy's Real-time Outfitting Management System (ROMIS) format to the USCG's CMPlus data format. CMPlus was developed, and is being implemented, by the Volpe Center for the USCG; customer, Navy; funding, $100,000; and planned contract, 80 percent.

Question. The Committee has been concerned that almost all of the funds provided for RSPA's research and technology activities were being allocated to the Volpe Center or to the Transportation Research Board. Please provide quantitative evidence that you have expanded the universe of companies and institutions participating in your contract program.

Answer. RSPA allocated funding in fiscal years 1997 and 1998 to the following organizations or contractors to assist RSPA in supporting the strategic planning process for Federal transportation R&D, the Department's Technology Transfer program, and to maintain the Department's membership on various roundtables and conferences:

Activity	Fiscal year—	
	1997	1998
Strategic planning:		
Volpe Center	$825,000	$525,000
National Research Council/Transportation Research Board (TRB)	150,000	100,000
Civil Engineering Research Foundation	.....	50,000
TRB (Simultaneous Vehicle Infrastructure Design Workshop)	.....	50,000
Research and technology coordination and partnerships:		
Volpe Center	795,000	650,000
TRB (Annual Fee)	50,000	50,000
National Academy of Sciences Government-University-Industry Research Roundtable	125,000	125,000
To be determined (Tech Transfer/R&D Tracking)	40,000	150,000
Critical Technologies Institute	.....	75,000
Intermodal and multi-modal research and education:		
Volpe Center	195,000	200,000
Small Business Innovation Research Program	57,775	100,000

ST. LAWRENCE SEAWAY DEVELOPMENT CORPORATION

PREPARED STATEMENT OF DAVID G. SANDERS, ACTING ADMINISTRATOR

On March 4, 1996, as part of the Administration's reinventing government agenda, Vice President Gore announced plans to restructure eight federal agencies as Performance Based Organizations (PBO). The Saint Lawrence Seaway Development Corporation is one of the eight agencies chosen for the conversion to a PBO.

The central element of the PBO initiative is greater accountability through enhanced performance. To encourage performance, the PBO plan includes greater management flexibilities and financial incentives, but also greater risks for non-performance, e.g., lower payments, or termination of the Chief Operating Officer (COO). The SLSDC has been required to develop a five-year plan that commits the agency to meet certain personnel and fiscal goals. Part of that commitment is the assurance that if the goals are met, the agency will be compensated accordingly.

The most significant changes derived from the PBO structure include an accountable senior management structure working under a performance contract, clear incentives to improve efficiencies and service to increase Seaway utilization, a more stable funding source, and increased autonomy from day-to-day Departmental activities. The result will be improved long range planning for critical capital needs of the aging lock facilities, build-up of emergency reserves, streamlining and reallocation of personnel resources, and reduced operating costs. The focus on the performance areas of safety, reliability, trade development, and management accountability will ensure a more efficient operation through elimination of programs and cost areas that do not fully support performance goals. SLSDC estimates a cost savings in excess of half a million dollars over the initial five-year program period.

SLSDC progress with the conversion process is as follows:

—The initial legislation to implement the PBO conversion was transmitted to the Congress on July 15, 1996. The House/Senate Conference Committee directed the GAO to submit a report evaluating the PBO concept, with specific emphasis on the SLSDC initiative.

—The NPR/OMB/OPM/GSA and other agencies developed a "Template PBO Bill" during late 1996/early 1997. The SLSDC legislation was revised accordingly and submitted to the Congress on May 5, 1997.

—The GAO report was submitted to the Congress on May 15, 1997, as directed. The report conclusion raised issues of concern but also stated that "If Congress is interested in testing the PBO concept, SLSDC could be a low-risk pilot because it has a small budget, businesslike operations, and already has some flexibilities that would be available to a PBO."

—The Appropriations Conference Committee funded the Corporation, under current law, at the requested PBO plan level for fiscal year 1998.

—The President's fiscal year 1999 budget proposes the SLSDC/PBO as a mandatory program.

FISCAL YEAR 1999 BUDGET ESTIMATE

As a PBO, the SLSDC will be funded, beginning in fiscal year 1999, by an annual automatic payment (fiscal year 1999 through fiscal year 2003) from the Harbor Maintenance Trust Fund (HMTF). The payment will be a dollar amount equal to the five-year average of U.S. international metric tonnage moved through the Seaway, adjusted by a factor of 1.076, and adjusted for inflation by the percentage difference between, the Consumer Price Index for all Urban Consumers (CPI-U) for the first quarter of calendar year 1996, and the CPI-U for the first quarter of the calendar year in which an annual payment is determined. The Corporation will have flexibility to use the funds and other resources to meet the performance targets in the Chief Operating Officer (COO) contract.

Due to the PBO proposal, SLSDC is not making an appropriation request. Financing is proposed to be derived from an automatic annual payment from the HMTF. The attached fiscal year 1999 spending plan is a budget estimate based on the PBO proposal which includes an automatic annual payment for fiscal year 1999 of

$12,646,000 from the Harbor Maintenance Trust Fund, of which $11,737,000 will be used to fund operations and maintenance. The PBO financial plan also establishes a commitment to make annual contributions to the Corporation's reserve account, assuming funds are available. The balance of $909,000 from the HMTF, as well as offsetting collections estimated at $900,000, will be contributed to the reserve in accordance with this commitment. Capital improvements of $1,040,000 planned for fiscal year 1999 will be funded by the reserve.

1997 NAVIGATION SEASON OVERVIEW

On April 2, the St. Lawrence Seaway was opened for the 1997 navigation season and its 39th year of operation as a deep draft waterway. Opening ceremonies were held at Eisenhower Lock in Massena, and at St. Lambert Lock in Montreal.

Total tonnage through the Montreal/Lake Ontario section of the Seaway in CY 1997 was 36.9 million tons, 3 percent (1.2 million tons) below the CY 1996 total. CY 1997 vessel transits increased over CY 1996 by 4 percent (102 transits) to a total 2,809 transits for the season. Seaway total grain tonnage increased 10 percent over 1996 due to a significant Canadian grain movement that reflected a recovery from the past two seasons with drought problems and as new markets were developed to replace the significant exports to Russia from previous years. U.S. export grains through the Seaway were down 23 percent due to a combination of factors: lower Mississippi River barge rates, weaker overseas demand, a strong U.S. dollar, and, for the second year, depleted elevator stocks in the Great Lakes at the beginning of the season delayed movement until the Fall harvest period.

Despite less demand for import iron and steel due to a flat automobile market, and domestic mills operating at capacity, iron and steel tonnage reached 3.9 million tons, which was slightly below the 1996 level. Iron ore tonnage was down by 13 percent reflecting higher inventories at season opening and some shifting of ore mine sources from Canada to the upper lakes by U.S. steel mills.

1997 ACCOMPLISHMENTS BY PBO PERFORMANCE AREAS

Safety

Ocean Vessel Incidents.—The 1997 navigation season was the fifth consecutive shipping year with no vessel incidents in excess of $50,000 in damages. All other ocean vessel incidents were reduced by 62 percent from 1996.

Ocean Vessel Inspections.—The Corporation and the USCG in conjunction with Transport Canada and the Canadian Seaway Authority, signed a memorandum of understanding March 27 to develop a program of coordinated vessel inspection and enforcement activities to expedite the safe transit of shipping through the Seaway and the Great Lakes. The basic goals that affect ocean vessels are: clear all vessels in Montreal before they enter U.S. waters; conduct no inspection boardings while a vessel is underway except when it is clearly agreed to by all concerned that the boarding will not interfere with safe navigation of the vessel; minimize the number of vessels that require more than one port state control boarding during a navigation season; and ensure that international shipping throughout the System continues to meet the highest standards of safety and environmental protection. The 1997 pilot project for vessel inspections resulted in 100 percent of all ocean vessels being inspected in Montreal on their first transit inbound, prior to entering U.S. waters, compared with 38 percent in 1996.

Long and Short-Term Reliability

System Availability.—The Corporation achieved a 97 percent availability factor for 1997 based on navigation days open, versus downtime for all causes, including weather conditions.

The Montreal/Lake Ontario section of the St. Lawrence Seaway was open for 269 days (April 2 through December 26).

Trade Development

Domestic Trade Mission.—The SLSDC completed a first-of-its-kind domestic trade mission throughout the Great Lakes and St. Lawrence Seaway beginning August 11 at the lakehead port of Duluth MN and ending at the St. Lawrence River port of Ogdensburg NY on August 22. Events were conducted at fifteen ports throughout the System. The program objectives were to involve and inform lake port communities about Seaway trade development programs and initiatives; and to showcase the unique maritime assets at each of the port sites participating in the program.

Cruise Shipping Returns to the System.—The "C. COLUMBUS," a 472-foot German-owned passenger vessel made its maiden voyage through the Seaway, the first such transit of a foreign flag passenger ocean liner since 1975. The "C. COLUM-

BUS" arrived in Montreal on September 17 and departed with over 400 passengers and 169 crewmembers, for a 19-day cruise through the System from Montreal to Chicago. The vessel was built in 1997, at the Mathisa-Thesen-Werft Wismar shipyard in Wismar, Germany for the Hapag Lloyd Cruise Ship Management Company of Hamburg, Germany. This construction represents the growing interest in the building of Seaway-sized vessels and a rebirth of foreign flag cruise lines offering passenger excursions through the Seaway system.

Overseas System Trade Mission.—The SLSDC led a Seaway System binational delegation that included industry, port, and carrier partners participating at program stops in Hamburg, Germany, and Johannesburg and Durban, South Africa. Traditionally, Germany ranks in the top five Seaway trading partners with just under one million tons of traffic in 1996, representing over eight percent of total overseas traffic through the Seaway. Presentations were made to local government and industry officials, followed by one-on-one meetings with business partners and delegation members. Hamburg is also one of the major home office locations for vessel owners and operators based in Northern Europe. The mission visit to South Africa was an industry requested follow-up to a 1994 Seaway mission, which was one of the first U.S. government sponsored missions to post-apartheid South Africa. South African trade through the Seaway was eleventh overall in 1996 with over 340,000 tons of cargo and ranking at three percent of total overseas trade through the System. In addition to the traditional program presentations and individual meetings, the SLSDC participated in the annual South African International Trade Exposition. Similar exhibits by Great Lakes Port and Seaway vessel operators accompanied the SLSDC international static exhibit. At the Hamburg stop, Polish Ocean Lines announced plans to construct five new Seaway maximum size vessels for service between Europe and the Seaway/Great Lakes ports. At the South African stop, Christensen Canadian African Lines announced the addition of a fourth vessel to supplement existing operations between South African ports and the Seaway and the opening of a Chicago office.

Management Accountability, Including Customer Service, Fiscal Performance and Cost Effectiveness

Fiscal Year 1997 Financial Audit.—The SLSDC maintained its historical record of achieving an unqualified acceptance (clean) annual external audit rating for fiscal year 1997.

Year 2000 Data Systems Compliance.—The Corporation management information staff have certified year 2000 compliance for one non-critical, and ten critical mission systems effective March 30, 1998. This completes Year 2000 certified compliance for all SLSDC data systems.

Union Contract.—SLSDC successfully concluded negotiations with AFGE Local 1968, Massena, NY. The three-year agreement includes the first major rewrite of the union contract and a wage level increase on a par with industry contracts prevailing in the Massena area. No issues went to mediation or impasse.

DOT 30th Anniversary Event in Massena, NY.—In an effort to better connect the Massena community with the Corporation and the Department, the SLSDC planned a final day of activities to wrap-up the DOT 30th Anniversary events for the year. Secretary Slater was invited and participated in the following events:

—Christening of a new SLSDC workboat, PERFORMANCE, which honors DOT's emphasis on job performance, and relates to the SLSDC Performance Based Organization initiative. The christening and a press conference were held at the Corporation maintenance and marine base facility.

—Dedication of a memorial anchor display honoring Native American, William Mitchell, an SLSDC employee who drowned while on duty in 1983. The dedication took place at Eisenhower Lock.

—The Secretary toured the Lock traffic control center and viewed a land side demonstration of the SLSDC's Automated Identification System (AIS) by Corporation and Volpe Center staff members. The demonstration tracked the movements of the just christened workboat and the Corporation tug, Robinson Bay.

—The last event was a significant multi-purpose Massena community activity held at the Jefferson Elementary School. The program included dedication of a new playground for the school that was constructed by SLSDC employees; presentations by the students to the Secretary and the SLSDC; and acknowledgment of surplus computer equipment furnished to the school by the Corporation, which has designated Jefferson Elementary as its "adopted" school.

Garrett A. Morgan Initiative.—In addition to the Adopt-a-School program with Jefferson Elementary School in Massena, NY, SLSDC staff in Massena have launched a new partnering effort with the Tech Prep/School-to-Work-Initiative with Massena Central High School and Clarkson University School of Business, to pre-

pare high school juniors and seniors for post school employment. SLSDC provides "shadowing" opportunities for students at Corporation facilities and SLSDC will also be donating surplus computer equipment to the program. A new partnership between the Tech Prep Program and the Garrett A. Morgan Transportation and Technology Futures Program will focus on preparing students for transportation careers.

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

PERFORMANCE BASED ORGANIZATION (PBO) INITIATIVE

Question. On page 1 of the Saint Lawrence Seaway Development Corporation's fiscal year 1999 budget estimate, under "general statement", the following statement is included: "The President's budget for fiscal year 1999 funds the SLSDC at the fiscal year 1999 PBO level as a mandatory program and identifies a budget offset." What is the budget offset?

Answer. The President's Budget is PAYGO neutral at the aggregate level. Specific offsets are not associated with specific mandatory spending increases.

Question. What legislative action is necessary to provide this identified offset?

Answer. None, other than implementation of the President's budget.

Question. Please update the Committee on any legislative actions taken by either the House Transportation and Infrastructure Committee or by the Senate Commerce Committee toward moving the performance based organization legislation in the 105th Congress.

Answer. There has been no legislative action by either Committee to date.

Question. Please update the table on page 1038 of Senate Hearing 105–429, comparing the enacted appropriated funding level for the SLSDC to the amount the PBO formula would have provided to the Corporation (in constant 1998 dollars), using actual tonnage figures for each year.

Answer. The information follows.

[In thousands of dollars]

Fiscal Year	Enacted HMTF Actual	HMTF Enacted In 1998 Constant	PBO Formula Actual	PBO 1988 Base forward in 1998 Constant
1988	10,806	10,806	12,788	12,788
1989	11,097	11,303	12,755	13,376
1990	11,375	11,993	13,327	14,192
1991	10,250	12,364	13,447	14,632
1992	10,550	12,723	13,513	15,056
1993	10,734	13,066	10,502	15,463
1994	10,765	13,419	10,439	15,881
1995	10,193	13,755	10,263	16,278
1996	9,549	14,209	10,568	16,815
1997	10,322	14,450	11,560	17,101
1998	11,193	14,631	11,524	17,314

NAVIGATION SEASON

Question. Please update the table on page 1039 of Senate Hearing 105–429 concerning the dates of the navigation seasons from calendar years 1993 through 1997, and the opening date for 1998.

Answer. The Information follows.

MONTREAL-LAKE ONTARIO SECTION OPENING AND CLOSING DATES

Navigation Season	Opening Date	Closing Date	Navigation Days
1993	March 30	December 26	272
1994	April 05	December 29	269
1995	March 24	December 28	280
1996	March 29	December 27	274
1997	April 02	December 26	269

MONTREAL-LAKE ONTARIO SECTION OPENING AND CLOSING DATES—Continued

Navigation Season	Opening Date	Closing Date	Navigation Days
1998	March 26		

ADVISORY BOARD MEMBERSHIP

Question. Please list all the current members of the Seaway Advisory Board. Provide each Board member's term dates and a brief description of their employment background and qualifications.

Answer. Currently the term dates for Advisory Board members are at the pleasure of the President.

Anthony S. Earl—appointed October 3, 1994. Mr. Earl has been a Partner, in the Quarles and Brady Law Firm since 1987 and was Governor of the State of Wisconsin from January 1983 to December 1986. Other positions include: Assistant District Attorney, Marathon County, WI 1965; City Attorney, Wausau, WI, 1966–1969; Member WI State Legislature, 1969–1974; Secretary, WI Department of Administration, 1975; and Secretary WI Department of Natural Resources, 1976–1980.

Vincent J. Sorrentino—appointed October 3, 1994. Mr. Sorrentino has been a Senior Partner of Cole, Sorrentino, Hurley and Hewner, P.C. since 1964. Other positions include: 1988 to the present, Commissioner of the Buffalo and Fort Erie Bridge Authority and Town Attorney and/or Deputy Town Attorney for Hamburg, NY; since 1989 to the present, Commissioner of the Erie County Water Authority; and 1991 to the present, Treasurer of the Erie County Water Authority.

Jay C. Ehle—appointed August 14, 1995. Mr. Ehle joined Cleveland Builders Supply in 1938 and retired as President and Chairman in 1985, remaining on the Board of Directors until 1989. He served on the Board of the Cleveland/Cuyahoga County Port Authority for nineteen years, eleven years as Chairman, and later as a special consultant to the Board.

George D. Milidrag—appointed December 26, 1995. Mr. Milidrag is the Chairman and owner of Engineering Technology, Ltd., an engineering and design firm which he founded in 1973. Mr. Milidrag served as a Director of Midwest Guaranty Bank. He was honored in 1993 as Commodore of the United States Naval Institute and recently honored by the Society of Automotive Engineering as one of the Chief Executives of 100 of the world's leading automotive industries.

William L. Wilson—appointed June 11, 1996. Mr. Wilson is a Research Fellow at the Center for Urban and Regional Affairs at the University of Minnesota's Hubert H. Humphrey Center in Minneapolis. From 1980 to 1993 he served as Council member (and as President from 1989 to 1993) of the Saint Paul City Council. Mr. Wilson has previously served as Commissioner of the St. Paul Port Authority and serves currently as a member of the Board of Directors of the Minnesota World Trade Corporation.

HARBOR MAINTENANCE TRUST FUND

Question. Please update the table on page 1041 of Senate Report 105–429 regarding harbor maintenance trust fund revenues, transfers, and year-end balances for fiscal years 1994 through 1997.

Answer. The information that follows is the latest available from Treasury and the U.S. Customs service.

[In thousands of dollars]

	Fiscal year—			
	1994	1995	1996	1997
Beginning Balance	$303,277	$451,385	$621,194	$871,074
HMTax	622,253	670,532	698,267	735,534
SLS Tolls	11,112	173		
Interest	12,826	30,186	40,870	55,136
Net Rev	646,191	700,891	739,137	790,670

[In thousands of dollars]

	Fiscal year—			
	1994	1995	1996	1997
Total Available	949,468	1,152,276	1,360,331	1,661,744
Corps of Engineers	476,620	519,196	482,126	535,987
SLSDC	10,765	10,193	9,539	10,322
Toll Rebates	9,546	1,512	.....	.....
U.S. DOT	175	181	169	193
Adm.Costs	.....	.....	3,000	3,000
Total Expenses	497,106	531,082	494,834	549,502
Year End Balance	452,362	621,194	865,497	1,112,241

All data is actual.

Question. On March 31, 1998, the U.S. Supreme Court ruled that the Harbor Maintenance Tax is unconstitutional. Does this ruling affect taxing all goods in transit—that is, imports, exports, domestic trade, and cruise ships?

Answer. The ruling affects taxes levied on exports only.

Question. Please break out the total amount of harbor maintenance trust fund revenues by category of tax receipt (imports, exports, domestic trade, cruise ships) for fiscal years 1995–1997.

Answer. The latest information available is through fiscal year 1997, which follows.

[In thousands of dollars]

Category	Fiscal year—		
	1995	1996	1997
Imports	$418,858	$409,708	$438,395
Exports	214,821	209,217	209,439
Foreign trade Zone	14,548	27,982	48,444
Domestic	20,241	26,788	32,828
Passengers	2,792	3,179	3,865
Net Collections	671,260	676,874	732,971

Question. At the end of fiscal year 1996, the harbor maintenance trust fund had a net balance (after expenditures) of $865.5 million. How will this Supreme Court ruling, which becomes final on April 27, 1998, affect harbor maintenance trust fund balances? Please prepare a table showing end of fiscal year balances from 1995 through projected end of 2001, factoring in the loss of tax receipts. (It is understood that the revenue and expenditure costs for fiscal year 1998 through 2001 must be estimated.)

Answer. The information follows. Assumptions are based on actual and projected year end balances, less export receipts, estimated at an average 29 percent of total annual receipts.

[In thousands of dollars]

	Actual Year End Balance	Projected Year End Balance	Estimated Year End less Export Rec.
Fiscal year:			
1995	621,194	.....	.....
1996	865,497	.....	.....
1997	1,112,241	.....	.....
1998	.....	1,452,174	1,031,044
1999	.....	1,884,084	1,337,700

[In thousands of dollars]

	Actual Year End Balance	Projected Year End Balance	Estimated Year End less Export Rec.
2000	.....	2,392,218	1,698,475
2001	.....	2,983,059	2,117,972

Question. Both the Corps of Engineers and the Saint Lawrence Seaway Development Corporation receive transfers of funds from the harbor maintenance trust fund. Is the transfer amount for each agency driven by the annual budget and appropriations cycle, or by an underlying statutory mechanism?

Answer. The actual transfers for each agency are driven by the annual budget and appropriations cycle as authorized by statute.

Question. Please summarize the Department of Transportation's legal opinion on the potential effect of this Supreme Court ruling on the availability of funds for the Saint Lawrence Seaway Development Corporation.

Answer. The Department's opinion is that the SLSDC's legal status remains unchanged. The Corporation will continue to receive appropriations from the Harbor Maintenance Trust Fund.

REVENUE AVAILABLE

Question. Please update the table on page 1041 of last year's hearing record regarding revenue available by source in fiscal years 1998 and 1999.

Answer. The information follows.

REVENUE AVAILABLE BY SOURCE FISCAL YEAR 1998 AND FISCAL YEAR 1999

	Fiscal year 1998	Fiscal year 1999
Interest on Retained Earnings	$500,000	$500,000
Concession Operation	300,000	300,000
Rental of Administration Building	44,000	44,000
Miscellaneous	56,000	56,000

FINANCIAL POSITION

Question. Please update the tables on pages 1041 through 1043 of last year's hearing record regarding the statement of your financial position, as well as the statement of operations and changes.

Answer. The information follows.

STATEMENT OF FINANCIAL POSITION AS OF SEPTEMBER 30, 1997, 1996 AND 1995

[In thousands of dollars]

ASSETS	1997	1996	1995
Current assets: Cash:			
Held by U.S. Treasury	910	1,573	2,631
Held in banks and on hand	21	20	13
Short-term time deposits in minority banks	9,289	10,908	10,403
Tolls and other receivables	150	131	138
Other current assets	.....	.....	4
Inventories	275	279	292
TOTAL CURRENT ASSETS	10,645	12,911	13,481
Non-current assets:			
Long-term time deposits in minority banks	3,237	1,470	1,207
Plant, property and equipment: Plant in service	153,131	151,848	151,495
Less accum depreciation	−66,152	−63,912	−62,250

STATEMENT OF FINANCIAL POSITION AS OF SEPTEMBER 30, 1997, 1996 AND 1995—Continued

[In thousands of dollars]

ASSETS	1997	1996	1995
Net plant in service	86,979	87,936	89,245
Work in progress	454	302	162
TOTAL PLANT, PROPERTY AND EQUIPMENT	87,433	88,238	89,407
Other assets:			
Lock spare parts	701	777	659
Less accum depreciation	−137	−109	−82
Net Lock spare parts	564	668	577
Investment in Seaway Int'l Bridge Corporation, Ltd	7	7	7
TOTAL OTHER ASSETS	571	675	584
Deferred charges: Workman's compensation benefits	1,778	1,397	1,232
TOTAL ASSETS	103,664	104,691	105,911
LIABILITIES AND EQUITY OF THE U.S. GOVERNMENT			
Current liabilities: Payable to the U.S. Treasury:			
Accounts payable	807	691	743
Accrued leave	706	691	691
Accrued payroll costs	396	373	297
Deferred revenue	.....	.....	.....
Total current liabilities	1,909	1,755	1,651
Actuarial liabilities: Workman's compensation benefits	1,778	1,397	1,232
TOTAL LIABILITIES	3,687	3,152	2,883
Equity of the U.S. Government:			
Invested capital	102,228	103,053	104,230
Cumulative results of operations	−2,251	−1,514	−1,202
TOTAL EQUITY OF THE U.S. GOVERNMENT	99,977	101,539	103,028
TOTAL LIABILITIES AND EQUITY OF THE U.S. GOVERNMENT	103,664	104,691	105,911

STATEMENT OF OPERATIONS AND CHANGES IN CUMULATIVE RESULTS FOR THE YEARS ENDED SEPTEMBER 30, 1997, 1996 AND 1995

[In thousands of dollars]

ASSETS	1997	1996	1995
Operating revenues:			
Appropriations expended	8,736	8950	9,337
Imputed financing	678	.....	.....
Other	558	897	467
TOTAL OPERATING REVENUES	9,972	9,847	9,804
Operating expenses:			
Locks and marine operations	2,119	2,163	1,999
Maintenance and engineering	3,152	3,006	3,166

STATEMENT OF OPERATIONS AND CHANGES IN CUMULATIVE RESULTS FOR THE YEARS ENDED SEPTEMBER 30, 1997, 1996 AND 1995—Continued

[In thousands of dollars]

ASSETS	1997	1996	1995
General and development	2,574	2,486	2,486
Administrative expense	2,857	2,935	2,800
Depreciation	2,412	1,776	2,667
Imputed expenses	678	.....	.....
TOTAL OPERATING EXPENSES	13,792	12,605	13,118
Operating loss	−3,820	−2,758	−3,314
Other financing sources:			
Interest on deposits in minority banks	671	670	553
Transfer from invested capital for depreciation	2,412	1,776	2,667
TOTAL OTHER FINANCING SOURCES	3,083	2,446	3,220
Excess of operating revenues and other financing sources over operating expenses	−737	−312	−94
Beginning cumulative results of operations	−1,514	−1,202	−1,108
ENDING CUMULATIVE RESULTS OF OPERATIONS	−2,251	−1,514	−1,202

VESSEL CASUALTIES

Question. Please detail any vessel casualties or groundings in the American waters of the Seaway for the 1997 navigation season, and for the 1998 navigation season to date.

Answer. There was one grounding during 1997 in the American portion of the Seaway, a vessel had a steering problem, was holed, but did not spill or cause pollution. There have been no incidents in 1998 to date.

TRAVEL AND TRANSPORTATION COSTS

Question. In a similar format to that on pages 995 through 996 of the fiscal year 1997 Senate hearing record (Senate hearing 104–671, part 2), please provide a listing of trade, mini-trade, Lake State, industry, and other travel missions made by or planned for Seaway personnel September 1996 through April 1998 (fiscal years 1997 and 1998 to date). Be inclusive, including the dates of travel, trip purposes, location, Seaway Development Corporation representatives, travel costs for each, and actual or planned trip results.

Answer. Seaway Domestic Trade Mission: August 11–22, 1997. The program objectives were to involve and inform lake port communities about Seaway trade development programs and initiatives; and to showcase the unique maritime assets at each of the ports participating in the program. Activities were conducted at the ports of Duluth, MN; Thunder Bay, Ontario; Sturgeon Bay, WI; Green Bay, WI; Milwaukee, WI; Chicago, IL; Burns Harbor, IN; Detroit, MI; Toledo, Cleveland, and Ashtabula OH; Erie, PA; Oswego and Ogdensburg, NY. SLSDC representatives and their travel costs included: Acting Administrator, David G. Sanders—$2,143; Ginger Vuich, Director Congressional and Public Affairs—$2,266; and Ron Rudolph, International Trade Specialist—$1,539. The program highlighted the Great Lakes/St. Lawrence Seaway's marine industry working in cooperation with the user communities of the ports served by the Seaway. Individual events emphasized U.S. trade development, maritime safety, environmental protection, new shipbuildings, binational cooperation, System unity and targeted commodity traffic needs and service enhancements.

The First Universal Congress of the Panama Canal: September 7–10, 1997. The trip purpose was to attend the Congress, and to conduct a separate Seaway trade development program for invitees to the Congress representing vessel owners and operators, freight forwarders and brokers, cargo interests and port authorities from the global maritime community. A third activity, sponsored by the Panama Canal Commission, was to participate in the third International Canals and Waterways

Chief Executive Officer Meeting, a program initiated by the SLSDC in 1993. Activities were carried out in Panama City and at the Canal facilities. SLSDC representatives and their travel costs included: Acting Administrator, David G. Sanders—$1,400; Ginger Vuich, Director Congressional and Public Affairs—$1,490; and Frank Flyntz, Director, Great Lakes Pilotage—$1,207. Program activities focussed on information exchange and presentations on Seaway trade, marine safety, environmental protection concerns, vessel operations and incentives, administrative issues, and general operating concerns pertinent to carriers, ports and waterway operators everywhere.

Trade mission to Hamburg, Germany and Johannesburg and Durban, South Africa: October 13–29, 1997. The Acting Administrator was mission leader for a Seaway System binational delegation that included industry, port and carrier partners, participating at program stops in Hamburg, Germany, and Johannesburg and Durban, South Africa. Traditionally, Germany ranks in the top five Seaway trading partners with just under one million tons of traffic in 1996, representing over eight percent of total overseas traffic through the Seaway. Presentations were made to local government and industry officials, followed by one-on-one meetings with business partners and delegation members. Hamburg is also one of the major home office locations for vessel owners and operators based in Northern Europe. The mission visit to South Africa was an industry requested follow-up to a 1994 Seaway mission, which was one of the first U.S. government sponsored missions to post-apartheid South Africa. South African trade through the Seaway was eleventh overall in 1996 with over 340,000 tons of cargo and ranking at three percent of total overseas trade through the System. In addition to the traditional program presentations and individual meetings, the SLSDC participated in the annual South African International Trade Exposition. Similar exhibits by lake port and Seaway vessel operators accompanied the SLSDC international static exhibit. SLSDC representatives and their travel costs included: Acting Administrator, David G. Sanders—$6,531; Ginger Vuich, Director Congressional and Public Affairs—$6,531; Craig Middlebrook, Chief of Staff—$4,498 (Hamburg); Joe Craig, International Trade Specialist—$2,511 (Hamburg); Ron Rudolph, International Trade Specialist—$6,197 (South Africa).

Seaway trade development delegation to Limassol, Cyprus and Athens, Greece: Planned for May 28-June 5, 1998. The SLSDC will lead a binational delegation of Seaway maritime participants representing ports, vessel operators, agricultural and breakbulk cargo shippers. Planning is for two staff members to accompany the Acting Administrator. In both Cyprus and Greece the delegation will conduct formal presentations on the Seaway System for overseas industry and government representatives followed by one-on-one meetings and on site trips to terminals, vessels, and specialized cargo handling facilities. In Greece, Corporation staff and industry representatives will participate in the Posidonia Maritime Exhibition utilizing the Seaway static display. The Posidonia Exhibition, held every two years, is the largest gathering of ship owners and operators in the world. As a result of a 1996 trip to the Cyprus/Athens sites, Ferum lines committed four additional vessels to Seaway service and Diana Shipbuilding committed four additional vessels to be refitted in compliance with Seaway transit regulations.

Question. For fiscal years 1996 and 1997 actual, and fiscal years 1998 and 1999 estimated, please break out travel and transportation of persons into two categories: (1) trade and travel missions to both potential new markets and traditional markets; and (2) non-trade related travel.

Answer. The information follows.

	1996 Actual	1997 Actual	1998 Estimated	1999 Estimated
Trade Missions	$23,000	$44,000	$45,000	$46,000
Non-trade related travel	135,000	138,000	144,000	158,000

SEAWAY SPONSORED EVENTS

Question. Please provide a listing of any trade, industry, or other visits, seminars, or "summits" at the Seaway that have been sponsored by the Corporation during the last year. Please outline the results of and benefits derived from each of these sponsored events.

Answer. The report last year covered events through April 2, 1997.

June 25, 1997: The SLSDC and the Canadian Seaway Authority (SLSA) co-sponsored a meeting of the GPS/AIS binational steering committee in Montreal to further progress on program implementation by 1999.

July 9, 1997: SLSDC/SLSA initiated a meeting with Transport Canada (TC) and the United States Coast Guard (USCG) in Boston, MA, on the Montreal vessel inspection program.

July 14, 1997: SLSDC/SLSA co-sponsored a meeting with the Canadian "Users" group on tolls and binational initiatives in Stamford, CT.

August 11–22, 1997: SLSDC sponsored the Great Lakes/St. Lawrence Seaway Domestic trade Mission, discussed above.

August 14, 1997: SLSDC/SLSA co-sponsored a meeting of the GPS/AIS binational steering committee in Massena, NY, to further progress on program implementation by 1999.

September 10, 1997: SLSDC/SLSA co-sponsored a meeting of the GPS/AIS binational steering committee in Ottawa, ON, to further progress on program implementation by 1999.

September 18, 1997: SLSDC/SLSA co-sponsored a Seaway welcome ceremony for the maiden voyage of a new German cruise ship built for Seaway transit, in Montreal, and in Massena, NY.

October 15, 1997: SLSDC/SLSA participated in a joint meeting on GPS/AIS binational steering committee strategy, in Montreal, to further progress on program implementation by 1999.

November 20, 1997: SLSDC/SLSA co-sponsored a meeting of the GPS/AIS binational steering committee in Montreal to further progress on program implementation by 1999.

December 4–5, 1997: SLSDC/SLSA co-sponsored trade development strategy meetings with carrier representatives in Montreal.

December 11, 1997: SLSDC/SLSA co-sponsored a meeting with Transport Canada (TC) and the United States Coast Guard (USCG) in Washington, DC, on the Montreal vessel inspection program.

January 15–16, 1998: SLSDC/SLSA co-sponsored trade development strategy meetings with carrier representatives, the American Great Lakes Ports Association, the International Great Lakes Ports Association and the Canadian Maritime Chamber of Commerce in Toronto, ON.

January 21, 1998: SLSDC/SLSA participated in a meeting with the USCG in Cleveland, OH, on the Montreal vessel inspection program.

January 29–30, 1998: SLSDC/SLSA co-sponsored a workshop and program presentation on the GPS/AIS program for the binational steering committee in Montreal.

March 3–4, 1998: SLSDC participated in the Seatrade Cruise Ship Convention, that included a Lakes/Seaway program presentation to cruise vessel operators, in Miami, FL.

March 23, 1998: SLSDC sponsored a Seaway issues meeting with U.S. lake port directors in Washington, DC.

March 25, 1998: SLSDC/SLSA co-sponsored the Annual Industry Day meeting in Montreal prior to opening of the 1998 navigation season.

March 26, 1998: SLSDC/SLSA co-sponsored the Seaway 1998 opening day ceremonies in Montreal and Massena, NY.

April 7–8, 1998: SLSDC sponsored a trade development meeting with lakes/Seaway industry leaders in Chicago, IL.

ST. LAWRENCE SEAWAY AUTHORITY TOLL INCREASES

Question. The Canadian St. Lawrence Seaway Authority has announced that, effective June 1, 1998, a 2 percent increase in tolls will be imposed on the Montreal/Lake Ontario and Welland Canal sections of the St. Lawrence Seaway. Is the increase in tolls meant to offset loss of lockage fee revenue resulting from the SLSA decision to end the collection of lockage fees at the Welland Canal that began at the start of the 1998 navigation season?

Answer. Although the Seaway Authority agreed in writing on June 24, 1997 to eliminate Welland Canal lockage fees Transport Canada precluded implementation of the agreement. The Authority President was replaced by an Acting President who deferred toll negotiations to Transport Canada and never responded to a second toll proposal by SLSDC in October of 1997. The recently announced 2 percent toll increase is a unilateral decision by Transport Canada that abrogates the 1959 Memorandum of Agreement on the Seaway Tariff of Tolls between the two nations.

Question. Has the SLSDC analyzed the Seaway traffic and cost implications of the SLSA decision to increase tolls? Taking into consideration both the SLSA's discontinuation of the lockage fee and the 2 percent increase in tolls, will the net resulting total fees and tolls for the average Seaway transit be the same as that of the average Seaway transit in calendar year 1997, or will that total now be higher?

Answer. The proposed increase effective June 1, 1998 is an across-the-board increase of 2 percent for all Tariff charges at both sections of the System including the Welland lockage fees. Therefore the impact per transit over 1997 is a 2 percent increase for all Seaway costs.

Question. Might these toll increases have a chilling effect on Seaway traffic? Please provide the Committee with any available historical data linking traffic levels to tolls.

Answer. In the short-range the impact of a 2 percent increase following four years of tolls frozen at 1993 levels should be minimal. However, the long-range concern is that Transport Canada is implementing the first year of a proposed five-year series of toll increases at a minimum of 2 percent, up to a maximum of 3.5 percent a year. The proposed cargo toll alone on U.S. export grain could rise from the current $1.06 per metric ton up to a range of $1.17 to $1.26, per metric ton, that would generate diversions of tonnage from the Seaway to competing rail and river movements, affecting U.S. port economies. Grain and low value bulk commodities are highly susceptible to transport route diversion from relatively minor per-ton shipping cost increases.

COURT RULING REGARDING TRANSFER OF PILOTAGE FUNCTIONS

Question. A November 1997 U.S. Court of Appeals decision found that the Secretary of Transportation lacks the authority to delegate Great Lakes pilotage powers and duties directly to the SLSDC, but may either retain direct authority over Great Lakes pilotage powers and duties or delegate these functions to the U.S. Coast Guard. Have the SLSDC pilotage functions been transferred out? (if they have not yet been transferred, when will they be?) Have they been transferred to the Office of the Secretary, or to the U.S. Coast Guard? What cost savings are associated with the reduction of two FTE's?

Answer. Great Lakes pilotage functions (4 FTE's) are in the process of being transferred from the SLSDC to the Field Activities Directorate (G-MO) of the U.S. Coast Guard's Assistant Commandant for Marine Safety and Environmental Protection. The staff is already working for G-MO on detail, and will be permanently transferred as soon as the necessary paperwork is completed. There is no cost savings as SLSDC will fund the pilotage staff through fiscal year 1998 even after the transfer is final. fiscal year 1999 funding is based on the PBO financial plan with or without the Coast Guard staff.

EMERGENCY RESERVE FUND BALANCES

Question. One of the management accountability goals of the SLSDC this year is to increase the emergency reserve account to ensure contingency funding for catastrophic emergencies and funding of critical capital outlay needs. Please provide the Committee a historical record of reserve account year-end balances from 1988 to 1997.

Answer. The information follows.

[In millions of dollars]

Fiscal YR	End Balance	Draw-down	Purpose
1988	10.1	.....	
1989	11.5	.....	
1990	11.2	0.3	Lock Wall Structural Evaluation.
1991	11.6	.....	
1992	12.6	.....	
1993	11.9	0.9	Maintenance Dredging.
1994	11.8	0.4	Concrete & Gate Repair.
1995	11.9	0.3	Concrete Repair.
1996	11.2	1.0	Concrete Repair & Replace Workboat.
1997	10.3	1.4	Capital Outlay Projects.

Question. The fiscal year 1999 year-end balance performance goal target is $10.68 million. Please support the goal. Why does the SLSDC need this emergency reserve amount?

Answer. The PBO financial plan included a commitment by SLSDC to build the emergency reserve to a level of $12 million plus an annual construction cost inflator of 5 percent. This is the estimated cost level to repair a double lock gate failure. The SLSDC needs the reserve account to ensure immediate contingency funding for

any catastrophic event and/or critical capital outlay projects beyond annual budgeted funds.

Question. What would be the potential "worst case scenario" effect of reducing the emergency reserve below this target level of $10.68 million? Please present scenarios for an emergency reserve level of: $10 million, $9 million, and $8 million.

Answer. SLSDC believes the worst case scenario is any reserve level below the $12 million, which is the minimum amount needed to replaced one set of the locks located at both ends of each lock (the so-called "double gate failure"). Whether at $10.68 million, $10 million, $9 million or $8 million, the risk of a catastrophic event prevails. The level of the reserve is a measure of our ability to recover from such an event.

TARGETED VESSEL INSPECTIONS

Question. Beginning in 1997, the SLSDC instituted a targeted vessel inspection regime under which all vessels entering the Seaway for the first trip inbound each year at Montreal would be inspected once, and thereafter a special screening criteria would be used for any additional trips into the System. Please describe the screening criteria used to determine whether vessels would be subject to subsequent boardings and inspections.

Answer. Certain vessels may have need of additional inspections during subsequent transits based on requirements in the USCG prioritization matrix or vessel history. Such vessels that complete a self exam checklist may be allowed to proceed to their destination port with a risk-based spotcheck in lieu of a complete inspection, or the vessel may request inspection in Montreal. Future recognition of the self-examination checklist and spotchecks will vary with the record established by each vessel in compliance with the self-examination program and amendments which may be made in the administration of the USCG prioritization matrix. Other vessels may be required to have a second inspection during the navigation season because of unsatisfactory performance during their Seaway transit, reports of significant deficiencies since their last transit, or removal from the "cleared vessel list" by the SLSDC.

Question. Does this new practice decrease the overall number of boardings and inspections? Please cite the number of boardings/inspections in U.S. waters in calendar years 1996 and 1997.

Answer. The SLSDC objective for the new inspection regime was to eliminate in-transit inspections that were occurring between the U.S. locks in Massena, to eliminate unnecessary duplication of inspections, and to enhance consolidation of U.S. and Canadian Seaway and Coast Guard inspections at Montreal, prior to entering U.S. waters. Therefore the number of inspections will be about the same each season, subject to routine traffic fluctuations, but focussed at Montreal. The program has been a significant positive customer service activity without compromising safety or environmental considerations. Vessel customers save time, which translates into reduced operating costs (an average ocean vessel time savings is 4 hours which equates to $1,600 or 16 percent of a total daily operating cost of $10,000) and are able to resolve problems in the Montreal area before entering the lock system. During the 1997 navigation season the SLSDC performed 227 port state inspections (USCG 23) at Montreal. During 1996 SLSDC performed 100 port state inspections at Montreal, and an additional 62 were performed in-transit in the Massena area (water ballast and spotcheck inspections are not included in the port state program count).

Question. If the number of boardings and inspections decreases overall, what cost savings are anticipated? Are these SLSDC cost savings or U.S. Coast Guard savings?

Answer. Routinely the number of inspections at Montreal will be about the same as the previous Montreal-plus-Massena in-transit inspections. Over the long-term, an increase in inspections overall is anticipated with the growth of international traffic through the System.

STAFFING LEVELS

Question. How many full time equivalent employees does the SLSDC currently employ? Does this include a 2 FTE decrease resulting from the transfer out of Great Lakes pilotage functions?

Answer. SLSDC currently has 147 full time permanent, 2 part time permanent, and 5 temporary employees on board. The 2 FTE decrease for fiscal year 1998 represents the reduction in FTE level established by the Corporation's streamlining plan commitment. The pilotage function represents 4 FTE's.

Question. Please break out the current on-board staff by location (Washington, D.C. or Massena), function, and civil service versus wage grade personnel. Please prepare a comparative table showing on-board staff exactly one year ago.

Answer. The Information follows.

OFFICE	On Board 5/11/98		On Board 5/11/97	
	General schedule	Wage grade	General schedule	Wage grade
WASHINGTON, DC				
Acting Administrator	6	.....	5	.....
Congressional & Public Affairs	7	.....	6	.....
Development & Logistics	3	.....	3	.....
Great Lakes Pilotage	3	.....	4	.....
TOTAL	19	.....	18	.....
MASSENA, NY				
Associate Administrator	3	.....	4	.....
Administration	11	.....	12	.....
Finance	14	1	15	1
Engineering & Strategic Plng	6	.....	6	.....
Maintenance & Marine Services	7	47	7	48
Lock Operations	13	33	13	31
TOTAL	54	81	57	80
GRAND TOTAL BY PAY SYSTEM	73	81	75	80
OVERALL TOTALS	154		155	

PROPOSED FISCAL YEAR 1999 BUDGET INCREASES

Question. The proposed fiscal year 1999 increase in personnel compensation is $76,000 above last year's enacted level, despite the fact that 2 Great Lakes pilot FTE positions will be transferred out before October 1, 1998. Why will it cost more to pay fewer people?

Answer. The increase of $76,000 in personnel compensation for fiscal year 1999 represents within-grades, promotions and cost of living increases offset by the reduction of 2 FTE's in compliance with the streamlining plan commitment, not the pilotage function, which is 4 FTE's.

Question. In referencing the budget justification's "non-discretionary program changes" on page 23, an additional $289,000 in pay act, wage board, and inflationary increases is assumed, which is then offset by management savings of $225,000 associated with the 2 FTE reduction. This nets to an increase of $64,000 in additional pay and inflation costs. Why isn't this the same amount as the proposed personnel compensation increase of $76,000 outlined on page 13 of the budget justification?

Answer. The increase of $76,000 outlined on page 13 of the budget justification includes anticipated within-grades and promotions, which are not specifically outlined in the program changes. The $64,000 represents program changes including other non-pay object classes.

Question. How did you determine an estimate of $60,000 for non-pay inflationary increases?

Answer. Inflationary increases of $60,000 in non-pay object classes were based on a 2.3 percent inflation factor, allowing for changes in cost and supply factors.

Question. In your budget request, travel increases 8 percent from the fiscal year 1998 enacted level. Much of this increase is associated with travel to and from Washington, D.C. and Massena, NY. Why is this increase anticipated?

Answer. An increase in travel from Washington to Massena is anticipated since the Acting Administrator is committed to involving all employees in the PBO performance based process and related legislative concerns. This requires outreach meetings with the partnership council and frequent information sessions with AFGE Local 1968 and with the union executive board. All DC and Massena employees at

every level are included in development of annual performance agreements with the Secretary and annual performance plans included in the budget process. In addition, employees have raised concerns and issues about PBO legislation and performance measures, the Binational Seaway agency legislation developed by Congressman Oberstar, and proposed restructuring of the SLSA by Transport Canada.

RELATED AGENCIES

ARCHITECTURAL AND TRANSPORTATION BARRIERS COMPLIANCE BOARD

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

DETECTABLE WARNINGS

Question. Under the Board's January 28, 1998 notice of proposed rulemaking, the temporary suspension of the detectable warnings requirement is extended to July 26, 2000, in order to allow the Board to address substantive requirements for detectable warnings in the ADAAG revision rulemaking. The ADAAG review advisory committee that considered these requirements has recommended the requirements for curb ramps, hazardous vehicle areas, and reflecting pools be entirely eliminated, and that the transit station platform edge requirements allow for ''equivalent tactile surface and detectability.'' Will the next two years' of Board review under the extended suspension focus on determining what will constitute equivalent tactile surface and detectability for transit station platforms? What other substantive issues will be reviewed?

Answer. The Board intends to adopt the recommendations of the ADAAG Review Advisory Committee regarding detectable warnings in the notice of proposed rulemaking to revise ADAAG. The ADAAG Review Advisory Committee recommended that detectable warnings be required only in transit facilities where platform edges border a drop-off and are not protected by platform screens or guard rails. In addition to the existing technical specifications for using truncated domes as detectable warnings, the ADAAG Review Advisory Committee recommended that performance oriented specifications for equivalent tactile surfaces and equivalent detectability be included in ADAAG. The Board does not intend to further review any substantive issues regarding detectable warnings before the notice of proposed rulemaking to revise ADAAG is published. The Board will consider public comments submitted in response to the notice of proposed rulemaking to revise ADAAG, including the substantive requirements for detectable warnings, before approving a final rule. The Board has proposed to extend the temporary suspension of the detectable warning requirements to July 26, 2000, in order to allow the substantive requirements to be addressed in the rulemaking to revise ADAAG.

BUDGET REQUEST ADJUSTMENTS

Question. Please explain more fully the request for a 67 percent increase in staff training (from $15,000 in fiscal year 1998 to $25,000 in fiscal year 1999). Generally, what staff training is required? Is there a staff training need that is currently being unmet, or does this increased request reflect a specific one-time need that will occur in fiscal year 1999?

Answer. The Board has always had a policy to invest heavily in staff training. We operate in a changing technical environment and it is extremely important for the staff to keep up to date when developing state-of-the-art accessibility guidelines. The Board originally planned to spend $25,000 on training in fiscal year 1999. The money the Board sought to spend on staff training had to be used to cover the increased cost of supporting the development of its guidelines. We have requested the original fiscal year 1998 level of $25,000 again in fiscal year 1999.

We expect that the kinds of training sought in fiscal year 1999 will be similar to past training. In the recent past, we have provided the following training to staff members:

—Web Page design and HTML language;
—Duties of a contracting officers technical representative;
—Records management and filling;
—Supervisory skills;
—Investigating complaints of discrimination;
—Human resource and management skills;
—Beginning and advanced regulation drafting;

—Federal budget formulation; and
—Registration fees at professional conferences.

Additionally, in fiscal year 1997, we provided training on giving effective presentations to staff involved in our guideline training program. We also have contributed $2,000 to the Small Agency Council training fund which sponsors courses such as time management and supervisory skills that would not be cost effective for small agencies to sponsor alone.

BOARD MEMBERSHIP

Question. Please update the information provided in previous Senate hearing records regarding status of terms of members on the Board, including both Federal and public members. Please include each member's attendance record at the Board meetings during the 12-month period between May 1997 and April 1998. Please include a narrative explaining the members' attendance records similar to that in last year's hearing record.

Answer. The requested tables follow.

ACCESS BOARD MEMBER AND LIAISON ATTENDANCE BY MEETINGS, MAY 1997–APRIL 1998

	Washington, DC—				
	05/14/97	07/09/97	09/10/97	01/14/98	03/11/98
PUBLIC MEMBERS/TERM					
Nancy J. Bloch, 12/03/99	x	x	x	.....	x
Patrick D. Cannon, 12/03/98	x	x	x	x	x
John H. Catlin, 12/03/01	x	x	x	x	x
Marilyn Golden, 12/03/00	x	x	x	.....	x
Marc D. Guthrie, 12/03/00	x	x	x	x	x
Margaret C. Hager, 12/03/98	x	x	x	.....	x
Pamela Y. Holmes, 12/03/01	x	x	x	x	x
June I. Kailes, 12/03/98	x	x	x	x	x
Carl G. Lewis, 12/03/98	x	x	x	x	x
Donna L. Sorkin, 12/03/01	x	.....	x	x	x
Lori L. Vande Zande, 12/03/99	x	x	x	x	x
James J. Weisman, 12/03/99	x	x	x	.....	x
Vacant	.....	.....	.....	.....	.....
FEDERAL MEMBERS/LIAISON STAFF					
DOC:					
Member	.....	.....	.....	.....	.....
Liaison	x	.....	x	x	x
DOD:					
Member	.....	.....	.....	.....	.....
Liaison	.....	x	x	.....	x
ED:					
Member	x	x	x	x	x
Liaison	x	x	x	x	x
GSA:					
Member	.....	x	x	.....	x
Liaison	x	x	x	x	x
HHS:					
Member	.....	.....	.....	.....	x
Liaison	x	x	.....	x	x
HUD:					
Member	.....	.....	.....	.....	.....
Liaison	x	x	x	x	x
DOI:					
Member	.....	.....	.....	.....	.....
Liaison	.....	.....	.....	.....	.....
DOJ:					
Member	.....	.....	x	.....	.....
Liaison	x	x	x	x	x

ACCESS BOARD MEMBER AND LIAISON ATTENDANCE BY MEETINGS, MAY 1997–APRIL 1998—Continued

	Washington, DC—				
	05/14/97	07/09/97	09/10/97	01/14/98	03/11/98
DOL:					
Member					
Liaison	x		x	x	x
DOT:					
Member	x				x
Liaison	x	x	x	x	x
USPS:					
Member					
Liaison	x		x		
VA:					
Member					x
Liaison	x	x		x	x

The November 13, 1997 Board meeting was substituted with a town meeting in Louisville, Kentucky.

Department of Commerce.—The Honorable W. Scott Gould, Chief Financial Officer and Assistant Secretary for Administration, was designated a member in October 1997 and has not attended any meetings. The Honorable Raymond G. Kammer, Jr., former Acting Chief Financial Officer and Assistant Secretary for Administration, did not attended any meetings. The staff liaison, Mr. William J. Porter, Jr., External Program Manager, Office of Civil Rights, attended four meetings.

Department of Defense.—The Honorable Rudy de Leon, Under Secretary of Defense (Personnel and Readiness), was designated a member in February 1998 and has not attended any meetings. The Honorable F.Y. Pang, Assistant Secretary of Defense (Force Management Policy), did not attend any meetings. The staff liaison, Ms. Judith Gilliom, Deputy Director for Equal Opportunity Policy (Disability Programs), attended three meetings.

Department of Education.—The Honorable Judith E. Heumann, Assistant Secretary for Special Education and Rehabilitative Services, attended five meetings. The staff liaison, Mr. William Peterson, Program Manager, National Institute on Disability and Rehabilitation Research, became a liaison in November 1997 and attended two meetings. MS. RoseAnn Ashby, Vocational Rehabilitation Program Specialist, Rehabilitation Services Administration, attended three meetings.

General Services Administration.—The Honorable Thurman M. Davis, Sr., Deputy Administrator, attended three meetings. The staff liaison, Mr. Anthony Waller, National Program Manager for Accessibility, attended five meetings.

Department of Health and Human Services.—The Honorable Harriet S. Rabb, General Counsel, attended one meeting. The staff liaison, MS. Charlene Tusan, Attorney, attended four meetings.

Department of Housing and Urban Development.—The Honorable Eva M. Plaza, Assistant Secretary for Policy and Initiatives, Office of Fair Housing and Equal Opportunity, was designated a member in December 1997 and has not attended any meetings. Mr. Andrew Cuomo, The Secretary, interim Board Member since March 1997, has not attended any meetings. The staff liaison, MS. Cheryl Kent, Director, Disability Rights Division, Office of Fair Housing and Urban Development, attended five meetings.

Department of the Interior.—The Honorable M. John Berry, Assistant Secretary, Policy Management and Budget, was designated a member in November 1997 and has not attended any meetings. The Honorable Bonnie Cohen, former Assistant Secretary for Policy, Management and Budget, has not attended any meetings. The staff liaison, Mr. Melvin C. Fowler, Process Manager, Office for Equal Opportunity, has not attended any meetings.

Department of Justice.—The Honorable Bill Lann Lee, Acting Assistant Attorney General for Civil Rights, was designated as a member in December 1997, and has not attended any meetings. The Honorable Isabelle Katz Pinzler, former Acting Assistant Attorney General for Civil Rights, attended one meeting. The staff liaison, MS. Janet L. Blizard, Supervisory Attorney, Disability Rights Section, Civil Rights Division, attended five meetings.

Department of Labor.—The Honorable Bernard E. Anderson, Assistant Secretary for Employment Standards, has not attended any meetings. The staff Liaison, Ms. Diane Smith, Manager, Field Liaison, attended four meetings.

Department of Transportation.—A representative has not been designated to serve as a Board Member. The Honorable John Lieber, Acting Assistant Secretary for Transportation Policy, attended one meeting. The Honorable Frank E. Kruesi, former Assistant Secretary for Transportation Policy, attended one meeting. The staff liaison, Dr. Ira Laster, Jr., Senior Program Coordinator, Office of Environment, Energy, and Safety, attended five meetings.

United States Postal Service.—The Honorable Rudolph K. Umscheid, Vice President, Facilities, has not attended any meetings. The staff liaison, Mr. Michael Goodwin, Manager, Design and Construction, was designated as a liaison in December 1997 and has not attended any meetings. Mr. Charles Baker, Architectural Barriers Compliance Coordinator, attended two meetings.

Department of Veterans Affairs.—The Honorable Eugene A. Brickhouse, Assistant Secretary for Human Resources and Administration, attended one meeting. The staff liaison, Mr. Dennis Hancher, Barrier Free Design, Office of Construction Management, attended four meetings.

TRAVEL COSTS

Question. Please list by city all out-of-town staff travel during fiscal years 1997 and 1998 to date. Include a brief description of the purpose of the trip, and indicate which trips were training sessions. Please also include columns listing the cost of each staff trip, and if the trip was a training session, what portion of the associated costs were reimbursed.

Answer. The requested tables follow.

FISCAL YEAR 1997 STAFF OUT-OF-TOWN TRAVEL

Traveler/city	Dates	Purpose	Cost	Reimbursable amount
Pecht, Jim, Chicago, IL	10/08–10/08/96	ADA Training—Nat'l Assoc. of Elevator Contractor's	$194.70	$142.50
Beatty, Paul, Nantucket, MA	10/20–10/22/96	Site Visit—Access to Floating Docks	772.92	
Alperin, David, Parkersburg, WV	10/20–10/22/96	Staff Training—Bureau of Public Debt	691.58	
Brooks, Meriel, Parkersburg, WV	10/20–10/22/96	Staff Training—Bureau of Public Debt	566.01	
Johnston, Tanya, Parkersburg, WV	10/20–10/22/96	Staff Training—Bureau of Public Debt	560.50	
Greenwell, Peggy, Kansas City, MO	10/22–10/29/96	Play Areas Reg Neg Mtg /ADA Training—Nat'l Recreation and Parks Assoc.	1,370.30	
Alperin, David, Kansas City, MO	10/26–10/29/96	Play Areas Reg Neg Mtg	700.29	
Ola, Kansas City, MO	10/26–10/29/96	Play Areas Reg Neg Mtg	719.93	
Mazz, Marsha, Birmingham, AL	10/28–10/29/96	Model Code Mtg	444.94	
Roffee, Lawrence, Seattle, WA	10/30–11/01/96	ADA Training—Northwest DBTAC	564.59	241.50
Thibault, Lois, Sacramento, CA	11/06–11/08/96	ADA Training—Metropolitan Transportation Commission	522.01	522.01
Roffee, Lawrence, Perth, Australia	11/07–11/17/96	Accessibility Training—Gov't of Western Australia	4,647.50	3,673.78
Capozzi, David:				
Honolulu, HI	11/14–11/18/96	ADA Training—American Bar Assoc	1,240.97	961.06
Boston, MA	11/21–11/21/96	ADA Training—Build Boston	476.72	
Mazz, Marsha, Chicago, IL	11/25–11/26/96	ADA Training—Great Lakes DBTAC	262.00	262.00
Beatty, Paul, Denver, CO	12/06–12/08/96	Advisory Meeting—Ski Areas	453.32	
Mazz, Marsha, Atlanta, GA	12/09–12/10/96	Platform Lift Safety Code Mtg	751.82	
Ola, Berkeley, CA	01/03–01/13/97	Play Areas Reg Neg Mtg	936.20	
Beatty, Paul, Berkeley, CA	01/05–01/10/97	Play Areas Reg Neg Mtg	783.20	
Greenwell, Peggy, Berkeley, CA	01/05–01/10/97	Play Areas Reg Neg Mtg	$1,209.52	
Johnston, Tanya, Berkeley, CA	01/05–01/10/97	Play Areas Reg Neg Mtg	1,205.28	
Greenwell, Peggy:				
Orlando, FL	01/17–01/18/97	Swimming Pool Standard Mtg	596.62	
Chicago, IL	01/27–01/28/97	Play Areas Reg Neg Mtg	332.50	
Brooks, Meriel, Parkersburg, WV	01/28–01/29/97	Staff Training—Bureau of Public Debt	483.38	
Johnston, Tanya, Parkersburg, WV	01/28–01/29/97	Staff Training—Bureau of Public Debt	570.10	
Mazz, Marsha, Honolulu, HI	02/24–02/28/97	ADA Training—Hawaii Commission on Persons with Disabilities	457.50	
Greenwell, Peggy, Kalamazoo, MI /Dearborn, MI	03/13–03/14/97	ADA Training—Assoc. of Landscape Architects	828.83	828.83
Beatty, Paul, Dallas, TX	03/20–03/21/97	ADA Training—Nat'l Child Care Assoc	447.20	77.20

FISCAL YEAR 1997 STAFF OUT-OF-TOWN TRAVEL—Continued

Traveler/city	Dates	Purpose	Cost	Reimbursable amount
Thibault, Lois, Tampa, FL /Columbia, MO	03/23–03/31/97	ADA Training—Great Plains DBTAC	1,033.41	381.00
Roffee, Lawrence, New York, NY	04/02–04/03/97	ADA Training—Greater NY Auto Dealers Assoc	405.50	252.50
Thibault, Lois, San Diego, CA	04/05–04/08/97	ADA Training—American Planning Assoc	576.68	.....
Mazz, Marsha, Chicago, IL	04/06–04/11/97	Model Codes Mtg	863.22	.....
Greenwell, Peggy, Ocean City, MD	04/09–04/10/97	ADA Training—Maryland Parks and Recreation Assoc	223.20	100.20
Roffee, Lawrence, Charlotte, NC	04/10–04/11/97	Funeral of Board Member	649.08	.....
Yanchulis, David, Charlotte, NC	04/19–04/20/97	ADA Training—Miller Freeman	626.30	626.30
Alperin, David, Louisville, KY	04/24–04/24/97	Site Inspection for Future Board Mtg	418.08	.....
Little, Susan, Atlanta, GA	04/26–04/30/97	ADA Training—Assoc. of Museum Administrators	870.36	.....
Roffee, Lawrence:				
Oakland, CA	05/02–05/08/97	ADA Training—Pacific DBTAC	932.86	932.86
New Orleans, LA	05/15–05/17/97	ADA Training—American Institute of Architects	791.72	350.00
Yanchulis, David, Seattle, WA	05/27–05/29/97	ADA Training—Washington Department of General Administration	646.45	646.45
Mazz, Marsha, New York, NY	06/10–06/10/97	Platform Lifts Safety Code Mtg	217.00	.....
Yanchulis, David, State College, PA	06/11–06/13/97	ADA Training—Classroom Acoustics	114.33	.....
Capozzi, David, Phoenix, AZ	06/14–06/15/97	Meeting—Self Help for Hard of Hearing People	726.46	.....
Greenwell, Peggy, San Diego, CA	06/19–06/22/97	Advisory Mtg with Pools Manufacturers	521.23	.....
Roffee, Lawrence, Concord, NH	07/25–07/28/97	ADA Training—NH Governor's Committee on Persons with Disabilities.	720.93	.....
Little, Susan, Austin, TX	08/19–08/21/97	ADA Training—Electrical Engineers Assoc	581.77	.....
Thibault, Lois, Boston, MA	08/25–08/26/97	ADA Training—American Society of Civil Engineers	469.45	.....
Capozzi, David, Louisville, KY	09/04–09/04/97	Site Visit for November Board Mtg	429.37	.....
Greenwell, Peggy, Indianapolis, IN	09/07–09/08/97	ADA Training—Nat'l Center on Accessibility	54.76	54.76
Beatty, Paul, Seattle, WA	09/07–09/11/97	ADA Training—Washington Coalition of Citizens with Disabilities	694.83	572.93
Windley, Scott, Denver, CO	09/09–09/10/97	ADA Training—Nat'l League of Cities	442.63	420.13
Yanchulis, David, Minneapolis, MN	09/12–09/14/97	ADA Training—American Public Works Assoc	641.09	.....
Cannon, Dennis, Philadelphia, PA	09/16–09/16/97	ADA Training—Universal Atlantic	142.70	142.00
Alperin, David, Santa Cruz, CA	09/23–09/27/97	Outdoor Developed Areas Reg Neg Mtg	1,213.39	.....
Bunales, Rose, Santa Cruz, CA	09/23–09/27/97	Outdoor Developed Areas Reg Neg Mtg	1,068.76	.....
Greenwell, Peggy, Santa Cruz, CA	09/23–09/27/97	Outdoor Developed Areas Reg Neg Mtg	1,163.25	.....
Beatty, Paul, Santa Cruz,CA	09/23–09/27/97	Outdoor Developed Areas Reg Neg Mtg	1,108.60	.....

Sesker, Earlene, Montgomery, AL	09/24–09/25/97	ADA Training—Alabama State Vocational Rehabilitation Administration.	580.98	580.98
Totals			41,718.82	11,768.99

FISCAL YEAR 1998 STAFF OUT-OF-TOWN TRAVEL

Traveler/city	Dates	Purpose	Cost	Reimbursable amount
Roffee, Lawrence, Seattle, WA	10/16–10/18/97	ADA Training—Nat'l League of Cities	$1,446.01	$1,414.72
Thibault, Lois, Seattle, WA	10/16–10/19/97	ADA Training—Nat'l League of Cities	583.13	583.13
Lillard, Traci, Philadephia, PA	10/20–10/23/97	EEOC Training	584.70	
Greenwell, Peggy, Salt Lake City, UT	10/26–10/31/97	ADA Training—Nat'l Recreation and Parks Assoc. and Utah Division of Risk Management.	1,225.44	1,225.44
Thibault, Lois:				
Chicago, IL	11/04–11/06/97	ADA Training—Great Lakes DBTAC and American Society of Civil Engineers.	472.80	472.80
Atlanta, GA	11/08–11/10/97	American Society of Landscape Architects Convention	640.04	
Mazz, Marsha, Louisville, KY	11/11–11/13/97	Board Mtg	823.30	
Alperin, David, Louisville, KY	11/11–11/14/97	Board Mtg	1,069.73	
Greenwell, Peggy, Louisville, KY	11/11–11/14/97	Board Mtg	646.37	
Beatty, Paul, Louisville, KY	11/11–11/14/97	Board Mtg	781.20	
Capozzi, David, Louisville, KY	11/11–11/14/97	Board Mtg	813.56	
Roffee, Lawrence, Louisville, KY	11/11–11/14/97	Board Mtg	921.55	
Raggio, Jim, Louisville, KY	11/11–11/14/97	Board Mtg	639.00	
Yanchulis, David, Louisville, KY	11/12–11/13/97	Board Mtg	509.10	
Mazz, Marsha, Boston, MA	11/20–11/20/97	ADA Training—Build Boston	478.16	
Thibault, Lois, Los Angeles, CA	12/05–12/08/97	Meeting on Acoustics	745.62	
Yanchulis, David, Atlanta, GA	12/07–12/08/97	Meeting—Major League Baseball	759.80	
Mazz, Marsha, Charleston, WV	12/10–12/11/97	ADA Training—WV Office of Health Facility Licensing	572.90	
Greenwell, Peggy, Seattle, WA	12/13–12/17/97	Outdoor Areas Reg Neg Mtg	905.52	
Bunales, Rose, Seattle, WA	12/13–12/17/97	Outdoor Areas Reg Neg Mtg	874.24	
Beatty, Paul, Seattle, WA	12/13–12/17/97	Outdoor Areas Reg Neg Mtg	837.20	
Alperin, David, Seattle, WA	12/14–12/17/97	Outdoor Areas Reg Neg Mtg	1,082.61	

FISCAL YEAR 1998 STAFF OUT-OF-TOWN TRAVEL—Continued

Traveler/city	Dates	Purpose	Cost	Reimbursable amount
Yanchulis, David, New York, NY	01/07–01/07/98	Meeting on Assistive Listening Systems	128.30	.....
Windley, Scott, West Palm Beach, FL	01/11–01/12/98	ANSI A117 Committee Mtg	630.90	.....
Beatty, Paul, Melbourne, FL	01/13–01/16/98	ADA Training—FL Dept. of Labor	514.95	514.95
Windley, Scott, Huntsville, AL	01/18–01/19/98	ADA Training—Contract Specifications Institute	621.19	541.40
Alperin, David, San Diego, CA	01/29–02/03/98	Outdoor Areas Reg Neg Mtg	1,149.36	.....
Bunales, Rose, San Diego, CA	01/30–02/03/98	Outdoor Areas Reg Neg Mtg	978.16	.....
Beatty, Paul, San Diego, CA	01/30–02/03/98	Outdoor Areas Reg Neg Mtg	978.16	.....
Greenwell, Peggy, San Diego, CA/Los Angeles, CA	01/30–02/07/98	Outdoor Areas Reg Neg Mtg & ADA Training—Int'l Trails Conference	1,572.50	404.87
Cannon, Dennis, San Juan, PR	02/08–02/13/98	ADA Training—Federal Transit Administration & University of San Juan.	1,714.80	1,714.80
Yanchulis, David, Dallas, TX	02/09–02/10/98	ADA Training—Wal-Mart	450.50	450.50
Lillard, Traci, Houston, TX	02/16–02/20/98	Staff Training	644.32	.....
Little, Susan, Houston, TX	02/16–02/20/98	Staff Training	725.51	.....
Capozzi, David, Seattle, WA	02/18–02/21/98	ADA Training—Microsoft	730.81	.....
Mazz, Marsha, Kalamazoo, MI	02/24–02/25/98	ADA Training—Great Lakes DBTAC	558.22	558.22
Alperin, David, Denver, CO	02/27–02/28/98	Site Inspection for future public hearing	736.21	.....
Beatty, Paul, Lancaster, PA	03/02–03/02/98	ADA Training—Nat'l Recreation and Park Assoc	92.90	92.90
Sesker, Earlene, Las Vegas, NV	03/06–03/07/98	ADA Training—Nat'l Childcare Assoc	336.17	336.17
Greenwell, Peggy, Atlantic City, NJ	03/16–03/17/98	ADA Training—NJ Nat'l Recreation and Park Assoc	523.26	523.26
Cannon, Dennis, Los Angeles, CA	03/16–03/21/98	ADA Training—Technology Conference	1,038.90	.....
Yanchulis, David, Honolulu, HI	03/24–03/28/98	ADA Training—Hawaii Commission on Persons with Disabilities	484.50	250.00
Cannon, Dennis, Honolulu, HI	03/24–03/28/98	ADA Training—Hawaii Commission on Persons with Disabilities	423.24	423.24
Alperin, David, San Francisco, CA	03/26–03/28/98	Site Inspection for future Board Meeting	1,000.91	.....
Capozzi, David, Houston, TX	03/29–03/31/98	ADA Training—Accessology	682.26	628.77
Mazz, Marsha, Houston, TX	03/29–04/01/98	ADA Training—Accessology	1,033.61	962.31
Greenwell, Peggy, Okemos, MI	04/15–04/16/98	ADA Training—Mid Cities Management Trust	905.11	905.11
Totals	.....	.....	36,066.73	12,002.59

Question. Please provide a separate travel costs table displaying Board member travel for fiscal years 1997 and 1998 to date. Include the date and location of travel, a brief description of the trip's purpose, and the Board's costs.

Answer. The requested tables follow.

FISCAL YEAR 1997 BOARD TRAVEL

Traveler/city	Dates	Purpose	Cost
Play Reg Neg Committee Members, Kansas City, MO	10/22–10/29/96	Play Areas Reg Neg Mtg	$969.39
Lewis, Carl, Kansas City, MO	10/25–10/29/96	Play Areas Reg Neg Mtg	599.92
Telecom Access Advisory Committee Member, Washington, DC	11/05–11/08/96	Telecom Advisory Committee Mtg	1,076.00
Public Board Members, Washington, DC	11/11–11/14/96	Board Mtg	8,767.31
Telecom Access Advisory Committee Member, Washington, DC	12/15–12/18/96	Telecom Advisory Committee Mtg	2,001.00
Kailes, June, Washington, DC	12/15–12/18/96	Telecom Advisory Committee Mtg	984.54
Catlin, John, Washington, DC	12/17–12/17/96	Federal Facilities Mtg	230.50
Play Reg Neg Committee Members, Berkeley, CA	01/05–01/09/97	Play Areas Reg Neg Mtg	2,143.72
Lewis, Carl, Berkeley, CA	01/05–01/09/97	Play Areas Reg Neg Mtg	953.88
Telecom Access Advisory Committee Members, Washington, DC	01/12–01/15/97	Telecom Advisory Committee Mtg	1,768.00
Public Board Members, Washington, DC	01/12–01/15/97	Board Mtg	8,720.64
Catlin, John, Washington, DC	02/08–02/08/97	Meeting—White House	227.00
Long-Range Planning Committee Members, Washington, DC	02/17–2/19/97	Ad Hoc Committee on Long-Range Planning Mtg	2,956.04
Public Board Members, Washington, DC	03/09–03/13/97	Board Mtg	12,706.91
Play Reg Neg Committee Members, Washington, DC	04/01–04/04/97	Play Area Reg Neg Mtg	500.00
Lewis, Carl, Washington, DC	04/01–04/04/97	Play Area Reg Neg Mtg	1,269.00
Public Board Members, Washington, DC	05/11–05/14/97	Board Mtg	9,121.37
Catlin, John, Washington, DC	06/03–06/03/97	Agency Goals Mtg	273.00
Weisman, James, Washington, DC	06/03–06/03/97	Agency Goals Mtg	188.50
Kailes, June, Washington, DC	06/03–06/03/97	Agency Goals Mtg	421.00
Cannon, Patrick:			
San Francisco, CA	06/08–06/10/97	Meeting—Talking Signs	1,103.00
Washington, DC	06/11–06/14/97	AIA Mtg	1,309.15
Catlin, John, Washington, DC	06/11–06/14/97	AIA Mtg	961.93
Outdoor Reg Neg Committee Members, Washington, DC	06/25–06/28/97	Outdoor Areas Reg Neg Mtg	738.00
Public Board Members, Washington, DC	07/06–07/10/97	Board Mtg	11,970.80
Play Reg Neg Committee Members, Washington, DC	07/06–07/10/97	Play Areas Reg Neg Mtg	226.00
Public Board Members, Washington, DC	09/07–09/11/97	Board Mtg	9,314.30
Catlin, John, Washington, DC	09/16–09/18/97	Meeting—GSA	484.32

Outdoor Reg Neg Committee Members, Santa Cruz, CA	09/23–09/27/97	Outdoor Areas Reg Neg Mtg	2,019.00
Golden, Marilyn, Santa Cruz, CA	09/23–09/27/97	Outdoor Areas Reg Neg Mtg	329.98
Total			84,334.20

FISCAL YEAR 1998 BOARD TRAVEL

Traveler/city	Dates	Purpose	Cost
Lewis, Carl, Salt Lake City, UT	10/29–10/30/97	ADA Training—Nat'l Recreation and Parks Assoc	$133.91
Public Board Members, Louisville, KY	11/11–11/14/97	Board Mtg	11,156.61
Sorkin, Donna, Los Angeles, CA	12/04–12/07/97	Meeting on Acoustics	928.07
Cannon, Patrick, Atlanta, GA	12/07–12/09/97	Meeting—Major League Baseball Association	977.60
Outdoor Reg Neg Committee Members, Seattle, WA	12/13–12/17/97	Outdoor Areas Reg Neg Mtg	2,263.00
Golden, Marilyn, Seattle, WA	12/13–12/17/97	Outdoor Areas Reg Neg Mtg	728.30
Sorkin, Donna, New York, NY	01/07–01/07/98	Meeting on Assistive Listening Systems	187.50
Public Board Members, Washington, DC	01/11–01/15/98	Board Mtg	8,596.09
Golden, Marilyn, San Diego, CA	01/30–02/03/98	Outdoor Areas Reg Neg Mtg	842.97
Outdoor Reg Neg Committee Members, San Diego, CA	01/31–02/02/98	Outdoor Areas Reg Neg Mtg	1,471.00
Public Board Members, Washington, DC	03/08–03/12/98	Board Mtg	7,676.32
Total			34,961.37

NATIONAL TRANSPORTATION SAFETY BOARD

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

Question. In fiscal year 1998, the Congress provided three-quarters of funding for the salaries and benefits of 32 additional employees. Please provide the job description and dates each of the new employees was hired.

Answer. Of the 32 positions, 30 have been filled. Information regarding those positions follows.

OFFICE OF PIPELINE AND HAZARDOUS MATERIALS SAFETY (2 HIRES)

Senior Chemist (11/97)

Provides authoritative technical information, expertise, and investigative services as needed for transportation accidents and incidents involving hazardous materials across all modes, and provides scientific and technical guidance necessary for evaluating the transportation of hazardous materials. Evaluates scientific and technical policies related to the transport of hazardous materials across all modes; provides technical expertise on the characteristics and behavior of materials, (including the physical, chemical and toxicological properties of materials and compounds), factors, and conditions that affect the behavior of materials in the transportation environment, consequences of their release; and, develops technical and scientific policy guidance for the office.

Pipeline Accident Investigator (3/98)

Serves as a Pipeline Accident Investigator with responsibility for conducting investigations of pipeline transportation accidents and reviewing special pipeline transportation safety studies or investigations, evaluates pipeline transportation safety programs, exchanges information with other organizations concerned with pipeline transportation safety, and reports conclusions and findings for acceptance, rejection, modification, or further study.

OFFICE OF RAILROAD SAFETY (4 HIRES)

Railroad Accident Investigator (Forensics) (1/98)

Performs independent investigations of regional level railroad/rail rapid transit accidents. Assists senior investigators in the investigations of railroad and rail rapid transit accidents, and applies the principles of forensic science to evaluate the medical and injury aspects of the accident. Also investigates and evaluates the effectiveness of emergency response procedures in railroad and rail rapid transit accidents. Develops the facts, analyzes the information, writes the accident report, and proposes safety recommendations.

Railroad Accident Investigator (regional office) (2/98)

Serves as a Railroad Accident Investigator with responsibility for the investigation of selected regional railroad accidents. Incumbent may act as a Group Chairman on major railroad accidents or perform as the Regional Director in his/her absence. Duties include the supervision of parties involved in the onsite investigation of the accident, writing the narrative, factual, and analytical reports, and recommending remedial action. Incumbent also trains or instructs other investigators and performs other assignments to promote railroad safety, improve investigative methods, eliminate railroad safety hazards, and prevent railroad accidents.

Railroad Accident Investigator (2/98)

Serves as the Investigator-In-Charge of selected major railroad accidents and special investigations. Also serves as Group Chairperson on major accident investigations. Duties include the supervision of parties involved in the investigation, writing narrative, factual, and analytical reports, recommending remedial action, and performing other assignments to promote railroad safety, improve investigative methods, eliminate railroad safety hazards, and prevent railroad accidents.

Psychologist (formerly titled Railroad Accident Investigator) (1/98)

Expert in the psychological, physiological, and human engineering/ergonomics disciplines used in the investigation and analysis of major railroad accidents. Independently investigates highly complex major human performance related accidents. Develops independent audits and data gathering activities at other government agencies and in industry. Participates in the preparation of formal accident reports and independent development of safety recommendations.

OFFICE OF HIGHWAY SAFETY (1 HIRE)

Highway Accident Investigator (Motor Carrier) (1/98)

Serves as a motor carrier specialist concerned with highway safety matters that pertain to motor carrier and passenger carrier operations. Supports and implements the operating plan and mission of the office, and provides operational counsel and technical assistance in all aspects of motor carrier and passenger carrier operations to office personnel. Also reviews motor carrier information contained within highway related products and provides substantive comments.

OFFICE OF MARINE SAFETY (1 HIRE)

Marine Engineer (4/98)

Serves as an Investigator-in-Charge with recognized expertise in marine operations, marine safety, and marine accident investigations. Incumbent is responsible for organizing, managing and coordinating the investigation of major marine transportation accidents and developing and presenting reports with safety recommendations for adoption by the Board. May also serve as Group Chairperson. Serves as the Safety Board representative in international investigations.

OFFICE OF AVIATION SAFETY (9 HIRES)

Air Traffic Control Specialist (10/97)

Provides specialized support in the investigation of aircraft accidents through the deployment of centralized teams; plans and conducts analytical studies and tests on operational phases of specific accident investigations; develops status reports and accident prevention reports; provides technical briefings for the Board, other government agencies, and various interested groups; prepares proposed Board positions on national and international regulations involving safety in air operations; responds to inquiries from Congress, the aviation community, and the general public regarding aviation safety matters.

Aerospace Engineer (Systems) (11/97)

Provides engineering expertise on aircraft systems design, manufacturing, certification, and maintenance in the investigation of air carrier and general aviation accidents and incidents occurring in the United States and abroad. Applies forensic engineering techniques in directing the on-scene and subsequent testing phases of aircraft systems aspects of aircraft accident investigations; also investigates and documents records and practices relating to maintenance, certification, and manufacturing of aircraft systems in coordination with other investigative groups.

Meteorologist (12/97)

Investigates and analyzes weather-related aspects of aviation incidents and accidents. Collects, analyzes, evaluates, and interprets meteorological data used to predict weather. Identifies safety issues associated with meteorology and its influence on the National Transportation System. Also serves as the meteorology group chairman for major surface transportation accidents.

Aerospace Engineer (3/98)

Participates and directs engineering aspects of general aviation and air carrier accidents and incidents in aircraft structures and materials and their interface with control systems. Serves as Group Chairman, documents and analyzes airworthiness issues potentially involved in accidents, and develops accident prevention strategies.

Deputy Chief (formerly Aerospace Engineer) (2/98)

Assists the division chief in directing, supervising, and carrying out the responsibilities of the division, including the staffing of aviation go-teams with qualified and competent aerospace engineers in the airworthiness disciplines, develops appropriately detailed factual and analytical reports, and participates in the development of major investigation reports, safety recommendations, and other Board correspondence.

Air Safety Investigator (region) (3/98)

Conducts investigations of less complicated aircraft accidents/incidents and assists in the investigation of complex aircraft accidents/incidents not investigated by centralized teams. Prepares timely and comprehensive written factual reports of investigations that must accurately reflect the findings of the investigation under the supervision of a higher grade investigator. Assists in developing facts during an investigation which may require the submission of appropriate and timely recommendations to preclude possible recurrence of similar accidents.

Air Safety Investigator (region) (3/98)

ASI trainee. Receives developmental assignments from the supervisor and accident investigators.

Air Safety Investigator (region) (2/98)

Assists in the investigations of less complicated aircraft accidents/incidents mainly involving general aviation aircraft and air carrier accidents/incidents not investigated by centralized teams. Provides factual input for written reports and makes recommendations on investigation findings to higher grade investigators. Under supervisor's instruction or higher grade investigator, assists in the development of facts during an investigation which may require the submission of appropriate and timely recommendations to preclude possible recurrence of similar accidents.

Air Safety Investigator (region) (3/98)

Conducts investigations of less complicated aircraft accidents/incidents and assists in the investigation of complex aircraft accidents/incidents not investigated by centralized teams. Prepares timely and comprehensive written factual reports of investigations that must accurately reflect the findings of the investigation under the supervision of a higher grade investigator. Assists in developing facts during an investigation which may require the submission of appropriate and timely recommendations to preclude possible recurrence of similar accidents.

OFFICE OF RESEARCH AND ENGINEERING (6)

Chemist (Fire Explosion Specialist) (8/97)

Provides consultative and investigative services as needed to major and field investigations in the area of fire and explosion. Collects or causes to be collected, factual information about the chemical aspects of transportation accidents (forensic chemistry) with particular emphasis on the causal factors in fires and explosions. Determines when and what forensic chemical tests are required to support accident investigations. Monitors these activities and evaluates findings to be used in the subsequent analysis and determination of probable cause and/or safety recommendations. Prepares factual and analytical reports that reflect the pertinent findings in the forensic chemical areas to be used in the subsequent analysis and probable cause determination.

Computer Specialist (Network Administrator) (1/98)

Maintains and troubleshoots Windows NT LAN servers, Windows NT WEB servers, firewalls, server peripherals and the computer network for the agency. Installs and maintains Windows NT servers. Installs software upgrades. Administers users, groups, security and system use policies. Administers hardware platforms, manages disk storage. Develops plans for growth and recommends hardware purchases to accommodate growth and new service development.

Mechanical Engineer (formerly Computer Simulation/Modeling Specialist) (4/98)

Performs accident investigation functions requiring engineering expertise. Travels to the scene on major accident investigations and collects physical evidence as needed to determine vehicle motion and the underlying causes for that motion. Responsible for readouts of rail and highway vehicle recorders using available laboratory equipment and computer programs. Writes, documents, tests and debugs computer programs used to: process vehicle recorder data, analyze highway vehicle paths, analyze train movements, and investigate other phenomena related to accident vehicle dynamics. Responsible for the reconstruction and simulation of accidents using computer simulation software and graphics animation software. Prepares technical reports of investigation findings, writes accident prevention recommendations to correct safety deficiencies, and responds to inquiries from Congress, industry, and the public on transportation safety issues.

Mechanical Engineer (DR—Aviation) (5/98)

Cooperative Education Program convertee. Position description being written.

Mechanical Engineer (DR—Surface) (5/98)

Cooperative Education Program convertee. Position description to be written.

ELECTRONICS ENGINEER (CVR) (INTERNATIONAL EXCHANGE AGREEMENT IN PROGRESS TO UTILIZE AN INTERNATIONAL CANDIDATE.)

Will assist in the operation of the cockpit voice recorder/video laboratory and implement investigative procedures regarding aircraft incidents and accidents involving cockpit voice records and other audio/video recordings. Will read out and analyze cockpit voice recorders recovered from aircraft involved in incidents or accidents.

OFFICE OF GOVERNMENT, PUBLIC AND FAMILY AFFAIRS (7 HIRES)

Deputy Director of Family Affairs (6/97)

Serves as Deputy Director of Family Affairs. Duties include managing the Office of Family Affairs; developing and formulating policies, programs, and procedures to support families of victims of major transportation disasters; coordinating family assistance operations within the Safety Board; supporting Federal, state, and local agencies, non-profit organizations, transportation organizations, and other interested parties; formulating short-term and long-term strategic program goals; communicating with victims and their families at the incident site, as well as during and after the investigation; and evaluating and proposing necessary changes to support family assistance plans, procedures, and policies.

5 Family Support Specialists (5/97, 10/97, 11/97, 11/97, and 1/98)

Assist the Deputy Director of Family Affairs, and each other, in coordinating Federal services to the families of victims of aviation and other transportation disasters. Serve as a liaison between family members and Federal, state, and local agencies, non-profit and transportation organizations, and other interested parties. This includes assisting in setting up assistance centers and temporary morgue operations; communicating with victims and their family members during and after the investigation; and planning and coordinating sensitive family assistance meetings and events, such as memorial services, commemorative events, and attendance at Safety Board hearings. Evaluate and propose necessary changes to support family assistance plans, procedures, and policies. As directed, compose accident updates, letters, and other correspondence to family members, government and private organizations, and the general public.

Secretary (12/97)

Serves as secretary to the Deputy Director of Family Affairs and provides administrative assistance to the other members of the Government and Public Affairs staff, including the Director of Government, Family, and Public Affairs. Possess excellent organizational abilities, writing skills, grammar, and editing and proofreading skills, and produces high quality products. Uses microcomputers, including data base, merge capabilities, and Spread Sheet Word Processing software. Communicates clearly and project a highly polished professional image.

Question. Will the Board use the full amount of three-quarters funding for salaries for these 32 employees. If not, how much is left over?

Answer. Yes, the Board will use the full amount of three-quarters funding for these employees.

Question. Of the $9,459,000 provided in the fiscal year 1997 supplemental appropriations bill to reimburse local communities for the TWA 800, ValuJet, and Comair crashes, how much has been obligated to date, and how much has been denied.

Answer. During fiscal year 1997, the Board obligated the full $9.459 million provided by the Congress to reimburse the State of New York and local counties (TWA Flight 800), Dade County, Florida (ValuJet Flight 592) and Monroe County, Michigan (Comair Flight 3272). However, as a result of reviews of the claims performed for the Board by the Defense Contract Audit Agency (DCAA), the actual amount of reimbursement to these localities will likely be significantly less than the amount obligated.

The DCAA has completed its review of Dade County, Florida, with the following results:

—Claim amount, $3.2m

—Allowed reimbursable items, $2.2m

Overtime

Supplies/Equipment

Contracts

Travel

Other miscellaneous cost directly related to the investigation Overtime

—Disallowed items, $1.0m
Regular salaries
Fringe benefits related to regular salaries
Other miscellaneous and/or dual compensation items

The DCAA completed the review of Monroe, Michigan with the following results:
—Claim amount, $303,000
—Allowed reimbursable items, $169,135
Medical Examiner and related expenses
Fire Department/Police Department and Emergency Management expenses
Supplies
Other miscellaneous cost directly related to the investigation
—Disallowed items, $133,791
Funeral director and non-licensed individuals hourly rates claimed were considered excessive, resulting in a reduction of $58,718
Cost related to cremations and burials. (NTSB is working with Comair to reimburse the departments directly for these expenses.)
Regular salaries
Equipment purchased but not related to the accident investigation

The DCAA is currently performing the review from the State of New York and localities for TWA flight 800 related expenses. We expect that review to be completed shortly. It should be noted that Congress also provided the Department of Justice with special funding to reimburse the State of New York and localities. That Department identified approximately $5.3m in regular salaries that would not be considered for reimbursement. Using the same procedures and following the intent of Public Law 105–18, which provided the Safety Board with reimbursement funding, we agree that regular salaries are not to be reimbursed. Regular salaries and related fringe benefits would have been incurred by the State of New York and the localities even if the accident of TWA flight 800 did not happen. The Safety Board will forward a copy of the review report when completed by the DCAA.

Question. The fiscal year 1997 Supplemental Appropriations bill required the Chairman of the NTSB and the Secretary of Transportation to report to the House and Senate Committees on Appropriations—no later than August 1, 1997—on their recommendations on fairly allocating victim and wreckage recovery costs to the aviation industry and the carriers' underwriters. To date, the Committee has not received such a report. Can you please provide a status of this report and a date for when it will be completed?

Answer. The Safety Board and the Department of Transportation are working on a preliminary draft of the report. The delay has, in large measure, been the result of the difficulty both agencies are having in collecting information. The insurance industry has steadfastly refused to cooperate, even declining the Board's repeated invitation to have an informal discussion regarding the issues at hand.

With the assistance of a Member of Congress, the Congressional Research Service has provided basic information on the airline insurance industry. Further, the Department of Transportation has prepared a summary of available post-accident costs. We expect to provide the Committee with a report no later than July 1, 1998.

Question. The fiscal year 1997 supplemental appropriations legislation allowed $4,877,000 to remain available until expended. Please breakdown what this money will be used for and indicate how much of this amount will be spent on each activity.

Answer. The Safety Board carried over all of the $4,877,000 to further its investigation of TWA Flight 800. Our plan for fiscal year 1998 includes the following:
—TWA Flight 800 Public Hearing—$350,000
—Quarter Scale Testing—$1,000,000
—Full Scale Testing/Wiring Examinations/Static Discharging and Fuel Probe Testing/Flight Ground Tests/Laboratory Studies—$2,625,000
—Second Set of Eyes—$377,000
—Investigation Documentation—$100,000
—NTSB Operations (travel, overtime, etc.)—$425,000

Question. Please list all of the changes OMB made to the Board's fiscal year 1999 budget request and please include the impact each of these changes will have on the board.

Answer. The following requested items were not approved by the OMB.

Annualization of fiscal year 1998 Positions ($273,000).—The amount provided in the President's budget is not sufficient to cover the annualized affect of the positions provided by the Congress in the current fiscal year.

Training ($375,000).—As you may have read, the FAA was recently cited by the Department of Transportation's inspector general for lack of adequate training for its inspectors. The assistant inspector general for auditing was quoted as stating,

"With rapid changes in technology, inspectors' effectiveness is diminished without current training in the aircraft they are assigned to inspect." The Safety Board's investigators also must be responsive to changes in both transportation technology and safety issues. Both aircraft and other transportation vehicles are becoming more and more sophisticated, and the Safety Board's technical expertise must be able to keep pace. Without the funds requested for training, the Board will be unable to provide the crucial training necessary to ensure that our new complement of technical/investigative staff is equipped with the tools it needs to maintain the high level of expertise and professionalism that is vital to the Board's effectiveness.

Computer Equipment ($738,000).—The requested computer hardware and software is instrumental to maintaining the Board's productivity, accommodating increases in workload, and maintaining a high standard of quality. Experience has demonstrated a maximum four-year useful life for desktop and laptop computer hardware, requiring the annual replacement/upgrade of 25 percent of these staff computers. Annual software maintenance and licensing are also required for each of these computers. In addition to providing for the methodical replacement of this equipment and software, these funds also will allow the upgrade of the Board's Local Area Network and Wide Area Network communications hardware and software that are essential to linking the Board's headquarters and regional offices.

Financial Management System ($450,000).—The funds requested for a new off-the-shelf integrated financial management system is essential to the Board's compliance with the standard general ledger and other core financial management system requirements for Federal agencies. The Office of Management and Budget initiative is for agencies to acquire such modern integrated financial management systems. The Safety Board's current system is more than 15 years old and does not comply fully with the standards established by the Joint Financial Management Improvement Program. The Safety Board, in partnership with the Department of Treasury's Financial Management Service, is making a conscious effort to comply with this important OMB initiative, but funding must be provided to make it happen.

Employee Compensation Fund ($185,000).—In addition to these important investments in the future of the Safety Board, funds were requested, in accordance with Department of Labor direction, to cover mandatory reimbursement of the Employee's Compensation Fund for the direct dollar costs of compensation and medical benefits paid under the Federal Employees' Compensation Act.

Benefits/Staffing ($491,000/3 FTE's).—Since the Board's budget request was submitted to OMB, two additional uncontrollable requirements have surfaced. The first is $120,000 to cover the net increase in benefits costs due to recent changes in the agency contributions for FERS and CSRS retirement systems. The second new requirement is $371,000 and three labor management relations positions necessary to support the Board's newly-elected employee union. These positions were requested in our fiscal year 1998 budget submission; however, after our OMB hearing it was recommended that we not pursue this funding until the Safety Board was sure there would be a union. The union is now a reality.

SURFACE TRANSPORTATION BOARD

QUESTIONS SUBMITTED BY SENATOR RICHARD C. SHELBY

BOARD MEMBERS' TERMS AND STAFFING

Question. How long has the third Board member position been vacant? What is the practical effect of a longstanding Board vacancy on policy matters and the day-to-day operations of the STB?

Answer. The third Board member position has been vacant since January 1, 1997, upon the termination of former Vice Chairman Simmons' appointment and one-year holdover period. While it is important to have all Board seats filled as Congress intended, to date, the vacancy has not precluded the Board from conducting its business. The Chairman and Vice Chairman have worked in a bipartisan, collegial manner to ensure that cases and other matters before the Board are resolved or otherwise handled as appropriate. With two members, of course, there is always a possibility of a disagreement between the members, thus resulting in a split vote that might preclude a pending matter from being resolved. However, that problem has not occurred as of yet at the Board.

Question. STB Board member Gus A. Owen's term expired on December 31, 1997. Was Mr. Owen reappointed for a second term? Does the reappointment require Senate confirmation?

Answer. Vice Chairman Owen's renomination for a 5-year term was submitted to Congress on January 29, 1998. His renomination for a term expiring December 31, 2002, is awaiting Senate Commerce Committee action. Membership on the Board requires full Senate confirmation.

FUNDING HISTORY

Question. Please prepare a table displaying the Board's funding request, the administration's request, the enacted funding level, and the end of the year staffing level for each fiscal year from fiscal year 1995 to that requested for fiscal year 1999. Please display both appropriated funds and offsetting collections.

Answer. The following table displays the funding history of the Interstate Commerce Commission (ICC) and the Board for fiscal years 1995 through 1999.

BUDGET REQUESTS & ENACTED APPROPRIATIONS

	ICC		STB			
	Fiscal year 1995	Fiscal year 1996[1]	Fiscal year 1996[1]	Fiscal year 1997	Fiscal year 1998	Fiscal year 1999
Board:						
Appropriation	$45,069,000	$32,892,000	.....	$12,344,000	$12,753,000	$14,190,000
Offsetting Collections	$7,300,000	$8,300,000	.....	$3,000,000	$3,100,000	$2,000,000
Budget Request	$52,369,000	$41,192,000	.....	$15,344,000	$15,853,000	[2] $16,190,000
President:						
Appropriation	$44,429,000	$33,202,000	.....	.....	.....	.....
Offsetting Collections	$8,300,000	$8,300,000	.....	$15,344,000	$14,300,000	$16,000,000
Budget Request	$52,729,000	$41,502,000	.....	$15,344,000	$14,300,000	$16,000,000
Enacted:						
Appropriation[3]	$33,083,000	$13,379,000	$8,414,000	$12,244,000	$13,850,000	
Offsetting Collections[4]	$7,738,000	$3,200,000	$652,000	$3,000,000	$2,000,000	.....
Budget Request	$40,821,000	$16,579,000	$9,066,000	$15,244,000	$15,850,000	.....
End of Year:						
Staffing Level	402	[5] 317	132	127	135	135
FTE Level	416	[5] 86	106	131	135	135

[1] During fiscal year 1996, the ICCTA was passed, the ICC was eliminated effective December 1, 1995, and the Board was established effective January 1, 1996. The enacted funding levels for the ICC for fiscal year 1996 reflect ICC operational and termination expenses for one quarter of the fiscal year and the Board funding levels for fiscal year 1996 reflect Board operational expenses for three-quarters of the fiscal year.

[2] The Board's fiscal year 1999 budget request essentially represents the Board's current funding level (for fiscal year 1998) plus inflationary and personnel salary increases.

[3] Enacted appropriations less enacted rescissions.

[4] Actual offsetting collections. In fiscal year 1997, there was a carryover of $625,031 over the obligational limitation.

[5] As of December 31, 1995.

BOARD REQUEST VS. PRESIDENT'S BUDGET

Question. The Board's fiscal year 1999 appropriations request is $16,190,000 while the administration's request for the Board is $16,000,000. Please discuss what specific activities comprise this rather minor delta of $190,000 ($70,000 in "purchases of goods from government accounts, and $120,000 in "equipment").

Answer. The total difference between the Board's and President's budget request for fiscal year 1999 is $190,000. Specifically, the President's budget provides for a reduction of $70,000 for employee training and computer support services, and a deferral of $120,000 for the replacement of outdated personal computers, printers, and other peripherals.

Question. Please provide a table contrasting the Board's proposed fiscal year 1999 budget request and the OMB passback, by office.

Answer. Earlier this year, the Board submitted a budget request for fiscal year 1999 of $16.190 million and 135 full-time equivalents (FTE's) to be funded from appropriations and $2 million in user fee collections. This request essentially continues the level and manner of funding provided to the Board for fiscal year 1998, and reflects the relatively constant workload that is expected. With respect to user fee funding, the Board is proposing, in the Department of Transportation and Related Agencies Appropriations Act for Fiscal Year 1999, the reauthorization of statutory authority included in the fiscal year 1998 appropriations law providing that user fees collected pursuant to 31 U.S.C. 9701 be made available to the Board to offset its appropriation request, and that any fees collected in excess of $2 million shall remain available until expended, but not available for obligation until October 1, 1999.

The OMB passback provided $15.4 million and 132 FTE's to be funded entirely from the collection of user fees. The President's budget request provides that the entire operation of the agency be funded from the collection of user fees during fiscal year 1999. It requests 135 FTE's and provides that $16 million of offsetting collections from fees collected shall be retained and made available for necessary expenses of the agency. Additionally, the budget request provides that any fees received in excess of $16 million shall remain available until expended, but shall not be available for obligation until October 1, 1999.

Due to the small size of the Board, the budget estimates and requests are not developed or broken down by office but rather by general category of expenditure.

RENT AND UTILITIES COSTS

Question. Please compare rental costs at the Board's 1925 K Street, N.W. office site to the old Interstate Commerce Commission building. What is the difference in total annual rent? What is the cost per square foot and total square footage utilized by the Board at each site?

Answer. The rental rate at the old Interstate Commerce Commission (ICC) building was $32.59 per net usable square foot. During fiscal year 1997, 58,958 net usable square feet was assigned for a total annual rental cost of $1,921,608, excluding 5,700 square feet of parking space, which was part of the space arrangement at the ICC building but which is not part of the lease arrangement at the Board's new location.

The rental rate at the Board's 1925 K Street, N.W. location is $26.06 per square foot. During fiscal year 1997, 56,464 square feet of space was assigned for an annual rental cost of $1,488,121. Therefore, the difference in annual rental cost is $433,487.

Question. What were the actual amounts billed by GSA for the K Street office space in fiscal years 1997 and 1998? What is the anticipated rent cost for fiscal year 1999? Is any increase in square footage anticipated?

Answer. The actual rental amount billed by GSA in fiscal year 1997 was $1,472,112, which included rental payments at the Interstate Commerce Commission building for the period of October 1, 1996, through March 14, 1997 and at the 1925 K Street, N.W. location for the period of March 15, 1997, through September 30, 1997, as well as a GSA rent adjustment for the delay in moving the Board to the 1925 K Street, N.W. location.

The actual amount billed in fiscal year 1998, as reflected in the first and second quarter billings, is $733,710. Billing statements have not been received beyond the second quarter. The anticipated rent cost for fiscal year 1999 is $1,517,000. This is based on a 3 percent OMB inflation factor over fiscal year 1998 rental rate. There is no increase in square footage anticipated.

USER FEES AND OFFSETTING COLLECTIONS

Question. Please display in tabular form the level of anticipated user fee income in the Board's fiscal year 1997, 1998, and 1999 budget requests. Please also include columns displaying the President's budget assumptions for user fee income in each of these three fiscal years. In addition, please display the level of user fee offsets included in the appropriations legislation for the Board in fiscal years 1997 and 1998. Finally, please include columns displaying the actual amount of offsetting user fees collected in fiscal years 1997 and 1998 (both up to present, and projected through the end of this fiscal year).

Answer. The following table displays the offsetting collection of user fees for fiscal year 1997 through 1999.

STB	Fiscal year 1997	Fiscal year 1998	Fiscal year 1999
User Fee Anticipated Income in Budget Request	$3,000,000	$3,100,000	$2,000,000
President's Budget Assumptions	15,344,000	14,300,000	16,000,000
User Fee Offsets in Appropriations Language	3,000,000	2,000,000	.....
Offsetting Collections:			
Actual	[1] 3,625,031	[1 2] 662,348	.....
Projected end of fiscal year	.....	[1 3] 2,265,000	.....

[1] These figures include $2,360,400 in fiscal year 1997, and $67,050 in fiscal year 1998, in user fees associated with the Conrail acquisition.

[2] User fees collected 10/1/97–3/31/98.

[3] This figure includes $966,700 in user fees associated with the proposed Canadian National Railway/Illinois Central merger.

Question. Please detail in tabular form the 1998 user fee update schedule, including all fee items or sub-fee items, including both the 1997 and 1998 fee amounts, with a column showing the amount of increase, if any.

Answer. The 1998 User Fee Update was effective on March 20, 1998. The following table displays the fee amounts in the 1997 and 1998 user fee schedule and the increased amount of each fee item.

Comparison of Fee Items between the 1997 User Fee Update and the 1998 User Fee Update

STB EP 542 (Sub No. 1)		STB EP 542 (Sub No. 2)			
1997 Fee Type	1997 Fee	1998 Fee Type	1998 Fee	Difference	% Change
1	$2,600	1.0	$2,800	$200	7.69%
2	$1,200	2.0	$1,300	$100	8.33%
3	$16,500	3.0	$17,900	$1,400	8.48%
4.1	$2,700	4.1	$3,000	$300	11.11%
4.2	$60	4.2	$60	$0	0.00%
5	$300	5.0	$300	$0	0.00%
11.1	$4,300	11.1	$4,700	$400	9.30%
11.2	$1,100	11.2	$1,200	$100	9.09%
11.3	$7,500	11.3	$8,100	$600	8.00%
12.1	$44,500	12.1	$48,300	$3,800	8.54%
12.2	$1,100	12.2	$1,200	$100	9.09%
12.3	$44,500	12.3	$48,300	$3,800	8.54%
13	$2,600	13.0	$2,600	$0	0.00%
14.1	$3,700	14.1	$4,000	$300	8.11%
14.2	$1,100	14.2	$1,200	$100	9.09%
14.3	$3,900	14.3	$4,300	$400	10.26%
15	$1,000	15.0	$1,100	$100	10.00%
21.1	$13,200	21.1	$14,300	$1,100	8.33%
21.2	$2,200	21.2	$2,400	$200	9.09%
21.3	$3,800	21.3	$4,100	$300	7.89%
22	$250	22.0	$300	$50	20.00%
23	$1,100	23.0	$1,200	$100	9.09%
24	$1,000	24.0	$1,100	$100	10.00%
25	$900	25.0	$1,000	$100	11.11%
26	$13,500	26.0	$14,600	$1,100	8.15%
27	$150	27.0	$150	$0	0.00%
36	$11,300	36.0	$12,300	$1,000	8.85%
37	$6,100	37.0	$6,600	$500	8.20%
38.1	$889,500	38.1	$966,700	$77,200	8.68%
38.2	$177,900	38.2	$193,300	$15,400	8.66%
38.3	$4,700	38.3	$5,000	$300	6.38%
38.4	$1,000	38.4	$1,100	$100	10.00%
38.5	$4,700	38.5	$5,000	$300	6.38%
38.6	$5,600	38.6	$6,100	$500	8.93%
39.1	$889,500	39.1	$966,700	$77,200	8.68%
39.2	$177,900	39.2	$193,300	$15,400	8.66%
39.3	$4,700	39.3	$5,000	$300	6.38%
39.4	$850	39.4	$900	$50	5.88%
39.5	$4,700	39.5	$5,000	$300	6.38%
39.6	$5,600	39.6	$6,100	$500	8.93%
40.1	$889,500	40.1	$966,700	$77,200	8.68%
40.2	$177,900	40.2	$193,300	$15,400	8.66%
40.3	$4,700	40.3	$5,000	$300	6.38%
40.4	$750	40.4	$800	$50	6.67%
40.5	$4,700	40.5	$5,000	$300	6.38%
40.6	$5,600	40.6	$6,100	$500	8.93%
41.1	$889,500	41.1	$966,700	$77,200	8.68%
41.2	$177,900	41.2	$193,300	$15,400	8.66%

41.3	$4,700	41.3	$5,000	$300	6.38%
41.4	$850	41.4	$950	$100	11.76%
41.5	$4,700	41.5	$5,000	$300	6.38%
41.6	$3,900	41.6	$4,300	$400	10.26%
42	$1,500	42.0	$1,600	$100	6.67%
43	$41,600	43.0	$45,200	$3,600	8.65%
44.1	$7,700	44.1	$8,400	$700	9.09%
44.2	$60	44.2	$60	$0	0.00%
45	$450	45.0	$500	$50	11.11%
46	$4,800	46.0	$5,200	$400	8.33%
47	$150	47.0	$150	$0	0.00%
48	$150	48.0	$150	$0	0.00%
56.1	$23,300	56.1	$27,000	$3,700	15.88%
56.2	$1,000	56.2	$1,000	$0	0.00%
56.3	$2,300	56.3	$2,600	$300	13.04%
56.4	$150	56.4	$150	$0	0.00%
57	$5,200	57.0	$5,700	$500	9.62%
58.1	$1,000	58.1	$1,000	$0	0.00%
58.2	$1,400	58.2	$1,400	$0	0.00%
59	$4,200	59.0	$4,500	$300	7.14%
60	$150	60.0	$150	$0	0.00%
61	$150	61.0	$150	$0	0.00%
62	$150	62.0	$150	$0	0.00%
76	$700	76.0	$800	$100	14.29%
77	$70	77.0	$80	$10	14.29%
78.1	$14	78.1	$16	$2	14.29%
78.2	$1	78.2	$1	$0	0.00%
79.1	$45	79.1	$50	$5	11.11%
79.2	$90	79.2	$100	$10	11.11%
80	$350	80.0	$350	$0	0.00%
81.1	$45	81.1	$50	$5	11.11%
81.2	$90	81.2	$100	$10	11.11%
82	$100	82.0	$150	$50	50.00%
83	$24	83.0	$26	$2	8.33%
84	$150	84.0	$150	$0	0.00%
85	$650	85.0	$700	$50	7.69%
86	$850	86.0	$950	$100	11.76%
		87.1	$75		N/A
		87.2	$75		N/A
		87.3	$75		N/A
		87.4	$75		N/A
		87.5	$150		N/A
96	$19	96.0	$20	$1	5.26%
97	$14	97.0	$15	$1	7.14%
98.1	$150	98.1	$200	$50	33.33%
98.2	$400	98.2	$400	$0	0.00%
99.1	$100	99.1	$100	$0	0.00%
99.2	$25	99.2	$25	$0	0.00%
100.1	$50	100.1	$50	$0	0.00%
100.2	$10	100.2	$10	$0	0.00%
100.3	$20	100.3	$20	$0	0.00%
100.4	$500	100.4	$500	$0	0.00%
100.5	$400	100.5	$400	$0	0.00%
100.6	$50	100.6	$50	$0	0.00%
100.7	$1,500	100.7	$1,500	$0	0.00%
101.1	$450	101.1	$450	$0	0.00%

101.2	$150	101.2	$150	$0	0.00%
101.3	$650	101.3	$650	$0	0.00%
101.4	$450	101.4	$450	$0	0.00%
101.5	$500	101.5	$500	$0	0.00%
101.6	$50	101.6	$50	$0	0.00%
102	$10	102.0	$11	$1	10.00%
103	$25	103.0	$25	$0	0.00%
104	$17	104.0	$17	$0	0.00%
105	$5	105.0	$5	$0	0.00%
106	$44	106.0	$45	$1	2.27%

Question. Isn't there a good chance that the fees associated with the proposed Canadian National Railway/Illinois Central merger (announced February 1998) will increase the level of offsetting collections substantially in fiscal year 1998? What level of filing fees associated with this merger do you estimate will be collected by the end of fiscal year 1998?

Answer. The Board expects to collect $966,700 in user fees associated with the proposed Canadian National Railway/Illinois Central merger by the end of fiscal year 1998. The Board collects on average between an estimated $100,000 and $110,000 in nominal filings per month, excluding these one-time user fee collections for significant large-fee filings like Class I rail mergers or construction applications, which corresponds to approximately $1.2 million in nominal filings per year. Therefore, adding the estimated $1.2 million in nominal filings to the $966,700 anticipated from that proposed merger filing, the Board projects $2.265 million in offsetting collections for fiscal year 1998, resulting in a $.265 million carryover above the fiscal year 1998 $2 million offsetting collection limitation.

Question. What was the amount of carryover user fees from fiscal year 1997 which was available for obligation after October 1, 1997?

Answer. There was $625,031 in carryover user fees from fiscal year 1997 available for obligation after October 1, 1997, should the Board's offsetting collections fall below $2 million in fiscal year 1998 or subsequent years.

Question. What is the current level of assessed user fees in fiscal year 1998? What is anticipated to be assessed in the remainder of this fiscal year? Please discuss the reasons for any delta above or below the enacted level of $2,000,000 in reimbursables.

Answer. Under current statutory authority, the Board collects user fees for services rendered. The Board has collected $662,348 in user fees from October 1997 through March 1998. The Board anticipates collecting approximately $1.6 million in user fees for the remainder of this fiscal year. The bulk of this remainder will come from $966,700 in fees related to the anticipated filing of the Canadian National Railway/Illinois Central merger this June. The large one-time fees related to this merger will result in a $265,000 increase above the enacted level of $2 million in offsetting collections.

RULEMAKINGS

Question. Please list all unnecessary and obsolete rulemakings that have been rescinded by the Surface Transportation Board in the last 12 months.

Answer. The Surface Transportation Board has rescinded the following regulations or terminated the following procedures (which has removed a number of pages from the Code of Federal Regulations) in the last 12 months.

Obsolete Regulations Removed:

Removal of Obsolete Regs. Concerning Rail Passenger Fare Increases, STB Ex Parte No. 624 (STB served June 18, 1997) (removing 49 CFR 1136).

Commuter Rail Service Continuation Subsidies and Discontinuance Notices, STB Ex Parte No. 563 (STB served Aug. 27, 1997) (removing 49 CFR 1157).

Removal of Obsolete Motor Passenger Carrier Accounting Regulations, STB Ex Parte No. 569 (STB served Sept. 5, 1997) (removing 49 CFR 1206).

Modifications to the General Provisions of the Board, STB Ex Parte No. 568 (STB served Sept. 18, 1997) (removing an obsolete section of 49 CFR 1000 and obsolete sections of 49 CFR 1001).

Removal of Misc. Obsolete Regs., STB Ex Parte No. 572 (STB served Sept. 29, 1997) (removing 49 CFR 1022, 1030, 1091, 1131, 1143, 1156, & 1170).

Technical Amendments Concerning Employee Boards, STB Ex Parte No. 570 (STB served Sept. 29, 1997) (removing parts of 49 CFR 1011).

Obsolete Proceedings Terminated:

Petition for Rulemaking—Invoiceless Billing Transactions, Ex Parte No. 55 (Sub-No. 95) (STB served Apr. 15, 1997).

Jurisdiction Over Motor Finance Transactions, Ex Parte No. MC–216 (STB served July 8, 1997).

Superseded Proposals Withdrawn:

Rail Gen. Exemption Auth'y—Exemption of Nonferrous Recyclables and Railroad Rates on Recyclable Commodities, Ex Parte No. 346 (Sub-No. 36) (STB served May 5, 1997).

UP/SP RAIL SERVICE PROBLEMS

Question. Please update the Committee on the current status of the Board's service order to address the severe rail service problems UP/SP shippers have been experiencing over the last year.

Answer. The Board's service order (Service Order No. 1518) was issued on October 31, 1997, extended and expanded upon twice, and remains in effect through August 2, 1998. The service orders have focused on providing service options in and around the Houston and Gulf Coast area, the original source of the congestion; have directed the filing with the Board of voluminous data to monitor the progress of service improvements; have mandated specific activities with respect to the movement of certain commodities (such as grain); have ordered certain actions among carriers (such as dispatching coordination) to enhance the operations in and around Houston; and most recently have directed the filing of plans by UP/SP for improving the infrastructure in the Gulf Coast area. The Board has indicated that it will remain involved in this matter until we believe that it has been satisfactorily resolved.

Question. Which shippers have been most severely affected by the rail service problems in the West? Please answer in full detail.

Answer. It is generally agreed that the rail service problems in the West had their genesis in the Houston and Gulf Coast area. Therefore the Board's service orders have been focused on relieving pressure in and around the Houston area. At the same time, the Board has taken action with a view toward ensuring that, given the limited rail capacity in the West, certain shippers were not inadvertently harmed while others were being helped. Thus, the Board's actions were intended to help impacted shippers throughout the West.

In terms of shipper groups particularly affected, the petrochemical sector has been hard hit because much of their product is produced in the Gulf area. Faced simultaneously with a surge in demand, gridlock, and a product storage system that, peculiar to that industry, uses rail cars for storage, the petrochemical industry found that the congestion at Houston resulted in their inability to satisfy consumer demands or have empty cars returned for reloading.

Other shipping sectors also have been affected at some point during that period. For example, grain shippers were impacted during the fall harvest period when they were unable to obtain empty cars and ship loaded cars in time to meet their commitments; coal shippers and electric utilities were frustrated in their inability to ship or build up winter stocks of coal; the auto industry was affected by not being able to move new automobiles into the market as quickly as it had intended; and manifest (general commodity) shippers were affected by congestion that dramatically increased the time required for seasonal shipments to reach their destinations on time.

Question. Generally, is the UP/SP western rail service situation improving? Please support your response with relevant data.

Answer. The Board's principal actions to help mitigate the rail service crisis have been twofold: (1) to effect operating changes, particularly in the Houston and Gulf Coast area, that have allowed shippers service alternatives through access to other carriers; and (2) to require broad-based weekly reporting by UP/SP that ensures our ability to assess improvement and to identify areas where further action may be necessary. In addition, we have held public hearings seeking input directly from shippers and their representatives, as well as from rail labor and other affected parties.

The most recent weekly reporting shows significant improvement in many areas and results of concern in others. For example, the average number of rail cars on the UP/SP system dropped from 348,000 in October 1997 to 327,185 the week of May 1st, as did the number of lines and sidings blocked by stalled trains. We believe that this is a good sign, as it connotes increased fluidity. Another good sign is that many of UP/SP's yards are less congested, allowing them to handle incoming trains more promptly. The amount of time trains are held for locomotive power or

for congestion is decreasing, also suggesting some improvement. However, car velocities and cycle times (the time it takes loaded cars to reach destination and/or return), particularly for coal and grain, remain high, suggesting that there are still significant problems to be overcome at certain points in the system. The data described above comprise just one part of our overall monitoring commitment, which will continue until we believe that the service crisis is satisfactorily resolved.

ENVIRONMENTAL PROBLEMS ASSOCIATED WITH UP/SP MERGER

Question. What is the current status of Board actions regarding mitigation of environmental problems associated with the UP/SP merger in Wichita, Kansas?

Answer. In its decision approving the UP/SP merger, the Board required the Section of Environmental Analysis (SEA) to conduct a special 18-month mitigation study in Wichita, Kansas. This study was to focus on further tailoring the environmental mitigation already imposed in the decision approving the merger to address the environmental impacts on that area from increased train traffic resulting from the merger. During the period of the study, there has been a moratorium on increased traffic in that area.

SEA began this mitigation study in Wichita in October 1996. On September 15, 1997, SEA issued its Preliminary Mitigation Plan addressing the environmental impacts and recommending mitigation measures. Following the close of public review and comments, SEA received, on November 25, 1997 a request from UP/SP and Wichita/Sedgwick County to toll the 18-month mitigation study because the parties had entered negotiations to seek a private solution to their concerns. On December 12, 1997, the Board granted the request to toll the mitigation study.

At this time, the parties are continuing to negotiate and the study remains tolled. At such time as the parties reach agreement or discontinue negotiations, the Board will take appropriate action.

Question. What is the current status of Board actions regarding mitigation of environmental problems associated with the UP/SP merger in Reno, Nevada?

Answer. In its decision approving the UP/SP merger, the Board required the Section of Environmental Analysis (SEA) to conduct a special 18-month mitigation study in Reno, Nevada. This study was to focus on further tailoring the environmental mitigation already imposed in the decision approving the merger to address the environmental impacts on that area from increased train traffic resulting from the merger. The UP tracks in Reno go through a very busy area in downtown and are very close to the casinos and hotels in that area. Because of the many casinos and hotels, there is a high volume of pedestrian traffic in that area. During the period of the study, there has been a moratorium on increased traffic in that area.

SEA began this mitigation study in Reno in October 1996. On September 15, 1997, SEA issued its Preliminary Mitigation Plan addressing the environmental impacts and recommending mitigation measures. Following the close of public review and comments, SEA reviewed all the comments, conducted additional analysis, and issued its Final Mitigation Plan on February 11, 1998, for public review and comment. On February 24, 1998, Reno requested, with which UP concurred on February 25, 1998, that SEA toll the 18-month mitigation study for eight months because the parties had entered negotiations to seek a private solution to their concerns. On March 2, 1998, the Board granted the request to toll the mitigation study.

At this time, the parties are continuing to negotiate and the study remains tolled. At such time as the parties reach agreement or discontinue negotiations, the Board will take appropriate action.

AMTRAK EXPRESS TRAFFIC

Question. Please update the Committee on the Board's proceeding to determine the nature and extent of the duty of UP/SP to allow Amtrak to use its tracks for the carriage of express traffic. When is a final decision anticipated?

Answer. The Board expects to issue a decision by the end of May.

Question. Please describe fully the current state of affairs. Is Amtrak limited to nine express cars per train while the decision is pending across its national system, or are such limitations imposed only while operating on UP/SP owned track? Have any other railroads objected to Amtrak's express traffic service?

Answer. In accordance with the law, Amtrak came to the Board for relief because it could not agree with UP/SP as to the terms of its operations over the UP/SP system, and specifically what it could carry over the UP/SP system. Thus, the Board imposed interim terms pending resolution by the Board of the dispute. More specifically, the Board's September 30, 1997 order in Application of the National Railroad Passenger Corporation Under 49 U.S.C. 24308(a)—Union Pacific Railroad Company and Southern Pacific Railroad Company, STB Finance Docket No. 33469 (Amtrak/

Express), stated that, except where operationally infeasible, UP/SP may not limit Amtrak to less than 18 cars per train, including 9 express cars per train, which was the status quo agreed to by the parties.

Amtrak did not seek similar interim relief from the Board relating to Amtrak's dealings with any other carriers, and the Board issued no order governing those dealings. However, in the *Amtrak Express* case, the Association of American Railroads, on behalf of its member railroads, opposed various aspects of Amtrak's proposed definitions of express. In addition, major Class I railroads filed individual comments stating opposition to various aspects of Amtrak's proposed definition of express.

CSX-NS-CONRAIL MERGER

Question. It is the Committee's understanding that the Board's final decision on the CSX-NS-Conrail merger will be served on July 23, 1998. Please summarize the remaining outstanding issues requiring Board decisions in connection with the transaction.

Answer. In accordance with the procedural schedule established in this proceeding, the Board will serve its final decision on the merits on July 23, 1998. The vast majority of issues will be addressed substantively in the final decision. Regarding procedural and interlocutory matters that require prompt attention, the Board has addressed, and will continue, to address as necessary such issues in decisions served prior to the final decision on the merits. Already, the Board has issued close to 80 decisions in this proceeding addressing many procedural and interlocutory matters. In addition, the Board plans to issue a decision in early May setting forth the participants' time allotments for the upcoming oral argument scheduled in June in this proceeding.

CANADIAN NATIONAL RAILWAY-ILLINOIS CENTRAL MERGER

Question. In February, the Canadian National Railway (CN) and the Illinois Central (IC) announced a merger agreement wherein CN will acquire IC, a transaction with an approximate equity value of $2.4 billion. What is the Board's schedule for consideration of this pending merger?

Answer. A timetable has not yet been established for the STB Finance Docket No. 33556 proceeding. In a joint notice of intent filed on February 12, 1998, CN and IC indicate that they are intending to file a control application in this proceeding on or about June 12, 1998. Typically, prior to the filing of a merger/control application, the prospective applicants file a proposed procedural schedule with the Board, which the Board then publishes in the Federal Register to solicit public comments. These comments are considered in the Board's adoption of a procedural schedule. If the application filing is complete, a final procedural schedule will be published in the Federal Register as part of the Board's notice of acceptance of the application within 30 days of the filing of the application. However, as of yet, the applicants have not filed a proposed procedural schedule, and thus the Board has taken no action in this regard.

Question. Please summarize the Board's process benchmarks for a Class I railroad merger.

Answer. Pursuant to statutory requirements under 49 U.S.C. 11323–25, the Board's regulations at 49 CFR 1180 sets forth the information to be filed and the procedures to be followed in major consolidation transactions. The basic "benchmarks" include the following:

—Unless waived, applicants must file a prefiling notification between 3–6 months prior to the proposed filing of an application involving a major transaction. Federal Register notice must be published within 30 days of receipt of the applicants' notice.

—Then the application is filed. If an application is accepted as complete, Federal Register notice of acceptance must be published within 30 days of the filing of the application. The publication shall indicate the applicable time limits for processing the application. If an application is not complete, a decision rejecting it must be served within 30 days of the filing of the application.

—Once the process of evaluating the proposed merger begins, by statute, the Board must conclude the evidentiary proceeding no later than 1 year after the publication of the notice of acceptance. The Board may schedule an oral argument and/or voting conference at its discretion.

—By statute, the Board must issue a final decision on the merits no later than the 90th day after the date on which the evidentiary proceeding is concluded.

REAUTHORIZATION OF THE SURFACE TRANSPORTATION BOARD

Question. Please update the Committee on the status of STB's reauthorization. Has the administration proposed legislation? (If so, please include a copy for the record.) Where are the House and Senate authorizing committees in this process?

Answer. S. 1802, the Surface Transportation Board Reauthorization Act of 1998, was introduced by Senator McCain on March 19, 1998, and is cosponsored by Senators Hollings, Hutchison, Inouye, Lott, Ford, Stevens, and Warner. S. 1802 would reauthorize the Board for 3 years at the existing funding and resource levels. On March 31, 1998, the Board testified at a hearing before the Senate Committee on Commerce, Science, and Transportation, Subcommittee on Surface Transportation and Merchant Marine, concerning reauthorization.

On March 12, 1998, the Board testified at a hearing before the House Transportation and Infrastructure Committee, Subcommittee on Railroads, concerning reauthorization and specifically resource needs. The Subcommittee on Railroads held a further hearing on the matter on April 21, 1998, specifically focusing on the financial health of the rail industry. On May 6, 1998, the Board testified before the Subcommittee on reauthorization and specifically railroad inter-carrier transactions, line constructions, and line abandonments. On May 13, 1998, the Board will testify on reauthorization, focusing specifically on rail rates, access, and remedies.

The Administration has not as of yet submitted reauthorization legislation, although it has informally, through the Secretary of Transportation, expressed its support for the Board's reauthorization.

CAPTIVE SHIPPERS

Question. Please describe the Board's April 17, 1998 decision to consider eliminating product and geographic competition from the market dominance analysis.

Answer. In its decision in Review of Rail Access and Competition Issues, STB Ex Parte No. 575 (STB served Apr. 17, 1998), the Board announced that it would reexamine certain aspects of the current regulatory regime in the context of today's more consolidated railroad industry, particularly those concerning the availability of regulatory relief. At the Ex Parte 575 hearings, shippers complained that the examination of product and geographic competition—which are now considered in addition to intramodal and intermodal competition—has transformed the threshold market dominance phase of a rail-rate complaint into a complex antitrust-style case of its own, and, as a result, has placed an undue obstacle on a shipper's ability to pursue rate relief.

In its decision, the Board observed that the railroads' aggressive use of the discovery process may be partly responsible, and it referenced a decision issued that day in an individual rate case where the Board acted to ensure that a carrier—which must identify any product and geographic competition and prove its effectiveness—not shift those burdens onto a complainant-shipper through overreaching discovery requests. The Board also observed that its predecessor, the Interstate Commerce Commission (ICC), had initially declined to include product and geographic competition as factors in the market dominance because they would unduly complicate rate proceedings. The ICC later reversed course, concluding that consideration of these issues would be manageable, but placed upon the carrier the burden of identifying such competition and proving its effectiveness.

Given the shippers' continuing litigation difficulties with these matters more than a decade later, the Board determined that it should consider removing product and geographic competition as factors in market dominance determinations, and it has now commenced a proceeding to do so. Market Dominance Determinations—Product and Geographic Competition, STB Ex Parte No. 627 (STB served Apr. 29, 1998) (copy attached). Comments on the proposal are due May 29, 1998; replies are due June 29, 1998.

SERVICE DATE: APRIL 29, 1998

DEPARTMENT OF TRANSPORTATION

[STB EX PARTE NO. 627]

MARKET DOMINANCE DETERMINATIONS—PRODUCT AND GEOGRAPHIC COMPETITION

AGENCY: Surface Transportation Board.

ACTION: Notice of Proposal to Eliminate Product and Geographic Competition From Consideration in Market Dominance Determinations.

SUMMARY: Pursuant to its decision in Review of Rail Access and Competition Issues, STB Ex Parte No. 575 (STB served Apr. 17, 1998), the Board is instituting

a proceeding to consider removing product and geographic competition as factors in market dominance determinations in railroad rate proceedings. The Board requests that persons intending to participate in this proceeding notify the agency of that intent. A separate service list will be issued based on the notices of intent to participate that the Board receives.

DATES: Notices of intent to participate in this proceeding are due May 12, 1998. Comments on this proposal are due May 29, 1998. Replies are due June 29, 1998.

ADDRESSES: An original plus 12 copies of all comments and replies, referring to STB Ex Parte No. 627, must be sent to the Office of the Secretary, Case Control Unit, ATTN: STB Ex Parte No. 627, Surface Transportation Board, 1925 K Street, N.W., Washington, DC 20423–0001.

Copies of the written comments will be available from the Board's contractor, D.C. News and Data, Inc., located in Room 210 in the Board's building. D.C. News can be reached at (202) 289–4357. The comments will also be available for viewing and self copying in the Board's Microfilm Unit, Room 755.

In addition to an original and 12 copies of all paper documents filed with the Board, the parties shall submit their pleadings, including any graphics, on a 3.5-inch diskette formatted for WordPerfect 7.0 (or in a format readily convertible into WordPerfect 7.0). All textual material, including cover letters, certificates of service, appendices and exhibits, shall be included in a single file on the diskette. The diskettes shall be clearly labeled with the filer's name, the docket number of this proceeding, STB Ex Parte No. 627, and the name of the electronic format used on the diskette for files other than those formatted in WordPerfect 7.0. All pleadings submitted on diskettes will be posted on the Board's website (www.stb.dot.gov). The electronic submission requirements set forth in this notice supersede, for the purposes of this proceeding, the otherwise applicable electronic submission requirements set forth in the Board's regulations. See 49 CFR 1104.3(a), as amended in Expedited Procedures for Processing Rail Rate Reasonableness, Exemption and Revocation Proceedings, STB Ex Parte No. 527, 61 FR 52710, 711 (Oct. 8, 1996), 61 FR 58490, 58491 (Nov. 15, 1996).[1]

FOR FURTHER INFORMATION CONTACT: Joseph H. Dettmar, (202) 565–1600. [TDD for the hearing impaired: (202) 565–1695.]

SUPPLEMENTARY INFORMATION: In STB Ex Parte No. 575, the Board conducted two days of informational hearings, on April 2 and 3, 1998, to examine issues of rail access and competition in today's railroad industry, and the statutory remedies and agency regulations and procedures that relate to those matters. As a result of those hearings, we announced, inter alia, that we would commence a proceeding to consider eliminating the product and geographic competition factors of our market dominance guidelines in cases challenging the reasonableness of rail rates.[2]

Under 49 U.S.C. 10707, the Board can entertain a challenge to the reasonableness of a rail rate only if we first find that the rail carrier has market dominance over the traffic to which the rate applies, that is, that there is no effective competition for that traffic. In making that determination, we now consider four forms of competition that may effectively constrain the carrier's pricing: intramodal competition (whether the shipper could obtain the transportation service that it needs from other railroads); intermodal competition (whether the shipper could obtain service by another transportation mode); product competition (whether the shipper can use a suitable substitute product that can be acquired without relying on the services of the same carrier); and geographic competition (whether the shipper can obtain the product it needs from a different source and/or by shipping its goods to a different destination using another carrier). Shippers have the burden of showing that there is no effective intramodal and intermodal competition; carriers have the burden of identifying any product and geographic competition and showing its effectiveness.

At the Ex Parte 575 hearings, shippers complained about the difficulties associated with seeking rate relief from the Board today, particularly the complexity and burden of litigating issues of product and geographic competition, issues that they charge have transformed the threshold market dominance phase of a rail rate complaint into a full-blown antitrust-style case of its own. Shippers regard product and geographic competition issues as major, undue litigation obstacles that discourage captive shippers from even seeking regulatory relief from unreasonably high rates in both large and small rates cases. Accordingly, consistent with our determination in Ex Parte 575 to reexamine certain aspects of our current regulatory regime in

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[1] A copy of each diskette submitted to the Board should be provided to any other party upon request.

[2] The current market dominance guidelines are set forth in Product and Geographic Competition, 2 I.C.C.2d 1, 20–22 (1985) (Market Dominance III).

the context of today's more consolidated rail industry—particularly those that concern the availability of regulatory relief—we are instituting this proceeding to consider eliminating product and geographic competition from our market dominance analysis.

We note that our predecessor, the Interstate Commerce Commission (ICC), initially concluded that consideration of product and geographic competition issues would complicate rate proceedings unduly. Special Procedures for Making Findings of Market Dominance, 353 I.C.C. 875, 905–06, modified, 355 I.C.C. 12 (1976) (Market Dominance I), aff'd in relevant part sub nom. *Atchison, T. & S.F. Ry.* v. *ICC*, 580 F.2d 623 (D.C. Cir. 1978). The ICC subsequently reversed course and decided that consideration of these issues would be manageable. Market Dominance Determinations, 365 I.C.C. 118, 127–31 (1981) (Market Dominance II), aff'd sub nom. *Western Coal Traffic League* v. *United States*, 719 F.2d 772 (5th Cir. 1983) (en banc), cert. denied, 466 U.S. 953 (1984). Later, recognizing that it is inherently "much more difficult" for shippers to prove the ineffectiveness of these factors than of intramodal and intermodal competition, the ICC placed upon the railroads the burden of both identifying any product and geographic competition and demonstrating the effectiveness of such competition in individual cases. Market Dominance III, 2 I.C.C.2d at 15.

The comments presented in the Ex Parte 575 hearings suggest, however, that, even without bearing the burden of proof on these issues, shippers find that the product and geographic competition inquiry remains an imposing burden upon their ability to prosecute rail rate complaints. Aggressive use of the discovery process may be partly responsible for the heavy burdens associated with the inquiry into product and geographic competition, and we have recently taken action to prevent a rail carrier from effectively shifting those burdens onto a complaining shipper through unsupported and/or overreaching discovery demands. *FMC Wyoming Corp. et al.* v. *Union Pac. R.R.*, STB Docket No. 42022 (STB served Apr. 17, 1998). However, curbing individual instances of discovery abuses may not be sufficient to address the shippers' concerns. Therefore, we are instituting this proceeding to obtain public comment on whether we should eliminate product and geographic competition from consideration altogether.

Any person that wishes to participate as a party of record in this matter must notify us of this intent by May 12, 1998. In order to be designated a party of record, a person must satisfy the filing requirements outlined in the ADDRESSES section. We will then compile and issue a service list. Copies of comments and replies must be served on all persons designated on the list as a party of record. Comments on the proposal are due May 29, 1998; replies are due June 29, 1998.

A copy of this decision is being served on all persons on the service list in Ex Parte No. 575. This decision will serve as notice that persons who were parties of record in the Ex Parte 575 proceeding will not be placed on the service list in the Ex Parte 627 proceeding unless they notify us of their intent to participate therein.

The Board preliminarily certifies that the proposal to eliminate product and geographic competition from its market dominance analysis, if adopted, would not have a significant effect on a substantial number of small entities. While the proposal, if adopted, may ease the burdens on those prosecuting rate complaints, we do not expect it to affect a substantial number of small entities. The Board, however, seeks comments on whether there would be effects on small entities that should be considered.

This action will not significantly affect either the quality of the human environment or the conservation of energy resources.

Decided: April 28, 1998.

By the Board, Chairman Morgan and Vice Chairman Owen.

VERNON A. WILLIAMS,
Secretary.

Question. Please list any instances in the last two years when the Board has heard a rate challenge based on the determination of market dominance. What was the outcome in each of these "captive shipper" rate challenges?

Answer. During the past two years, the Board devoted significant resources to addressing matters related to the rates and services that the Nation's railroads provide to captive shippers. The Board has jurisdiction to examine the reasonableness of a railroad's common carriage rates, but only after finding that a complaining shipper is captive to that railroad (i.e., the carrier has market dominance over the traffic involved).[1] Market dominance refers to "an absence of effective competition

[1] 49 U.S.C. 10701(d), 10707(b) and (c).

from other rail carriers or modes of transportation for the transportation to which a rate applies."[2]

To assess whether rates are reasonable, the Board uses the "constrained market pricing" (CMP) guidelines whenever possible.[3] Those guidelines establish various constraints on a railroad's ability to price differentially. The most commonly used constraint is the "stand-alone cost" (SAC) test. Under the SAC test, a railroad may not charge a shipper more than it would cost to build and operate a hypothetical new railroad that would be specifically tailored to serve a selected traffic group (including the complainant's traffic) efficiently. This test was used to resolve several rate complaints during the past two years and is being used to evaluate the reasonableness of rates in several more ongoing cases.

In *Arizona Pub. Serv. Co.* v. *Atchison T.&S.F. Ry.*, No. 41185 (STB served July 29, 1997), modified (STB served April 17, 1998), the Board, using the SAC test, found that the rail rates charged by the Atchison, Topeka and Santa Fe Railway for carrying coal from a mine near Gallup, New Mexico to the Cholla electrical generating plant at Joseph City, Arizona were unreasonably high. The Board ordered the railroad to reduce the rate (by approximately 40 percent) and to pay damages (in excess of $25 million) to the shippers involved.

In *McCarty Farms, Inc.* v. *Burlington Northern, Inc.*, No. 37809 (STB served Aug. 20, 1997), the SAC test was used to evaluate rail rates charged for transporting export wheat and barley from Montana to ports in the Pacific Northwest. The evidence in this case failed to show that the hypothetical railroad postulated by the shippers could earn sufficient revenues to fully cover all its costs. Thus, the Board concluded that the challenged rates had not been shown to be unreasonable.

In *West Texas Utilities Co.* v. *Burlington Northern R.R.*, No. 41191 (STB served May 3, 1996), pet. to reopen denied (STB served June 25, 1996), after determining that the Burlington Northern Railroad (BN) had market dominance over the transportation of coal between Gillette, WY and Vernon, TX, the SAC test was again used to determine that the rates being charged were unreasonably high. The Board ordered BN to pay $11 million in reparations and limited the future rates that BN could charge to 180 percent of the carrier's variable cost of providing the transportation.

While the CMP guidelines provide the most economically sound procedures for evaluating the reasonableness of rail rates, a rate challenge using CMP (particularly SAC) can be quite complex, detailed and expensive. Thus, CMP can be impractical to use where the amount of money at issue is not great enough to justify the expense of such an evidentiary presentation. In response to the directive in the ICC Termination Act of 1995 to develop a simplified, alternative procedure to CMP,[4] the Board adopted simplified guidelines that employ three revenue-to-variable cost benchmarks as starting points for a case-by-case reasonableness analysis.[5]

The Board tentatively applied the simplified guidelines, in *South-West R.R. Car Parts Co.* v. *Missouri Pac. R.R.*, No. 40073 (STB served Dec. 31, 1996), to a rate complaint that had been held in abeyance pending adoption of the simplified procedures. Upon reviewing the available revenue-to-variable cost benchmarks, the Board preliminarily concluded that, based on the specific facts of that case, the rates charged were not out of line with the carrier's revenue requirements, nor disproportionately high as compared to other traffic of its type, and thus were not unreasonably high. That initial conclusion was never made final, however, because of statements by the shipper related to market dominance that raised serious doubts about the Board's jurisdiction over the case.[6] The case was ultimately dismissed at the request of the parties, who settled their dispute.[7]

Question. Please update the Committee on any proposed legislation that addresses the issue of market dominance and shipper protection.

Answer. S. 1429, introduced by Senator Rockefeller, and cosponsored by Senators Burns, Dorgan, Breaux, and Roberts, would change current law by making it easier for a shipper to show that a railroad has market dominance, and thus that the shipper needs regulatory protection. S. 1429 would also change the way in which rates

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[2] 49 U.S.C. 10707(a).

[3] Coal Rate Guidelines, Nationwide, 1 I.C.C. 520 (1985), aff'd, *Consolidated Rail Corp.* v. *United States*, 812 F.2d 1444 (3d Cir. 1987).

[4] 49 U.S.C. 10701(d)(3).

[5] Rate Guidelines—Non-Coal Proceedings, Ex Parte No. 347 (Sub-No. 2) (STB served Dec. 31, 1996), S.T.B. (1996), pet. for judicial review pending sub nom., *Association of Am. Railroads* v. *Surface Transp. Bd.*, No. 97–1020 (D.C. Cir. filed Jan. 10, 1997).

[6] *Southwest Railroad Car Parts Co.* v. *Missouri Pac. R.R.*, No. 40073 (STB served Feb. 20, 1998).

[7] *Southwest Railroad Car Parts Co.* v. *Missouri Pac. R.R.*, No. 40073 (STB served Apr. 9, 1998).

are regulated by requiring railroads to quote rates for short segments of through movements, and allowing those short rates to be challenged separately.

COMPETITIVE ACCESS

Question. Please cite specific instances encountered in the Board's oversight of the UP/SP merger where there were quality of service deficiencies that could not be addressed due to competitive access regulations that set an overly-stringent burden of proof.

Answer. I am aware of no specific instances in which quality of service issues associated with the rail emergency in the West could not be addressed because the burden of proof under the competitive access regulations was too great. In the Service Order No. 1518 proceeding, the Board issued unprecedented emergency service orders that, among other things, made substantial changes to the way in which service is provided in and around the Houston area (the center of the service problems). Essentially, the service orders, which extend until August 2, 1998, sought to relieve some of the pressure on rail service to Houston in general, and on UP/SP in particular, by routing traffic around Houston and by authorizing other carriers to handle UP/SP traffic moving through the city. They also required extensive railroad data reporting to help the Board and affected parties evaluate the progress of the service recovery. Although various other remedies were suggested, no access requests were filed under the competitive access rules.

In taking action to address the rail service emergency, the Board's objective has been to do good without creating harm. The Board recognizes that government cannot run private businesses as well as private businesses can run themselves, and that government is not, and should not be, in the business of running railroads; thus, the Board's actions were designed to be focused, balanced, and constructive without undermining ongoing private sector efforts to fix the problems, and without inadvertently degrading the service to some shippers to upgrade the service to others. The Board is pleased that, along with the major modifications that it directed to the service provided in the Southwest, its involvement has spawned important private-sector initiatives including the recent agreement by UP/SP and Burlington Northern Santa Fe to better coordinate service and facilities and responsibilities in the Houston area, and UP/SP's announced commitment to expend significantly more to upgrade infrastructure in the Gulf Coast area. Although the emergency in the West is not entirely resolved, the Board has been a positive force, imposing appropriate government mandates while promoting needed private-sector resolution.

This is not to suggest that the Board's competitive access regulations should not be further reviewed, or that the Board should not establish new regulations to address service inadequacies. As you are probably aware, at the request of Senators McCain and Hutchison, the Board received substantial written testimony and conducted two days of informational hearings, on April 2 and 3, 1998, to examine issues of rail access and competition in today's railroad industry. The Board issued a decision in Review of Rail Access and Competition Issues, STB Ex Parte No. 575 (STB served Apr. 17, 1998), reviewing the testimony; directing discussions among railroads, shippers, and rail employees to address several issues, including competitive access issues; and identifying certain areas in which the Board itself will propose remedial action. In this regard, in the very near future, I expect the Board to issue a decision proposing rule changes that will permit the agency to better address service inadequacies. For your information, a copy of the decisions in Ex Parte No. 575 are attached.

SERVICE DATE—APRIL 17, 1998

SURFACE TRANSPORTATION BOARD DECISION

STB EX PARTE NO. 575

REVIEW OF RAIL ACCESS AND COMPETITION ISSUES

DECIDED: APRIL 16, 1998

BY THE BOARD:

At the request of Senator John McCain, Chairman of the Senate Committee on Commerce, Science, and Transportation, and Senator Kay Bailey Hutchison, Chairman of the Subcommittee on Surface Transportation and Merchant Marine, the Board conducted two days of informational hearings, on April 2 and 3, 1998, to examine issues of rail access and competition in today's railroad industry. After reviewing both the written statements and oral testimony presented by over 60 wit-

nesses, we have decided to pursue certain issues in the manner described in this decision.

Overview

There is no dispute that the Staggers Rail Act of 1980 (Staggers Act), as implemented and administered first by the Interstate Commerce Commission (ICC) and now by the Board, has revitalized American railroads. Whether the railroads have improved their financial condition enough or too much, and at the expense of rail-dependent shippers, are issues of ongoing debate that were not resolved by the hearings. What the hearings did clearly show, however, is that there is widespread discontent today among those who use rail service. At the hearings, shippers complained of inadequate service and higher rates, regulatory remedies that they regard as more theoretical than real, and regulatory processes that they view as burdensome, costly, and unresponsive.

While the Staggers Act was successful in spurring the railroads' economic recovery, at the core of shippers' complaints is their concern that the railroad industry is now dominated by a handful of large, Class I railroads, and as a result, shippers that are dependent on rail service increasingly lack competitive options. Shippers assert that, while the Staggers Act was meant to revive a failing industry and enable it to earn adequate revenues, Congress did not intend to thwart the equally important statutory goal that, to the maximum extent possible, competition should drive the railroads' economic recovery. The shippers' view is that, whether intentionally or not, implementation of the Staggers Act has met the former goal, but not the latter. The various recommendations for change made by the shippers at the Board hearings are intended to address this concern, and certain of the regulatory changes being proposed are embodied in S. 1429, legislation introduced by Senator Rockefeller and co-sponsored by Senators Burns and Dorgan.

Carriers take the position that the problems shippers face today are not structural but operational, highlighted by ongoing service failures in the West, and the railroad industry has pledged to re-examine with shippers the adequacy of current remedies designed to address service failures. The railroads argue that some of the proposed shipper solutions to the concerns expressed about competition would simply transfer wealth from carriers to shippers, and that, while access may produce lower rates for the short term, the various "open access" remedies shippers seek would, if adopted, ultimately undo the gains achieved by the Staggers Act. The railroads argue that reducing their earnings would deprive carriers of funds needed to replace existing rail facilities and to invest in new infrastructure required to resolve service problems such as those recently experienced in the West and to meet added service demands in a growing economy.[1] The railroads further maintain that existing remedies can address any pricing and competitive abuses, and that shippers have not explained how new remedies intended to inject more competition into the rail industry would ensure the industry of the revenues necessary to make the needed infrastructure and capacity investments.

The railroads' position is that, because they are part of a highly capital intensive industry whose marginal costs decline as use of its plant increases, railroads cannot be regulated under a "perfect competition" model. Instead, because much, but not all, of the railroads' traffic base faces competition from other modes, railroads must be able to "differentially price" their services based upon demand—that is, they must recover the substantial joint and common costs of their networks disproportionately from their captive traffic.[2] In this regard, we note that many of the shippers at the hearings did not dispute the continuing need for some sort of demand-based differential pricing, and that no party at the hearings showed how the more aggressive access remedies—designed to produce lower rates and conform the industry more closely to a perfect competition model—would permit railroads to recover

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[1] The Railroad-Shipper Transportation Advisory Council (RSTAC), in its recently released "White Paper," recognized the importance of capacity and infrastructure investment to ensuring a rail network responsive to the needs of its customers.

[2] Inherent in the rail industry cost structure are large amounts of joint and common costs that cannot be attributed to particular traffic. Because railroads, under the current system, serve a mix of competitive and captive traffic, a carrier cannot recover an equal portion of those unattributable costs from all traffic. Accordingly, it has been generally accepted that a railroad must price its traffic differentially so as to recover a greater percentage of its unattributable costs from traffic with a greater demand for (dependency on) rail transportation. Under demand-based differential pricing, shippers with greater transportation alternatives are offered lower markups to keep their traffic (and their contribution to the carrier's unattributable costs) on the rail network. As a result of this form of pricing, captive shippers may actually pay lower rates than would be necessary if competitive traffic were driven from the rail system by a purely cost-based pricing system. See Coal Rate Guidelines, 1 I.C.C.2d 520, 5260927 (1985), aff'd sub nom. *Consolidated Rail Corp.* v. *United States*, 812 F.2d 1444 (3d Cir. 1987).

sufficient revenues to cover system costs and support reinvestment in the rail facilities that shippers require.[3]

On the other hand, the railroads have not satisfactorily addressed the shippers' basic complaints: that the rail industry has changed dramatically since 1980 as a result of significant railroad consolidations, system rationalizations, and greater carrier pricing and routing discretion. Although these changes have contributed to the efficiencies, cost savings, and improved earnings necessary to sustain the industry, cumulatively the result has been a significantly more consolidated industry in which competitive options for rail-dependent shippers have not been expanded. This increasing consolidation within the industry, combined with the difficulties that many shippers perceive in obtaining relief through the regulatory system, leave too many shippers feeling that they have no leverage and no avenue of relief. In short, the shippers charge that, eighteen years after passage of the Staggers Act, the regulatory system is not functioning as intended; what has resulted, they claim, is a highly concentrated rail industry that is generally pleased with the present regulatory scheme, and a group of rail-dependent shippers, which our regulation is meant to safeguard, that feels unprotected and broadly discontented.

Whether seeking better service, better prices, or both, dozens of rail-dependent shippers and their trade associations appeared at the hearings to voice those sentiments. The railroad industry asserts that many shippers are largely satisfied with present-day rail service, and certain intermodal shippers—which ship highly competitive traffic—voiced their support for the regulatory status quo at the hearings. However, no rail-dependent shippers or shipper groups participated to express satisfaction with the present state of rail service. The Board cannot ignore the pleas of those many shippers that are concerned with the present state of affairs.

It is thus clear that we have reached a regulatory crossroads. Neither continuation of the status quo nor the immediate adoption of the more drastic measures suggested by some shippers (measures which, if not carefully implemented, risk completely undoing the progress made towards a healthy national railroad system capable of meeting customers' service needs) seems appropriate at this juncture. Therefore, we must take a careful, measured approach. We will start by accepting the offers made at the hearings by both rail industry and shipper representatives to reexamine certain aspects of our current regulatory scheme.[4] We will also institute appropriate rulemaking proceedings to re-examine other issues that we believe we can address now. Finally, we intend to report appropriately to Congress on the outcome of the hearings and our proposed administrative initiatives, and discuss in that report other possible actions.

We turn now to the specific issues that we believe immediately can and should be addressed administratively.

Revenue Adequacy

Congress has directed the Board to allow rail carriers to earn "adequate" revenues and to maintain standards and procedures for measuring such revenue levels. 49 U.S.C. 10101(3), 10704(a)(2). In implementing those directives, the ICC defined adequate revenues as those that provide a railroad a rate of return on net investment

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[3] The shape and condition of the rail system that open access would produce is a significant issue that was not resolved at the hearings. The shippers assume that the replacement of differential pricing by purely competitive pricing would reduce the rates paid by shippers. The railroads, by contrast, would argue that, because their traffic base would shrink, the rates paid by those shippers that would continue to receive service would actually increase, even as overall revenues received by railroads would decline, because the overall traffic base from which costs would be recovered would be reduced. More specifically, carriers could be expected to seek to maintain an adequate rate of return by cutting their costs, which could include the shedding of unprofitable lines. Thus, it is quite possible that open access would produce a smaller rail system (although not necessarily a degraded one) that would serve fewer and a different mix of customers than are served today, with different types of, and possibly more efficient but more selectively provided, service.

We leave open to public discussion the issue of whether that type of a rail system, which might not serve shippers of less desirable traffic, would better serve the interest of shippers, labor, and the public generally. But we note that the industry's ability to earn revenue sufficient to maintain the existing extent of rail service does appear to depend to some degree on the use of differential pricing.

[4] Initial reliance on negotiations among the interest groups that are directly affected by our regulatory policies is neither inappropriate nor without precedent. In Ex Parte No. 456, The Staggers Rail Act of 1980—Conference of Interested Parties, the ICC established a forum outside of the agency's purview to encourage railroads and shippers to discuss and negotiate solutions to disputes arising from the implementation of the Staggers Act, and to submit proposals for the agency's considerations. Our competitive access regulations, 49 CFR 1144 et seq., discussed infra, are a product of that process.

equal to the current cost of capital,[5] and the Board has continued to employ that standard.

At the hearings, several shipper interests asserted, as others have in the past, that the cost-of-capital standard, under which only a few Class I railroads have been found to have "adequate" revenues, fails to reflect the railroads' true, robust financial posture.[6] They argue that other financial measures—such as credit-worthiness, return on equity, or market-to-book value—show an industry that is doing quite well financially. The railroads, on the other hand, defend the continued use of the cost-of-capital standard, pointing to recent Wall Street reports that have questioned the industry's long-term viability in light of returns on investment less than that amount. At the hearings, representatives of both railroads and shippers advocated referring this issue to one or more disinterested expert economists with no preconceived position on the issue.

Notwithstanding the administrative proceedings that have already been held, the years of continuing debate, and the litigation that has already addressed this issue, we agree that a fresh examination would be useful. Accordingly, we request representatives of the shipping community and rail industry to meet, under the supervision of an Administrative Law Judge (ALJ), and select a mutually acceptable panel of three such disinterested experts to examine the current and alternative measures of a railroad's financial health, and to make recommendations to us as to the appropriate standard to apply.[7] We would then review the panel's recommendations and, if a new or revised standard is recommended, seek public comment on it.

We request the parties to organize, meet, and select a three-person panel by May 15, 1998. The panel, under the ALJ's supervision, may determine its own procedures, and should submit its report to the Board by July 15, 1998.

Competitive Access

Under the current statute, three kinds of competitive access remedies are available to complaining shippers or carriers. The first, and least physically intrusive form of access, is an alternative through route under 49 U.S.C. 10705(a), whereby an incumbent railroad can be required to interline traffic with another railroad and provide a through route and through rate for that traffic. The second form of access is reciprocal switching under 49 U.S.C. 11102(c), whereby the incumbent railroad, for a fee, must transport the cars of a competing carrier, enabling the latter carrier, even though it cannot physically serve the shipper's facility, to offer a single-line rate to compete with the incumbent's single-line service. The third, most intrusive form of access is terminal trackage rights under 49 U.S.C. 11102(a), whereby the incumbent railroad, for a fee, must permit physical access over its lines to the trains and crews of a competing carrier.

Although access to more routing options could provide additional competition in some circumstances, the statute does not provide these access remedies on demand; a showing of need is required. In implementing the directives of the Railroad Revitalization and Regulatory Reform Act of 1976 (4-R Act) and the Staggers Act, which ended the former shipper-directed "open routing" system under which railroads had been required to establish extensive and not always efficient interchanges and through routes, the current regulations require a demonstration that the incumbent

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[5] Standards for Railroad Revenue Adequacy, 364 I.C.C. 803 (1981), aff'd sub nom. *Bessemer & Lake Erie R. Co.* v. *United States*, 691 F.2d 1104 (3d Cir. 1982), cert. denied, 462 U.S. 1110 (1983).

[6] There seems to be a mistaken impression in some quarters that a railroad that is "revenue inadequate" under our standards has unfettered pricing freedom. To the contrary, a rate may be unreasonable even if charged by a carrier that is far short of revenue adequacy. Coal Rate Guidelines, 1 I.C.C.2d at 5360937. Under the stand-alone cost (SAC) test, a railroad's rate is limited to what a hypothetical efficient carrier would need to charge to provide the needed service to the complaining shipper while fully covering all its costs—without regard to the existing carrier's revenue levels. Likewise, under the simplified guidelines (available for those cases in which the SAC test is impracticable), even though we take into account a carrier's revenue need, there is no requirement that a carrier be "revenue adequate" before its rates can be found unreasonable. Rate Guidelines—Non-Coal Proceedings, Ex Parte No. 347 (Sub-No. 2) (STB served Dec. 31, 1996), slip op. at 11, 13.

Once a carrier has become revenue adequate, however, shippers may prefer to apply the revenue adequacy constraint. Under this test, "captive shippers should not be required to continue to pay differentially higher rates than other shippers when some or all of that differential is no longer necessary to ensure a financially sound carrier." Coal Rate Guidelines, Nationwide, 1 I.C.C.2d at 5350936. Thus, when carriers are considered "revenue adequate," or when it can be demonstrated that inefficient operations are preventing the carrier from being considered "revenue adequate," an alternative to the SAC test may be available.

[7] While we will provide the ALJ, we expect the parties to incur the costs for the panel of experts.

rail carrier has engaged in anticompetitive conduct. 49 CFR 1144.5(a). More specifically, they require a showing that the carrier has either (1) used its market power to extract unreasonable terms or (2) because of its monopoly position shown a disregard for the shipper's needs by rendering inadequate service.[8]

At the hearings, as in the past, some shippers complained that the "anticompetitive conduct" standard of the competitive access regulations is too onerous, effectively precluding use of the competitive access remedy in an increasingly consolidated rail industry in which shippers are facing service failures such as those now being experienced in the West. The railroads concur that the competitive access rules should be revisited as they pertain to service failures. To ensure that our procedures are effective in addressing needed service improvements, we will expeditiously begin a rulemaking proceeding to consider revisions to the competitive access regulations to address quality of service issues.

Given the changes that have taken place in the rail industry since 1980, we will also consider whether to revise the competitive access rules with respect to competitive issues that are not related to quality of service. First, however, we direct the railroads to arrange meetings with a broad range of shipper interests, again under the supervision of an ALJ that we will appoint, to explore the issue and see if the parties can mutually identify appropriate modifications to the non-service-related component of our standards that would facilitate greater access where needed.[9] We request the parties to report back to us on this issue by August 3, 1998.

Market Dominance—Product and Geographic Competition

Another area of continuing concern for rail-dependent shippers involves the difficulties associated with seeking rate relief from the Board, especially those difficulties posed by the components of our market dominance standards relating to product and geographic competition. Under the statute, the Board has jurisdiction to consider a rate challenge only if the carrier has market dominance over the traffic involved, that is, if there is no effective competition for the traffic at issue. 49 U.S.C. 10707. In evaluating whether a railroad can exercise market dominance, the Board considers whether the shipper could obtain the transportation service that it needs from other railroads (intramodal competition) or other modes of transportation (intermodal competition). In addition to these direct competitive alternatives, the Board considers, when raised by a railroad, whether there is product or geographic competition that would effectively constrain a carrier's pricing. Product competition results from the availability of suitable substitute products that can be acquired without relying on the services of the same carrier. Geographic competition exists where the shipper can conduct its business by obtaining the product it needs from a different source and/or by shipping its goods to a different destination using another carrier. Shippers complain that the examination of possible product and geographic competition unduly complicates the market dominance determination and places an enormous litigation obstacle to a shipper's ability to pursue a rate complaint.

Plainly, the zealous use of the discovery process may be partly to blame for the heavy burdens associated with the inquiry into product and geographic competition in individual rate cases. We have, in a decision issued today, taken appropriate action to ensure that carriers—which have the burden both of identifying the existence of and proving the effectiveness of any product and geographic competition—not shift those burdens onto the shipper through unsupported and/or overreaching discovery demands. *FMC Wyoming Corp. and FMC Corp.* v. *Union Pacific Railroad Co.*, STB Docket No. 42022 (STB served Apr. 17, 1998).

While our action to curb discovery abuses may alleviate some of the shippers' concerns, we believe that it is also time to consider removing product and geographic competition altogether from the market dominance analysis. Initially, the ICC concluded that these issues complicate rate proceedings unduly. See Special Procedures for Making Findings of Market Dominance as Required by the Railroad Revitalization and Regulatory Reform Act of 1976, 353 I.C.C. 875, 9050906, modified, 355 I.C.C. 12 (1976), aff'd in relevant part sub nom. *Atchison, T. & S.F. Ry.* v. *ICC*, 580 F.2d 623 (D.C. Cir. 1978). The ICC subsequently reversed course in Market Dominance Determinations, 365 I.C.C. 118 (1981), aff'd sub nom. *Western Coal Traffic League* v. *United States*, 719 F.2d 772 (5th Cir. 1983) (en banc), cert. denied, 466 U.S. 953 (1984), concluding that consideration of these issues would be manage-

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[8] *Midtec Paper Corp.* v. *Chicago & N.W. Transp. Co.*, 3 I.C.C.2d 171 (1986), aff'd sub nom. *Midtec Paper Corp.* v. *United States*, 857 F.2d 1487 (D.C. Cir. 1988).

[9] We suggest that the parties explore, for example, the proposal made by Illinois Central Railroad that each railroad designate certain "open" gateways on their systems that would be available for use by all shippers to create alternative through routes.

able.[10] Based on more than a decade of experience, we should now reconsider whether the ICC's initial conclusion was the better one. Accordingly, we will institute a rulemaking proceeding expeditiously to consider eliminating product and geographic competition from our market dominance analysis.

Smaller Railroads

An area of great concern for short-line railroads (and for the shippers that they serve) are obstacles—including "paper barriers" (contractual obligations incurred when short-line carriers acquired lines from larger, connecting carriers); inadequate car supply; and the lack of alternative routings—that prevent them from obtaining or fully using connections with competing carriers. At the hearings, shippers suggested that, in a more competitive rail environment, there should be a greater role for short-line railroads and other smaller carriers, particularly in rural areas. We agree that smaller railroads represent a potentially significant resource in addressing the issues that concern the shippers, and that to date their potential remains largely untapped.

At the hearing, we were advised that the smaller railroads and the large railroads have initiated discussions to address these concerns. Because we believe that private-sector solutions are generally preferable, we urge the parties to address and resolve these issues themselves, and to do so expeditiously. We direct the parties to report back to us on their progress in this regard by May 11, 1998. The Board is prepared to take administrative action as necessary and appropriate in this area to address the concerns that have been raised.

Formalized Dialogue

Another issue on which all sides agreed at the hearing was the need for greater communications, including more formalized discussions, between railroads and their customers. In addition to the forums that already exist to address issues of ongoing concern, such as the National Grain Car Council and the RSTAC, the railroads proposed to establish a regular, formalized process for discussions about service planning and needs, with the Board as an overseer of the process.[11] In this regard, we remind railroads that their customers include both large and small shippers, and that they need to find a more systematic way of addressing customer concerns—related to rate and service issues and to means for obtaining relief—of small shippers as well as large ones. Additionally, we again remind the railroads that all of these initiatives will have effects on their employees, and we urge them to include rail labor in their discussions. We direct the railroads to report back to us on their progress in establishing formalized dialogue with shippers and with their employees, by May 11, 1998.

Board/Shipper Discussions

At the hearings, Board members expressed their willingness to meet with shippers to address general issues concerning railroad service. One shipper representative expressed concern about potential improprieties in the event that shippers were to meet informally with Board members. So long as shippers limit their discussions at such meetings to general service and other issues of broad concern, rather than specific pending cases, we welcome the opportunity to engage in dialogue with them.

This decision will not significantly affect either the quality of the human environment or the conservation of energy resources.

It is ordered:

1. The parties to this proceeding will take the actions described in this decision by the dates indicated above.

2. This decision is effective upon its service.

By the Board, Chairman Morgan and Vice Chairman Owen.

VERNON A. WILLIAMS,
Secretary.

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[10] See also Product and Geographic Competition, 2 I.C.C.2d 1 (1985) (burden of proving product and geographic competition in market dominance cases shifted to railroads).

[11] Other matters that might be addressed at such discussion sessions include service performance standards and remedies or penalties that should apply when such standards are not met.

SERVICE DATE—MAY 4, 1998

SURFACE TRANSPORTATION BOARD DECISION

STB EX PARTE NO. 575

REVIEW OF RAIL ACCESS AND COMPETITION ISSUES

DECIDED: MAY 4, 1998

BY THE BOARD:

This proceeding was initiated to examine issues of rail access and competition in today's railroad industry. During two days of informational hearings, and in numerous written statements, we heard the complaints of shippers dependent on rail service that, as a result of consolidation in the industry, their competitive options have been limited, and that available remedies are burdensome, costly, and unresponsive.

On April 17, 1998, we issued a decision addressing the concerns that had been raised. We found that, through administrative action, we could examine making it less costly and burdensome for aggrieved parties to obtain access to the regulatory system, and providing the opportunity for shippers with concerns about poor service to obtain service from an alternate carrier. Thus, we began one rulemaking proceeding, and intend to begin another shortly.[1] We decided that the most appropriate way to achieve more effective utilization of smaller railroads in addressing the concerns raised by the shippers would be through discussions within the railroad industry. Thus, we directed railroads to meet and discuss this issue among themselves, and to report back to the Board by May 11, 1998. Finally, we concluded that certain issues—in particular, issues relating to railroad "revenue adequacy," the competitive access rules in general, and formalized railroad/shipper dialogue designed to help carriers find a more systematic way of addressing customer concerns—would be better addressed at this time in a private-sector rather than governmental forum. Thus, as to revenue adequacy, we directed railroads to meet with shippers with a view toward selecting a panel of three disinterested experts to make recommendations as to an appropriate revenue adequacy standard, and to report back to the Board by May 15, 1998. As to competitive access, because we were convinced that railroads and shippers could, if they tried, find some common ground, we directed them to meet, negotiate, and report back to the Board by August 3, 1998. Finally, we directed railroads to report back to the Board by May 11, 1998, on their progress in establishing formalized dialogue with their shippers and their employees. We designated Administrative Law Judge Jacob Leventhal to supervise meetings as appropriate.[2]

On April 27, 1998, we received a letter from several shippers and shipper groups asking us to modify our April 17 order in two respects. Rather than seeking to characterize the letter, we quote its operative portions directly:

> First, the Board should reverse the priorities of the revenue adequacy and competitive access issues. Competitive access is, by far, the most urgent matter to shippers. We also believe it will be difficult to reach agreement with the railroads on this issue, and therefore we first request that the order be modified to require the parties to report by May 29, rather than August 3, on whether significant progress is possible.
>
> Second, revenue adequacy, while important, is less urgent. Moreover, we question the need for the elaborate and expensive processes set forth in the Board's order. However, we are certainly willing to discuss revenue adequacy issues with the railroads. Indeed, recent pronouncements by railroad executives suggest that progress on the subject may be possible. Accordingly, we also request that the procedures on revenue adequacy ordered by the Board be suspended until shippers and the railroads enter discussions on this issue, and report back to the Board on the progress of these discussions. The deadline for this report should be May 29, 1998.[3]

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[1] Our notice proposing removal of product and geographic competition as factors in market dominance proceedings was issued in Market Dominance Determinations—Product and Geographic Competition, STB Ex Parte No. 627 (STB served Apr. 29, 1998). We will soon issue a decision addressing service issues.

[2] Judge Leventhal held a preliminary conference on April 28, 1998.

[3] In a letter dated April 29, 1998, the National Industrial Transportation League supported the April 27 letter insofar as it sought a change in the procedures for addressing revenue adequacy.

On April 30, 1998, the Association of American Railroads (AAR) responded to the shippers' letter. Noting that the only conference scheduled before Judge Leventhal between now and May 29 will be held on May 21, AAR points out that the schedule proposed by the shippers will allow little time for meaningful dialogue and consultation as to the competitive access issue. Although it says that it will participate in further negotiations on revenue adequacy, AAR also expresses its dismay that the shippers have apparently rejected the panel approach, which, as AAR describes it, "would replace advocacy and contentiousness with objective economic analysis."

DISCUSSION AND CONCLUSIONS

1. *Prioritization of Issues.* At the outset, we will respond to the request that we "reverse the priorities" of the initiatives we set in motion. Our April 17 order raised several issues, but it did not intend to, and indeed did not, prioritize among them. The fact that the date for the revenue adequacy report was set earlier than the date for the competitive access report did not reflect a higher priority for the revenue adequacy exercise, any more than the still earlier reporting date for the smaller railroad discussions could be said to reflect an even higher priority. The due date for the report on revenue adequacy exercise was set earlier than the due date for the competitive access report merely because it was, and still is, our view that it would be simpler for interested parties to meet and select three unbiased experts than it would be to address and seek to resolve issues such as competitive access. Although the shippers in their letter indicate that competitive access relief is more urgent than amendments to revenue adequacy, we did not establish a hierarchy of objectives, and we urge all parties to take all of the initiatives in our April 17 order seriously.

2. *Revenue Adequacy.* We also do not believe that our order set forth "elaborate and expensive processes" regarding revenue adequacy. At the hearings, shippers raised substantial concerns about the current revenue adequacy standards, while the railroads defended the need for a revenue adequacy standard that permits them to earn enough money to attract capital and to invest in needed facilities. Railroad and shipper representatives recommended referring the revenue adequacy question to one or more disinterested expert economists with no preconceived position on the issue,[4] and so we directed railroads to meet with shippers with a view toward selecting a panel of three such experts to make recommendations as to an appropriate standard. Selection of a panel, as we envision it, should be a relatively straightforward exercise. The process from then on would not be an elaborate one, and it would not be particularly expensive overall if all of the parties agreed in advance to support the recommendations of the expert panel rather than to continue to pursue the revenue adequacy issue before the Board, the courts, and whatever other forums the railroad and shipping communities typically address.

Nevertheless, as both the shippers and AAR indicate that progress through means other than the 3-expert panel is possible in addressing the revenue adequacy issue, we will give the shippers more time so that they can pursue the issue directly with the railroads. If they cannot reach agreement, however, we urge the parties not to reject, as the shippers apparently have done, the notion that the issue be resolved by a neutral expert or panel of experts. Moreover, given that the next conference is not scheduled until May 21, 1998, we do not believe that a reporting date of May 29, 1998 will provide an adequate opportunity for meaningful progress. Therefore, although we certainly will not preclude any party that wishes to do so from filing an interim report on May 29, 1998, or on any other date it deems appropriate, we request a report on the revenue adequacy issue by August 3, 1998.

3. *Competitive Access.* The shippers ask to shorten the reporting time for the competitive access issue, apparently because of their concern that it will be difficult to reach agreement with the railroads on this issue. We do not understand the shippers' logic.

At the hearings, shippers raised substantial concerns about the impediments that the existing regulations imposed on their ability to make a competitive access case, while the railroads expressed concern that opening up the competitive access rules could place them on a slippery slope toward total open access, which, in their view, would adversely affect them and the public. Because we were convinced that railroads and shippers could, if they tried, find some common ground on the issue of competitive access, in our May 17 order we directed them to meet, negotiate, and

[4] Dr. Alfred E. Kahn, for example, testifying on behalf of the Alliance for Rail Competition (ARC), one of the signatories to the April 27 letter, urged the Board to consult with disinterested financial analysts that are not paid by either the railroads or the shippers as to an appropriate revenue adequacy standard.

report back to the Board. We recognized that negotiations concerning competitive access might require substantial work, and that is why we did not request a report until August 3, 1998.

Shortening the reporting time to, in effect, permit one session before Judge Leventhal with a report due a week later would send a message that we see little prospect for accommodation on any aspect of the competitive access issue. If that were our view, however, we would not have directed the railroads to negotiate with the shippers in the first place. Notwithstanding the tenor of the shippers' letter, we continue to believe that some common ground can be reached if all parties can put aside their preconceived notions and enter negotiations with an open mind, committed to seeking some common ground rather than immediately assuming that governmental fiat is the only answer or that more litigious avenues must be pursued. Therefore, we continue to urge the parties to negotiate seriously to reach agreement on as many issues related to competitive access as possible. We request a report on August 3, 1998, although, again, we will not preclude any party that wishes to do so from filing an interim report on May 29, 1998, or on any other date it deems appropriate.

It is ordered:

1. The shippers' requests are governed by this decision.
2. The report on revenue adequacy is due on August 3, 1998, although any party that wishes to do so may file an interim report on May 29, 1998.
3. The report on competitive access is due on August 3, 1998, although any party that wishes to do so may file an interim report on May 29, 1998.
4. This decision is effective upon its service.

By the Board, Chairman Morgan and Vice Chairman Owen.

VERNON A. WILLIAMS,
Secretary.

Question. Please set out a schedule for the Board's announced rulemaking proceeding to consider revisions to the competitive access regulations.

Answer. In its April 17th decision in Ex Parte No. 575, the Board stated that it would begin a proceeding to consider revisions to its competitive access regulations, 49 CFR Part 1144, to provide expedited access relief where a shipper's incumbent rail carrier cannot or does not provide adequate service. The Board anticipates that it will issue a notice of proposed rulemaking on or about May 12, 1998, with comments due in mid-June 1998, and replies in mid-July 1998.

The Board also announced that it would consider whether to revise the regulations with respect to competitive issues that are not related to quality of service. The Board directed, however, that these matters first be explored at shipper-carrier meetings to see if the parties could find at least some common ground on appropriate modifications to the competitive access standards that would facilitate greater access when needed. The Board asked the parties to report back to the Board by August 3, 1998, and then the Board will take further steps as appropriate in this area.

OPEN ACCESS

Question. Does the Board's current authority to approve trackage rights arrangements extend to approving an open access arrangement, or would additional authority be necessary to establish and regulate an open access system?

Answer. The Board does not have general authority under all circumstances to compel an unwilling railroad to grant trackage rights to another railroad. The Board may only approve consensual trackage rights arrangements under 49 U.S.C. 11323(a)(6). The Board may force a railroad to grant trackage rights over its lines in three limited situations: (1) under 49 U.S.C. 11324(c) only as a condition to its approval of the carrier's merger with another railroad; (2) under 49 U.S.C. 11102(a) only with respect to terminal facilities; and (3) under 49 U.S.C. 11123(a) only for a limited (maximum 9-month) time period and only in response to a carrier's failure to provide adequate service. Thus, under the current statute, the Board cannot establish and regulate a nationwide rail system of physical "open access;" additional statutory authority would be required if such a system were desired.

Questions. Would the current staffing levels at the Board be adequate to establish and regulate an open access system? If not, what additional resources do you estimate would be required.

Answer. "Open access" means different things to different people. For purposes of this answer, we assume that open access refers to a regulatory process in which each railroad's system is opened up to the equipment of its competitors, or in which

the ownership of all railroad track is lodged in a single entity, and service over that track is provided by rail operators that would pay compensation for the use of the track. That sort of a process could require substantial regulatory oversight, because unless a fixed fee and a uniform set of operating conditions were established—which might be inappropriate for many circumstances—the terms and conditions of the access would need to be supervised. We have no basis on which to predict at this point how much our staffing needs would increase under an open access scenario.

REVENUE ADEQUACY

Question. What are the potential applications of a Board determination of a railroad's "revenue adequacy?"

Answer. Revenue adequacy, although not an insignificant concept, generally is not, by itself, determinative of the actual rates that railroads can charge their shippers. Thus, a railroad, whether or not it is revenue adequate, does not have unfettered pricing flexibility. To the contrary, a rate may be unreasonable even if charged by a carrier that is far short of revenue adequacy.

Currently, large rail rate cases are processed under the CMP guidelines discussed in an earlier question. To date, complainant shippers have used the stand-alone cost constraint of CMP. Under this approach, the rate analysis is not based on the revenue needs of the existing carrier, but instead is based on what a hypothetical new carrier would need to charge to provide service to a select traffic group identified by the complainant. Thus, whether or not a defendant carrier is considered to be revenue adequate is irrelevant under the stand-alone cost test.

This is not to say that revenue adequacy has no effect on rates and rate regulation. Under the CMP guidelines, there is another approach, which heretofore has not been used. Specifically, under this approach, the revenue adequacy constraint precludes a carrier from charging its captive shippers more than is needed for that carrier to achieve revenue adequacy. The managerial efficiency constraint further limits the carrier's pricing; it reduces the revenue need of the carrier by the cost of any inefficiencies identified by a complaining shipper. Thus, once a carrier is earning adequate revenues, or if inefficiencies are the only reason a carrier is not meeting the revenue adequacy standard, captive shippers may obtain appropriate rate relief using this analysis of the defendant carrier's existing (entire) route structure, operational practices, and rate structure.

Finally, under the simplified guidelines for handling smaller rail rate cases, also discussed in an earlier question, revenue adequacy is one of several factors used on a case-by-case basis in determining whether a rate is unreasonable. It is, however, not the determinative factor.

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1999

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

NONDEPARTMENTAL WITNESSES

[CLERK'S NOTE.—The following testimonies were received by the Subcommittee on Transportation and Related Agencies for inclusion in the record. The submitted materials relate to the fiscal year 1999 budget request.

The subcommittee requested that public witnesses provide written testimony because, given the Senate schedule and the number of subcommittee hearings with Department witnesses, there was not enough time to schedule hearings for nondepartmental witnesses.

AVIATION-RELATED TESTIMONY

PREPARED STATEMENT OF THE AIR TRAFFIC CONTROL ASSOCIATION, INC.

INTRODUCTION

The Air Traffic Control Association, Inc. ("ATCA") is a professional association of forty-two years standing dedicated to advancement of the science and profession of air traffic control and aviation safety. Its membership is worldwide in scope and represents all aspects of the air traffic control discipline, from air traffic control specialists and airway facilities technicians operating and maintaining the air traffic control system, to individuals and companies developing and providing the technology, equipment, and services supporting the system, to the citizens, government agencies, and airlines using the system.

Today's economic, social, and political environment is increasingly global. Instantaneous worldwide telecommunications allow businesses around the world to function seamlessly, and encourage people to experience distant and various cultures; national economies are more and more specialized in production, intensifying global interdependencies and increasing the importance of international trade; and international tourism is increasingly accessible and attractive to all segments of societies. These trends prevail within the U.S. as well: Businesses have offices, plants and facilities in various locations; citizens travel frequently and conveniently for business and recreation; local economies are more and more specialized in the products and services they produce, with efficient, reasonably priced transportation of commodities being essential to virtually every aspect of daily life.

Safe and efficient air transportation is central to every aspect of today's fast-paced, global environment. Not only must goods and people move freely and efficiently for human needs to be satisfied, but reliable and economic air transportation drives economic prosperity by supporting the needs of business and manufacturing, and by encouraging trade and tourism. Conversely, an inefficient, expensive air transportation system can limit, and even dampen economic activity.

Modern air traffic control and aviation safety regulation are pivotal to the health and capability of the air transportation system. In its role as provider of air traffic

control and aviation safety services, a robust and effective Federal Aviation Administration is vital to the Nation's prosperity, security, and technological preeminence. In order to maintain excellence in aviation, however, FAA must be equipped for challenges of the new millennium. The Air Traffic Control Association therefore urges Congress to make significantly increased funding for activities and projects of the FAA a priority in fiscal year 1999.

FUELING ATC MODERNIZATION

Like every other sector of the U.S. economy, aviation is experiencing growing pains. Worldwide and domestically air traffic is increasing at a rapid rate, and this trend is predicted to continue into the foreseeable future. Meanwhile, investment in aviation infrastructure including ATC systems is not keeping pace. Although FAA controllers today provide safe ATC services to the world's largest aviation marketplace, they do this using proven but nonetheless aging equipment sustained by a patchwork of temporary fixes and upgrades designed to enhance system reliability and capacity while modernized replacement equipment is being developed and fielded. Although dedicated, creative airway facilities personnel keep the system operating remarkably well, equipment continues to age and deteriorate.

The Federal Aviation Administration today is modernizing and upgrading the National Airspace System with up-to-date equipment and technologies that will meet the safety and capacity needs of the Twenty-First Century. The blueprint for modernization is embodied in the National Airspace System Architecture, a plan developed by FAA with aviation community input. Now in its draft third version, the NAS Architecture identifies infrastructure improvements through the year 2015, specifically aeronautical communications, navigation, surveillance, decision support systems for air traffic controllers, and information-sharing among aviation system participants. The Architecture is designed to be used by aircraft operators as a guide for avionics equipage, as well as by FAA and other organizations for costing, budgeting, and investment analysis. Among the new technologies slated for incorporation in the modernized ATC system are satellite-based systems for surveillance of aircraft in the air and on the surface, air/ground and aircraft/aircraft communications, and aircraft navigation; user-friendly tools for controllers such as updated computer displays, sophisticated aircraft metering and spacing, and conflict prediction and resolution aids; and advanced information networks that allow airlines, private aircraft operators, airports and FAA air traffic management organizations to share the same flight operations data and, ultimately, agree on the best way to manage air traffic.

The draft NAS Architecture Version 3.0 describes an air traffic control system users want, and a road map for getting there. The Architecture reflects a realistic adaptation of existing and developing technologies to the realities of today's air traffic environment; it takes into account the needs of aircraft having avionics equipage of varying levels of sophistication; and by using an open systems approach, it builds-in flexibility to accommodate future traffic growth and advancing technology. The Air Traffic Control Association commends the FAA on this achievement, and fully supports its implementation. It is also submitted that NAS modernization—and the NAS Architecture—must be viewed as an ongoing process that will continue into the future. With increasing traffic, evolving user needs, and technological progress there always will be opportunities to bring added safety and efficiency to air transportation, and to revise objectives if necessary.

With encouragement of aviation users, FAA also has adopted a practice of sifting major ongoing modernization projects for technologies, concepts and capabilities that can be extracted, prototyped, and implemented immediately to provide early operating benefits. These "fall-out" systems and capabilities can mean significant time and cost savings for airlines and other aircraft operators. Among such technologies are controller decision support systems such as the Center/TRACON Automation System, traffic management advisor, passive final approach spacing tool, and initial conflict probe; and promising systems useful to airlines and airport operators such as collaborative decision-making, controller/pilot data link communications, and the surface movement advisor. Day-by-day other new concepts and technologies emerge which will allow greater operating efficiency and flexibility, and added safety. Obtaining immediate benefits from these innovations through accelerated implementation makes sense, and has the support of the entire aviation community. It will, however, cost money and resources over and above those already programmed for development and implementation of major new systems.

Adding to these challenges, FAA is encountering increased difficulties and expense associated with sustaining, maintaining, and in some cases replacing aging equipment which has exceeded its planned service life, and is slated for moderniza-

tion and upgrade. Older equipment and wiring is getting more and more brittle; repair or replacement parts are becoming increasingly difficult—sometimes impossible—to find; repairs take longer, resulting in protracted down-time. Therefore systems in use also must be sustained and improved to perform essential services until long term improvements come on line. A shortfall in funding for sustainment is occurring across-the-board in connection with ATC computers and displays such as ARTS and EDARC, radars (Mode S), navaids (ILS, VOR/DME), radios and other communications systems. In addition, FAA faces the critical and costly task of evaluating and modifying or replacing computer systems—including the HOST computer—to be Year 2000 compliant. As with the accelerated implementation process, the job of sustaining and replenishing older infrastructure represents a significant and increasing burden on FAA's facilities and equipment budget, and is significantly underfunded.

This challenge exacerbated by delay in fielding modernized ATC equipment, some of which is attributable to technological difficulties, but much of which results from chronic underfunding. Within the backlog of modernization projects which should be accelerated with additional resources are items such as airport surface radars, ATC recorders, aeronautical weather systems, various communications equipment and equipment upgrades, ATC computers, and navaids. Of particular concern is the need to accelerate work on technology—specifically the Next Generation Communication System (NEXCOM)—which addresses the increasingly troublesome problem of aeronautical frequency congestion and shortage of available spectrum. And to the extent that underfunding causes modernization project schedules to extend farther into the future, the overall expense increases because longer transition periods will be necessary during which aging equipment must be sustained and upgraded while overlapping newer equipment is only partially fielded.

Nonetheless, the Administration is requesting only $2.130 billion for FAA Facilities and Equipment expenditures in fiscal year 1999. This is far below the amount necessary to sustain the existing ATC infrastructure, address the backlog of underfunded modernization projects, and simultaneously upgrade the system in keeping with increasing air traffic, and users' needs for greater efficiency and operating flexibility. In draft Version 3.0 of its National Airspace System Architecture, FAA estimates the cost of Architecture activities in fiscal year 1999 to be $2.67 billion. The Architecture projects this annual cost to rise gradually to $3.2 billion in fiscal year 2002, leveling out at approximately $3.0 billion per year thereafter. Add to this the price of accelerating implementation of "fall-out" technologies, the cost of catching up on the backlog of previously underfunded modernization projects, and the expense of refurbishing and replenishing aging equipment pending replacement, and it is evident that the true necessary level of funding for FAA Facilities and Equipment in fiscal year 1999—and beyond for the foreseeable future—is more in the order of $4.0 billion.

FAA Administrator Garvey has initiated a systematic review of the current ATC modernization plans in the context of user needs, technological options, and federal budget concerns. Periodic, constructive re-assessment can be a healthy and useful enterprise, allowing the agency to confirm that its activities are consistent with its mission, user needs, and financial and technical reality. To this end, the Air Traffic Control Association commends Administrator Garvey on her efforts. The Association is disappointed however to learn that the Administration's funding projections for future years ("OMB passbacks") threaten to prevent FAA from achieving NAS modernization objectives within the schedule envisioned in draft NAS Architecture Version 3.0. Although Administrator Garvey commends the NAS Architecture as the "what" that the ATC needs, she has accepted the OMB limitations in funding which in large measure dictate the "when" if not the "how." Consequently, FAA is now engaged in the unhappy task of revising the Architecture to conform with projected future budgets. The aviation community is being assured that this revision will be confined to stating a less aggressive schedule for modernization, but will not negatively affect the substance, scope or quality of improvements. For the following reasons however, the Association believes the "when" conclusion dictated by OMB guidelines is unacceptable, and moreover as a matter of policy ATCA disagrees with the practice of conforming the NAS modernization plans to artificial parameters contained in Federal budget guidelines.

First, the Administration's budget request does not reflect the actual funding needs of the NAS. It is a fact of life that the Administration's annual budget is an attempt to reconcile the various needs of the American public for federal government services, when those needs exceed available revenues. The Administration's budget request for FAA is—as are budgets for other Federal agencies—an attempt to allocate to aviation a reasoned share of scarce federal resources. The Nation today, however, is experiencing unprecedented prosperity; robust air transportation

is a powerful engine driving the booming economy. Now is the time to make the investments in air traffic control infrastructure that will assure continued success into the next millennium. Indeed, this is a continuing need if the economic engine of air transportation and commerce is to continue to propel the U.S. forward.

Second, a vigorous, well-funded ATC modernization effort is essential not only to accommodating growth, but also to maintaining the position of the United States as world leader in aviation technology. In recent years the United States has been in the forefront of a global endeavor to apply satellite technology to air traffic control. The use of satellites in ATC bears dramatic promise for enhancing safety and efficiency of flight, for example to enhance communications and provide advanced ATC capabilities over oceans and large continental land expanses where radar surveillance is impracticable or impossible. Satellite technology also can bring a basic, cost-effective ATC capability to nations and areas that do not need, or cannot afford sophisticated ground-based systems. With U.S. leadership, international consensus has developed in support of a global air traffic management (ATM) system based on the application of satellite technology for communications, navigation, and surveillance (CNS/ATM). If, as some have suggested, the FAA redirects its modernization efforts primarily toward delivering "core" Free Flight capabilities at the expense of more advanced CNS/ATM systems, the risk arises that other nations will bypass the United States in air traffic control technology. Aside from the blow U.S. prestige internationally, continual changes in ATC modernization plans and schedules foster global disharmony of ATC systems, creating difficulties for aircraft operators who must fly internationally with one set of avionics.

In conclusion, ATCA urges the Congress to reach beyond the Administration's overly-conservative budget estimate, and enact the level of funding for fiscal year 1999 which in fact is in keeping with the Nation's need for aviation infrastructure maintenance and modernization, and its position as world leader in aviation technology—that is, $4.0 billion.

The Association moreover submits that, although Administrator Garvey has made a noteworthy start, community consensus on NAS infrastructure maintenance and improvement still is not mature. To date the Administrator's review activities, however well motivated, have tapped only a narrow cross section of aviation community viewpoints. Consulting blue ribbon commissions, or polling user representatives on the "what" of NAS infrastructure, will not assure timely execution of ATC modernization. Rather, what is needed is an aviation community "compact," by virtue of which all elements of air transportation—airlines, general aviation, the military, controllers, maintainers, FAA, and the Congress—not only agree on "what" the ideal NAS infrastructure should be, but also they commit in a binding way to the "when" and "how" of modernization and sustainment. Not only must all participants—including government elements—approve the NAS architecture, but equally important all participants must confirm and adhere to a solid and achievable schedule for fielding ATC systems, equipping aircraft with new avionics, and decommissioning unneeded ATC facilities. For their part of the compact, government elements—both the Administration and Congress—must live up to the responsibility of assuring a predictable, reliable and sufficient stream of funding for NAS infrastructure activities. Consistency in planning, adherence to schedule, and predictability in funding are absolutely essential because NAS users—airlines, military, general aviation—will not equip their aircraft with expensive new avionics unless they have confidence that the modernized ATC infrastructure will in fact be in place allowing them to derive reasonable operating and economic benefits from their investment. In NAS modernization, keeping the faith is of the essence.

RESEARCH, ENGINEERING AND DEVELOPMENT

The Administration has proposed funding of $290 million for FAA Research, Engineering, and Development in fiscal year 1999. Although this amount is a significant increase (46 percent) over the fiscal year 1998 enacted level, it would merely restore FAA RE&D to slightly more than the fiscal year 1995 enacted level. (FAA RE&D funding suffered a precipitous drop during fiscal year 1996–98 for Federal deficit reduction reasons.) The funding the Administration proposes for fiscal year 1999 simply is not enough.

Despite huge demands for research and development generated by the ATC modernization effort, by law only 34 percent (less that $100 million in fiscal year 1999) of FAA RE&D funding can be applied to air traffic services programs. Within this category all nature of ATC research competes for RE&D resources, from Free Flight procedures and technologies, to data link and other communications, capacity enhancement initiatives, aviation weather, operations research and air traffic management. Sixty-six percent (66 percent) of FAA RE&D funding goes to other important

areas of aviation research such as aircraft safety, aviation security, human factors and medicine, airport technology, environment and energy, and research partnerships. Within each of these categories, FAA prioritizes, economizes, and in many cases simply—and stoically—does without. These are not conditions which should be visited upon the lead aviation research organization of the United States, especially at a time when the FAA is called upon to invent ways of meeting burgeoning air traffic demand and at the same time maintain—in fact, enhance—public safety.

The Administration's fiscal year 1999 request of $290 million does not cover the cost of RE&D associated implementation of the NAS Architecture, estimated by FAA in draft Version 3.0 to be $348 million in fiscal year 1999, increasing to $560 million in fiscal year 2000. Even these figures significantly understate cost of aviation RE&D which should be occurring because FAA activities traditionally have been limited to applied research. As with all organizations having a highly technical mission, additional funding should be appropriated for basic research—the type of inquiry that can yield break-through concepts and technologies that will produce really significant long-term benefits. Without support for this type of activity, scientific advancement of the scope and quality achieved by the Nation in aviation in this century truly will become a thing of the past.

The Air Traffic Control Association therefore urges Congress to appropriate $500 million for FAA Research, Engineering and Development in fiscal year 1999—an amount sufficient to support NAS Architecture activities, and to invigorate basic research activities in support of the Twenty-First Century aviation system.

FUNDING FOR FAA OPERATIONS

The Administration requests $5.631 billion for FAA Operations in fiscal year 1999, a 5.5 percent increase over the fiscal year 1998 enacted level. This amount would fund an additional 185 air traffic controllers, 58 flight standards inspectors, and 150 field maintenance technicians. The Administration request also includes $61.7 million to make operational new equipment being delivered.

It is not enough. The lion's share—over 70 percent—of the $315 million increase is earmarked for non-discretionary increases associated with mandatory pay adjustments and inflationary growth, and not available for programs directed toward devising and implementing new concepts and capabilities, or enhancing capacity. Among critical activities related to air traffic control specifically that need an infusion of resources are backlogs of deferred maintenance, training in all areas of activity, accelerated development of innovative operating procedures, international standards setting and harmonization efforts, and accelerated certification procedures. With air traffic rapidly increasing and technology proceeding at a breathtaking pace, FAA cannot be expected to continue improving and expanding its level of services on what amounts to a current services budget.

FAA Operations must be funded significantly—10 percent to 20 percent—above the amount the Administration requests for fiscal year 1999 if the Agency is to meet aviation challenges of the Twenty-First Century.

FUNDING FOR AIRPORT IMPROVEMENTS

The Administration proposes $1.7 billion for Airport Improvement Grants in fiscal year 1999, the same amount enacted in fiscal year 1998. ATCA recommends that the amount appropriated for Airport Grants in fiscal year 1999 and future years increase to $2 billion per year.

The Administration's fiscal year 1999 AIP funding proposal simply is not enough. The complexity and volume of traffic traveling through the Nation's airports increases daily. Regardless of how safe and efficient the air portion of the journey is, congestion and delay before take-off or after touch-down can make the difference between a pleasant, timely trip and a harried, unsatisfactory ordeal. Localities, especially small communities are hard pressed to pay for airport improvements that keep pace with the expanding aviation marketplace, and inadequacies in airport infrastructure no less than failings in other elements of the air transport system can be a limiting factor on trade, tourism, and economic activity. Systematic and healthy Federal investment in airport development is an essential component of a balanced plan to meet aviation needs of the Twenty-First Century.

RELIABLE FUNDING STREAM FOR AVIATION IS NEEDED

Aviation policy makers are attempting to devise a mechanism, supported by the entire aviation community, that will assure adequate and reliable funding for aviation safety and air traffic control activities of the Federal Government. ATCA supports this activity. Regardless of the outcome however, the ultimate reality is that

greater levels of resources—both dollars and people—must be applied to the air traffic control system now, today, if FAA is going to be able to meet the demands of increasing air traffic while continuing to provide the same safe and reliable ATC and aviation safety services the traveling and shipping public enjoys, and has come to expect, and which fuels today's robust economy.

CONCLUSION

The potential for rapid advance of ATC-related technology and the emergence of new concepts for air traffic management give cause for optimism about the future of air transportation, and provide opportunities for the United States to forge ahead in its position as world leader in aviation and air traffic control. The Air Traffic Control Association urges Congress to join hands with FAA and the aviation community in a partnership for progress, enacting funding levels for FAA in fiscal year 1999 which foster excellence into the Twenty-First Century.

PREPARED STATEMENT OF AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES AND AIRPORTS COUNCIL INTERNATIONAL—NORTH AMERICA

Mr. Chairman and members of the subcommittee: The American Association of Airport Executives (AAAE) and the Airports Council International—North America (ACI–NA) are pleased to present our testimony regarding fiscal year 1999 appropriations for the Federal Aviation Administration (FAA).

ACI–NA's members are the local, state and regional governing bodies that own and operate commercial service airports in the United States and Canada. ACI–NA member airports serve more than 90 percent of the U.S. domestic scheduled air passenger and cargo traffic and virtually all U.S. scheduled international travel. AAAE is the professional organization representing the men and women who manage primary, commercial service, reliever and general aviation airports which enplane 99 percent of the passengers in the United States.

Before focusing on the fiscal year 1999 request for the Airport Improvement Program (AIP), we must state our strong opposition to the actions taken by the House regarding offsets for the fiscal year 1998 supplemental spending bill now making its way through the Congress. The House Appropriations Committee, in seeking offsets for the new spending, originally chose to cut $610 million from the Airport Improvement Program, including a lowering of the fiscal year 1998 obligation limitation from $1.7 billion to $1.425 billion. Happily, the final version of the House legislation restored $243.6 million of the $275 million obligation limitation reduction. Despite the restoration of most of the funding, the final House bill proposes to reduce the fiscal year 1998 obligation limitation by $31 million. As this subcommittee knows, AIP funds vital safety security, capacity and noise projects in every state in the nation. AIP has been underfunded in recent years as our testimony will demonstrate. A cut to the program would negatively impact safety, security, capacity and noise projects and would undermine the excellent work of this subcommittee in recent years to restore adequate funding for the program. We urge you to oppose this proposed reduction in no uncertain terms in your deliberations with the House on the supplemental spending bill for fiscal year 1998.

To begin our fiscal year 1999 testimony, we would like to thank you Mr. Chairman, and members of this subcommittee, for your significant effort on last year's bill. Last year's enacted level for the Airport Improvement Program (AIP) of $1.7 billion represented a $240 million increase over the previous year and a $700 million increase over the Administration's request. Rather than a cut of 31.5 percent as the Administration proposed, Congress enacted a 16 percent increase, for which we are deeply appreciative.

After a number of years of recommending artificially low AIP levels, the Administration has finally proposed a funding level closer to that which is necessary. The request of the Administration is still significantly below where airports believe the funding level should be, namely, the fully authorized amount of $2.347 billion. If that funding level is not possible, given the difficult funding choices you face, we strongly believe that AIP should be funded at not less than $2 billion, which is the level recommended not only by airports, but by the National Civil Aviation Review Commission (NCARC) and the Air Transport Association (ATA).

INVESTMENT IN AIRPORT INFRASTRUCTURE IS VITAL

Airports are "economic engines" that generate and support local economic development by providing complete transportation services, stimulating business activity and investment, and creating jobs. As an example, Mr. Chairman, there are 25,000

direct, on-airport jobs at Washington National and Washington Dulles. This figure does not include the thousands of indirect (induced) jobs that are generated as a result of the activity at these airports. This example, of course, is repeated throughout the country many times over.

Today, the air transportation system is the linchpin of our national and local economies, essential to the safe transportation of people and goods, both domestically and internationally. As we move toward global economic competition, airport capacity in the United States is increasingly critical to our national economy. Germany and Japan may be our largest economic competitors, but in terms of size and geography, each can produce goods and services internally with modern systems of roads and railroads. The United States, due to its size and geography, must have an efficient, high capacity airport system to move its people and resources in order to compete. Ironically, we are in danger of seriously under-investing at a time when we can least afford it. With the expenditure of discretionary funds so constrained by the federal budget, we as a nation should maximize those expenditures on investments that will help our economy grow and on aviation facilities that will be available for use today, tomorrow and for years to come. We must build the infrastructure that will allow not only our generation, but our children and grandchildren the opportunity to compete and prosper in the global economy.

Since airline deregulation in 1978, the number of passengers using the domestic aviation system has grown exponentially. Last year, around 581 million passengers were enplaned in the United States. The FAA projects that by 2002, that number will grow to 740 million and it will approach the one billion mark sometime in 2009.

Already, we have significant capacity and delay problems in our system. Currently, there are 22 airports that are seriously congested, experiencing more than 20,000 hours of delay or more per year. These delays cost the airlines, alone, over half a billion dollars a year and impose tremendous costs and disruptions to millions of passengers and businesses. FAA forecasts that unless major airport capacity investments are made, this number of congested airports will grow to 32 in less than 10 years.

This means that over the next several years, we also have to somehow make sure that there is sufficient investment in our nation's airport infrastructure to handle not only the current passenger traffic but an additional 200 million passengers by the year 2002. This will be a major challenge. We as a nation cannot afford the billions of dollars in annual delay costs and lost productivity to the airlines, air travelers and businesses, nor can we afford to weaken our economic competitiveness abroad, by settling for an inefficient and inadequate air transportation system.

It generally takes 5–7 years to undertake and complete an airport development project. That means that as politically difficult as it may be to provide an increase in airport construction funding in today's budgetary environment, it is absolutely imperative that Congress do just that. Without the increased investment, we cannot realistically hope to close the existing investment gap and will have no chance to build the infrastructure needed to meet the increased demand that will be placed on the system in the years ahead. We must act now. If we wait, the funding gap will be impossible to close.

AIRPORT CAPITAL DEVELOPMENT NEEDS CONTINUE TO GO UNMET

ACI–NA and AAAE have conducted numerous surveys to assess the capital development funding needs of all airports throughout the United States. The latest survey we conducted showed that U.S. airports required more than $10 billion each year over a six-year time period—at least $60 billion for needed capital improvement and capacity expansion projects. Of this $10 billion a year, only 60 percent ($6 billion dollars) are for projects defined as eligible for AIP funding. The General Accounting Office (GAO) has recently corroborated our findings.

These projects are essential to increase capacity, improve safety and security, reduce delays for the traveling public, reduce aircraft noise for communities surrounding airports, help pay for unfunded federal mandates and regulations, and to build and improve facilities that will promote air service competition and the aviation industry's economic health.

It has, apparently, become popular to question the needs of the airport community rather than finding long-term funding solutions. It is instructive to look at the numbers. In 1997, thanks in large measure to the members of this subcommittee, the aviation trust fund appropriation for airport construction projects (AIP) was $1.7 billion. Local airport Passenger Facility Charges (PFC's) generated about $1.1 billion in 1997. Combine these two revenue streams and airports receive less than $3 billion dollars of the $6 billion dollars needed each year that is acknowledged as eligible for federal funding. We know of no organization that questions whether there

are $6 billion a year in AIP-eligible projects (this figure has been corroborated by FAA), although some have an interest in questioning how necessary some of these projects are. There should be no question that this is a solid figure and these projects are indeed necessary.

AIP FUNDING

Mr. Chairman, last year's funding level of $1.7 billion represents a significant step toward restoring AIP to adequate funding levels, however, it is still $200 million below the fiscal year 1992 funding level, and since that time, the system has grown by more than 100 million enplanements. By any measure, airports have lost ground. If Congress permits funding for AIP to remain stagnant, without giving airports additional tools to raise needed funds, the national system of airports we enjoy and rely on today will be jeopardized.

Simply put, current funding levels for AIP are inadequate to meet the needs of the system today, and with every day that goes by, we are falling further behind. The airport community needs a fully funded AIP program, in excess of $2 billion a year to help support needed safety, security, capacity and noise projects. As we noted above, at minimum, Congress should enact a funding level of at least $2 billion, consistent with the recommendations of the NCARC and ATA. We must act now to close the gap between the needs of the system and what is contributed to the federal Airport and Airway Trust Fund to meet those needs. Simultaneously, Congress must begin to focus on other, non-federal means to enable airport operators to generate adequate funds for capital improvement projects, to make up for the shortfall in AIP funding and to begin bridging the gap between airport funding sources and needs.

Before closing Mr. Chairman, we also want to bring two additional items to your attention. First, we note the importance of the FAA Contract Tower program. It is imperative that Congress continue to fully fund and expand the FAA Contract Tower program where appropriate. This program enhances safety, provides significant savings to the FAA and increases economic productivity at the 160 airports that are currently participating in the program (180 airports by the end of fiscal year 1998).

And finally, we are very appreciative of the language crafted by the House subcommittee and agreed to by this subcommittee in the final report last year dealing with the responsibility of funding for navigational aids. The FAA last year had a proposal in the National Airspace System Architecture plan to transfer responsibility for current and future visual navigational aids, presently owned and operated by the FAA, over to the airport community. The language included in last year's House report and the language ultimately adopted in the final report (which instructs the FAA not to move forward on any proposal to shift funding responsibility for navigation and landing aids from the FAA to other parties without Congressional authorization) continues to be helpful to airports. We ask that you once again include this language in your fiscal year 1999 report.

Mr. Chairman, we look forward to working with you and other members of the subcommittee and the staff to fashion a bill this year that balances the competing needs of the entire transportation community fairly. Clearly, it won't be an easy job and we appreciate your leadership.

LETTER FROM CHARLES BARCLAY, AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES, ET AL.

MARCH 16, 1998.

Hon. RICHARD C. SHELBY,
Chairman, Transportation Appropriations Subcommittee, U.S. Senate, Washington, DC.

DEAR CHAIRMAN SHELBY: As your subcommittee continues its work on the fiscal year 1999 Department of Transportation appropriations bill, we would like to ask you to consider the vital part airport infrastructure plays in our country's global competitiveness and encourage you to find the Airport Improvement Program (AIP) at no less than $2 billion.

The Airport Improvement Program funds needed safety, security, capacity and noise projects at airports in every state in the nation. For fiscal year 1999, the administration has proposed an AIP funding level of $1.7 billion, which is the current level of the program. The $1.7 billion request is a solid point, but still does not meet the critical needs of airports. The $2 billion funding level represents a consensus of not only airports, and airlines, but of the national Civil Aviation Review Commission and the undersigned organizations.

Commercial service and general aviation airports are "economic engines" that generate and support local economic development by providing complete transportation services, stimulating business activity and investment, and creating jobs. The U.S. Department of Transportation and others have conducted studies that show for every $1 billion invested in airport development, approximately 40,000–50,000 jobs are created and sustained. Investment in our nation's airports returns enormous dividends to citizens, travelers and shippers, as well as to the airlines and others whose businesses provide or depend upon aviation services.

As we move toward global economic competition, airport capacity in the United States is increasingly critical to our national economy. The United States, due to its size and geography, must have an efficient, high capacity airport system to move its people and resources in order to compete.

Since airport construction projects, on average, take 10 years to complete, investment in our nation's aviation infrastructure is needed now to meet the capacity demands of the future. If under-investment in AIP is allowed to continue, it will exacerbate the significant capacity and delay problems that users of our system already face today.

We recognize that you and your colleagues are faced with very difficult choices regarding the allocation of scarce resources and appreciate your leadership on this issue. We respectfully request that your bill for fiscal year 1999 include at least $2 billion for the Airport Improvement Program (AIP).

Sincerely,

Charles Barclay, American Association of Airport Executives; David Z. Plavin, Airport Council International-North America; Carol Hallett, Air Transport Association; Stephen Alterman, Cargo Airline Association; Phil Boyer, Aircraft Owners and Pilots Association; Henry Ogrodzinski, National Association of State Aviation Officials; Don Fuqua, Aerospace Industries Association; Valentin J. Riva, American Concrete Pavement Association; Stephen Sandherr, Associated General Contractors; Nancy West, Airport Minority Advisory Council; Paula Bline, Airport Consultants Council; Peggy Hudson, American Portland Cement Alliance; Luther Graef, American Society of Civil Engineers; Larry Naake, National Association of Counties; Howard M. Messner, American Consulting Engineers Council; Mike Acott, National Asphalt Pavement Association; Donald J. Borut, National League of Cities; T. Peter Ruane, American Road & Transportation Builders Assoc.

PREPARED STATEMENT OF STEPHANIE FOOTE, CHIEF OF STAFF, OFFICE OF MAYOR WELLINGTON WEBB, CITY AND COUNTY OF DENVER, CO

INTRODUCTION AND SUMMARY

Mr. Chairman, on behalf of Mayor Wellington Webb of the City and County of Denver, I want to thank you for the opportunity to submit this testimony for the record and to be able to tell you that on February 28, 1998, Denver International Airport successfully completed its third full year of operations.

Mr. Chairman, if you or any of your colleagues on this Subcommittee have not seen DIA, I would like to extend an invitation to you to visit the airport and have Mayor Webb give you a personal tour of this state-of-the-art airport. With several major airports being built elsewhere around the world, they all come to Denver to see how to do it and we are very proud to display America's high level of expertise in airport technology. Last year, DIA was presented the Outstanding Civil Engineering Achievement Award by the American Society of Civil Engineers in recognition of its notable design and excellent construction and DIA is among 100 major public works and infrastructure projects worldwide that is vying for recognition as one of the Top 10 Construction Achievements of the 20th century.

DIA would not have been possible without funding appropriated by this Subcommittee for the Airport Improvement Program, which enabled the FAA to provide grants, and for equipment and facilities for this nationally-important project. DIA was the first major airport built in the United States in over 20 years. It is a critical component of our national aviation system and our transportation infrastructure that you, Mr. Chairman, and your fellow Members are working so hard to improve. Without Congress, DOT, the FAA and the City of Denver, all working together closely, DIA would not have happened.

Today, I would like to give you an update on our operations and also to seek your continued support of our effort to complete DIA's airfield by completing our sixth

runway, which was part of the original airport plan and is now an important, missing component of the airport.

There are three main reasons why DIA was built.

One was to provide a more efficient, cost-effective and user-friendly facility for the citizens of the City of Denver, the State of Colorado and the Rocky Mountain and Great Plains regions, and the millions of visitors who are so important to our economy. For them, DIA is the gateway to the rest of the country and the world.

The second, closely tied to the first, was to provide a more cost-effective and efficient hub by reducing the delays at the old Stapleton Airport that were severely and negatively impacting the nation's air transportation system and were keeping Denver from taking full advantage of its central geographic location.

Third, Stapleton was the source of serious noise problems that needed to be solved. Stapleton was located only seven miles from downtown Denver and was surrounded on three sides by residential communities. About 14,000 people lived within the 65 dB DNL contour—the noise level which the FAA has determined is eligible for noise mitigation programs.

I can report to you today that DIA has attained or exceeded expectations as to each of these goals. The Airport's revenues have exceeded its expenses in each of its three years of existence; it is highly efficient and one of the world's most user-friendly airports; it had the second lowest percentage of delays among the nation's 20 busiest airports in 1997, which was good news not only for Denver but for the national system; and we have dramatically reduced the number of people within the 65 db DNL noise contour from about 14,000 to less than 200.

In sum, DIA has made a major contribution to the efficiency of the carriers operating at the Airport and to the national air transportation system through reduced flight delays and fuel savings and has dramatically improved the impact of noise on those who were most heavily affected.

Let me now turn to more specifics about the results of DIA's first three years of operation.

DIA IS FINANCIALLY SOUND

DIA's record of performance reflects the fact that the Airport is well-managed by the City and financially sound. For 1997, we handled about 34.9 million passengers, an 8 percent increase over 1996 and the highest ever for Denver. This solid traffic level is evidence of Denver's strong origin and destination market and its central geographic location for east-west hubbing operations. For 1997, our net revenues, i.e., revenues less operating expenses and debt payments, were about $17.6 million. Under our agreement with the airlines, 80 percent of these net revenues are provided to the carriers, which reduces their costs at DIA.

We have carefully managed our revenue sources, such as concessions and parking, as well as our costs, particularly through successful refinancing of our debt obligations, which has created important savings that are shared with the air carriers. Our strong financial performance has enabled us to reduce our costs per enplanement, which were projected to be $18.02 when we opened in 1995, to about $16.22 by the end of 1997, a 10 percent reduction. As we enter our fourth year of operations, we expect that DIA will continue to have an excellent record and will continue to be one of the world's most efficient airports.

DIA HAS SUBSTANTIALLY REDUCED DELAYS

Our second major goal was to reduce delays. For 1997, we had 2.9 delays per thousand operations, the second best percentage among the top 20 U.S. airports. In contrast, we suffered 14 delays per thousand operations at Stapleton, one of the worst records in the United States. Stapleton, a major connecting airport for travelers flying between the eastern and western parts of the country, was a terrible bottleneck during bad weather. While Stapleton could handle 88 air carrier jet arrivals per hour on two runways in good weather, it would be down to only one runway and barely 32 arrivals per hour in a storm, causing tremendous backups throughout our national system. That was one of the major reasons for then-Secretary of Transportation Skinner's strong support without which DIA would never have been built.

Since DIA opened, its benefits to the national system are dramatically reflected in the on-time statistics I just cited. Closer to home, on the day we opened, Denver was hit by a snowstorm that would have crippled Stapleton, leaving it with only one runway capable of handling 32 operations per hour. Yet, DIA had three runways operating simultaneously with a capacity to handle up to 120 flights per hour.

DIA HAS SUBSTANTIALLY REDUCED AIRCRAFT NOISE IMPACTS

Our third major goal was to reduce the impact of aircraft noise on the people of our communities. Mr. Chairman, Members of the Subcommittee, we have probably achieved more in reducing airport noise significantly for our citizens than any large airport in the nation. We did that by moving the airport from seven miles from downtown to 23 miles from downtown. That took us from a very high population density area to one with very low population density. We also acquired 53 square miles (34,000 acres)—twice the size of Manhattan—to give us a large buffer zone around the airport. As a result, the number of people who now live within an area defined as the 65dB noise contour is down from 14,000 at Stapleton to less than 200 at DIA.

Notwithstanding this outstanding progress, Denver continues to be prohibited from applying for AIP funds to complete DIA's sixth runway.

As we have testified in prior years, DIA was designed to have six runways, giving it a balanced airfield for arrivals and departures. We completed the first five runways prior to opening. The FAA awarded Denver a $10 million AIP grant for the site preparation work for the sixth runway in 1993. This work was completed in 1996. Since then, unfortunately, construction has been halted by the Appropriations Committee's funding prohibition, which was first imposed in the fiscal year 1995 Transportation Appropriations Bill, prior to DIA's opening. The prohibition is there not because we are violating the law or doing anything improper. Given DIA's record of success over the past three years, the prohibition is clearly not warranted. However, we understand that noise complaints have now become the justification for the prohibition.

It is a fact that, notwithstanding the great reduction in our noise impacted population, DIA, like every major airport in the nation, still receives noise complaints. However, the complaints must be viewed in perspective. The DIA noise complaint database for the period September 1996 through August 1997 showed that ten addresses made a total of about 36,000 calls or about 50 percent of all calls. Some calls came from individuals as far as 50 miles away where the noise impact is significantly below 40 dB. The noise levels for many of these individuals, while no doubt bothersome to them, are not within the FAA's established criteria, so that there are no Federal resources available for mitigation purposes. Nonetheless, we have taken these community concerns very seriously and have worked to address them.

Several years ago, after DIA opened, Denver established a technical task force consisting of experts from DIA, United Airlines, other airlines at DIA, noise and airspace consultants and seven nearby counties to address the noise impacts on all the surrounding communities. In 1995, the Task Force issued nine recommendations, including construction of DIA's sixth runway. Denver and the FAA have implemented seven of these recommendations. The eighth recommendation is under review. The ninth recommendation is the sixth runway. While these efforts have reduced the noise impacts, Denver has gone the extra mile in taking even further steps.

In August, 1997, Denver and seven of the counties near DIA formally organized the DIA Study Coordination Group, a non-profit corporation, to perform a comprehensive and costly analysis of the noise caused by aircraft using DIA and to develop recommendations to address the noise concerns. The Group retained Wyle Laboratories, a national, highly-regarded, independent consultant, to perform the study. The results were announced on March 3, 1998 and can be summarized as follows:

The Sixth Runway Has No Significant Impact On Noise.

One of the Study's most important findings is that the Sixth Runway "would not substantially change the number of persons impacted" by aircraft noise. This conclusion breaks the linkage of noise to the sixth runway that opponents had been trying to forge and exposes such efforts as without a factual foundation. In fact, although it was not studied, the consultants suggested that the new runway may further mitigate noise because of the additional options it would provide the FAA in regulating traffic flow.

The Number of People Adversely Impacted under Existing Federal Standards Is Small.

Of the 1.2 million people covered by the Study, only 198 (0.02 percent) are within the 65 dB or greater noise band, one of the best records for any major airport in the world. This is the only group for which Congress has established a program of Federal funding for noise mitigation.

Changing DIA's Flight Paths Could Reduce Noise Impacts Even Further.

By changing flight paths, the number of people in the 55 to 65 dB contour could, optimally, be reduced by 77 percent, from 91,262 to 21,609.

The Noise Impacts from Buckley Air National Guard Base and Centennial Airport Are Greater Than the Noise Impacts from DIA.

The Study also revealed that those who are within the 55 to 65 dB noise contours are largely living within contours generated by air traffic at close-by Buckley, an Air National Guard Base, and Centennial Airport, a general aviation airport. Notably, these are not contours created by DIA's flight operations. Yet, DIA, not these other two airports, is being punished by the prohibition on funding.

DENVER SHOULD NO LONGER BE BARRED FROM SEEKING AIP FUNDS FOR DIA'S RUNWAY

Mr. Chairman, DIA has been operating successfully for three years. We have done everything possible to reduce noise impacts in the communities around the Airport. We have fewer people seriously impacted by noise than any other major airport in the nation. Yet, we alone are discriminated against by being the only airport in the U.S. that is prohibited by law from even applying to the FAA for grant funds to build a runway. There are over 3,000 airports nationwide that are eligible to compete for AIP funds and we believe we merit an equal right to compete by having the statutory prohibition lifted. If there are continuing concerns with DIA, we will work with Congress, the FAA or whoever else is involved to address them. However, punitive legislation like this is unfair, establishes a bad precedent and is simply not warranted.

Moreover, continuing the prohibition punishes not only the people of Colorado but the entire nation. DIA is a national asset. About 60 percent of the 35 million passengers using DIA each year come from states other than Colorado. Thus, the AIP funding prohibition hurts not only DIA, but travelers throughout the country.

In summary, Mr. Chairman, I am not asking this Subcommittee to give us AIP funds for the sixth runway. I am simply asking this Subcommittee to let the AIP statutory criteria and FAA regulations apply to DIA, just as they do to thousands of other airports nationwide, and ask that you not re-enact, for a fifth straight year, the prohibition on AIP funding for DIA's sixth runway.

Thank you.

PREPARED STATEMENT OF THE GREATER ORLANDO AVIATION AUTHORITY

Senator Shelby and distinguished members of the Senate Transportation Appropriations Subcommittee: The Greater Orlando Aviation Authority (GOAA) is extremely pleased to submit written testimony to you and deeply appreciates this opportunity to provide your committee with the current status of the development of Orlando International Airport (OIA). GOAA is very grateful for the past support of this committee and will strive to maintain your trust and confidence. The future ability of the National Aviation System to ensure safe and secure air transportation depends on a well funded Airport Improvement Program (AIP) which provides the Federal Aviation Administration the financial resources needed to underwrite critical capacity improvement projects. GOAA respectfully requests the Senate Transportation Appropriations Subcommittee to fully fund AIP at no less than $2 billion. Airfield improvements are intended to increase needed capacity, provide increased flight operation safety, and enhance the efficiency of the National Aviation System. The AIP is an essential component of the financial strategy to ensure airports have the resources necessary to design and construct basic airfield improvements.

On January 16, 1998 GOAA submitted a formal request to the FAA for a "Letter of Intent" to obtain funding for a North Crossfield Taxiway System. The estimated cost of the taxiway is $76.4 million. The requested "Letter of Intent" is for a four-year period and allocates both entitlement and discretionary grants. The total amount of the federal share is $42 million with GOAA providing a 33 percent match. Timely construction of the North Crossfield Taxiway is important for two reasons. It is absolutely essential that the taxiway be operational before the airport's two Mid-Field Taxiways are temporarily closed for bridge expansion. In addition, the efficient use of the new airside building depends on the ability of aircraft to have improved access to the apron area. As part of the "Letter of Intent" submission process, GOAA has prepared the required Benefit-Cost Analysis indicating the taxiway provides a positive benefit and offers significant aircraft operational savings. The final design of the taxiway should be completed by April 1, 1998. GOAA will be able to award a construction contract for the project by October 1, 1998. GOAA would like the support of the Senate Transportation Appropriations Sub-

committee for this project and request you to direct the FAA to give this funding request priority consideration.

GOAA and its airline partners have recently approved a $1.2 billion capital improvement program. Funding for this program includes revenue bonds, state grants, Passenger Facility Charge (PFC) revenue, and other airport funding sources. Federal participation has been strictly limited to airfield capacity improvements and represents only 5 percent of project costs. Consequently, GOAA has pledged $1.14 billion for the design and construction of a new airside building, expanded public parking facilities, existing and new terminal development, as well as a new $27 million Air Traffic Control Tower completely funded without any FAA participation.

Past aggressive planning efforts have enabled OIA to respond to a phenomenal growth rate over the last sixteen years. Forecasts indicate OIA will experience annual growth of 7–10 percent during the next five years.

In 1997 OIA recorded an 8 percent growth rate representing an additional 2 million passengers over the previous year. By the end of 1998, OIA will serve more than 29 million passengers and handle 360,000 flight operations. Since 1996 OIA has ranked among the world's fastest growing airports and in 1997 was second in the United States for passenger growth.

As the most popular tourist destination in the United States, OIA's passenger traffic is unlike most other airports. Approximately 85 percent of the passengers using OIA are destined for our community. This is a unique phenomena for a large-hub airport, which requires extensive infrastructure to transfer passengers from airlines to various modes of surface transportation making surface access a key component of OIA's development. Air service to Orlando is extremely competitive with the largest air carrier representing less than 30 percent of the overall market. Only a few other major airports share a similar profile, as the majority of large-hub airports depend upon one or two major airlines for air service.

Orlando International Airport shares a unique relationship with the regional economy. A recently completed economic impact study determined OIA generates a $14 billion annual impact and is responsible for 54,000 jobs.

The future growth of OIA is directly related to the expansion and development of three major theme parks and support services. Walt Disney World is only 25 percent developed and will open its newest attraction later this year. Universal Studios is currently undertaking a 7 year, $3 billion expansion program and plans to employ 14,000 workers. The Orange County Convention Center recently expanded, making Orlando among the top five convention locations in the country. Sea World continues to attract more guests each year and is currently planning a major expansion program. As these attractions gain more popularity, OIA will serve as the domestic and international gateway for at least half of the guests arriving in Central Florida. Increased employment opportunities, corporate relocations, and rapid population growth will also contribute to the demand for further development of OIA.

OIA encompasses 15,000 acres of land. It is the largest commercial airport on the East Coast of the United States and possesses the ability to provide nearly unlimited future airfield capacity.

As part of the National Aviation System, OIA has the potential to positively influence air traffic and limit future operational delays.

The Greater Orlando Aviation Authority is extremely proud of Orlando International Airport and believes it represents a model for airport development. Our continued success requires federal participation in new airfield improvements and is closely aligned with the timely construction of the North Crossfield Taxiway. AIP is an essential part of the airport's funding strategy. The full funding of this most important program will enable OIA to receive the federal assistance needed to complete the project on time, without any unnecessary costs or delays.

In closing, we would like to express our gratitude for allowing GOAA to submit this testimony. We hope that our comments have provided you with a better understanding of the future expansion and financial dynamics impacting Orlando International Airport.

LETTER FROM F. LEE TILLOTSON

GREATER ORLANDO AVIATION AUTHORITY,
ORLANDO INTERNATIONAL AIRPORT,
Orlando, FL, January 16, 1998.

Mr. CHARLES E. BLAIR,
Manager, Orlando Airport District Office, Federal Aviation Administration, Orlando, FL.

DEAR MR. BLAIR: On January 23, 1997 the Greater Orlando Aviation Authority submitted a request to the Federal Aviation Administration for a "Letter of Intent"

to partially fund the construction of three essential airfield improvements at Orlando International Airport. After the submission of this request, it was determined the funding for the North Crossfield Taxiway project required priority consideration. Therefore, the Authority would like to withdraw its original request and submit a separate "Letter of Intent" for the North Crossfield Taxiway alone. The reconstruction of Runway 18R/36L project is currently in the design phase and we anticipate submitting a grant application for these costs to the FM within the next sixty days. Further federal participation in the East Airfield Development project (4th runway) will be requested at a later date.

The North Crossfield Taxiway is a critical airfield capacity improvement needed to support a new airside building. In addition, it is absolutely imperative the taxiway is fully operational prior to the planned temporary closure and expansion of the two Mid-Crossfield Taxiways and associated bridges. The successful planning, design, and construction of a south terminal complex greatly depends on the timely completion of these two capacity improvements.

The estimated total cost of the taxiway is $76.4 million, which includes contingencies. The FM has already awarded a $3 million 1997 discretionary grant and programmed 1998 entitlement funds for the first phase of this project. Phase two requires $42.6 million in matching federal funds. The proposed "Letter of Intent" commits entitlement funds of $17.6 million over a four-year period and requests an annual $6.25 million discretionary grant for the same period. The final design of the taxiway should be completed by April 1, 1998. Thus, actual construction could commence as early as October 1, 1998. The approval of the attached "Letter of Intent" will enable the Authority to proceed with this much-needed project without incurring excessive delays or costs. The attached spreadsheet displays the funding cycle beginning with fiscal year 1999 and continuing through fiscal year 2002.

A review of project costs and funding sources indicates the Authority is providing a 33 percent funding match. The attached Benefit-Cost Analysis has been prepared in accordance with current FAA guidelines. The net present value of the project is estimated at $40 million with a benefit-cost ratio of 1.7, which indicates that the benefits of the taxiway exceed its costs. The federal share of project costs represents less than 4.2 percent of the $1.2 billion airport capital improvement program.

As Orlando International Airport continues to be among the world's fastest growing airports, the future development of new and expanded terminal and airfield facilities becomes critically important as passenger traffic demands increase. The National Aviation System is well served by Orlando International Airport and benefits from the airport's vast land-resources capable of offering nearly unlimited future growth. As the airport's capacity increases, the regional economic impact of $14 billion related to aviation activities will expand and add to the 60,000 jobs dependent on airport operations.

The Tower Chief at the Orlando Air Traffic Control Tower has written the attached letter supporting the need for the North Crossfield Taxiway. The Authority is confident with this type of support the FAA will recognize the vital nature of this project and approve the request for a four-year "Letter of Intent" and award annual grants as previously defined. Thank you for your attention in this matter. If you require any additional information, please do not hesitate to contact my office.

Sincerely,

F. LEE TILLOTSON,
Senior Director for Planning and Special Projects.

ATTACHMENT 1

OMB Approval No. 0348-0043

APPLICATION FOR FEDERAL ASSISTANCE

2. DATE SUBMITTED	Applicant Identifier: OIA-01-98P
3. DATE RECEIVED BY STATE	State Application Identifier: FL 9006211679CR; 9012180753C;
4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier: 9212111873C

TYPE OF SUBMISSION: Application — ☐ Construction ☐ Non-Construction; Preapplication — ☒ Construction ☐ Non-Construction

APPLICANT INFORMATION

Legal Name: City of Orlando	Organizational Unit: Greater Orlando Aviation Authority
Address (give city, county, state, and zip code): One Airport Boulevard, Orange County, Orlando, Florida 32827-4399	Name and telephone number of the person to be contacted on matters involving this application (give area code): J. H. Bradley, Senior Director Engineering & Construction (407) 825-3528

6. EMPLOYER IDENTIFICATION NUMBER (EIN): 59-6003961

7. TYPE OF APPLICANT: (enter appropriate letter in box) C

A. State; B. County; C. Municipal; D. Township; E. Interstate; F. Intermunicipal; G. Special District; H. Independent School Dist.; I. State Controlled Institution of Higher Learning; J. Private University; K. Indian Tribe; L. Individual; M. Profit Organization; N. Other (Specify):

8. TYPE OF APPLICATION: ☒ New ☐ Continuation ☐ Revision

If Revision, enter appropriate letter(s) in box(es): ☐ ☐

A. Increase Award; B. Decrease Award; C. Increase Duration; D. Decrease Duration; Other (specify):

9. NAME OF FEDERAL AGENCY: Federal Aviation Administration

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 20.106

TITLE: Airport Improvement Program

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: Letter of Intent (See attached)

12. AREAS AFFECTED BY PROJECT (cities, counties, states, etc.): Orange, Seminole, and Osceola Counties

13. PROPOSED PROJECT: Start Date	Ending Date	14. CONGRESSIONAL DISTRICTS OF: a. Applicant	b. Project
2/28/97	2/17/01	Eighth	Eighth

15. ESTIMATED FUNDING:		
a. Federal	$ 42,601,830	.00
b. Applicant	$ 25,212,143	.00
c. State	$	.00
d. Local	$	.00
e. Other AIP antic. AIP funded to date	1,600,000 7,006,027	.00
f. Program Income	$	.00
g. TOTAL	$ 76,420,000	.00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON DATE 12/12/90 (C/F T/W North)

b. NO ☐ PROGRAM IS NOT COVERED BY E.O. 12372

☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation. ☒ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED

a. Typed Name of Authorized Representative	b. Title	c. Telephone number
J. H. Bradley	Senior Director Engineering & Construction	(407) 825-3528

d. Signature of Authorized Representative

e. Date Signed: 1/20/98

Previous Editions Not Usable

Standard Form 424 (REV 4-88) Prescribed by OMB Circular A-102

Authorized for Local Reproduction

PRE-APPLICATION FOR FEDERAL ASSISTANCE, REQUEST FOR LETTER OF INTENT, PRE-APPLICATION NO. OIA–01–98P, AIRPORT IMPROVEMENT PROJECT FOR ORLANDO INTERNATIONAL AIRPORT.

SINGLE NORTH CROSSFIELD TAXIWAY

Project Description

The proposed bi-directional single north Crossfield taxiway would be approximately 7,000 feet long and 75 feet wide and would allow for the connection of Runway 18L with Runway 17. The Taxiway will also directly connect to apron areas associated with the existing northwest airside and future northeast airside.

Passenger Facility Charges (PFC's) in the amount of $3,500,000 has been allocated for design of Phases 1 A and B for this project in PFC Application # 3. In addi-

tion, PFC's in the amount of $19,105,000 has been approved for construction of this project in PFC Application #5. Phase 1A construction has commenced, with commencement of Phase 1B construction by September 1998.

Justification

The North Crossfield Taxiway is a critical component of the major overall capacity improvements that are planned for Orlando International Airport (OIA). The FAA Air Traffic Control Manager at OIA wrote to the Authority in March of 1993 and stated, "The single north Crossfield taxiway that is in the planning stages is a step in the right direction. However, based on our recent conversations with you about future growth patterns, it is evident that dual north Crossfield taxiways are mandatory. Accordingly, we ask your immediate and full consideration of this issue as we are convinced the 'bottlenecking' of taxiing aircraft could become the greatest constraint to an efficiently operating airport." In addition, a second letter was forwarded from the Air Traffic Control Tower Manager in December 1997.

Based upon this request, an Airport Capacity Enhancement Tactical Initiative for the North Crossfield Taxiway System was prepared jointly by the U.S. Department of Transportation, Federal Aviation Administration, and the Greater Orlando Aviation Authority. The organization that initiated this effort was the FAA's Office of System Capacity and Requirements (ASC) in Washington, DC. The findings of this study indicated that FAA's position is that a single North Crossfield Taxiway will provide significant cost savings at all demand levels and was needed as early as 1993.

The Authority has an impose and use PFC for designing tunnels and bridges for Mid Crossfield Taxiways which currently provide the only access between the east and west runways and related operational areas. This project is expected to proceed in the near future and will require shutting down both of the Mid Crossfield Taxiways at separate times to allow construction. If this occurs, OIA will be reduced to one-way traffic between the inboard runways, which is separated by 8,400 feet. Therefore, the single lane North Crossfield Taxiway must be operational before the Mid Crossfield Taxiways can be closed for construction, thereby enormously increasing the urgency of the North Crossfield Taxiway.

In addition, the Authority is proceeding with the development of a 16 gate Airside 2 and intends to proceed with the continued development of the Fourth Runway to be completed by the year 2000. The surface operations generated by the opening of the Fourth Runway and the completion of Airside 2 for airline operations will diminish the ability of the Mid Crossfield Taxiways to effectively accommodate east and west aircraft operations with the North Crossfield Taxiway in place.

The only effective way to avoid substantial aircraft delays and FAA Air Traffic Control Tower operational problems is to construct a North Crossfield Taxiway in the earliest possible timeframe. The Authority has begun construction of Phase 1A to accommodate Airside 2 operations. Design has been completed for the entire project, and the Authority is initiating the preparation of contract documents including plans and specifications, and will be in a position to award a contract should the Federal share of funds be approved.

See the attached picture of the proposed project.

ALLOCATION OF ENTITLEMENT AND DISCRETIONARY FUNDS BY FISCAL YEAR FOR SINGLE NORTH CROSSFIELD TAXIWAY

	Phase 1A		Total	Phase 1B (LOI Request)				
	1997 [1]	1998 [2]		1999	2000	2001	2002	Total
Entitlements	.....	$4,006,026	$4,006,026	$4,216,788	$4,343,292	$4,473,591	$4,607,798	$17,641,489
Discretionary	$3,000,001	1,679,453	4,679,454	6,240,090	6,240,090	6,240,090	6,240,090	24,960,361
Total project eligible AIP funding	3,000,001	5,685,479	8,685,480	10,456,878	10,583,382	10,713,681	10,847,889	42,601,830

[1] Discretionary funding received September 30, 1997.
[2] Entitlement funds received December 11, 1997 (excludes $87,943 for Rehab of Airside 1 and 3 Aprons). Discretionary funding anticipated in fiscal year 1998 in the amount of $1,600,000.

Note: Project Costs are derived from Capital Improvement Plan.

MEMORANDUM FROM DONNA GROPPER, MANAGER, ORLANDO INTERNATIONAL ATC TOWER

Subject: Information: Airport Construction Funding Request
To: Charles E. Blair, Airports District Office

Over the last several years, Orlando International Airport has experienced double-digit growth in passenger traffic, and significant growth in airfield operations. The Greater Orlando Aviation Authority (GOAA) projects continued grower rates that exceed the national average in both of these areas. As airfield operations increase, it becomes more critical for aircraft to be directed to where there is available runway capacity to avoid any unnecessary delays. Currently, the airport has more runway capacity on the west airfield.

GOAA has underway a $1.2 billion capital program to meet future traffic demands. As a part of this capital program GOAA will construct Airside 2, which will provide additional gate capacity. A critical element in the construction of Airside 2 is the construction of the Single North Crossfield Taxiway (SNCFT). We believe this project is essential for the safe and efficient movement or aircraft to and from the east and west airfield areas. As traffic at this airport continues to build, we strongly feel a dual north field taxiway will be necessary.

GOAA has currently under construction the first phase of the SNCFT with funding assistance from the FAA, which is an important step forward in providing the necessary access in and around the future Airside 2. The second phase of this project will connect the east and west airfields. The completion of this phase is imperative for the proper management of air traffic at this airport. Without this connection, aircraft using Airside 2 would be required to use the Mid-Crossfield Taxiways to move between the east and west airfields at a considerable cost in both time and fuel.

In addition, GOAA plans to close Taxiways E and F, each for one year beginning in 2001 to expand the mid-field bridges. If the SNCFT is not in operation prior to these closures, significant aircraft delays will occur as a result of bi-directional use of a single Mid-Crossfield Taxiway.

In conclusion, we support GOAA's request for federal funding for this project. This capital improvement will provide increased and much-needed airfield capacity and safety.

If I can provide you with any additional information, do not hesitate to contact me.

FINAL REPORT—BENEFIT-COST ANALYSIS OF NORTH CROSSFIELD TAXIWAY, ORLANDO INTERNATIONAL AIRPORT

EXECUTIVE SUMMARY—BENEFIT-COST ANALYSIS OF NORTH CROSSFIELD TAXIWAY

Leigh Fisher Associates was retained in August 1997 by the Greater Orlando Aviation Authority (GOAA) to perform a benefit-cost analysis of the proposed North Crossfield Taxiway at Orlando International Airport. This analysis was conducted in accordance with the draft FAA Airport Benefit-Cost Analysis Guidance, dated June 2, 1997.

CONCLUSION

As shown on Table E–1, the North Crossfield Taxiway was estimated to have a net present value of approximately $40 million [1] and a benefit-cost ratio of 1.7, indicating that the benefits of the taxiway exceed its costs. Because the present value of project benefits exceeds the present value of project costs, the taxiway meets FAA criteria to be considered as a candidate for discretionary funding under the Airport Improvement Program (AIP) through a Letter of Intent (LOI), as stated in the FAA's Policy for Letter of Intent Approvals under the Airport Improvement Program [59 FR 54482], dated October 31, 1994; and reaffirmed in the FAA's interim Policy and Guidance Regarding Benefit Cost Analysis for Airport Capacity Projects Requesting Discretionary Airport Improvement Program Grant Awards and Letters of Intent [62 FR 121], dated June 24, 1997.

[1] Except where otherwise noted, all dollar values shown in this Executive Summary are expressed in 1997 dollars.

Table E–1.—Comparison of the estimated benefits and costs of the North Crossfield Taxiway—1997 present value

[Millions of 1997 dollars [1]]

	Millions
Project benefits	$100.0
Project costs	60.0
Net present value	40.0
Benefit-cost ratio	1.7

[1] Assuming a 7 percent real discount rate.

Source: Leigh Fisher Associates, January 1998.

EVALUATION OF PROJECT BENEFITS

Project benefits quantified in this analysis were limited to reductions in aircraft taxiing time and ground delay resulting from the availability of the proposed taxiway. These benefits were estimated using the FAA Airport and Airspace Simulation Model (SIMMOD) and the results of previous analyses of the North Crossfield Taxiway performed by the FAA It was assumed at, (1) the North Crossfield Taxiway will open in 2001 as currency scheduled; [1] (2) 16 new aircraft gates will be provided at the new Airside 2 by 2001; and (3) Taxiways E and F will be closed sequentially in 2001 and 2002 to facilitate reconstruction of taxiway bridges over Airport Boulevard South. Other benefits—such as increased ground control flexibility, reduced ground controller workload, and increased margins of safety—were not quantified because of the difficulty in reliably estimating dollar values for these benefits.

Reductions in aircraft taxiing time associated with the North Crossfield Taxiway were estimated using the results of operational analyses presented in the FAA's Airport Capacity Enhancement Tactical Initiative, North Crossfield Taxiway System, Orlando International Airport, dated November 1995. These results indicated that provision of the North Crossfield Taxiway would reduce aircraft taxiing times by about 0.3 minute per aircraft operation. In 2003—the year that Taxiways E and F are expected to reopen after being closed for two years for reconstruction—these taxiing time reductions equate to annual savings in aircraft operating costs of about $4 million and savings in passenger time value of about $5 million.

The results of the SIMMOD analysis were combined with the results of operational analyses presented in the FAA's Airport Capacity Enhancement Tactical Initiative to evaluate the benefits provided by the North Crossfield Taxiway during the planned closures of Taxiways E and F in 2001 and 2002. The results of the SIMMOD analysis indicate that, during these taxiway closures, the North Crossfield Taxiway would reduce aircraft ground delay by approximately 0.1 minute per aircraft operation. Combined with the reductions in aircraft taxiing time described in the previous paragraph, the average reductions in aircraft taxiing time and ground delay during the closures of Taxiways E and F would be about 0.4 minutes per aircraft operation. At activity levels estimated for 2001, these reductions would equate to annual savings in aircraft direct operating costs of about $5 million and annual savings in passenger time value of about $6 million.

The results of the SIMMOD and FAA analyses indicate that the present value of savings in aircraft direct operating costs and passenger time associated with the North Crossfield Taxiway over the assumed 20-year economic lifetime of the taxiway (i.e., 2001 through 2020) would be approximately $100 million.[2]

EVALUATION OF PROJECT COSTS

The construction costs of the North Crossfield Taxiway, as provided by GOAA, are estimated to be about $72 million. This cost—expressed in 1997 dollars—differs from the $76.4 million cost of the taxiway presented in the Orlando International Airport Capital Improvement Plan, 1997–2001, because the cost estimates contained in the Capital Improvement Plan are expressed in dollars escalated to the midpoint of project construction rather than in 1997 dollars. It is estimated that an additional $100,000 per year would be required to maintain the taxiway after it is opened. Assuming that the taxiway is constructed between 1997 and 2000 as currently planned, the present value of these costs minus the salvage value of taxiway-related

[1] The effects of changes in the opening date of the North Crossfield Taxiway on the results of the analysis were evaluated in a sensitivity test.

[2] Present values were calculated using the FAA prescribed real discount rate of 7 percent.

improvements remaining at the end of the 20-year economic lifetime of the project would be approximately $60 million.

COMPARISON OF PROJECT BENEFITS AND COSTS

The net present value of a project is calculated by subtracting the present value of project costs from the present value of project benefits. The benefit-cost ratio of a project is computed by dividing the present value of project benefits by the present value of project costs. The higher the net present values and benefit-cost ratios associated with a project are, the greater the economic justification for a project is. As mentioned previously, the net present value of the North Crossfield Taxiway is estimated to be $40 million.

Four sensitivity tests were performed to evaluate the effects of unexpected changes in Airport activity, project benefits, project costs, and project schedules on the results of the analysis. The results of these sensitivity tests indicate that the North Crossfield Taxiway would continue to be economically justified (i.e., the present values of project benefits would exceed the present value of project costs) even if (1) aircraft and passenger activity increases according to the 1996 FAA Terminal Area Forecast for the Airports, (2) the benefits of the taxiway are 10 percent lower than estimated, (3) the costs of the taxiway are 10 percent higher than estimated, and (4) the taxiway were to take 6 years rather than 4 years to implement.

COAST GUARD-RELATED TESTIMONY

PREPARED STATEMENT OF MASTER CHIEF JOE BARNES, USN (RETIRED), DIRECTOR, LEGISLATIVE PROGRAMS, FLEET RESERVE ASSOCIATION

CERTIFICATION OF NON-RECEIPT OF FEDERAL FUNDS

Pursuant to the requirements of House Rule XI, the Fleet Reserve Association has not received any federal grant or contract during the current fiscal year or either of the two previous fiscal years.

INTRODUCTION

Mr. Chairman and distinguished members of the Subcommittee: The Fleet Reserve Association (FRA) wishes to express its sincere appreciation for the opportunity to present its position on the fiscal year 1999 Coast Guard Budget.

The FRA was founded in 1922 and now represents nearly 160,000 active duty, reserve, and retired members of the Coast Guard, Navy, and Marine Corps. In recognition for its work on personnel issues so important to the men and women serving in our Nation's uniformed services, the association was granted a Federal Charter by Congress in 1996. In keeping with the Association's mission, personnel issues are the focus of this statement.

THE COAST GUARD'S SERVICE TO OUR COUNTRY

The United States Coast Guard provides invaluable service to our country and offers a tremendous return each year on the taxpayer's investment. Although largely unnoticed and often unpublicized, these services include saving thousands of lives and assisting tens of thousands in distress; saving and protecting billions of dollars worth of property; preventing drugs from entering our country; intercepting illegal immigrants; maintaining over 50,000 aids to navigation; performing merchant ship inspections and licensing 36,000 merchant mariners. In addition, the Coast Guard is active in responding to thousands of water pollution reports and supervising hundreds of oil and chemical spills.

Because of this tremendous service to our country, FRA strongly supports full funding of the Coast Guard at the level requested by the Administration in its fiscal year 1999 Budget plus an increased appropriation beyond the budget request. It is noteworthy that the fiscal year 1999 request does not fully support the $125 million required for pay raises, cost of living increases and other statutorily mandated increases above the fiscal year 1998 enacted appropriation. Therefore, a shortfall of $68 million must be absorbed by the Coast Guard an unrealistic proposal for an agency that has already streamlined to its smallest force strength since 1965. Members of the Subcommittee are respectfully reminded that parity with DOD is of utmost importance in the areas of pay and benefits, and that requiring the Coast Guard to pay for increased active duty pay hikes, retiree cost of living adjustments and other increases from operations and maintenance accounts is counterproductive

and degrades the Coast Guard's ability to provide services critical to the American public.

PERSONNEL ISSUES

Increased operational commitments following the final phase of personnel reductions implemented by the Commandant's "stream lining" initiative are resulting in high personnel tempo. Many personnel are working in excess of 80 hours per week to meet mission demands. The Coast Guard is also 1,000 personnel below authorized active-duty manpower levels, and 800 short in the Reserve component. Therefore restoration of $18.4 million to the military pay account is critical since that reduction was imposed due to the slow hiring and last year's below end-strength levels.

The Coast Guard faces increasing challenges in its efforts to recruit qualified personnel due to aggressive, well-financed and focused efforts by private industry and the Department of Defense's $125 million recruit advertising budget. The strong economy and diminishing interest by young people in joining the military also contribute to the challenge of maintaining an effective, equitably staffed work force in all job specialties.

The 1996 Report to Congress regarding youth attitudes toward the military includes data from the Youth Attitude Tracking Survey (YATS) indicating that interest in the military has declined significantly since 1991 (20.7 percent for young males and only 10.6 percent for females). Contributing to this is a disparity in education benefits offered by the Coast Guard compared to those offered by DOD. For example, tuition assistance varies significantly between the Coast Guard and DOD ($1,000 vs. $2,500 per member annually). Negative advice from parents about the possibility of joining the military, the continuing DOD draw down amid increased operational commitments, and proposals for even more DOD personnel cuts per the Quadrennial Defense Review (QDR) are also contributing to the decline.

Recruiters must spend extraordinary time and effort to qualify each Coast Guard recruit. This equates to contacting an average of 100 leads for each recruit brought into the service.

COMPENSATION AND ALLOWANCES

Full Employment Cost Index (ECI) active duty pay adjustments remain a top priority with not only the FRA but also The Military Coalition (TMC), a consortium of 26 military and veterans organizations representing the interests of over five million active duty, reserve, and retired personnel from the seven uniformed services.

Competitive pay is vital to maintaining the all-volunteer force and ensuring military readiness, yet pay adjustments were capped below the ECI in 12 of the past 16 years resulting in a pay gap in excess of 13 percent. Adjustments are also implemented 15 months after statistics are compiled, further exacerbating the gap between military and civilian pay.

FRA is encouraged by inclusion of a 3.1 percent pay adjustment for 1999, however, if Congress increases the amount of the adjustment, the Coast Guard may as in the past, be left to find funds to pay for the increase in a tight budget that barely maintains current services.

Regarding the new basic allowance for housing (BAH), FRA thanks Congress for revamping this allowance by linking rates to more credible independent survey data compiled by zip code throughout the United States. However, our members are concerned about the accuracy of housing cost data in remote locations duty sites for thousands of Coast Guard enlisted personnel.

The expansion of Reserve Special Pay authority for the Secretary of Transportation would provide special pay to Selected Coast Guard Reservists performing IDT with special units and provide an accession/retention incentive with these units. FRA supports legislative language modifications authorizing this change.

Last year, FRA strongly supported the budget request of $8 million for quarters/housing allowances, sea pay for 65 foot cutter crews, increased dislocation allowance, VHA locality floors, and increased travel expenses during PCS moves. Again, the Association urges adequate funding for these and other quality of life programs in order to maintain parity with DOD.

FRA also draws attention to need for continued funding for the Transition Assistance Program (TAP) which expires on 1 October 1999. Transition services are important to all personnel separating and/or retiring from the uniformed services.

Finally, FRA opposes establishment of a Uniformed Services Thrift Savings Plan (USTSP) due primarily to lack of support from the enlisted force. The plan is not targeted to junior enlisted personnel and the USTSP may pose another significant threat to the military retirement system.

HEALTH CARE

Access to quality health care is a major concern for Coast Guard personnel and a major reason cited for considering a military career. Dramatic changes are taking place in the health care arena as DOD implements TRICARE, a new managed care system throughout the United States which requires family members to select one of three care options. Of special concern to Coast Guard personnel stationed in remote locations, is the availability and cost of accessing health care. The TRICARE program is flawed due in part to increasing difficulty that "Prime" and "Standard" enrollees have with locating and retaining quality health care providers. These problems must be fixed.

In addition, retirees must pay annual enrollment fees for care and Medicare-eligible retirees are forced out of the TRICARE system and onto Medicare at age 65.

These changes to the government's commitment to lifetime care are incomprehensible for most retirees and perceived as part of the continuing erosion of benefits by young uniformed service members contemplating career decisions. The result is a growing readiness challenge.

Although not directly under the purview of your distinguished panel, FRA strongly urges support for H.R 1766, a bill by Rep. Jim Moran, (D-Va.) which would authorize a demonstration of allowing Medicare eligible Coast Guard and other military retirees the option of joining the Federal Employees Health Benefit Plan (FEHBP).

HOUSING

Unfortunately, DOD is proposing a significantly lower budget for military construction and FRA has difficulty believing the Administration's commitment to provide adequate funding for this and other important quality of life programs. Family housing construction has decreased over 40 percent annually since 1996. Specific to the Coast Guard, the acquisition, construction and improvement (AC&I) account has been consistently underfunded well below the $600 million required annually to properly fund and support housing, barracks and other vital infrastructure needs, as well as funding required for necessary modernization of cutters, aircraft, and command, control and information systems.

In addition, the Association stresses the importance of child care and physical fitness centers, and other facilities important to the quality of life for Coast Guard personnel and their families.

CONCLUSION

Press reports cite speculation by elected officials about a pending federal budget surplus. FRA strongly recommends that if a surplus is realized, at least a portion of the money should be appropriated to fund recommendations in this statement.

The FRA wishes to express appreciation to you and other distinguished members of the Subcommittee for past support of quality of life programs benefiting Coast Guard personnel and asks for your endorsement of the President's budget request along with increased funding for vital quality of life programs.

BIOGRAPHICAL SKETCH

MASTER CHIEF JOE BARNES

Retired Navy Master Chief Joseph L. (Joe) Barnes is director of legislative programs for the Fleet Reserve Association (FRA). His responsibilities include communicating with Congress on military compensation, benefit and entitlement issues, writing and presenting testimony, tracking legislation and speaking at FRA legislative seminars. He also writes legislative update columns for FRA publications.

In addition, he co-chairs the Military Coalition's (TMC's) Committee on Military Personnel and Compensation and is a member of two other Coalition committees.

Prior to his present position, he served as editor of On Watch, FRA's bimonthly publication distributed to 160,000 senior enlisted Navy, Marine Corps, and Coast Guard members.

He speaks regularly to Navy senior enlisted personnel at the Navy Senior Enlisted Academy, Newport, Rhode Island, and to senior Coast Guard enlisted personnel at the USCG Chief Petty Officer Academy, Petaluma, California, regarding quality of life legislative issues. He is also keynote speaker for sea service retiree seminars throughout the United States.

Barnes is an accomplished writer/editor, special events coordinator and communications manager. He was public affairs director for the United States Navy Band in Washington, D.C., and directed marketing and promotion efforts for extensive na-

tional concert tours, network radio and television appearances and major special events in the nation's capital.

His awards include the Defense Meritorious Service Medal and Navy Commendation Medal. He holds a bachelor's degree in education and a master's degree in public relations management from The American University, Washington, D.C. He's also an accredited member of the International Association of Business Communicators (IABC), and a member of the American Society of Association Executives (ASAE).

He is married to the former Patricia Flaherty of Wichita, KS. The Barnes' have three daughters, Christina, Allison, and Emily and reside in Fairfax, Virginia.

PREPARED STATEMENT OF HON. WAYNE SHACKELFORD, COMMISSIONER, GEORGIA DEPARTMENT OF TRANSPORTATION

Mr. Chairman, Members of the Committee, I am Wayne Shackelford, Commissioner of the Georgia Department of Transportation. Thank you for this opportunity to present our appropriations request for the Sidney Lanier Bridge Replacement Project, located in Brunswick, Georgia. I want to share with you our concerns about an undertaking that is crucial to both maritime and highway safety in Georgia, as well as the economic future of our region and nation.

As you will recall, last year I submitted testimony to this committee and requested your attention on the Sidney Lanier Bridge Replacement Project at the Port of Brunswick in Glynn County, Georgia. The testimony provided additional support for the important safety and economic benefits of this major transportation improvement.

In the 1990 Coast Guard Omnibus Bill, I was directed by Congress to remove the existing obsolete and hazardous bridge. The Commandant of the Coast Guard issued an order directing the state to alter the bridge by reconstructing it on the same general alignment. We are diligently complying with this order. Construction contracts amounting to $87 million have already been awarded for the approach work and main span of the replacement bridge.

Under the provisions of the Transportation Appropriations Acts of fiscal year 1992 through fiscal year 1998 Georgia has received $38.75 million in federal appropriations to begin removal and replacement of the bridge. The State of Georgia has matched this appropriation with $38.75 million, demonstrating our firm commitment to this project.

Under the direction of the Coast Guard, these funds have been used to plan, design, and begin construction on a new fixed span bridge that will substantially improve maritime safety and effectively remove a serious threat to public safety. This new high-level bridge will also provide the navigation clearance necessary for the Port of Brunswick to remain competitive in a rapidly changing global economy.

The Port of Brunswick is an economic generator for the southeastern region of the United States. Working in unison with the Port of Savannah, Georgia's deepwater ports have far-reaching economic impacts. Georgia's deepwater ports contribute to the existence of over 76,000 jobs, $1.7 billion in wages, $22 billion in revenues and $569 million in taxes. In federal fiscal year 1997, the Port of Brunswick alone collected over $31 million dollars in U.S. Customs charges. The Port also annually generates over $500 million in revenues and directly contributes to 8,400 jobs statewide.

With replacement of the bridge and other planned port improvements, the Port of Brunswick will be capable of expanding its services and strengthening its abilities to compete internationally. The port is ideally located in a region of the United States that has great potential to benefit from both NAFTA and GATT. Already, the Port of Brunswick is exporting automobiles made by numerous domestic manufacturers and lumber products produced by American workers for varied uses around the world. In addition, Georgia is participating in the AASHTO Latin American Transportation and Trade Study (LATTS) which can effectively position Georgia ports for increased trade opportunities with Latin America.

The port's impact will increase with the Georgia Ports Authority's plans to make the Port of Brunswick a major South Atlantic break bulk port. Additional expected economic benefits include $464 million annually in State sales revenues, $15.8 million per year in tax revenues, and 1,100 new jobs by 2010.

Georgia's congressional delegation has requested $11.5 million in fiscal year 1999 to continue the replacement of the Sidney Lanier Bridge. The State of Georgia has committed to funding this project and the requested appropriation will maintain the 50 percent federal share provided for in Section 302 of the Coast Guard Omnibus Act of 1990. Mr. Chairman, we respectfully request that funding for this project con-

tinue to be provided under the Coast Guard appropriation, and that the Coast Guard continue to be the federal manager.

Our deepwater ports at Savannah and Brunswick are a valuable asset for Georgia and for our nation, and they benefit the entire nation in the global economy in which we compete. We urgently request your help in achieving the maximum benefits from them for our state and the nation.

Thank You.

TRANSPORTATION PROJECT EVALUATION CRITERIA

SIDNEY LANIER BRIDGE, BRUNSWICK, GA

Criteria No. 1—Primary Congressional District 1

Congressman: The Honorable Jack Kingston, The U.S. House of Representatives.

Criteria No. 2—Primary Implementation Responsibility

Georgia Department of Transportation, No. 2 Capitol Square, Atlanta, GA 30334.

Criteria No. 3—Project Eligibility

Congress designated this bridge as an unreasonable hazard to navigation in the 1990 Coast Guard bill, and called for its replacement under the Truman-Hobbs Act. The roadway and bridge are functionally classified as a Principal Arterial making the project eligible for federal funds. The project is also on the National Highway System.

Criteria No. 4—Design, scope and objectives of the project

The principal objective of the Sidney Lanier Bridge Replacement is to provide the transportation infrastructure that will result in the safe and efficient movement of people and goods throughout the US 17 corridor. Providing a high-level fixed-span bridge replacement can achieve this by removing the potential for bridge/ship collisions that continue to expose motorists and endanger lives.

The Sidney Lanier Bridge Replacement project consists of several phases:

—MLP–25(66)—US 17/SR 25—Preliminary Engineering and Design.

—RWMLP–25(66)—US 17/SR 25—Right-of-way Acquisition.

—MLP–25(66)—US 17/SR 25—Construction of Roadway and Approaches for Sidney Lanier Bridge Replacement.

—CG–009–2(4)—US 17/SR 25—Sidney Lanier Bridge Approaches Construction Engineering and Inspection.

—CG–009–2(1)—US 17/SR 25—Construction of Main Span of High Level Sidney Lanier Replacement Bridge and removal of existing bridge.

—CG–009–2(3)—US 17/SR 25—Sidney Lanier Bridge Main Span Construction Engineering and Inspection.

—CG–009–2(2)—US 17/SR 25—Removal of the Old Sidney Lanier Bridge.

The composite of these phases will replace the obsolete Sidney Lanier Bridge across the Turtle River in Brunswick.

Beginning at the Jekyll Island Causeway (SR 520), the project will extend approximately 2700 feet north of the existing bridge. The replacement structure will be a new high-level bridge on the east, or downstream side, of the present lift-span bridge. The total project length will be approximately 1.8 miles. Estimated base year traffic (1996) is 12,500 ADT, with design year traffic (2016) projected to be 18,000 ADT. The posted speed limit is 55 mph.

The existing bridge provides a width of 55 feet and a vertical clearance of 18 feet for the roadway. Horizontal clearance under the bridge for shipping is 250 feet and vertical clearance for ships is only 139 feet. The present bridge is 4,471 feet long with a sufficiency rating of 41.0 out of a possible 100.

The proposed typical section for the approaches will include two, 12 feet lanes in each direction with a raised median that varies from 6.5 feet to 20 feet in width. Design speed will be 55 MPH. The cable-stayed bridge will provide two, 12 feet lanes in each direction, with 8 feet outside shoulders and 2 feet inside shoulders, with a median barrier. Both concrete and steel design alternates will be considered for the cable-stayed portion of this bridge. Traffic will be maintained across the existing bridge during construction.

The Sidney Lanier Bridge Replacement Project is a large-scale replacement project designed to remove a serious threat to public safety. The principal objective of this project is to replace an obsolete liftspan bridge that poses an extreme hazard to navigation and to highway motorists. Ships have hit the Sidney Lanier Bridge twice in the past twenty-two years, and ten lives have been lost because of these collisions.

The new high-level bridge will provide a minimum of 185 feet vertical clearance and 1,038 feet of horizontal clearance for shipping, which will allow the development of a major container port in Brunswick. The 1,038 feet of horizontal clearance will also allow widening the Turtle River to a proposed 400 feet channel width with a 45 foot channel depth. The new bridge will improve safety for shipping and vehicular traffic.

Criteria No. 5—Total Project Cost and Source of Funding

Estimated design, engineering, rights-of-way and construction costs are $103.1 million. Adding contingencies brings the total estimated cost to $113.4 million. The total estimated annual life-cycle costs for a high-level fixed-span bridge are $20,000 in the early years, increasing to $70,000 per year in the final years, with periodic maintenance of $335,000 every ten years. For a fifty-year life cycle, the estimated annual maintenance cost is $78,500 per year. Funding for the annual maintenance expenses of the bridge will be 100 percent state funds. Private sector funding is not available for this project.

Table 1.—Completion costs

Phase	*Total*
Preliminary Engineering and Design	$4,976,035
Right-of-Way	490,700
Bridge Approaches	18,884,886
Construction Engineering	5,748,394
Main Span and Pier Protection	65,475,129
Final Construction—Including the Removal of the Existing Bridge	7,517,885
Contingencies (10 percent)	10,309,303
Total	113,402,332
Less Previous Federal Appropriations (see question No. 14)	(38,750,000)
Less Previous State Appropriations	(38,750,000)
Balance	35,902,332
Federal Authorization Requested	11,481,525

NOTE.—This amount is less than the 50 percent federal share established in the 1990 Coast Guard Act. Fifty percent would total $17,951,166.

TABLE 2.—FUNDING PHASES

Phase	Fiscal year	Total	Federal	State
Preliminary engineering	1992–93	$100,000	$50,000	$50,000
Design	1994–95	4,876,035	2,438,018	2,438,018
Right-of-way	1995	490,700	245,350	245,350
Bridge approaches	1995	18,884,886	9,442,443	9,442,443
Construction engineering	1996	5,748,394	2,874,197	2,874,197
Main span and pier protection	1997	65,475,129	32,737,565	32,737,565
Final construction—Including removal of existing bridge	1998	7,517,885	3,758,942	3,758,942
Contingencies	.....	10,309,303	5,154,652	5,154,652
Total	.....	113,402,332	56,701,166	56,701,166

Criteria No. 6—Obligation Schedule for Next Five Years

All phases of the project are expected to be complete over the next five years. Therefore, the full authorization request of $11,481,525 is expected to be obligated during this period. The remaining balance of $6,469,641 is also expected to be obligated during this period.

Criteria No. 7—Proposed Schedule and Current Status

TABLE 3.—PROJECT STATUS

Phase	Fiscal year	Status
Design and right-of-way	1992–93	Complete.
Environmental	1993	Complete.

TABLE 3.—PROJECT STATUS—Continued

Phase	Fiscal year	Status
Bridge approaches	1995	Underway.
Main span and pier protection	1997	Underway.
Construction engineering and inspection	1996–98	Underway.
Final construction—Including removal of existing bridge	1998	Underway.

Preliminary engineering is complete. The Project Concept Report was approved in March 1992. Design of the bridge approaches was completed in 1994. The project environmental impact statement was approved in November 1992 and the Section 404 permit has been approved. Construction on the new roadway and approaches is underway. The State awarded a contract for construction of the main span in January 1997.

Criteria No. 8—Metropolitan and/or State Transportation Improvement Plan and Funding Schedule

The Brunswick Metropolitan Transportation Improvement Program and the State Transportation Improvement Program (STIP) both include the main span and bridge approach projects.

Criteria No. 9—Support by State and/or Regional Transportation Officials

Ten lives have been lost in the past twenty-one years because of ship/bridge collisions. Following a 1987 accident, the Georgia Department of Transportation began urgently seeking funding to remedy this hazardous situation. Receiving funds is critical so that construction of the main span and removal of the old bridge can continue on schedule. The Brunswick Metropolitan Transportation Plan and Georgia's Statewide Plan include the Sidney Lanier Bridge project. Georgia Ports Authority expansion plans also include the replacement bridge.

Criteria No. 10—National/Regional Significance

The Coast Guard declared the bridge an unreasonable hazard to navigation in 1990. US 17 is designated as a National Highway System (NHS) route. US 17 serves as an emergency alternative route for I–95 and is a major linkage between the Brunswick area and the surrounding coastal region. US 17 is significant to regional freight movement because it provides a direct linkage to the Georgia Ports Authority's Brunswick facilities.

Criteria No. 11 Environmental opposition, obstacles or concerns

No significant opposition has been encountered, nor is it expected. A project environmental impact statement was completed and approved November 1992. The project has received strong support from local governments. The Brunswick Metropolitan Transportation Improvement Program and the State Transportation Improvement Program (STIP) both include the main span and bridge approach projects. Construction for the roadway and bridge approaches is underway. The State has awarded a contract for the construction of the main span.

Criteria No. 12 Economic, energy efficiency, environmental, congestion mitigation and safety benefits

Economic.—With replacement of the bridge and deepening of the channel, it is estimated that sales revenues will increase by $464 million annually; personal income will increase by $107 million annually; tax revenues will increase by $15.8 million annually; and jobs will increase by 1,100 by the year 2010.

The value of increased tonnage into the Port of Brunswick by the year 2010 is estimated at $183,000,000 in 1991 dollars.

Energy Efficiency.—Current conditions on the Sidney Lanier Bridge are a 50-mile per hour speed limit with approximately 120 minutes of delay over a twenty-four hour period due to the raising and lowering of the bridge. Current estimated average annual daily traffic (AADT) is 12,500 vehicles per day. Approximately 455 vehicles traverse the bridge during peak hours. At this rate, the delays caused by the raising and lowering of the bridge result in approximately 150 vehicle minutes of delay for each raising. With an average of twenty raisings per day, there are approximately 3,000 vehicle minutes of delay per twenty-four hour period. At the rate of $0.07 per hour of vehicle delay, the cost associated with this delay is $27,375 annually.

Environmental.—Replacement of the current lift span bridge by a high level fixed span bridge will result in continuous traffic flow. Air quality benefits will be positive but negligible.

Congestion Mitigation.—Providing a high level fixed span bridge will result in continuous flow in vehicular traffic and adequate safe clearances for ships navigating the channel.

Safety Effects.—The value of improved safety improvements is estimated at $3.5 million annually by the year 2010.

Criteria No. 13.—Previous Federal funding

The authorization requested for the Sidney Lanier Bridge continues a prior Federal commitment for Federal funding from the General Fund as originally provided in the Coast Guard Omnibus Act of 1990 (and reaffirmed, by funding in subsequent Appropriations Acts, and Coast Guard Authorization Acts) for bridges that are unreasonable hazards to navigation. Further, the requested authorization conforms to the Federal funding commitment provided for highway bridges as provided under Section 1103 of the Intermodal Surface Transportation Efficiency Act of 1991, and consistent with congressional directives included with the passage and subsequent enactment of the Department of Transportation and Related Agencies Appropriation Acts, 1994, 1995, 1996, 1997, and 1998.

Criteria No. 14—First Federal authorization or increase to previous Federal Authorization

Previous federal appropriations: Federal Share:

Fiscal year 1992—Truman-Hobbs Act (Coast Guard)	$900,000
Fiscal year 1993—Truman-Hobbs Act (Coast Guard)	5,000,000
Fiscal year 1994—Truman-Hobbs Act (Coast Guard)	6,000,000
Fiscal year 1995—FHWA Demo—transferred to Coast Guard	1,850,000
Fiscal year 1996—HR–2002 Alterations of Bridges (Coast Guard)	8,000,000
Fiscal year 1997—Public Law 104–205	7,000,000
Fiscal year 1998—Public Law 105–66	10,000,000
Total	38,750,000

PREPARED STATEMENT OF TED WOOLLEY, PRESIDENT, NATIONAL ASSOCIATION OF STATE BOATING LAW ADMINISTRATORS

Mr. Chairman and Members of the Subcommittee: I am Ted Woolley, Boating Law Administrator for the State of Utah, and I serve as President of the National Association of State Boating Law Administrators.

The National Association of State Boating Law Administrators (NASBLA) is a professional association consisting of state officials having responsibility for administering and/or enforcing state boating laws.

Our Association is recognized for it's stewardship of "Recreational Boating Safety". We have, over the years, worked closely with the U.S. Coast Guard, the States, and others to insure that the intent of Congress to promote uniformity, reciprocity, and comity among the various States was given high priority. Testimonial of this is the many resolutions, model acts etc. that has been generated by our Association and adopted by the majority of the States and Territories. In doing this we bring to the table at various meetings, highly qualified personnel in the field of boating law enforcement, education, boating safety, and on the water, search and rescue.

Our membership takes pride in their accomplishments and the many words of praise we have received from the Commandant, U.S. Coast Guard and the Chairman, National Transportation Safety Board over the years.

Our reward is saving a life and what a wonderful reward that is!

My testimony today will focus on the Aquatic Resources Trust Fund (Wallop-Breaux) and more specific, the reauthorization/appropriation of the Boat Safety Account of this fund.

The Boating Safety Account of the trust fund is derived solely from the tax boaters pay on their motorboat fuel. This user fee, paid by the boaters, is returned to the States to help defray their cost for services provided to the recreational boater. We think this is indeed in keeping with the user fee concept, "user pays-user benefits", thus not costing the general tax payer one cent and does not add one penny to the national debt.

The Wallop-Breaux Trust Fund has resulted in the States assuming a major share of the boating safety and law enforcement responsibilities. This move makes sense because the responsibility for boating safety is and should continue to be a joint federal/state responsibility. The financial base provided by Wallop-Breaux funding allows the states to concentrate on establishing an administrative infrastructure, purchase equipment and promote the education and enforcement techniques to stimu-

late increased boating safety awareness. This federal/state partnership has resulted in fewer boating fatalities even though the number of boaters enjoying our nation's waterways continues to increase.

Funds are made available from the Boating Safety Trust Funds to the States on a dollar to dollar match and have made a major contribution to boating safety. By obtaining these trust funds, the States have been able to relieve the Coast Guard boating safety teams on many of the nation's waterways (thus allowing the Coast Guard to pursue higher priority programs), provide a higher quality of boating safety education, produce a system of investigating and reporting boat accidents and provide a more rapid response to boaters in distress. It is the desire of the States to continue to strengthen our boating safety program and partnership to the benefit of the nation's boaters.

The Aquatic Resources Trust Fund (Wallop-Breaux) was due to be reauthorized along with the Highway Trust Fund in 1997. However, this did not happen and a compromise bill extended the Wallop Breaux Trust Fund until Congress comes up with a long term bill (six years) in the spring of 1998.

There is consideration, as you are aware, through authorization bills in both the House and the Senate to reauthorize these trust funds. While the total amount of the funds remain basically the same, the bills provide for a more equitable division of these trust funds between the boating safety and sport fisheries programs. These measures provide for $70 million for state boating safety programs all of which is paid by boaters.

Specifically, we are asking this Subcommittee for appropriation as authorized for the State Boating Safety Program. The Administration again this year has recommended $55 million as mandatory appropriation to the State Boating Safety Program from the Aquatic Resources Trust Fund (Wallop-Breaux).

Just as our Association is recognized for its stewardship over "recreational boating safety", this Subcommittee over the years, is recognized for their untiring efforts in providing appropriation of Boating Safety Trust Funds to help defray the cost of services provided by the States to the recreational boating public. Be assured the efforts of this Subcommittee is well recognized and appreciated throughout the boating community.

Major topics which our Association will focus on through long range plans into the 21st. Century are:

—*Identify and evaluate future impacts on boating safety.*—Apprise our Association of the status of any legislation, policies or procedures relevant to the issue at hand.

—*Surface Use Conflicts.*—Study what is being done and what can be done to help alleviate these problems.

—*Personal Watercraft.*—Examine what is working through education, enforcement and regulations and what is the long range outlook for their sales and use.

—*Education Options.*—Research what has happened in the states that have adopted "mandatory education" for adults, phase in versus more immediate methods, what is the cost effectiveness of these programs and are they making a difference in the target audience. What about other educational initiatives, dealer based education or education using computers or the Internet?

—*Drinking and Boating.*—Examine what additional things can be done as far as education or legislation.

—*Personal Flotation Devices.*—If wearing a PFD will save 80 percent of the boating accident victims, what would we need to do to encourage wearing it or require it to be worn through state legislation?

—*Funding issues.*—Examine the outlook and future for state/federal funding.

—*The role of the U.S. Coast Guard and the States.*—Where should we be in the next ten (10) years in boating safety?

The national trend shows a continuing growth in boating and we expect this growth to continue in the coming years. This is understandable when you consider that as available land to recreate on becomes scarce and with 70 percent of the earth's surface covered by water, our waterways are a natural place to seek relief from the pressures of a growing population. The beautiful waters that abound our states satisfy the insatiable appetite of sport fishing, the recreational boating enthusiast and those who desire to leave pressures behind to relax and absorb the tranquility of our waters and beaches.

With commercial traffic (passenger and cargo ships, oil tankers, off shore drilling, fishing fleets etc.) add new responsibilities to the states in managing this priceless natural resource, "our waterways", to further the States needs, the Coast Guard is downsizing and passing many of their responsibilities to the States. Boating safety is and will continue to be a high priority for the States and the Coast Guard.

We take pride in the fact that we make good use of these trust funds and that the end product is a major contribution by the states to the overall reduction in the boating fatality rate.

One factor the states would like to change is, recreational boating is still on the National Transportation Safety Board's "most wanted" list. We must continue to focus our attention and coordinated efforts to remove recreational boating from this list.

We feel the State program to date, is a shining example of an ideal state/federal partnership, "user pays-user benefits". We will continue to strive for more innovative use of the funds to better educate boaters and further reduce boating fatalities. However, we cannot over emphasize that stability in the boating safety trust funds is needed for us to be successful. The Federal Boat Safety Trust Funds are critical to the success or failure of our States recreational boating safety program.

We appreciate this Subcommittee's continued support and respectfully request your consideration for full appropriation as authorized from the Aquatic Resources Trust Fund (Wallop-Breaux) for the States Boating Safety Program for fiscal 1999.

Thank you,

PREPARED STATEMENT OF SGT. MAJ. MICHAEL F. OUELLETTE, USA (RET.), DIRECTOR OF LEGISLATIVE AFFAIRS, NON COMMISSIONED OFFICERS ASSOCIATION OF THE UNITED STATES OF AMERICA

Mr. Chairman, the Non Commissioned Officers Association of the USA (NCOA) appreciates the opportunity to present testimony before this subcommittee on the fiscal year 1999 U.S. Coast Guard Budget. The Association's comments and recommendations represent the views and concerns of it's noncommissioned and petty officer membership and those of the Apprentice Division (E1–E3) and will address a wide range of compensation, personnel, medical care and quality-of-life issues of significant importance. Hopefully, this subcommittee will consider recommendations from an enlisted view point to be of value and assistance during deliberations.

NCOA is a federally chartered organization representing 160,000 active-duty, guard and reserve, military retirees, veterans and family members of noncommissioned and petty officers serving in every component of the Armed Forces of the United States; Army, Marine Corps, Navy, Air Force and Coast Guard.

This testimony has been endorsed by the National Military and Veterans Alliance (NMVA). The Alliance is comprised of nationally prominent military and veterans organization who collectively represent over 3 million members of the seven uniformed services—officer, enlisted, active-duty, National Guard and Reserve, retired and veterans plus their families and survivors. The Alliance organization endorsing this testimony are: American Military Retirees Association; American Retirees Association; Air Force Sergeants Association; Korean War Veterans Association; Military Order of the Purple Heart; National Association for the Uniformed Services; Naval Enlisted Reserve Association, and the Naval Reserve Association.

PRELUDE

Mr. Chairman, NCOA wishes to extend its appreciation to the members of this subcommittee for their efforts on behalf of U.S. Coast Guard enlisted men and women. Just as the other services look to another appropriation subcommittee for funding assistance, the Coast Guard relies on the favorable actions of this subcommittee to provide funding parity which allows this relatively small, but important, military service to meet its quality-of-life obligations to those who serve. There is no question that continued positive funding actions by this subcommittee are paramount to the Coast Guard's ability to recruit and retain quality enlisted people to meet its wide-ranging mission responsibilities. At the very top of enlisted members' list of priorities is the ability to meet their financial responsibilities to financially support themselves and/or their families.

NCOA understands the difficult deficit reduction climate in which the Congress and the Coast Guard must operate. The efforts of this subcommittee have been and will continue to be vitally important to the well-being of the enlisted force. Mr. Chairman, the Coast Guard is at a critical personnel juncture. The average ship that goes to sea today will be manned at 80 percent of its normal crew compliment. Recruiting is down substantially. In an effort to meet recruiting goals, the service has had to implement two and three year contracts, offer bonuses up to $12,000 and G.I. Bill kickers of up to $30,000. Still the average recruiter must interview more than 100 potential candidates to find one acceptable recruit and the Coast Guard has had to expand the recruiting force substantially to meet its recruiting needs.

The major point the Association wishes to make to this subcommittee is that the decision to maintain a credible Coast Guard automatically carries with it a responsibility to take care of the men and women who comprise that force regardless. This subcommittee has done that in the past. Yet much more must be done to avert a manpower crisis.

NCOA wishes to offer a number of pay, personnel, medical care and quality-of-life improvement recommendations intended to address a number of areas which can significantly improve the overall well-being of Coast Guard members, retirees, their families and survivors. As a matter of parity, the same recommendations will be made to those committees and subcommittees maintaining responsibility for the other services.

ANNUAL MILITARY PAY RAISE

NCOA appreciates the support of this subcommittee to pass legislation in 1997 that awarded Coast Guard members a 2.8 percent cost-of-living pay raise effective January 1, 1998. However, it must be noted the increase was one-half percent below inflation as measured by the Employment Cost Index (ECI) which was set at 3.3 percent. NCOA and most enlisted members of the armed forces are well aware that military pay raises have been capped below private sector pay growth or full inflation in 12 or the last 16 years. The result is that military pay, even with the January 1998 increase, lags a cumulative 13.5 percent behind that enjoyed by the average American worker performing similar work. With the knowledge of these facts and after sustaining weeks and months of family separation and the hardships associated with the missions of the Coast Guard, complicated by increasingly longer workdays due to force reductions and operation tempo, enlisted men and women feel they are being "short-changed" by those in control of their destinies.

In 1997, the House of Representatives recognized the seriousness of this pay situation by including language in their version of the fiscal year 1998 Defense Authorization Bill that directed future military pay raises to be at the full ECI level. Unfortunately, this provision was dropped in conference and the status quo prevailed. Although NCOA supports full ECI pay raises and total elimination of the differential with civilian sector pay, the Association does not expect the Congress to approve a 13.5 percent pay raise in 1999 to correct the situation. NCOA does recommend that Congress adopt a long-term military pay raise plan that would resolve the problem over time. Future military pay raises paid annually at full ECI levels plus an additional percentage amount would put military members (including the Coast Guard) on equal financial ground with their civilian counterparts in future years, while at the same time, gradually eliminating the current estimated pay differential. NCOA recommends a long term plan that would increase pay by the ECI plus 2 percent in 1999, ECI plus 3 percent in 2000, ECI plus 4 percent in 2001 and ECI plus 5 percent in 2002.

COMPENSATION PARITY WITH DOD

The Coast Guard's fiscal year 1999 Budget Request reflects funding increases which correspond to the improvements enacted into law in 1998. Housing Allowance and Basic Allowance for Subsistence (BAS) reform, Hazardous Duty Incentive Pay, Family Separation Allowance (FSA) are all items Congress approved last year and is now being asked to fund for fiscal year 1999. NCOA believes it to be extremely important that this subcommittee react favorably to the Coast Guard's request. Failure to do so could leave Coast Guard members and their families without the same benefits enjoyed by members of the other military services.

THE UNIFORMED SERVICES THRIFT SAVINGS PLAN (USTSP)

This year NCOA expects a recommendation to come before Congress that would establish a saving plan for members of the uniformed services. This proposal would give those eligible to participate an opportunity to contribute up to 5 percent of their basic pay into a program referred to as the Uniformed Services Thrift Savings Plan with the deduction made from their pay by the servicing Defense Finance and Accounting Services (DFAS). Under normal conditions, such a proposal would appear to have considerable merit; however, NCOA is very concerned that such a proposal sends the wrong message or paints an inaccurate picture of the current financial capabilities of enlisted members of the Coast Guard and other services. NCOA believes it to be highly unusual that at a time when annual pay raises are being capped below inflation; When a pay gap of 13.5 percent is estimated to exist between military and civilian sector pay; When commissaries are redeeming food stamps in the millions of dollars, the Defense Department would offer a proposal

that strongly suggests that military people, particularly enlisted people, can afford to save money.

Since the original proposal made only those who entered military service on or after August 1, 1986, eligible to participate, NCOA believes the main intent was to provide a program to supplement the retirement system for military members who began service on August 1, 1986. The financial impact of that system is itemized on Enclosures 1 and 2. There can be no doubt the 1986 retirement system will impose a wide range of financial penalties on those serving under it. In the interests of military services' ability to recruit and retain military people until retirement, NCOA recommends the retirement system be improved from its current version rather than initiate a new program when similar civilian savings and tax deferred programs already exist for those who can afford to take advantage of them.

COAST GUARD HOUSING AND FACILITIES

Last year in testimony to this subcommittee, NCOA supported a Defense Department proposal to change the manner in which Basic Allowance for Quarters (BAQ) and Variable Housing Allowance (VHA) were paid. The one allowance system went into effect on January 1, 1998, and hopefully will provide Coast Guard families with a sufficient amount of money to cover the cost of adequate housing wherever assigned.

Despite improvements in the housing allowance, there continues to be a need for this committee to provide the Coast Guard with the funding necessary to construct or make necessary improvements to government owned family housing and single member living facilities. In addition, NCOA believes that work area construction and improvements are as much quality-of-life improvements as are those related to housing. NCOA strongly recommends this subcommittee consider the need to provide funding that not only provides Coast Guard people with suitable living quarters but also considers health, welfare and safety in the workplace as an important part of its quality-of-life funding responsibilities.

TUITION ASSISTANCE PARITY

Last year Congress instructed DOD to standardize the Tuition Assistance Program for all services. The Coast Guard has responded to guidance and has attempted to change its program to mirror the other services. However, a shortage of funding resulted in the Coast Guard's fielding of an annual tuition assistance benefit that was far short of what is authorized by the other service. The DOD services provide a maximum annual tuition assistance benefit of $3,500, while the Coast Guard could only fund an annual benefit of $1,000 for all eligible active-duty and civilian employees. This differential is difficult for Coast Guard members to understand especially when education opportunity while in service is used as a recruiting incentive. This is clearly an inequity that must be corrected by this subcommittee. NCOA recommends this subcommittee include approve the Coast Guard's request for $4 million to provide equity throughout the services and level the education opportunity "playing field" for all eligible members of the Coast Guard community.

COAST GUARD RETIREE ISSUES

NCOA has a number of retired force issues and concerns it wants to bring to the attention of this subcommittee. Some of the issues are directly related to Coast Guard funding requirements, however, others will be discussed as parity issues that will surface in other legislation but would be of benefit to the retired Coast Guard community.

—*Retired Pay Cost-Of-Living Adjustment (COLA).*—NCOA appreciates the efforts of this subcommittee to provide a 2.1 percent COLA to Coast Guard retirees effective January 1, 1998. Nonetheless, NCOA remains extremely concerned that last year's congressional activity included suggestions by some that the Consumer Price Index (CPI) overrates inflation. The Association believes this debate will continue into 1998. NCOA urges this subcommittee to continue to resist retirement or COLA proposals that would reduce the value or purchasing power of Coast Guard retired pay.

—*Concurrent Receipt.*—Despite the fact that cost is a major factor in changing the current offset between VA disability compensation and military retired pay, NCOA remains committed to correcting this equity. Retired pay and VA compensation are made for two distinctively different reasons. Yet, should a military retiree be adjudicated to be disabled by the VA, there continues to be a dollar for dollar offset in the payment of benefits. NCOA urges this subcommit-

tee to work toward reducing or eliminating the current VA disability offset to military retired pay at least for the 100 percent or most severely disabled.

MILITARY MEDICAL CARE

Mr. Chairman, availability and access to military health care or alternative options that are needed to protect the medical care needs of military beneficiaries. Surveys of Coast Guard people and their families consistently show that medical care along with adequate pay, inflation protected retired pay and commissary availability are the top concerns of the Coast Guard community. In fact, with base and hospital closures and reductions in medical personnel, the increasing lack of no-cost health care is a major concern to active and retired personnel alike. Enlisted people, both active and retired, suffer the greatest impact because of their lower pay levels which cause them to place a greater value on the benefit.

Currently more than 58 hospitals have been closed as part of the Base Realignment and Closure Commission (BRAC) or other actions. Services have been cut back at many of the hospitals remaining open and many of them have been and continue to be downgraded to clinic size. Hundreds of thousands of retirees (including Coast Guard) and their family members who received care in MTF's are now finding no care available. Retirees are being denied prescription drugs by MTF pharmacies in increasing numbers. They are told the prescribed drugs cost too much and are not stocked or are restricted for issue to active duty beneficiaries only.

The TRICARE Program has been in development or implementation for nearly a decade, yet the TRICARE-Prime still does not cover certain parts of the United States. For example, in California where the military managed care system has been in place the longest, there are still areas without TRICARE-Prime networks. However, despite the lack of established networks, the TRICARE-Standard/CHAMPUS option should be available. Unfortunately, the CHAMPUS Maximum Allowable Care (CMAC) is so low many physicians will not accept it. The current system is broken, and must be fixed.

NCOA fully supports keeping a strong, effective direct care system for the delivery of health care and in the best interests of medical readiness. The Association also supports making full use of the military treatment facilities and TRICARE networks as primary providers. However those retirees (Medicare-eligible) who are either "locked-out" of TRICARE-Prime or not guaranteed access to these primary sources of care should be offered a number of alternatives or options. In this regard, NCOA supports:

—*Medicare Subvention*.—NCOA is pleased that Congress passed legislation last year providing authority to provide a Medicare Subvention demonstration project at six sites across the United States. Although this action was a major step forward, the Association is greatly concerned by loss of military medical care access for the many Medicare eligible military retirees residing outside the confines of the demonstration test sites. Therefore, NCOA strongly supports the immediate implementation of the Medicare Subvention concept across the United States in order to provide immediate relief and to minimize the great injustice being done to all Medicare eligible military retirees who have lost earned health care benefits.

—*FEHBP as an Option*.—NCOA supports offering the Federal Employees Health Benefit Program (FEHBP) as an option to Medicare eligible military retirees, their families and survivors. Additionally, the Association also supports offering this option to TRICARE-Standard eligible beneficiaries residing outside of TRICARE-Prime catchment areas. Although not an issue that can be acted upon by this subcommittee, in the best interests of Coast Guard retirees, NCOA urges the subcommittee members to support any legislative effort to direct DOD to restore TRICARE-Standard or CHAMPUS as originally intended by Congress or authorize FEHBP as an option for all military retirees and their families.

—*Medicare Part B Enrollment Penalty Waiver*.—NCOA urges the subcommittee members to support the enactment of any legislation to waive the 10 percent per year Part B Medicare late enrollment penalty for military retirees whose access to the military health care system has been curtailed because of base closures or implementation of TRICARE-Prime.

—*Mail-Order Pharmacy Program Expansion*.—Another legislative item that would be most beneficial to all military retirees would be the expansion of this program beyond just those affected by BRAC actions. NCOA urges the subcommittee members to support legislation to expand the DOD mail-order pharmacy program to include all military retiree, regardless of age, status or location. The availability of this program would be a great benefit to Medicare eligi-

ble military retirees even if Medicare Subvention or FEHBP legislation were not passed.

SURVIVOR BENEFIT PLAN

Because of the efforts of Congress last year, military retirees who enroll in the Survivor Benefit Plan (SBP) can now withdraw from the program during the first year following the two-year anniversary date of their retirement. NCOA continues to recommend a legislative change to SBP which would permit 30-year paid-up coverage.

CONCLUSION

Mr. Chairman, perhaps the single most valuable effort this subcommittee could make to the well-being of the Coast Guard enlisted community and the armed forces in general is to send a signal that Congress will provide some stability in pay and benefits. Last year, the House of Representatives attempted to make full ECI pay raises mandatory. Although that particular effort failed, there were numerous improvements. For instance, Congress passed legislation that reduced out-of-pocket medical costs for military families assigned to isolated areas. They made improvements in Hazardous Duty Pay and Family Separation Allowance (FSA) and even gave military members a new Hardship Deployment Pay. A Retiree Dental Plan, although non-subsidized, became a reality. Still there remains uncertainty in the minds of military people. Even with the legislative gains achieved by military people, they still seem only to remember the attempted threats to their benefits.

The insecurity caused by this constant churning of threats to benefits creates an environment of stress that takes a real toll on national security. Coast Guard members simply must be given opportunities to respect and participate in change instead of living in constant dread and fear of loss.

NCOA appreciates the opportunity to present a number of enlisted views in testimony before this subcommittee. The Association looks forward to addressing further details regarding the issues discussed and any other issues with you and the subcommittee staff.

Thank You.

DISCLOSURE OF FEDERAL GRANTS OR CONTRACTS

The Non Commissioned Officers Association of the USA (NCOA) does not currently receive, nor has the Association ever received, any federal money for grants or contracts. All of the Association's activities and services are accomplished completely free of any federal funding.

BIOGRAPHICAL SKETCH

MICHAEL F. OUELLETTE

Mr. Michael F. Ouellette currently serves as Director of Legislative Affairs, Non Commissioned Officers Association of the United States of America (NCOA). He is a registered Congressional Lobbyist whose responsibilities include a wide range of military personnel and survivor benefits to veterans' legislative issues. He formerly served as Co-Chairman of The Military Coalition from January 1, 1993 until February 22, 1996. He currently serves as the NCOA representative to the National Military and Veterans Alliance.

A retired Sergeant Major, Mr. Ouellette joined the NCOA National Capital Office in 1991 following twenty-six years of military service with the United States Army. His final assignment was as the Sergeant Major to the Adjutant General of the Army, U.S. Total Army Personnel Command (PERSCOM), Alexandria, Virginia, and covered the period 1988 through 1991.

Ouellette's period of service included numerous tours of duty within the United States and overseas tours in the Republic of Vietnam, Japan and Germany. His military decorations included the Legion of Merit, the Meritorious Service Medal (with 3 Oak Leaf Clusters), the Army Commendation Medal (with 3 Oak Leaf Clusters), and the Army Achievement Medal (with 2 Oak Leaf Clusters). He is a graduate of the U.S. Army Sergeants Major Academy (Class #25) and holds an Associates Degree in Applied Science and General Management from El Paso Community College, El Paso, Texas.

He is a former President of the Potomac Chapter, AG Corps Regimental Association and the PERSCOM Sergeants Major Association. He currently maintains membership status in the NCOA Museum Association, Veterans of Foreign Wars, the

Knights of Columbus, the Exchange Club, American Legion, the 4th Infantry Division Association, and AUSA.

ENCLOSURE 1.—THREE RETIREMENT SYSTEMS

Prior to Sept. 8, 1990:
—Final base pay—full COLA for life
O/A Sept. 8, 1980:
—"High-3" year average for base pay
—Full COLA for life
O/A Aug. 1, 1986:
—"High-3" year average
—Minus 1 percent for years less than 30
—Minus 1 percent COLA until age 62
—Age 62 one-time catch-up
—CPI minus 1 percent COLA thereafter

ENCLOSURE 2.—VALUE DIFFERENCE IN MILITARY RETIRED PAY SYSTEMS [1]

Age	Entered service prior to Sept. 8, 1980		Entered service on or after Sept. 1, 1980, but before Aug. 1, 1986		Entered service on or after Aug. 1, 1986	
	Monthly	Annual	Monthly	Annual	Monthly	Annual
42	$600.00	$7,200.00	$564.60	$6,775.20	$508.00	$6,096.00
43	612.00	7,344.00	575.89	6,910.70	513.08	6,156.96
44	624.24	7,490.88	587.41	7,048.92	518.21	6,218.53
45	636.72	7,640.70	599.16	7,189.90	523.39	6,280.71
46	649.46	7,793.51	611.14	7,333.69	528.63	6,343.52
47	662.45	7,949.38	623.36	7,480.37	533.91	6,406.96
48	675.70	8,108.37	635.83	7,629.98	539.25	6,471.03
49	689.21	8,270.54	648.55	7,782.58	544.64	6,535.74
50	703.00	8,435.95	661.52	7,938.23	550.09	6,601.09
51	717.06	8,604.67	674.75	8,096.99	555.59	6,667.11
52	731.40	8,776.76	688.24	8,258.93	561.15	6,733.78
53	746.02	8,952.30	702.01	8,424.11	566.76	6,801.11
54	760.95	9,131.34	716.05	8,592.59	572.43	6,869.13
55	776.16	9,313.97	730.37	8,764.44	578.15	6,937.82
56	791.69	9,500.25	744.98	8,939.73	583.93	7,007.19
57	807.52	9,690.25	759.88	9,118.53	589.77	7,077.27
58	823.67	9,884.06	775.07	9,300.90	595.67	7,148.04
59	840.14	10,081.74	790.58	9,486.92	601.63	7,219.52
60	856.95	10,283.37	806.39	9,676.65	607.64	7,291.72
61	874.09	10,489.04	822.52	9,870.19	613.72	7,364.63
62	891.57	10,698.82	838.97	10,067.59	.....	.....
One time catch up	.....	.....	.....	.....	736.46	8,837.56
Total retired pay at age 62	.....	185,639.88	.....	174,687.13	.....	143,065.41
System value (percent)	.....	100	.....	94	.....	77

[1] Value per 1,000 of regular pay after 24 years of service at age 42; chart assumes constant 2 percent annual CPI adjustment.

PREPARED STATEMENT OF CAPT. FRED R. BECKER, JR., JAGC, USN (RET.), DIRECTOR, NAVAL AFFAIRS, RESERVE OFFICERS ASSOCIATION OF THE UNITED STATES

Mr. Chairman and members of the Committee: It is my pleasure to address this committee concerning the fiscal year 1999 budget request for the United States Coast Guard.

First and foremost, the Reserve Officers Association would like to express its profound gratitude to the Congress, and this committee, for their strong and vigorous

support of the Coast Guard Reserve during the fiscal year 1998 authorization and appropriation's process. ROA's testimony during the first session of the 105th Congress addressed a number of concerns regarding the Coast Guard Reserve, including funding, recruiting, and the provision of much need port security equipment. In recognition of the vital support provided to the nation by today's Coast Guard Reserve, the Congress and this committee responded. Specific examples included:

—Report language in the Senate version of the DOD Authorization bill, expressing concern that the Coast Guard Reserve's end-strength had fallen significantly below its authorized and appropriated level for fiscal year 1997 and requiring a report on Coast Guard Reserve recruiting;

—Authorizing, in the fiscal year 1998 DOD authorization bill, a new affiliation bonus for enlisted members leaving active duty;

—Increasing the level of funding, in the fiscal year 1998 appropriations bill, for Reserve training, from the $65 million requested by the administration, to $67 million;

—Limiting, in the fiscal year 1998 appropriations bill, the amount of Reserve training funds that can be transferred to operating expenses of the Coast Guard, to $20 million;

—Adding, in the fiscal year 1998 appropriations bill, $1 million for Coast Guard Reserve recruiting; and,

—Including, in the fiscal year 1998 DOD Appropriations bill, $13.5 million for the refurbishment of the 3 existing port security units and the establishment of 3 new port security units.

On behalf of Coast Guard Reservists serving around the globe we thank you for this support!

This year the Reserve Officers Association again strongly advocates adequate resource allocations for the United States Coast Guard and, most especially, the Coast Guard Reserve. In this regard, we recognize that providing the much needed resources to the Coast Guard, and the Coast Guard Reserve, continues to be a distinct challenge. In addition to ensuring adequate Reserve funding, congressional action has been continually required to provide the unique combination of Department of Transportation and Department of Defense funding required to support the Coast Guard's much needed operations.

COAST GUARD BUDGET REQUEST

The Coast Guard continues to show great professionalism and flexibility in doing more with less. The Commandant, Admiral Kramek, has streamlined the Coast Guard and reduced resource requirements while maintaining the capabilities upon which our nation depends. Concomitantly, the responsibilities and work of the Coast Guard have not been reduced, in fact responsibilities and work have increased. Given the downsizing that has occurred and the continued increasing demands on the force, the Coast Guard must not be continually stretched by under-funding.

Today's Coast Guard is an extremely cost-effective, flexible, and responsive organization that makes a daily difference in the quality of life for all Americans by saving lives, enforcing the Nation's laws, guarding our Nation's maritime borders, and protecting environment and natural resources, as well as providing a readily available augmentation force to the Department of Defense in times of national emergency. Each and every day, the Coast Guard, and Coast Guard Reserve, provide an impressive return on investment to the American People. In fiscal year 1997 alone, the Coast Guard:

—Saved more than 5,000 lives, and assisted another 50,000 people in distress;

—Saved more than $2 billion and protected more than $3 billion in property;

—Executed the proof of concept counter-drug OPERATION FRONTIER SHIELD around Puerto Rico and subsequently prevented a record amount of more than 103,000 pounds of cocaine and 102,000 pounds of marijuana products from reaching our shores;

—Responded to more than 13,000 reports of water pollution and supervised more than 600 federally funded oil and chemical spill cleanups;

—Intercepted more than 2,100 illegal migrants before they reached U.S. shores;

—Maintained more than 50,000 aids to navigation that helped ensure the safe navigation of ships that carry 95 percent of the nation's imports and exports;

—Performed more than 40,000 inspections on merchant ships and licensed 36,000 merchant mariners;

—Inspected more than 3,000 fishing vessels at-sea to verify compliance with applicable laws and regulations; and,

—Conducted more than 125,000 courtesy marine examinations of recreational vessels.

Even more impressive, this was all accomplished while the Coast Guard successfully completed the largest streamlining in its history. That streamlining responded directly to the National Performance Review and eliminated 4,000 positions, bringing the Coast Guard to its smallest work force since 1965. The taxpayers will save nearly $400 million per year and the services provided to America will actually improve. The fiscal year 1999 request builds on that success, by proposing programmatic reductions of more than $70 million per year, and eliminating more than 500 additional positions.

Simply stated, this can't go on forever, however attractive that prospect may be to budget builders. Because the post-streamlined Coast Guard is at its most efficient organizational state, funding less than that required—to absorb increases from pay raises and other required cost of living adjustments—will result in reduced services to the public. To avoid any adverse impact on service to the public, any future cost reductions must be achieved through efficiency from investments in new, more efficient capital equipment and technology and increased use of the Reserves.

The Coast Guard's fiscal year 1999 budget request would allow the Coast Guard to barely maintain current services in 12 different mission areas. First and foremost, it is important to note that the fiscal year 1999 operating fund request of $2,772 million is apparently underfunded by $69 million. In this respect, pay raises, cost of living increases and other statutorily mandated increases, as well as the additional $3 million necessitated by one new initiative (the Caribbean support ship), require a $128 million increase above the level appropriated in fiscal year 1998, $2,715 million. It is, therefore, apparent that the Coast Guard is expected to make up the shortfall by further management efficiencies and facility closures during fiscal year 1999 that are in all likelihood simply unachievable.

Of further concern is the fact that the capital account would, under the Administration's proposal, derive $35 million, or almost 8 percent of its funding, from proposed commercial navigation user fees that will almost certainly not be enacted and must, therefore, be made up through additional appropriations not included in the administration's budget. Looking beyond fiscal year 1999, it must also be noted that the Acquisitions, Construction and Improvements (AC&I) account barely maintains current services. Simply stated, this account, which provides for the vital acquisition, construction and improvement of vessels, aircraft, information management resources, shore facilities and aids to navigation required to execute the Coast Guard's mission and achieve its performance goals, cannot continue to be minimally funded. The Coast Guard will not be able to function efficiently in the future without the modern equipment provided through the adequate funding of this account. Future cost reductions in the Coast Guard will have to depend on efficiencies derived from investments in new, more efficient capital equipment and technology.

The Coast Guard currently operates ships with high personnel and maintenance costs. Some ships have been in service for more than 50 years. Simply stated, the continued protection of the public, at a lower cost, requires further investment in the AC&I account—to enable the Coast Guard to design more capable and less labor-intensive ships and aircraft. Without the necessary investment in the AC&I account, pressure will continue to build on the operational account, as anticipated lower personnel and maintenance costs, that would be achieved through investment, become unachievable.

Finally, investment in the AC&I account provides the requisite funding for the Coast Guard's "Deepwater" program, the Coast Guard's plan to modernize its major cutters, aircraft, and command, control, communications, computer, intelligence, surveillance, and reconnaissance (C^4I) systems. The Deepwater program is an absolute requirement—to sustain the Coast Guard's capability for providing services critical to America's public safety, environmental protection, and national security for the next 30 years—through the replacement of assets that are at, or fast approaching, the end of their service lives. It should also be recognized that the Coast Guard's medium and high endurance cutters, acquired through the Deepwater program, will be readily available to support critical Department of Defense operations such as maritime surveillance and interception, convoy escort, search and rescue, and enforcement of maritime sanctions, as was the case during Operation Desert Storm. Such options allow Navy "high end" ships to be more effectively employed in higher threat/combat operations. In addition, as the Navy surface combatant fleet grows smaller, the future cutter provides an extremely cost-effective "dual capability," by providing not only the ability for the Coast Guard to perform its peacetime mission, but the vital operational capabilities vitally needed by the Navy and the Department of Defense in the 21st Century, as recently recognized by Admiral Jay L. Johnson, USN, Chief of Naval Operations.

SELECTED RESERVE STRENGTH

The fiscal year 1999 authorization request is to maintain the Coast Guard Selected Reserve end-strength at the 8,000 level. While recognizing that the Coast Guard Reserve's end-strength remains below 7,600 for the second consecutive year, we have serious concerns regarding the administration's proposal for an appropriated end-strength of only 7,600. We also have concerns regarding an authorized end-strength of 8,000, in view of the fact that the Commandant has conducted an in-depth study that clearly indicates and justifies a requirement for in excess of 12,000 Coast Guard Reservists.

In recent years, the Congress, the administration, and Coast Guard leadership have ever increasingly recognized the unique capabilities of the Coast Guard Reserve. It is now well-recognized that the Coast Guard Reserve has clearly become a value-added resource for peacetime day-to-day operations, as well as a highly cost-effective source of needed, trained personnel to meet military contingency and other surge requirements. The funding of 3 additional port security units, that require approximately 100 additional Reservist each in fiscal year 1998, is but one example.

In view of the foregoing, we remain particularly concerned that the administration and the Coast Guard have allowed the Coast Guard Reserve's end-strength to fall below the authorized and appropriated level for fiscal year 1997 and have not succeeded in recruiting Reservists to end-strength in fiscal year 1998. While recognizing that the Coast Guard has made some effort to correct the end-strength shortfall, we are very concerned that these efforts have not resulted in rectifying the recruiting shortfall. We are further very concerned over the impact that the failure to recruit may have on future authorized and appropriated end-strength in the Coast Guard Reserve. It must be noted that all the other armed services are meeting their recruiting goals for Reservists (the Army within the established range of plus, or minus, 2 percent). The immediate problem, therefore, appears unique to the Coast Guard Reserve.

As noted in last year's testimony, Team Coast Guard has, with limited exceptions, resulted in the complete assimilation of Coast Guard Reservists into the active duty force. Prior to Team Coast Guard, Reserve unit commanding officers had specific responsibilities for recruiting. These recruiting responsibilities have not been transferred to active duty commanding officers, who would in many cases, because of geographics, would be better able to recruit Reservists than Coast Guard recruiters. In addition, Reservists have not been assigned to assist in recruiting and recruiting responsibilities have not been assigned to Reservists. Finally, Reserve recruiting quotas have not yet been assigned to Coast Guard recruiters, although quotas do exist for recruiting active duty personnel. This is despite the fact the recruiting a Reservist is recognized within the Coast Guard itself as being substantially more difficult than recruiting a new active duty entrant—the primary reason being that Reservists must be recruited to a targeted billet at a specific location that is, in many instances, not located near the recruiting office. (The Coast Guard has eased, but not lifted, this geographic requirement over the past year.) In sharp contrast, those recruited for active duty assignments are simply ordered to boot camp. Further action may, therefore, be required to ensure that the Coast Guard is able to recruit the requisite number of personnel.

All of this having been said, it must be noted that the Coast Guard has made some headway in intensifying its Reserve recruiting over the past year. Such efforts have included easing, but not lifting, the geographical constraints (as previously noted), implementation of a new tuition assistance program that includes Reservists, and the establishment of a monthly Reserve recruiting newsletter. Despite these efforts, while the Coast Guard exceeded one-hundred percent of the goals for the active-duty force in fiscal year 1996 and almost 95 percent in fiscal year 1997, it recruited only 65 percent of those needed for the Reserve force in fiscal year 1996, only 67 percent of those needed for the Reserve force in fiscal year 1997, and through January 31, 1998, only 35 percent of monthly Reserve requirements. Finally, it should be noted that the Coast Guard has only recently authorized (February 6, 1998) the new selected Reserve affiliation bonus enacted as a part the fiscal year 1998 National Defense Authorization Act, signed into law on November 28, 1997.

RESERVE FUNDING

The administration has requested $67 million for the Reserve Training (RT) appropriation for fiscal year 1998, with $25 million in reimbursement to operating expenses. Given the present procedures for reimbursement for operating expenses and direct payments by the Coast Guard Reserve, this is the minimum needed to fund a full training program for 7,600 personnel. Even at this minimal funding level,

Coast Guard Reservists would continue to receive only 12 days of annual training (AT) each year (all the other armed services, except for the Navy, are entitled to 14 days' AT by departmental regulation). In addition, it should be noted that the $67 million funding level is based on 90 percent funding of on-board strength, as opposed to previously established procedures of budgeting for 90 percent of authorized strength.

Additional funding required to support the full 8,000 level authorized would appear to be $72M. It should, however, be noted that the fiscal year 1998 appropriations bill, in appropriating $67 million for the Coast Guard Reserve, limits the amount of Reserve training funds that may be transferred to operating expenses to $20M. The House Appropriations Committee report notes that this limitation is included, "Given the relatively small amount of the reserve training appropriations and the declining size of the Selected Reserve * * * to ensure the Reserves are not assessed excessive charge-backs to the Coast Guard operating budget." The House report goes on to state that: "The Committee believes the proposed level of reimbursement {$22.6 million for fiscal year 1998} may be too high, especially given the substantial amount of reserve augmentation workhours provided by the reserves in direct support of Coast Guard missions—2.7 percent of all the Coast Guard staff years." Accordingly, the report states, "The Coast Guard's planned assessment to reimburse their operating budget for reserve training does not adequately consider this level of cross-support * * *."

ROA thanks the Congress for its recognition of the support provided by the Coast Guard Reserve and would ask that this limitation be not only continued, but meticulously monitored to ensure the observation of congressional intent. In this regard, it may be that with limited additional funding, limited reimbursement and careful monitoring of reimbursement, and direct funding from the Reserve account—from a current, as well as historical basis—that the Coast Guard Reserve would have sufficient funds to attain the 8,000 level. This would also have a positive, morale-building effect on Reservists by not jeopardizing Reserve strength.

TEAM COAST GUARD

The Coast Guard has embraced the reality that its Reserve is a value-added resource. This fact has been demonstrated by the adoption of Team Coast Guard, which as previously discussed, includes the full integration of Coast Guard Reservists into their parent Active force commands. This expansion and modification of the historic method of augmentation training directly benefits the Coast Guard, as has been directly noted by the House appropriations committee. As a result of Team Coast Guard Reservists now perform day-to-day operations as an integral part of the active duty force. In addition, integration has reduced administrative overhead by making the parent command responsible for Reserve personnel in the same manner as the assigned active-duty personnel.

We continue to support the goals and objectives of this new method of operations. The Coast Guard Reserve has become the "bench-strength" of the active duty force. In this regard, a strength of 8,000 Coast Guard Reservists equates to only 506 full-time equivalent positions. Simply stated, the Reserve leverages the entire organization and stands ready to go in response to both domestic and national emergencies. As a result, the Coast Guard is readily able to surge its forces to meet domestic emergencies in an extremely cost effective manner, as well as to respond to national emergencies, to include vital harbor security for the Department of Defense with the Coast Guard Reserve Port Security Units.

This committee's support of the Coast Guard has been critical to maintaining its military capability. Your continued support is vital. Thank you for this opportunity to present the position of the Reserve Officers Association to this committee. I would be pleased to respond to any questions you may have at this time.

BIOGRAPHICAL SKETCH

FRED R. BECKER, JR.

Fred Becker is a native of Louisville, Kentucky and a retired Captain, Judge Advocate General's Corps, U.S. Navy. He graduated from the U.S. Naval Academy in 1971. His first assignment after commissioning was as Gunnery Officer on board USS *Stickell* (DD–888), followed by a tour on USS *Biddle* (DLG–34) as Missile Officer. Under his leadership *Biddle's* Missile Battery was awarded the Atlantic Fleet "E" for excellence in readiness and missile accuracy.

He was then assigned as Aide-de-Camp to Rear Admiral Jeremiah A. Denton, Jr., at the Armed Forces Staff College, Norfolk, Virginia. While at the Staff College, he was selected as one of an elite group of officers to attend law school under the aus-

pice of the Navy's Law Education Program. He subsequently attended the Marshall-Wythe School of Law, College of William and Mary, graduating with a J.D. Degree (Order of the Coif) in 1979.

Fred Becker then attended the Naval Justice School where he was the recipient of the American Bar Association Award of Professional Merit, graduating first in his class. His first assignment as a Judge Advocate was to the Naval Legal Service Office, Norfolk, Virginia where he served as a prosecution attorney, and later as the senior prosecution attorney. As the senior prosecution attorney, he was responsible for the supervision of seven other attorneys, who prosecuted in excess of 1,000 cases annually at the Navy's largest Legal Service Office.

Subsequently, Fred Becker was assigned as the Executive Officer, Naval Legal Service Officer, Guam. Following this tour of duty, he was assigned to the Office of the Judge Advocate General where he was responsible for recruiting and hiring new attorneys for the Navy Judge Advocate General's Corps. He then commenced a tour at the Navy Office of Legislative Affairs where he served as a liaison officer with the Congress in the area of federal procurement policy and legislation. His ensuing assignment was as the Military Advisor to Mr. L. Wayne Arny, III, Associate Director, National Security and International Affairs, Office of Management and Budget, Executive Office of the President. Following this assignment, he was assigned as the Deputy Fleet Judge Advocate, Commander in Chief, U.S. Pacific Fleet. He was then assigned as the Fleet Judge Advocate, Commander, THIRD Fleet.

Fred Becker's next assignment was as the Legal Counsel to the Chief of Naval Personnel. Following the tour of duty as Legal Counsel to the Chief of Naval Personnel, Fred Becker was assigned as the Director, Legislation, U.S. Navy Office of Legislative Affairs. In this position he supervised a staff eleven civilian and military personnel conducting Congressional legislative affairs on such diverse issues as military personnel and compensation, health care, Naval Reserve programs, government contracting, military construction, moral, welfare and recreation programs and environmental compliance.

Fred Becker qualified as a Surface Warfare Office in 1974. He is a member of the Virginia Bar. He has been awarded the Legion of Merit (second award), the Defense Meritorious Service Medal, the Navy Meritorious Service Medal (fourth award), the Joint Service Commendation Medal and the Navy Commendation Medal (second award). He is also entitled to wear the Presidential Service Badge. He retired from the U.S. Navy on 1 November 1996, immediately assuming the position of Naval Affairs Director for the Reserve Officers Association of the United States.

Fred Becker is listed in "Who's Who In American Law," and "Who's Who Among Emerging Young Leaders in America." He is married to the former Barbara Lee Sheinhouse of Pittsfield, Massachusetts. Barbara is a Lieutenant Colonel in the U.S. Army Reserve (Nurse Corps) (Retired). They have four daughters: Kimberly, a junior at East Carolina University; Lori, a freshman at The College of William and Mary; Melissa, a high school freshman; and Ashley, who is in elementary school.

HIGHWAY-RELATED TESTIMONY

PREPARED STATEMENT OF MICHAEL P. KENNY, EXECUTIVE OFFICER, CALIFORNIA AIR RESOURCES BOARD; BARBARA PATRICK, MEMBER, BOARD SUPERVISORS OF KERN COUNTY AND MEMBER, CALIFORNIA AIR RESOURCES BOARD; MANUEL CUNHA, JR., PRESIDENT, NISEI FARMERS LEAGUE; LESS CLARK, VICE PRESIDENT, INDEPENDENT OIL PRODUCERS' ASSOCIATION; AND CATHERINE H. REHEIS, MANAGING COORDINATOR, WESTERN STATES PETROLEUM ASSOCIATION

Mr. Chairman and Members of the Subcommittee: On behalf of the California Industry and Government Coalition on PM–10/PM–2.5, we are pleased to submit this statement for the record in support of our fiscal year 1999 funding request of $100,000 for the California Regional PM–10/PM–2.5 Air Quality Study.

The San Joaquin Valley of California and surrounding regions exceed both state and federal clean air standards for small particulate matter, designated PM–10/PM–2.5. The 1990 federal Clean Air Act Amendments require these areas to attain federal PM–10/PM–2.5 standards by December 31, 2001, and the proposed PM–2.5 standards by mid-2003. Attainment of these standards requires effective and equitable distribution of pollution controls that cannot be determined without a major study of this issue.

According to EPA and the California Air Resources Board, existing research data show that air quality caused by the PM–10/PM–2.5 problem has the potential to threaten the health of more than 3 million people living in the region, reduce visibility, and impact negatively on the quality of life. Unless the causes, effects and

problems associated with PM–10/PM–2.5 are better addressed and understood, many industries will suffer due to production and transportation problems, diminishing natural resources, and increasing costs of fighting a problem that begs for a soundly researched solution.

PM–10/PM–2.5 problems stem from a variety of industry and other sources, and they are a significant problem in the areas that are characteristic of much of California. Typical PM–10/PM–2.5 sources are dust stirred up by vehicles on unpaved roads, unpaved shoulders and dirt loosened and carried by wind during cultivation of agricultural land. Soil erosion through wind and other agents also leads to aggravation of PM–10/PM–2.5 air pollution problems. Chemical transformations of gaseous precursors are also a significant contributor to PM–2.5, as are combustion sources.

The importance of this study on PM–10/PM–2.5 is underscored by the need for more information on how the federal Clean Air Act Amendments standards can be met effectively by the business community, as well as by agencies of federal, state and local government whose activities contribute to the problem, and who are subject to the requirements of Title V of the Clean Air Act. There is a void in our current understanding of the amount and impact each source of PM–10/PM–2.5 actually contributes to the overall problem. Without a better understanding and more information—which this study would provide—industry and government will be unable to develop an effective attainment plain and control measures.

This research has direct applications to the Department of Transportation. Specifically, Federal Highway Administration research funds are available through Caltrans for a number of targeted proposals under discussion by officials of both Caltrans and the California Air Resources Board. Included among the priority research topics are:

—Analysis of methodologies for estimating emissions of PM–10/PM–2.5 from California roadways; Significant emphasis on characterizing emissions from unpaved shoulders due to large amounts of heavy duty vehicle traffic through Central California, which is necessary to support California's economy;

—Characterization of the sources and composition of PM–10/PM–2.5 emissions from roadway construction;

—Tunnel study; and

—Characterization of heavy duty truck activity.

These studies will explore the effects of roadway construction and use on ambient PM–10/PM–2.5 levels. Other proposals under review would address problems with unpaved road shoulders, roadway dust mitigation strategies and assessment of heavy duty truck travel patterns. Currently available data and other PM–10/PM–2.5 research efforts do not adequately address transportation concerns, so DOT support of this targeted research is essential.

Our Coalition is working diligently to be a part of the effort to solve this major problem, but to do so, we need federal assistance to support research and efforts to deal effectively with what is essentially an unfunded federal mandate.

Numerous industries, in concert with the State of California and local governmental entities, are attempting to do our part, and we come to the appropriations process to request assistance in obtaining a fair federal share of financial support for this important research effort. In 1990, our Coalition joined forces to undertake a study essential to the development of an effective attainment plan and effective control measures for the San Joaquin Valley of California. This unique cooperative partnership involving federal, state and local government, as well as private industry, has raised more than $19 million to date to fund research and planning for a comprehensive PM–10/PM–2.5 air quality study. Our cooperative effort on this issue continues, and our hope is that private industry, federal, state and local governments will be able to raise an additional $8 million over the next two years to fund this important study.

To date, this study project has benefited from federal funding through the United States Department of Agriculture's, the Department of Transportation's, the Department of Defense's, the Department of the Interior's and the Environmental Protection Agency's budgets—a total of $10.6 million in federal funding, including the $100,000 the Subcommittee provided in the fiscal year 1998 bill. State and industry funding has matched this amount virtually dollar for dollar.

With the planning phase of the California Regional PM–10/PM–2.5 Air Quality Study nearly complete, a number of significant accomplishments have been achieved. These interim products have not only provided guidance for completion of the remainder of the Study and crucial information for near-term regulatory planning, they have also produced preliminary findings which are significant to the Department of Transportation's (DOT) interests.

The Study is significant to DOT interests for a number of reasons. The San Joaquin Valley experiences some of the most severe PM episodes in the nation. The information being collected by the PM study is essential for development of sound and cost-effective control plans. Both directly emitted particulate matter and gaseous precursor emissions from transportation sources play a significant role in contributing to PM exceedances. Direct PM emissions include contributions from on- and off-road tailpipe exhaust, brake- and tire-wear, and re-entrained dust from paved and unpaved roads. Gaseous exhaust and evaporative emissions from mobile sources also contribute to the formation of secondary ammonium nitrate, sulfate, and organic carbon. Without a sound understanding of the role that transportation sources play in PM exceedances, these sources could be subjected to unnecessary or ineffective controls. Control plans for the San Joaquin Valley, based upon the results of the PM study, will help address the potential impacts of emissions from transportation sources and ensure an equitable and effective distribution of controls.

To this end, the PM study is expending significant resources to provide an improved understanding of emission sources within the San Joaquin Valley and surrounding regions and to define the impacts of these sources on ambient PM. A preliminary field monitoring program was conducted during the fall and winter of 1995–1996. Extensive air quality and meteorological measurements were collected. This database is being analyzed to address a number of questions including: (1) the sources contributing to elevated PM–10 and PM–2.5 concentrations, (2) the zone of influence of specific sources, and (3) wind flow patterns and transport routes between the Valley and surrounding areas. Additional research has addressed emissions from unpaved roads and evaluated the effectiveness of dust suppression methods. The results of this study suggest that current emissions factors are too low, and that emissions from unpaved roads are dependent upon road silt loading rather than on soil silt content. The study also identified polymer emulsion and non-hazardous crude oil products as the most effective for long-term dust suppression.

The results of these studies are being used to design large scale field monitoring programs to be conducted in 1999 and 2000. These field programs will address both the annual and 24-hour PM–10 and PM–2.5 standards. Surface and aloft monitoring of air quality, meteorology, fog, and visibility will be conducted at a cost of over $12 million. Final plans for these field studies are being developed, which will be carried out by numerous contractors over a broad area encompassing Central California, the Sierra Nevada Mountains, and the Mojave Desert. Substantial resources will also be devoted to developing improved emissions estimates. A database of the field study results will be completed in 2001, with air quality modeling and data analysis findings available in 2002. This timeline is ideally positioned to provide information for federal planning requirements as part of the new PM–10/PM–2.5 national ambient air quality standards.

The Department of Transportation's prior funding and participation have enabled these projects to occur. Continued support by DOT is essential to implement a full scope of emissions assessment and control method demonstration projects for transportation related sources, and to ensure that DOT concerns are met.

For fiscal year 1999, our Coalition is seeking $100,000 in federal funding through the U.S. Department of Transportation to support continuation of this vital study in California. We respectfully request that the Appropriations Subcommittee on Transportation provide this additional amount in the DOT appropriation for fiscal year 1999, and that report language be included directing the full amount for California.

The California Regional PM–10/PM–2.5 air quality study will not only provide vital information for a region identified as having particularly acute PM–10/PM–2.5 problems, it will also serve as a model for other regions of the country that are experiencing similar problems. The results of this study will provide improved methods and tools for air quality monitoring, emission estimations, and effective control strategies nationwide.

The Coalition appreciates the Subcommittee's consideration of this request for a fiscal year 1999 appropriation of $100,000 for DOT to support the California Regional PM–10/PM–2.5 Air Quality Study.

PREPARED STATEMENT OF JACK VAN STEENBURG, PRESIDENT, COMMERCIAL VEHICLE SAFETY ALLIANCE

CVSA COMMENTS ON FISCAL 1999 OMC BUDGET PROPOSAL

1. Duplication of programs/projects in the three budget categories: Safety Operations; Information Systems and Strategic Safety Initiatives of the National Motor Carrier Safety Program; and Motor Carrier Research.

Discussion.—There appears to be a duplication of effort in one or more of these areas. Examples are Sections A and B of the new Information Systems and Strategic Safety Initiatives under the MCSAP program which are also duplicated under the Motor Carrier Research program. There are other examples as well.

Recommendation.—A major reorganization and streamlining of the above programs should be undertaken in connection with the overall reorganization and strategic planning process that is now taking place in the Federal Highway Administration (FHWA).

2. ITS–CVO Funds.

Discussion.—Major ITS–CVO program funding requests are submitted separately from the above three OMC programs yet are integrally related to all three programs, especially to the new performance-based approach emphasized under the basic MCSAP program. Most important to note is that these ITS–CVO funds are requested by the federal-aid highway division of FHWA rather than from the OMC and are not directed to the lead MCSAP agency in the states, with the result that the enforcement community may not share in these funds. MCSAP resources are limited at best and do not always allow the agency to fully participate in ITS–CVO planning and deployment.

Recommendation.—Steps should be taken to ensure that appropriated ITS–CVO funds that directly relate to commercial vehicle safety enforcement reach the state MCSAP lead agency since it plays a key role in ITS–CVO planning and deployment. A full time ITS–CVO Coordinator for the MCSAP agency should be an eligible expense under such funding.

3. Hazardous Materials.

Discussion.—The 1990 HAZMAT ACT established a working group to develop a uniform permitting plan and placed responsibility with the OMC to carry out the program. OMC has not completed its work in this regard. This is a base state program much like IRP and IFTA. Seed money of at least $250,000 annually is needed for the next six years for states to make an initial commitment to the program.

Recommendation.—The OMC should make funding available and otherwise actively promote state participation in what is known as the Uniform Program which would provide for uniformity in hazardous materials registration and permitting procedures.

4. MCSAP Funding of Local Agencies.

Discussion.—In recent years, local jurisdictions within states (largely municipalities) have indicted a desire to receive MCSAP money to conduct truck and bus inspections. In some states, such as Oregon and Missouri, this has worked well and uniformity and quality of inspections have been maintained due to state control. In some other states, however, the state enforcement agencies have not assumed responsibility and control of local jurisdictions. Thus, the "locals" have used inspections primarily for revenue enhancement purposes and quality and uniformity of inspections have suffered. Carriers have undergone duplicate inspections. Many times incorrect information resulting from these inspections has been entered into national data systems such as MCMIS and Safetynet.

Recommendation.—To maintain uniformity and quality of truck and bus inspections at the local level, all funds received by local agencies should only be distributed through the lead MCSAP agency in the state. Further, the local agency should sign a memorandum of understanding with the lead MCSAP agency ensuring that the uniformity and quality of the inspections will be maintained to the level of overall state standards as well as ensure the quality of data entry into MCMIS and Safetynet. The memorandum should provide for training and continuing certification of inspection officers.

5. Funding level for performance based plans, safety incentive grants, and the basic MCSAP program.

Discussion.—The fiscal 1998 appropriation for the basic MCSAP program was approximately $73 million which when taken into consideration with the elimination of special earmarks, amounted to a substantial increase. Yet in the 1999 proposed budget, the OMC proposes to reduce the basic program to $67 million. While an additional $7,500,000 could be made available through Safety Performance Incentive Grants and another $7,000,000 through the border and high priority initiatives pro-

grams, not all states may be able to share funding under these latter two categories, particularly the Safety Performance Incentive Grants.

Only 14 states thus far have been participating in the performance based pilot project. Approximately another 10 (8 pilot and 2 prototype) states are participants in the ITS–CVO CVISN program. The OMC has yet to issue a performance rulemaking establishing performance based criteria for the states. Thus, it is quite possible that some states may find themselves unable to compete for these additional funds. But these same states may have very good basic programs which are in fact a version of performance based programs, yet they may not have the benefit of training to prepare a CVSP (formerly SEP) plan for fiscal 1999. The result may be that these states will receive less money than last year as they try to maintain an effective inspection program and increase inspector salaries.

Recommendation.—In fiscal 1999, as in fiscal 1998, ensure that all states be allocated the Safety Performance Incentive grants by formula. It is premature to do otherwise. After the OMC issues its rulemaking laying out specific performance based guidelines and goals, and after all states have had the benefit of performance based training, then the following fiscal year should signal definite shift to performance based funding.

6. Accident Causation and Investigation.

Discussion.—With respect to crash causation, in its 1999 budget request, the OMC proposes to expend funds (amount not specified) to "build upon current research to determine appropriate crash causation factors after on scene investigations of a sample motor carrier traffic crashes (fatal and non-fatal)."

Recommendation.—To accomplish this, the OMC should implement the principles learned in the Minnesota pilot accident investigation project by including other states in the pilot program and by initiating the development of a national accident causation data base.

7. National Training Center.

Discussion.—The OMC indicates plans to seek funds for contracting new professional curriculum developer/trainer for the NTC.

Recommendation.—The OMC should further indicate in detail what its long term plans are for the NTC. With streamlining and downsizing a paramount goal of the FHWA reorganization underway, it may be that the function of training could be entirely privatized over time.

8. Privatization of Inspections.

Discussion.—Privatization of commercial vehicle inspection programs are being piloted in Canada, and are also being supported by the bus industry in the United States.

Recommendation.—The OMC should encourage and/or undertake pilot programs in this regard to be able to accurately assess the feasibility and reliability of such programs.

PREPARED STATEMENT OF HARRY HARRIS, CHAIRMAN, I–95 CORRIDOR COALITION, EXECUTIVE BOARD, DEPUTY COMMISSIONER, CONNECTICUT DEPARTMENT OF TRANSPORTATION

Thank you for the opportunity to submit this written testimony to the record of the Subcommittee on Transportation, Committee on Appropriations, U.S. Senate regarding the fiscal year 1999 U.S. Department of Transportation Appropriations.

On behalf of the I–95 Corridor Coalition, I want to thank the Subcommittee for its role in providing the Coalition with $1 million in the fiscal year 1998 U.S. Department of Transportation Appropriations (Public Law 105–66). We are currently unable to access those funds due to the lack of long term reauthorization of federal surface transportation programs; however, when that problem is resolved we will make highly productive use of the funds provided to us.

This year, the Coalition celebrates its fifth anniversary. We are proud of what we have accomplished in our first few years. We believe these accomplishments have set a strong foundation for a promising future. We believe that all the investors in the Coalition have received a positive return.

In order to plan most effectively for that future, the Coalition has prepared a new business plan designed to focus our efforts, expand participation, and encourage public-private partnerships. Central to the new business plan are eight "tracks" covering the following program areas: agency support; inter-regional multimodal travel information; coordinated incident management; commercial vehicle operations; intermodal transfer of people and goods; electronic payment services, coalition support services; and emerging issues. The continued support of all of the partners is essential to the overall success of the Coalition in these vital areas. An investment

of $5 million in fiscal year 1999 by federal stakeholders, coupled with contributions by all of the other members, will improve the safety and efficiency of the entire Corridor. As a result, the Coalition's efforts would contribute to the national goals of congestion reduction, improved shipment of goods and services inter-regionally, and better air quality.

BACKGROUND

With more than 50 million residents, the Northeast Corridor is the most heavily burdened transportation network in the United States. Increasingly, the region's 13 major airports, more than two dozen major rail stations, 11 major seaports, and 30,000 miles of Interstate and primary highways need thoughtful, coordinated management across multijurisdictional lines.

Interstate 95 is the backbone of this transportation system. In 1993, the I–95 Northeast Corridor was named a Priority Corridor by the U.S. Department of Transportation, and the I–95 Corridor Coalition was established to enhance mobility, safety, and efficiency across all modes and transportation facilities that serve the region. The Coalition, a partnership of 27 transportation agencies, brings its diverse members and other partners together to cooperatively address the transportation problems that affect the entire region. We strive to add value to the activities of member organizations by leveraging resources, sharing information, and coordinating programs. While participating at the national level, we have focused on corridor needs and members' objectives, in order to develop practical standards that can be readily implemented and which promote interoperability.

SEAMLESS TRANSPORTATION

Intelligent Transportation Systems (ITS) make a contribution to improving transportation safety and efficiency. However, the greatest obstacles to widespread realization of ITS' benefits are institutional barriers. ITS requires new types of regional collaboration, in order to move toward "seamless" systems operation and service delivery. "Seamless" systems require new partners, both public and private. The regionally "seamless" and user-responsive transportation service goal at the core of ITS is based on implementing an operations-oriented, information-intensive approach requiring close communication and coordination between multiple systems and agencies. To help achieve the goal of "seamlessness," the Intermodal Surface Transportation Efficiency Act of 1991 created the ITS Priority Corridor Program. The Priority Corridor Program provides a crucial bridge between the laboratory and large scale deployment. According to Dr. Christine M. Johnson, the Director of the Federal Highway Administration's Joint Intelligent Transportation System Program Office, the Corridor Program "has been extremely effective in teaching us about the institutional arrangements necessary to advance the intermodal and multimodal transportation needs."

TRAVELER INFORMATION AND INCIDENT MANAGEMENT: TEST RESULTS

Advanced technologies and increased interagency communications, coordination and cooperation are the foundation of the I–95 Corridor Coalition's efforts. Upon this foundation it has developed a shared information network that supports a regional intermodal traveler information and incident management system. The cooperative efforts of members mean ITS technologies deployed locally can be used to benefit agencies—and more important, travelers—from Maine to Virginia.

The Coalition's efforts were put to the test on October 9, 1997, when a tank truck carrying 8,000 gallons of gasoline was rear-ended as it made a legal U-turn in Yonkers, New York. The truck burst into flames almost immediately and then exploded beneath the overpass of the New York State Thruway. The fire buckled and literally melted portions of the seven-lane, 60-foot steel and concrete bridge, igniting a potential traffic nightmare for motorists up and down the Northeast Corridor.

The accident sent local officials scrambling for ways to reroute the 76,000 vehicles that use the New York State Thruway daily, and triggered incident management activities around the region through the I–95 Corridor Coalition's Information Exchange Network (IEN). The IEN is a real-time information exchange network designed to interconnect Coalition member agencies' facilities throughout the Corridor. Within minutes, TRANSCOM, an independent group of agencies in the New York City metropolitan area serving as the communications center for the Coalition, flashed the news of the accident up and down the eastern seaboard using the 52 work stations that make up the IEN. Coalition members were notified of the incident's location, estimated duration, and the impact on traffic.

Numerous Coalition agencies, assisted by the Coalition's communications center, then used a combination of variable message signs and highway advisory radio to provide news about the incident and inform motorists, especially long-haul truckers. This real-time information exchange contributed immensely to timely response throughout the entire region. For the 11 days until a temporary bridge could be installed, the IEN helped transportation officials reroute traffic and prevent more severe delays. States cooperated by suspending highway construction projects that might have created additional delays. Transit systems added more buses, trains and subways. By reaching travelers outside the New York Metropolitan region, the Coalition encouraged diversion, not just within the affected region but completely around it.

Then IEN and inter-agency cooperation, were similarly effective in March, 1996, when a major fire closed a section of I–95 in the Port Richmond area of Philadelphia.

We believe these examples clearly demonstrate the benefits of our ability to blend technology and institutional cooperation to solve real-world problems.

ELECTRONIC TOLL AND TRAFFIC MANAGEMENT (ETTM)

Another area which clearly reflects the Coalition's mission of blending technology with cooperation among jurisdictions is Electronic Toll and Traffic Management (ETTM). The Coalition's vision for ETTM involves one tag per vehicle, one account per customer, one set of credentials per commercial vehicle, and expanded use of ETTM technology. This vision reflects the need for, and importance of, ETTM compatibility and interoperability throughout the Corridor. ETTM interoperability enables commercial vehicle operators, commuters, and recreational travelers to move conveniently and safely throughout the Northeast Corridor. As specific projects are developed, this vision will serve as our guide.

COMMERCIAL VEHICLE OPERATIONS (CVO)

No region in the country is as dependent on truck traffic for freight movement as the Northeast Corridor. Increased productivity of the motor carrier industry plays a vital role in the economic life of the region. The I–95 Corridor Coalition devotes considerable attention to improving both the safety and the efficiency of the motor carrier industry. The benefits are measurable. For example, a study from the Massachusetts Metro Transportation Association finds the cost of administrative compliance for motor carriers in the Commonwealth could be reduced by $2.4 million annually through adoption of ITS.

The Coalition has developed a CVO Program for the Corridor that will enhance productivity of the goods-movement industry and will be consistent with the broad deployment of the commercial vehicle information systems and networks (CVISN). Full implementation of all aspects of the program will improve safety and enforcement through automated credentialing processes, and information-sharing partnerships. The Coalition has created a CVO Program Track Committee that is a partnership of transportation, registration, toll, law enforcement and motor carrier groups whose objective it is to work together on all issues affecting their implementation of ITS. Projects already initiated include:

—A system that will provide commercial vehicle dispatchers and drivers with information on congestion, incidents, weather and routing that is necessary to meet the demands of shippers and receivers in the Corridor for fast, timely and reliable delivery of goods and services.

—Projects using computerized roadside communications, automatic vehicle ID, mobile inspection cameras, and a national Motor Carrier Safety Program prototype that will help improve safety and streamline inspections.

—Since each state has a unique regulatory system, credentialing programs often impose redundant and complex requirements on motor carriers. The goal of a credentials administration initiative is to reduce costs incurred by states and carriers, and bureaucratic red tape by streamlining the credential administration processes for commercial vehicles.

—An electronic registration systems test will allow motor carriers to register their vehicles electronically with state motor vehicle agencies. Motor carriers will be able to use a basic personal computer in their offices, or use the Internet to register their vehicles and apply for permits. An interstate clearinghouse will also be explored as a way to enable state motor vehicle agencies to exchange information and reconcile registration fee accounts among the states.

INTERMODAL TRANSPORTATION

A key focus of the Coalition is to facilitate transportation solutions that make the most efficient use of our transportation infrastructure. Increasingly, transportation must be viewed as a total system rather than a collection of modal entities. For this reason, the Coalition has identified the intermodal transfer of people and goods as a major area of emphasis for the next five years. We also recognize that if a true intermodal system is to become a reality, government and industry must become partners in its on-going development. For this reason, the Coalition is planning an "Intermodal Forum" to take place in mid or late 1998. The purpose of the Forum is to engage public and private stakeholders—shippers, air, rail and truck operators, port authorities, terminal operators, transit operators and others—in an interactive dialogue on intermodal challenges and opportunities. Results of the Forum will be used to focus Coalition activities that will benefit the member agencies throughout the Corridor.

CONCLUSION

Continued financial support of $5 million for federal fiscal year 1999 will allow the I–95 Corridor Coalition to continue all these efforts, particularly in the areas of incident management, congestion mitigation, and commercial vehicle operations. Further, the Coalition will apply the funding to explore highly selected new areas such as the application of ITS to intermodal transportation, and to continue work on standards which will support interoperability of systems across members' boundaries. We appreciate the endorsement of our request in testimony submitted by the Coalition of Northeastern Governors and others. In closing, let me thank the subcommittee again for its valued support. We look forward to working with you in the future.

PASSENGER RAIL-RELATED TESTIMONY

PREPARED STATEMENT OF W. RON ALLEN, PRESIDENT, NATIONAL CONGRESS OF AMERICAN INDIANS

INTRODUCTION

Good morning Chairman Shelby, Vice-Chairman Lautenberg and distinguished members of the Appropriations Subcommittee on Transportation. Thank you for the opportunity to present testimony regarding the President's budget request for fiscal year 1999 Indian programs and services. My name is W. Ron Allen. I am President of the National Congress of American Indians ("NCAI"), the oldest, largest and most representative Indian advocacy organization in the nation, and Chairman of the Jamestown S'Klallam Tribe located in Washington State. The National Congress of American Indians was organized in 1944 in response to termination and assimilation policies and legislation promulgated by the federal government which proved to be devastating to Indian Nations and Indian people throughout the country. NCAI remains dedicated to advocating aggressively on behalf of the interests of our 230 member tribes on a myriad of issues including the critical issue of adequate funding for Indian programs.

Department of Transportation

Funding for the Indian Reservation Road (IRR) program, which funds the construction and maintenance of public roads that provide access to and within Indian reservations, Indian trust lands, restricted Indian land and Alaska Native villages, is authorized under the Intermodal Surface Transportation and Efficiency Act, or ISTEA (Public Law 102–240). The IRR program is jointly administered by the Federal Highway Administration (FHWA) and the Bureau of Indian Affairs (BIA). On September 30, 1997, authorization for ISTEA expired.

There is an enormous need for transportation infrastructure on Indian reservations throughout this country. Fully 66 percent of the roads serving Native American communities are unpaved. These roads are dirt or clay or occasionally covered with gravel, ungraded and usually in a washboard and deeply rutted condition. On many Reservations, the roads regularly turn to mud or wash out in Spring and Fall rains. People walk for miles to get to their homes, and emergency services, health care, law enforcement, heating fuel, food, water and general commerce are disrupted.

Any comparison of Indian roads to the rest of America's roads reveals a chronic inequity in the allocation of ISTEA Funds to Indian Reservation Roads (IRR). IRR

roads make up 2.63 percent of all existing roads on the federal-aid highway system. Yet IRR roads have historically received less than 1 percent of the aid provided under ISTEA. S. 1173 as amended would increase overall transportation spending by 40 percent over the levels in 1991 law. But S. 1173 would nearly flatline the IRR roads when accounting for inflation.

Indian reservations have a 31 percent poverty rate—the highest poverty rate in America. Indian unemployment is six times the national average; and Indian health, education and income statistics are the worst in the country. With the implementation of welfare reform well underway, tribal government leaders are taking up the challenge of creating jobs and spurring tribal economies. This critical work cannot be accomplished if transportation infrastructure is allowed to remain in its current deplorable condition. The funding allocation to Indian roads should be dramatically increased.

Maintenance of IRR roads is also a critical issue. The Bureau of Indian Affairs has only $25 million available for the maintenance of roads on 340 Indian reservations in the lower 48 states. As a result, on average only $500 dollars per mile is spent on Indian roads maintenance, and in some instances as little as $80. States on the other hand, spend between $2,500 to $4,000 per mile for maintenance. One solution to this critical problem is to allow Indian Reservation Roads funds to be used directly by the tribes for road maintenance and increase funds available under this program, while ensuring that the BIA road maintenance program is retained.

Mr. Chairman, efficient roads are vital to support most aspects of life on Indian lands including critical activities such as economic development, attending school, obtaining health care, and transporting people from welfare to work. The IRR program currently receives $191 million; however, Indian country's transportation needs far outweigh this amount. During Senate reauthorization of ISTEA, Senator Domenici was able to increase funding for IRR to $250 million annually, the minimum level needed to ensure that tribal governments effectively address the needs of their communities . NCAI strongly supports this increase since it would help to significantly improve the living conditions on many of our reservations. Therefore, we urge the Senate Appropriations Committee to also support the $250 million funding level.

CONCLUSION

Mr. Chairman, we urge the Congress to fulfill its fiduciary duty to American Indians and Alaska Native people and to uphold the trust responsibility as well as preserve the Government-to-Government relationship, which includes the fulfillment of health, education and welfare needs of all Indian tribes in the United States. This responsibility should never be compromised or diminished because of any Congressional agenda or party platform promises. Tribes throughout the nation relinquished their lands as well as their rights to liberty and property in exchange for these ongoing services as well as this trust responsibility. The President's fiscal year 1999 budget is a positive step towards acknowledging the fiduciary duty owed to tribes.

We ask that the Congress consider the funding levels in the President's budget as the minimum funding levels required by Congress to maintain these services and the federal trust responsibility. The consensus of Indian country is that the federal government's budgetary process has failed to provide for effective services and minimum to raise the living standards of Indian communities consistent with non-Indian communities. In order for federal government to reasonably expect tribal governments to truly achieve the self-determination, self-governance and self-sufficiency goals mutually identified by the federal government and the tribal governments will not be achieved unless meaningful increases are provided for Indian programs and services.

Mr. Chairman, this concludes my statement. Thank you for allowing me to present for the record, on behalf of our member tribes, the National Congress of American Indians' initial comments regarding the fiscal year 1999 budget.

PREPARED STATEMENT OF THE PENNSYLVANIA TURNPIKE COMMISSION

INTELLIGENT TRANSPORTATION SYSTEMS ON THE PENNSYLVANIA TURNPIKE

The Pennsylvania Turnpike Commission is committed to continued investment and expansion into Intelligent Transportation Systems (ITS). The Turnpike has allocated considerable resources and staffing to three sequential phases of ITS technological implementation. An ITS Early Deployment Strategic Plan was completed in 1996 to identify goals and objectives for system implementation. The key areas have

been addressed in three phases and will be expanded as further funds become available.

Safety and traveler's information are two of the most important goals of the Pennsylvania Turnpike Commission. Many ITS components exist on the Turnpike and have been operational for some time. Call boxes are located at every mile, cellular number *11 can be utilized for instant communication with our fully staffed operations center, emergency services and response time have been integrated and coordinated for all sections of the Turnpike and are directed via a Computer Aided Dispatch System (CADS), and radio communications can be transmitted on the 506 miles of toll road by a microwave communication system. First Responder emergency vehicles are stationed at strategic locations along the system to provide initial containment and support during an incident.

The Commission completed and began operating Phase I of an Advanced Traveler's Information System (ATIS) in March 1998. This $2 million project was funded entirely with Turnpike Commission financial resources. This project was initiated in conjunction with a major construction project in the Philadelphia metropolitan area. The system includes three, fiber-optic, variable message signs and five highway advisory radios controlled from the Commission's operations center in Harrisburg. In conjunction with these methods to inform the motoring public, incident management plans were established to address anticipated problems between interchanges resulting from construction, weather or accidents. In order to insure all information is accurate, timely and useful, the Commission has added four full time Supervisory Operation Center Duty Officers to provided 24 hour, 7 day operation of the system in addition to the existing complement of approximately 15 that nominally staff the Operation Center.

Phase II of the Turnpike's ATIS will begin construction during Fall 1998 and is scheduled for operation during Fall 1999. This project was funded in part with the $3 million Federal ITS appropriation provided in fiscal year 1997. This system expansion includes four, fiber-optic, variable message signs, eleven highway advisory radios and two closed circuit television cameras. This hardware will be installed at high traffic volume areas in Philadelphia and Pittsburgh to provide real time driver information throughout the system. This project will also provide an integrated central computer control system for devices installed during both Phase I and Phase II. This central computer control system will also allow further expansion to include elements in future phases while integrating with other coordinating State, local and private intermodal agencies through the use of the National Transportation Communications for ITS Protocols (NTCIP) specifications. Specially video, audio and data will be made available to existing intermodal agencies as well as private organizations who specialize in transportation monitoring and dissemination. Weather, road and traffic conditions are on the Turnpike's Internet web site.

The Commission is finalizing a scope of work for Phase III of the ATIS. This project will be partially funded with $6 million Federal ITS appropriation provided in fiscal year 1998. The planned scope of work for Phase III includes seven highway advisory radios, four variable message signs, seven closed circuit television cameras, two truck rollover systems, four roadway weather information systems, a number of traffic flow monitoring sites between Valley Forge Interchange and the Delaware River bridge, and between Mid-County Interchange and Lansdale Interchange, an overheight detection system in advance of the Lehigh Valley Tunnel, and an incident response vehicle to provide video and data from an incident scene to the Harrisburg operations center.

Although financial resources are being maximized, there is still a significant shortage of financial resources for deployment of ITS technologies. It is anticipated that 4 to 7 years will be needed for full deployment. A federal-aid grant of $14 million would greatly assist the acceleration of the Commission's ITS program and will demonstrate a comprehensive, coordinated and integrated statewide system on a toll road with potential expansion to other agencies. It will marry separate components of ITS systems into a universal system that will be comprised of advanced telecommunications, information and computer technologies within the transportation infrastructure. It is a consumer oriented system for information and traveler service that would benefit both intrastate and interstate transportation.

The Commission would like to further expand its ATIS in order to provide more timely, accurate and useful information to the motoring public to greet the 21st century. Further, real time traffic and weather information provided to the operations center will allow for more rapid detection, verification and response to roadway and weather incidents to minimize roadway hazards and maximize safety.

To provide more accurate and timely information and warnings to drivers, the Commission would like to expand the traffic sensor coverage planned for in Phase III. In Phase III, traffic sensors are planned for installation in the Philadelphia and

Pittsburgh metropolitan areas. Further installations of sensors between interchanges, augmented with concentrated installations in high volume locations will provide valuable information to the operations center. This information can then be disseminated to in-route drivers via the existing highway advisory radios and variable message signs. This information may also be further disbursed through the Commission's world wide web site and to Turnpike satellite facilities via local and wide area networks. In addition, this information will be shared with other public agencies including PaDOT, transit and port authorities. The Commission will actively pursue private partners to disseminate this information with value added information. This will help to demonstrate and facilitate the deployment of ITS in both urban and rural areas. In addition, this real time traffic information will be available and useful for commercial vehicle operators in providing just in time service.

Incident detection and verification will be improved via deployment of additional closed circuit television cameras. These camera's will also be linked to existing video detection equipment in the tunnels. This information will also be made available to the Commission's public private partners for further dissemination.

Incidents in the Commission's tunnels represent extremely dangerous conditions for drivers in the tunnel as well as drivers approaching the entrance. A tunnel incident detection and verification system would greatly improve the detection and response to these situations. A proposed system to be installed in the Tuscarora, Blue Mountain and Kittatinny Tunnels would include video detection sensors, speed sensors, lane control signs and signals and advance warning variable message signing.

Due to the wide range of geographic regions served by the Turnpike, weather conditions vary greatly across the system. The Pennsylvania Turnpike has been known as the all weather highway and is vital critical link to and from the East Coast, during winter storms. In addition to the four weather stations to be installed in Phase III, further system coverage would be enhanced by adding more roadway weather sensor stations. Installations in locations which experience recurring weather events such as fog, icing and extreme temperature variations will be targeted. This system will allow the Turnpike to anticipate and more quickly respond to weather events and provide maintenance crews with information to better maintain the highway. This system will also allow travelers to obtain more accurate and timely weather information through the Commission's existing and expanded ATIS including pre-trip information through the Commission's web site and via our private partners.

Improvements to the operation center may include development of a Geographic Information System or electronic map. This system will allow operators to identify on the map locations of the incidents, the number of lanes opened at an interchange, lane closures and will automatically identify the locations of call box calls and the nature of the call, locations of cellular phone emergency calls, status of traffic flow detectors, camera locations, weather sensor information and messages on the ATIS components while providing a central control system for all technologies.

In order to improve service the Commission provides to commercial vehicle operators that use the Turnpike, an on line computer permitting system for oversize and hazardous material loads may be deployed. This system would allow commercial vehicle operators to obtain necessary permits via computer and will be linked to PennDOT's and surrounding states computer permitting systems. Preliminary discussions and research are being considered to provide commercial vehicles with a chip in the E–Z pass electronic toll transponder so that it could be located by the global position system satellites.

In 1940, the Pennsylvania Turnpike sparked a revolution in the way motorists, truckers, engineers and consumers viewed highway transportation. By the continued implementation of ITS, the Turnpike will spark another revolution in this view, by providing the most efficient network for the movement of goods and people across the Commonwealth of Pennsylvania and will continue as a model for state of the art highway facilities for the nation. Furthermore, by expanding existing, proven technology in a phased approach, the Commission is demonstrating how ITS can provide improved safety, efficiency, traffic flow and customer service to all travelers.

The Turnpike's mission is to "Operate and manage in a fiscally responsible manner, a safe, reliable and valued toll road system". By providing appropriations for the implementation of ITS, the Turnpike's mission will drive us to deliver these services in an efficient and effective manner.

NATIONAL HIGHWAY TRAFFIC SAFETY COMMISSION-RELATED TESTIMONY

PREPARED STATEMENT OF JOHN H. SIEGEL, M.D., F.A.C.S, F.C.C.M.; WESLEY J. HOWE, PROFESSOR OF TRAUMA SURGERY, CHAIRMAN, DEPARTMENT OF ANATOMY, CELL BIOLOGY AND INJURY SCIENCES, NEW JERSEY MEDICAL SCHOOL, UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY

Mr. Chairman, I respectfully present testimony on behalf of the University of Medicine and Dentistry of New Jersey—New Jersey Medical School. The University of Medicine and Dentistry of New Jersey (UMDNJ) is the largest public health sciences university in the nation. Its New Jersey Medical School (NJMS) is the academic medical facility for all of Northern New Jersey and its University Hospital serves as the Level I Trauma Center to coordinate the entire Northern region of the State.

This testimony requests your continued support for the National Highway Traffic Safety Administration (NHTSA) Trauma Network composed of four university trauma systems functioning together in a consortium known as the "CIREN: Human Crash Injury Project". In addition to the UMDNJ-New Jersey Medical School in Newark, N.J., the consortium includes the Charles McMathias, Jr., National Study Center for Trauma and Emergency Services (EMS) of the University of Maryland in Baltimore, the William Lehman Injury Research Center of the University of Miami in Florida, and the Children's National Medical Center of Washington, D.C. These four centers have been working together in the study of motor vehicle crash injury which affects both adults, as well as children. Individually and collectively, these studies have resulted in new knowledge which has enabled the identification of the patterns of specific injuries resulting from real motor vehicle crashes. They have pointed the way towards the deployment of the newer safety devices and enabled the evaluation of their impact in reducing the severity of these injuries or preventing their occurrence. In the full NHTSA Trauma Network which supports the "CIREN: Human Crash Injury Project", three additional centers designed under the agreement between NHTSA and the General Motors Corporation have also been established and linked to the already existing four operational Trauma Network Centers. These three additional centers are totally funded by the General Motors Corporation for an initial three-year period, under an agreement which excludes GM funding for the four NHTSA centers.

Important information concerning the effect of motor vehicle crashes on car structural integrity has been learned from experimentally-staged motor vehicle crashes and from the use of inert motor vehicle crash-dummies. However, it is necessary to go beyond the behavior of crash-dummies back to the scene of the accident, in order to determine the real mechanisms of injury and to understand the variability of the impact on different types of real people. For instance, the sixty-year-old woman who has some degree of osteoporosis will likely have a different pattern and magnitude of lower extremity and pelvic fracture injuries for the same impact velocity of crash compared to a twenty-five-year-old male.

The studies carried out so far, at the New Jersey Medical School, have enabled the identification of different patterns of organ and extremities injury related to specific sites of passenger compartment intrusion and shown that these patterns are significantly different as a function of the direction of crash and its impact velocity. Collaborative studies in Baltimore and New Jersey have identified, subtle but important, aspects of sex and body habitus related driver behavior which can result in more, or less severe injuries to the lower extremities resulting from the same crash forces. The New Jersey and the Miami studies have allowed recognition of the motor vehicle crash patterns which provide clues to occult injuries which would otherwise be missed by the emergency medical service team in triaging patients from severe motor vehicle crashes. These factors have important implications for safety design and creation of biomechanical test instruments to ensure driver and passenger protection. Also, studies carried out by the Children's Medical Center in Washington, D.C. have focused on the precautions necessary in designing and locating children's safety seats to prevent infant injuries in motor vehicle crashes.

Most important, the net result of these studies has been to focus on the development of motor vehicle safety measures which reduce the chance of injury rather than solely on the prevention of death. It is injury which is the most costly aspect of the motor vehicle crash, raising healthcare costs and forcing insurance premiums upward, not to mention the personal catastrophes which occur daily when a family member is severely injured.

The studies carried out by the New Jersey Medical School and Maryland components of the CIREN Human Crash Injury Group have already identified important characteristics of injury which were not previously recognized. These studies have

focused on the importance of the air-bag in reducing the severity of brain injuries in high impact frontal motor crashes. In regard to this last observation, investigations carried out jointly at the New Jersey Medical School and the Charles McMathias National Study Center, have shown that air-bag deployment in frontal motor vehicle crashes significantly (p0.01) reduced the incidence of severe brain injury (GCS–12) from 67 percent to 29 percent even though the total incidence of brain injuries remained unmodified. Air-bags in these types of major force car crashes also reduced the incidence of shock, face fractures, and lower extremity fractures and as a consequence, lowered the resulting need to extricate the patient from the motor vehicle, thus speeding the time to treatment. This type of study emphasizes how the "Human Crash Injury Project" (CIREN) and the NHTSA Trauma Network can develop information about the effect of protective devices that cannot be obtained from crash-dummy research, since crash-dummies have no brains and the crash impact on a crash-dummy's skull produces no discernable change in the dummy's intellect or problem-solving ability.

The prospective detailed medical crash injury research investigations carried out under the "CIREN: Human Crash Injury Project" supplement and enhance the retrospective statistical studies now carried out by NHTSA under the NASS Program. It is a measure of the importance with which this project is viewed nationally that the present Administrator of the National Highway Safety Administration, Dr. Ricardo Martinez, M.D., has indicated that NHTSA wishes to integrate these research efforts into a national Trauma Network to include New Jersey Medical School: UMDNJ, The Lehman Center at Jackson Memorial Hospital in Miami, the McMathias National Study Center in Baltimore, and the Children's Medical Center in the District of Columbia, and to link these four existing centers to the three new privately-funded GM Centers.

Finally, there is a major new initiative occurring in the Department of Transportation (Federal Highway Administration), which is the development of an Intelligent Transportation System (ITS). As part of the ITS the Automobile Crash Notification System (ACN) program is in the process of developing an automatic crash notification micro-chip which could be inserted into motor vehicles so as to identify the location and nature of the crash. This new technology has the potential to enable the crash forces which are producing specific injuries and injury patterns to be identified and quantified so that improved safety measures including motor vehicle structural modifications and the deployment of additional air-bags can be developed. The proper evaluation of the potential effectiveness of the ACN and the rate at which this new technology can be integrated with Emergency Medical Services (EMS) systems nation-wide could be most effectively determined by integration of the testing aspects of the ACN Program with the Trauma Network and its CIREN: Human Crash Injury Project. Not only can this combined program more rapidly evaluate the ACN system, but it will also result in its being implemented immediately in the six states of the Trauma Network, plus the District of Columbia, as a first phase effort.

This effort could solve a very serious problem identified by studies of the Fatal Accident Reporting System (FARS). This is that while the death rate of trauma victims brought to Trauma System Hospitals is decreasing, there has been an increase in on-scene fatalities. This is due in part to delays in notification of EMS team to find and retrieve these injured patients, especially in rural areas. The NHTSA supported by Trauma Network could also provide a mechanism for translation of this technology into true state-wide safety programs, since all of the regions mentioned and all of the participating trauma centers have excellent EMS systems which are closely linked to their network of trauma centers. The ACN technology has the potential to be an order of magnitude increment in motor vehicle safety. Its technical development and independent field testing should become integrated at an early phase, so that its value can be determined and a feedback relationship with the Department of Transportation's Highway Traffic Safety Programs and the state-wide EMS Trauma Services can be more rapidly accelerated. The value of allowing the Trauma Research Centers which form the CIREN: Human Crash Injury Project to provide this interactive feedback is that all of the principal investigators are not only experienced trauma surgeons, but are also recognized as trauma investigators with extensive experience in studying the mechanisms of motor vehicle crash injury.

Speaking for myself, with the concurrence of the other directors of these affiliated programs, we request that the House Appropriations Subcommittee on Transportation and Related Agencies designate funding at the level of $500,000 per center to each of the four present NHTSA-funded research centers participating in the Human Crash Injury Project for a total of $2 million. We also request that this appropriation be established on a multi-year basis to extend over a five-year period at the same annual rate adjusted for inflation, so that continuing evaluation and feedback can be provided by the Trauma network on an on-going basis into the fu-

ture. Also, we request that these Trauma Research Centers be used to evaluate the role of the Intelligent Transportation System's Automobile Crash Notification System in reducing excessive field mortality and injury exacerbation of motor vehicle crashes due to the prolongation of crash recognition by the present EMS system. This will take additional support to implement and test.

This latter additional support should allow approximately 5,000 cars per core center to be instrumented with appropriate communications equipment. This level of support would enable the evaluation of the effectiveness of the ACN Program in identifying potential serious injuries and in facilitating the rapidity with which Emergency Medical Services Advance Life Support Teams could be deployed to the scene of the crash. It is felt that this type of immediate crash notification and localization technology when fully developed and integrated with all of the Nation's regional Trauma Centers could have a major impact in reducing the mortality and injury complications resulting from rural motor vehicle crashes and from serious crashes occurring in urban areas at times when there are few bystanders to request EMS 911 services.

In closing, I would like to express my personal gratitude for the past support of the Senate and its Appropriations Subcommittee on Transportation and Related Agencies of our group's collective research which, by identifying the mechanisms of human crash injury, has already resulted in improved safety and in a reduction in the incidence and severity of motor vehicle crash injuries. Motor vehicle crashes place all of us at risk, both personally as well as financially, and negatively impact on major segments of our economy. The development of safer motor vehicles and the invention of new and imaginative state-of-the-art motor vehicle crash safety devices and notification systems has spawned a new industry with enormous growth potential, which has already begun to integrate the telecommunications and motor vehicle industries. The small amount of national resources directed into this type of research will pay enormous dividends, not only by the reduction of motor vehicle crash injury costs, but also by the creation of new technologies and new businesses which can stimulate employment and national growth.

Prepared Statement of G. Linn Roth, Ph.D., Chairman, Committee for a Balanced Radionavigation Policy, International Loran Association

As Chairman of the International Loran Association's (ILA) Committee for a Balanced Radionavigation Policy, I am writing regarding an issue of critical importance to the domestic and international radionavigation community—the need for additional steps to assure continuation of the Loran system within the United States. We respectfully request that this statement be made a part of the hearing record in conjunction with the fiscal year 1999 Department of Transportation (DOT) and Related Agencies Appropriations Bill and in particular the budget for the Federal Aviation Administration (FAA) and the Coast Guard.

INTRODUCTION

As has been noted in previous legislative history and the Federal Radionavigation Plan (FRP), the United States has always operated radionavigation systems, which includes Loran, as a necessary element to safe transportation and to meet civil requirements for cost-effective services. Because of the evolving interest in satellite navigation, consideration is being given to the phase out of various existing radionavigation systems. It has been proposed by the Administration that the Loran system be shut down by the year 2000 despite an overwhelming consensus among marine, aviation, surface, telecommunications and other users—even the proponents of satellite technology—that Loran is necessary to enhance safe transportation and to provide a complement and backup for GPS to protect the critical national infrastructure in the event of temporary loss or disruption of satellite technology.

The DOT and Related Agencies Appropriations Bills for fiscal year 1997 and fiscal year 1998 included nearly $8,000,000 to begin revitalization of the Loran infrastructure. Moreover, recent Coast Guard authorization legislation included a provision requiring the Department of Transportation (DOT), in cooperation with the Department of Commerce, to provide a plan defining the future use of and funding for upgrade of the Loran infrastructure.

Work was to be completed on that plan early in 1997 but was only initiated late in the year. Booz-Allen and Hamilton (BAH) was tasked by DOT to assist in compiling data and undertake a cost/benefit analysis in conjunction with preparation of the plan mandated by Congress. BAH completed its work early this year and its preliminary findings support retention of Loran. In fact, BAH received more than

2,000 responses during its public comment period and 94 percent of the responses expressed support for continuation of Loran.

In recent years, Congress has repeatedly supported steps to prompt action on initiatives to take advantage of the substantial investment that the federal government and users have made in Loran and the compatibility that the technology has with the Global Positioning System (GPS). In view of the instability of the Coast Guard budget, there has also been bipartisan support in Congress for the DOT to consider joint, shared funding arrangements among the various modes that benefit from the use of Loran technology.

LORAN U.S. STATUS/INTERNATIONAL DEVELOPMENTS

There are millions of Loran users and beneficiaries in the U.S. Loran, which is a well-proven, reliable and cost-effective technology, is undergoing substantial international growth throughout Europe, China, India and Russia. Most significant is the recently developed 'Eurofix' system, which allows the Loran system to be utilized both for augmentation of GPS, providing differential corrections and integrity messaging, and for a backup service, providing navigation services in the event of GPS signal loss or interference. Further, the international implementation of Loran includes the facility to synchronize to GPS, greatly improving the robustness, availability and accuracy of the total navigation service available in the participating nations. This growth has benefited U.S. exports and employment, and can potentially add several hundred million dollars to future exports. Importantly, great strides in the international acceptance of GPS can be expected should the U.S. choose to harmonize with the navigation services in these nations.

LORAN MULTIMODAL USER PERSPECTIVE

Marine, aviation, surface and other users are convinced that current DOT policy to terminate various radionavigation services and ultimately rely solely on the Global Positioning System (GPS) and its augmentations, contradicts long-standing U.S. transportation policy and is inconsistent with our nation's transportation safety objectives. In view of recognized GPS vulnerabilities and transportation user safety goals, U.S. policy that may eventually position the nation as fully dependent on GPS as its sole-means navigation system is short-sighted and will not meet ongoing user safety requirements.

In the meantime, there is a broad consensus among users that Loran should be fully supported as a part of the future navigation mix. In fact, in addition to the public responses recently received by BAH, more than 22,000 individuals have signed petitions and several thousand letters have been sent to various government officials supporting Loran.

Groups and organizations representing millions of users and beneficiaries that support continuation of Loran include: Aircraft Owners and Pilots Association (AOPA), American Association of State Highway and Transportation Officials (AASHTO), BOAT/US, National Marine Electronics Association (NMEA), National Fisherman, National Association of State Aviation Officials (NASAO), National Air Transportation Association (NATA), National Business Aircraft Association (NBAA), Small Aircraft Manufacturers Association (SAMA), International Navigation Association (INA), International Loran Association (ILA), Northwest European Loran Systems (NELS), Far East Radionavigation Service (FERNS), European Union (EU), International Association of Lighthouse Authorities (IALA), and the Radionavigation Intergovernmental Council.

I have attached with my statement, specific recent examples of user comments in support of Loran.

THE PRESIDENT'S COMMISSION ON CRITICAL INFRASTRUCTURE PROTECTION

Recent findings of the Report of the President's Commission on Critical Infrastructure Protection, titled "Critical Foundations: Protecting America's Infrastructures" also contradict existing policy of the DOT and some of its agencies to rely solely on satellite technology in the future. In its report, plain and unequivocal concerns are expressed about relying on sole means technology. The report assesses the general lack of preparation by the Department of Transportation (DOT) and agencies like the Federal Aviation Administration (FAA) to deal with "cyber threats". It recommends, among other actions, that the DOT: "* * * Fully evaluate actual and potential sources of interference to, and vulnerabilities of, GPS before a final decision is reached to eliminate other radionavigation and aircraft landing guidance systems. * * *"

THE FEDERAL RADIONAVIGATION PLAN (FRP)

The 1992 FRP and several previous editions of the FRP explicitly stated Loran was expected to be part of the radionavigation mix until 2015 and a phase-out period of 10–15 years would be established before termination of any system. The 1994 and 1996 versions of the FRP completely ignored these established policies, and summarily abandoned commitments made to more than 1.3 million Loran users, domestic Loran manufacturers and foreign governments. Perhaps more importantly, the current FRP ignores earlier FRP endorsements of the significant benefits provided by a balanced radionavigation mix.

The policy expressed in the current FRP has unquestionably undermined the significance and credibility of this important document domestically and internationally. In addition, it damaged our country's leadership role with respect to U.S. Loran technology which is benefiting from substantial, growing international interest.

BUDGET/ECONOMIC RAMIFICATIONS

It is important to view GPS and Loran in light of current budget considerations. As you may know, current life cycle cost estimates indicate the Coast Guard and the FAA will spend $3–4 billion to augment GPS to improve its performance. This is beyond the estimated $10 billion invested to develop GPS and on-going future operation and maintenance (O&M) costs estimated to be in the range of $500 million annually. In addition, the Coast Guard is currently providing differential global positioning system (dGPS) service for the nation's navigable waters while simultaneously plans are being advanced to provide a National DGPS (NDGPS) service with a system that will be in competition with existing commercial DGPS service providers. Procurement steps for the FAA's system are underway, but because many complex technical issues have not been resolved, it is uncertain exactly what that system will be, what it will cost, and when it will be fully operational and proven. These efforts overlook the most insidious vulnerability of GPS, that of availability. If the GPS signal is lost there is no navigation signal to which the differential corrections can be applied. Consequently, the need for a complement to GPS which provides navigation service when the GPS signal is lost. Only Loran can provide that service.

At the same time, the Loran system has an established infrastructure serving millions of users and beneficiaries and has proven to be extremely reliable with an annual O&M cost of approximately $20 million. The entire infrastructure can be incrementally upgraded over a period of years, remote maintenance capabilities can be utilized, and civilian caretakers could replace Coast Guard personnel. Implementing these steps would reduce O&M costs substantially. Using recent upgrade costs for European transmitter improvements and known costs for operating the Canadian Loran infrastructure of about $250,000 per transmitter site, the ILA estimates these steps could reduce on-going O&M costs to about $7–9 million annually and permit personnel reductions of more than 150 government positions consistent with Coast Guard streamlining plans.

Clearly, the U.S. is committed to satellite technology. At the same time, Loran offers a well-proven, compatible technology which promises a most cost-effective and efficient complementary navigation safety net.

In addition, for several years aviation officials have been opposing the premature shut down of Loran. A paper done in late 1994 entitled "The Economic Impact on General Aviation Pilots of the Early Shutdown of the Loran Navigation System" provided conservative estimates indicating an early termination could have very adverse economic ramifications. As stated in the paper:

''* * * These conservative figures, taken by themselves, show a devastatingly significant, adverse economic impact on general aviation if the Loran system known today in the United States is shut down prematurely. In view of the $200 million projected cost to general aviation aircraft owners, it categorically supports the continued operation of the Loran system to its projected life of 2015."

"A cost figure has been given as $17 million annually to operate the United States continental Loran system. At that rate, it would take over 10 years (11.7) to reach the $200 million cost to general aviation if it is discontinued prematurely. The impact on marine users would be astronomically greater. Suggested at a very conservative factor of 10:1, it would place us well over 100 years to recoup/balance the projected losses * * *."

USER SAFETY CONSIDERATIONS/SCIENTIFIC DATA

No navigational system is infallible. While every system has limitations, ground-based and satellite systems typically do not suffer from the same vulnerabilities and

therefore, are very complementary. U.S. industry has already recognized GPS frailties and implemented complementary ground-based technologies to produce extremely robust systems. For example, GPS is used in automotive vehicle location (AVL) systems and in the telecommunications industry for precise time synchronization. AVL systems typically incorporate dead-reckoning systems to take over when GPS signals are unavailable in dense urban areas. Cellular phone networks commonly use combined GPS/LORAN systems to provide continuity when GPS signals are unavailable or disrupted by TV or other broadcast interference, or by line-of-site blockage from nearby buildings or trees.

Reports in scientific literature and the popular press have thoroughly documented GPS availability is subject to fundamental limitations due to a variety of conditions including geomagnetic storms, line-of-site blockage and unintentional and intentional jamming. Furthermore, augmenting GPS to improve its accuracy performance—through Differential GPS (dGPS) radiobeacon broadcasts or the Wide Area Augmentation System (WAAS)—is a necessary enhancement but will have no effect on resolving the loss of GPS navigation service caused by these vulnerabilities.

A report done by the DOT's Volpe National Transportation Systems Center presents an analysis that shows how the availability of GPS is enhanced when GPS is combined with Loran. The report demonstrates that basic GPS service availability can be increased from 99.8 percent to a combined GPS and Loran service availability of more than 99.9 percent

NATIONAL SECURITY

It is clear that GPS is an important technology, but rigorous scientific data and reasoned analysis also demonstrate it is not perfect. If the United States converts to GPS as a sole means navigation system, the country will become increasingly dependent on the system and exposed to its frailties. Availability limitations will be stressed by natural phenomena as well as intentional and unintentional man-made intervention. In view of current world instability and increasing terrorist activities, it is clearly possible that individuals or hostile governments might try to cause transportation or telecommunications disruptions using small, easily constructed, portable GPS jammers. Recent press reports have described such scenarios and have provided evidence that such jammers are available for sale. In fact, Coast Guard studies indicate such jamming devices can be built from commercially available parts for as little as $50. All of these concerns are outlined in the recent Report of the President's Commission on Critical Infrastructure Protection and any future U.S. navigation policy relying totally on satellite navigation would be a contradiction to the findings of that report.

NEW LORAN TECHNOLOGIES AND APPLICATIONS

While advances in Loran technologies have been largely overshadowed by the enthusiasm for GPS, they have been proceeding using advanced digital signal processing techniques and microprocessor technologies not previously applied to Loran receivers. State-of-the-art Loran/GPS technology can offer substantially improved performance over conventional Loran receivers. Improvements will include: Automatic acquisition and tracking of up to 40 Loran transmitters simultaneously; increased geographic range, including transoceanic coverage; provision for dGPS through Eurofix; new antenna technologies that virtually eliminate precipitation (P-static) interference; and provision for differential Loran.

These new developments mean, for example, that a single receiver can simultaneously track virtually all Loran transmitters in the continental U.S., concurrently increasing geographic coverage by tens of thousands of square miles allowing transoceanic coverage and significantly improving navigation accuracy and availability.

Additionally, tests of a new digital Loran receiver equipped with a magnetic antenna demonstrated that Loran can track vehicles in a dense urban area like Manhattan where GPS cannot operate. The tests were commissioned by the Defense Advanced Research Projects Agency (DARPA) and raised the interest of the Drug Enforcement Agency (DEA). The DARPA work recognized that GPS required Loran augmentation for an application in which there was a need to locate foot soldiers in an urban warfare scenario. The DEA would like to use this Loran technology to monitor movements of drug dealers in urban environments, and this new Loran application could obviously have an impact on contemporary social problems.

Finally, integration technologies can be applied to Loran so that highly advanced, accurate receivers can be miniaturized. In today's world, the electronics for a combined GPS/Loran receiver could be placed within a cigarette pack, and such a device would provide all the security inherent in a combined, ground/satellite-based system.

SUMMARY

In view of demonstrated, realistic technical and funding risks, coupled with anticipated schedule delays in implementing and making available the benefits of satellite augmentation technology, there is a continuing requirement for Loran. An incremental investment of resources will permit improvements which support satellite augmentation, reduce operating costs and allow upgrading of outdated tube technology to ensure that Loran will be available well into the next century. This upgrade also will permit reduction in future operating costs from about $20 million annually to approximately $7–9 million. For example, many transmitter sites with on-site support staff could be operated remotely or with fewer staff after upgrading to solid state technology, reducing personnel related costs. Further savings could be realized if DOT contracted out the operation and maintenance of the Loran transmitter sites.

The Loran system is established, proven, reliable, inexpensive, and an ideal complement to GPS. Loran has by far the largest existing multimodal user base, and these users have made significant economic expenditures based on repeated government commitments that the system would be supported until at least 2015.

For a variety of reasons based on scientific data, it is not prudent to concentrate our nation's immediate radionavigation future on a single, very expensive, complex space-based system. GPS unquestionably requires augmentation of its three fundamental characteristics: accuracy, availability and integrity. No other service, only Loran can augment all three, and the choice of a mix of combined ground/satellite-based radionavigation systems is clearly in the nation's best interests. A complementary mix of ground/satellite systems can provide a level of user safety and national security that a sole-means satellite system can never offer.

Considering its $20 million annual O&M costs and even future system upgrades, the cost/benefit of Loran is enormously favorable from a national safety and efficiency perspective. In the context of current and future budgetary limitations, given new technological advances in Loran and the substantial improvements it provides to user safety, telecommunications integrity and national security, it is clear support for Loran is consistent with our nation's transportation safety objectives and it makes good sense from a taxpayer perspective.

RECOMMENDATIONS

The ILA respectfully urges the following:

—Actions directing the Department of Transportation, in cooperation with its agencies along with other appropriate departments and agencies, to implement a plan to assure the Loran system will be supported and funded on a jointly shared agency funding arrangement for the foreseeable future.

—Steps directing the Department of Transportation and its agencies to recognize the benefits of a combined ground/satellite-based radionavigation mix and to endorse continuation of Loran as a compatible technology to GPS as part of that mix. The recognition and endorsement should take the form of an unequivocal policy statement that domestic and international users, manufacturers and governments can believe.

A fiscal year 1999 appropriation of $20 million to:

—Support an incremental program of revitalizing, upgrading and automating the Loran infrastructure to reduce manning and related requirements, logistics costs, energy consumption and improve reliability;

—Replace remaining tube-type transmitters with high efficiency solid-state equipment;

—Provide other mechanisms such as Loran synchronization with GPS and differential corrections on the Loran signal to make full use of the compatibility of satellite and Loran technology.

The ILA appreciates the opportunity to present these views and concerns. We are prepared to cooperate in every way necessary to convince you and other interested members of Congress to initiate additional steps ensuring continued funding and support for Loran as a uniquely complementary technology providing necessary GPS augmentation well into the next century.

PREPARED STATEMENT OF JAMES P. REPASS, PRESIDENT, CHIEF EXECUTIVE OFFICER, THE NATIONAL CORRIDORS INITIATIVE

On behalf of the National Corridors Initiative I respectfully ask that this committee acts to ensure the survival of a national passenger rail system, in voting suffi-

cient funds to make certain that the work begun with the passage of the Amtrak Reform Act last year can go forward.

As a bipartisan business development and environmental forum, the National Corridors Initiative has testified before various Congressional committees. Our common theme has been this: that our nation's transportation system needs to be a balanced one, and that continued overreliance on two heavily-subsidized transportation modes, auto and air, not only leads to gridlock and winglock, but actually harms the nation's economy by artificially constraining growth. The volume of real estate required to accommodate the automobile and the airplane is simply enormous, and in the great cities and suburbs of this country it is becoming untenable. And the need for a true national intercity rail network that serves the working and middle classes, and not just Coastal business elites, is increasing rather than diminishing.

The national passenger railroad system, both before and after the creation of Amtrak, has been systematically starved of capital. Critics who complain that Amtrak has received $20 billion over its almost three decades of life need to remember that we spend more than that on highways in a single year—and that is counting only Federal dollars, not state or local matches or expenditures.

What is remarkable is that Amtrak does as well as it does—and we know that it needs much reform—given the meager resources at its disposal. The $2.3 billion of capital in the Amtrak Reform Act should be correctly seen as supplemental, to make up in a small way for decades of disinvestment. Now that a new Board of Directors is being put into place, with a clear mandate from Congress for change, and to create a true national rail system that is cost-effective and efficient, I ask that you give them the tools to finish the job.

Thank You.

RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION-RELATED TESTIMONY

PREPARED STATEMENT OF MICHAEL CARNEY, CHAIRMAN, ASSOCIATION OF WASTE HAZARDOUS MATERIALS TRANSPORTERS

On behalf of the Association of Waste Hazardous Materials Transporters (AWHMT), I am submitting a statement for inclusion in the Subcommittee's hearing record regarding the proposed fiscal year 1999 budget for the U.S. Department of Transportation (DOT).

INTEREST OF THE AWHMT

The AWHMT represents companies that transport, by truck and rail, waste hazardous materials, including industrial, radioactive and hazardous wastes, in North America. The Association is a not-for-profit organization that promotes professionalism and performance standards that minimize risks to the environment, public health and safety; develops educational programs to expand public awareness about the industry; and contributes to the development of effective laws and regulations governing the industry.

As a community of taxpayers dependent on the effective administration and enforcement of federal hazardous materials transportation laws and regulations, we feel compelled to file these views and concerns about how DOT's Office of Hazardous Materials Safety (OHMS) and Office of Motor Carriers (OMC) have carried out their respective so-called "hazmat" responsibilities.

BACKGROUND

The transportation of hazardous materials involves producers and distributors of chemical and petroleum products and waste, transporters in all modes, and manufacturers of containers. DOT estimates that upwards of 800,000 shipments and as many as 1.2 million regulated movements of hazardous materials occur each day. The production and distribution of hazardous materials is a trillion dollar industry that employs millions of Americans. As a major export, the transportation of these materials contributes positively to our trade balance. These products are pervasive in the transportation stream and in our society as a whole.

While these materials contribute to America's quality of life, unless handled safely personal injury or death, property damage, and environmental consequences can result. To protect against these outcomes, the Secretary of Transportation is charged to "provide adequate protection against the risks to life and property inherent in the transportation of hazardous materials in commerce by improv[ments]" to regulation

and enforcement.[1] The Secretary's authority to accomplish this mission is embodied in the Hazardous Materials Transportation Act (HMTA).[2] In 1990, the Hazardous Materials Transportation Act (HMTA) was significantly amended for the first time. Subsequently, amendments, albeit less significant, were added in 1992 and 1994. As a consequence of these amendments, Congress directed DOT to accomplish a number of tasks. How DOT has handled these responsibilities is the focus of this statement.

OFFICE OF HAZARDOUS MATERIALS SAFETY (OHMS)

The commerce of hazardous materials demands that OHMS have intermodal, as well as international, expertise. It regulates a diverse community of interests and must constantly mange the tension between safety and efficiency in the transport of these materials.

When compared to other modal administrations, the OHMS staff is small. At the same time, it is important to recognize that OHMS has outperformed larger administrations. During DOT's regulatory reinvention initiative, for example, OHMS reached 100 percent of its goal to eliminate or reform outdated rules. It has tackled significant issues within deadlines set by Congress. With the exception of a couple of studies,[3] it has accomplished all the tasks delegated to it since the enactment of the 1990 amendments. Other administrations cannot claim that record. Despite this record of accomplishment, OHMS may not have the resources to close the gap on a backlog of routine administrative tasks essential to the safe, efficient transport of these materials.

DOT's fiscal year 1999 budget request for hazardous materials safety proposes only a cost-of-living increase for personnel compensation and benefits. We are concerned that a flat programmatic budget will not be adequate to enable the OHMS to accomplish its mission. While the budget justification underscores many of the accomplishments of the OHMS, it does not elaborate on the scope of work yet to be done. Following is our analysis of OHMS's budget request:

Regulatory Backlog

OHMS is, foremost, a rulemaking authority. We are concerned that the budget request does not identify and prioritize the backlog of critical rulemakings, letters of interpretations, and preemption determinations. By OHMS's own admission, 13 high priority rulemakings are in progress—some have been open for years—along with a backlog of 500 exemption applications.[4] RSPA has made a hallmark of this budget request the fact that it is going to open and close a rulemaking in less than 9 months that will double the amount of fees currently collected for emergency planning and training grants to states and Indian tribes.[5] OHMS has told industry in no uncertain terms that it has set aside resources to meet this aggressive schedule. While the priority of this rulemaking is clearly understood, it leaves us to ask about resources and priority of the remaining rulemakings.

Likewise, there is no statement about the priority of processing petitions for preemption determinations. Federal law requires that decisions on preemption determinations be reached within 180 days of receiving the filing.[6] The four oldest petitions have been deferred until pending the finalization of one of OHMS's "high priority" rulemakings. Still, RSPA has not achieved the Congressionally-mandated 180-day turnaround for any of the other pending petitions. Not counted in this analysis are the three additional petitions that have been filed since the first of this year—nearly doubling the number of open petitions. OHMS's ability to swiftly deal with petitions for preemption is essential to the purpose Congress hoped to achieve in granting administrative preemption, namely that the preemption determination process would be an alternative to litigation.[7] A priority of the HMTA is to achieve greater regulatory uniformity. Essential to that objective is the ability to respond through the preemption determination process to inconsistent non-federal requirements that "creat[e] the potential for unreasonable hazards in other jurisdictions and confound[] shippers and carriers which attempt to comply with multiple and conflicting registration, permitting, routing, notification, and other regulatory re-

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[1] 49 U.S.C. 5101.
[2] 49 U.S.C. Chapter 51.
[3] 49 U.S.C. 5105(d) and 5116(k).
[4] RSPA Fiscal Year Budget Submission, page 38.
[5] RSPA Fiscal Year 1999 Budget Submission, page 134.
[6] 49 U.S.C. 5125(d).
[7] In authorizing the preemption determination process, Congress found that "the current inconsistency ruling process has failed to provide a satisfactory resolution of preemption issues, thus encouraging delay, litigation, and confusion." H.Rept. 101–444, Part 1, page 21.

quirements."[8] Clearly, OHMS's ability to stay on top of its preemption obligations is being undermined.

Hasmat Registration and Fees

The HMTA authorizes OHMS to require the registration of hazardous materials shippers, carriers, and container manufacturers.[9] Instead, OHMS has chosen to register only those categories of shippers and carriers mandated by Congress.[10]As a consequence of narrowly implementing its registration authority, OHMS has not achieved a goal of Congress to have a census of the community OHMS regulates. Additionally, OHMS has left untapped the entire universe of potential payers to fund the Emergency Planning and Training Grants (EPTG) in spite of the fact that the Grants have never been fully funded.

We are also concerned about the administration of the registration program. Currently, OHMS assesses $50 per registrant for administrative costs. We believe this assessment—fully 20 percent of the total fee paid—is excessive. We believe the administrative costs can be reduced by making the registration numbers permanent and/or allowing multi-year registrations. Whatever funds are saved though better administration should be reprogrammed to the EPTG.

One of the issues that will have to be addressed in OHMS' announced rulemaking to increase the collection of hazmat registration fees is obviously the amount of the fee. Many in industry, including the AWHMT, have made a commitment to assist OHMS meet its hazmat registration revenue goal in recognition of agreements reached during the 1990 amendments to the HMTA. However, we also want reasonable assurance that the new fee scheme will not over fund the program inasmuch as DOT is not required to refund excess collections.[11] We would prefer a fee scheme that does not vary from year to year. Of particular concern is the financing of the North American Emergency Response Guide (NAERG). For good reason, however, OHMS publishes its NAERG every three years. The last two publications of the NAERG have been paid for out of hazmat registration fees. In fiscal year 1999, $700,000 is requested for this purpose. No funds were requested in fiscal year 1997 or 1998. Rather than spiking the revenue demand on the hazmat registration program every three years, we recommend that the funds for this activity be spaced out and carried over the three year period so as not to disrupt either the hazmat registration fee schedule or the amount of grants available to states and Indian tribes.[12]

Emergency Planning and Training Grants

We support OHMS's recommendation to use the existing coordinating mechanism of the National Response Team and, for radioactive materials, the Federal Radiological Preparedness Coordinating Committee, to coordinate and provide technical assistance to states and Indian tribes, rather than diverting funds to a variety of federal agencies to accomplish the same task. OHMS hopes to accomplish this objective by amendment to the HMTA prior to the beginning of fiscal year 1999.[13] Consequently, we question the budgetary request under this account and believe that the $300,000 should be reprogrammed for the critical purpose of emergency responder training.

Finally, we cannot support the Administration's insistence on allowing up to 25 percent of grant funds for the hazmat training of small businesses when 3.2 million responders need training nationally and on average the grants program reaches about 114,000 annually.[14] As noted below, OHMS sponsors, and should continue to sponsor, a number of initiatives to aid private sector compliance through conferences, training materials, information hotlines, and the like. In addition, a panoply of private sector training and consulting services is available.

Enforcement

OHMS acknowledges that the number of entities subject to inspection and enforcement will increase with the extension of the HMR to intrastate transportation of hazardous materials, yet no budget increase is requested in this area. Likewise, we believe it unrealistic to expect that OHMS will "[r]educ[e] the historically low average annual number of fatalities and serious injuries related to the transportation of hazardous materials" if the incident experience of intrastate transportation

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[8] Public Law 101–615, Sec. 2.
[9] 49 U.S.C. 5108(a)(2).
[10] 49 U.S.C. 5108(a)(1).
[11] 49 U.S.C. 5108(g)(2)(B).
[12] RSPA Fiscal Year 1999 Budget Submission, page 132.
[13] RSPA Fiscal Year 1999 Budget Submission, page 136.
[14] RSPA Fiscal Year 1999 Budget Submission, page 135.

must be accounted for.[15] At the same time, OHMS is acknowledging that the universe of shipments for which a credible inspection presence must be maintained has been underreported. For years, the figure "500,000 shipments a day" was used. OHMS now believes that number to be closer to 800,000 shipments and 1.2 million movements a day. We agree that a "strong enforcement program is vital" to OHMS's overall safety program and that a "good enforcement program focuses on obtaining the highest rates of compliance, not just a high tally of enforcement actions."[16]

Compliance Assistance

Clearly, one of the greatest successes of the OHMS program must be the technical and training resources given to the regulated community. These resources include a hotline for responding to technical compliance or more general matters of regulatory interpretation, the NAERG, the COHMED (cooperative hazardous materials enforcement development) program, the OHMS web site, and a CD–ROM modular training series. These services and products are either provided free or at comparatively nominal cost. Hazardous materials transportation is a highly regulated, complex enterprise. OHMS' compliance assistance is of untold value to the regulated community, especially small businesses.[17]

International Activities

While the focus of our members' interest is mainly domestic, hazardous materials transportation is a global enterprise. Domestic movements are inevitably affected by international agreements. We support RSPA's continued and vigorous participation in international fora where hazmat transportation policy is set.

Information Collection

We want to underscore the importance and necessity of the hazardous materials information system. The data collected and maintained in the data base is not available from other sources. Not only does the HMIS allow OHMS to identify and analyze safety risks for regulatory purposes, it also,

—assists non-federal governments identify problematic routes;
—can be used to focus enforcement efforts;
—is used by industry in its risk management initiatives; and
—can be used to defuse public concern about hazardous materials transportation by validating the extraordinary safety record of this industry, considering the potential of these materials to cause serious harm.

OHMS is considering refinements to the system that would allow electronic filing of reports. This should be supported.

Staffing

To carry out its HMTA delegations, OHMS' ability to recruit and retain personnel needs to be competitive within the Department and the private sector. We hope that Congress will ensure that OHMS has the staff sufficient for carrying out its many responsibilities.

In all, OHMS staff should be commended for the excellent job accomplished in light of increasingly complex workload and stagnant resources.

OFFICE OF MOTOR CARRIERS (OMC)

By way of contrast, FHWA's Office of Motor Carriers (OMC) has also been charged with accomplishing aspects of federal hazmat law. Since 1990, OMC has been delegated authority to permit motor carriers of hazardous materials; provide for the inspection of motor vehicles transporting highway-route controlled quantities of radioactive materials; implement a uniform, reciprocal state-based hazmat registration and permitting program for motor carriers; provide for the annual updating and publication of state-designated hazardous materials highway routes; and report on the safety considerations of transporting hazardous materials by motor carriers near federal prisons.[18] None of these relatively few delegations have been accomplished. In fact, to our chagrin, OMC has requested authority from Congress in the context of legislation reauthorizing the HMTA to study these issues for an additional three years prior to acting.[19] No matter the excuse, we find it insupportable that OMC has failed to achieve these Congressional goals. We recommend that Congress urge the Secretary to redelegate and reallocate funding from OMC to OHMS to accomplish these objectives. OHMS has proved competent and capable of respond-

[15] RSPA Fiscal Year 1999 Budget Submission, page 24.
[16] RSPA Fiscal Year 1999 Budget Submission, page 39.
[17] RSPA Fiscal Year 1999 Budget Submission, pages 44–45.
[18] 49 U.S.C. 5109, 5105(3), and 5119, and Public Law 103–311 § 121.
[19] See S. 1173, Section 3215, adding new § 5128 to the HMTA.

ing to the necessary demands of Congress to ensure that hazardous materials are and continue to be transported with an extraordinary high degree of safety and efficiency.

CONCLUSION

The transport of hazardous materials is a trillion dollar industry that employs millions of Americans. It has been accomplished with a remarkable degree of safety in large part because of the uniform regulatory framework authorized and demanded by the HMTA. Within the Federal Government, OHMS is the competent authority for matters concerning the transportation of these materials. Its role in this regard should be strengthened. Despite productivity that averages 40 administrative actions a day, however, this small agency has a backlog of correspondence, rulemaking petitions, and technical applications for exemptions and approvals. It and the rest of the programs under the RSPA umbrella are still waiting for the nomination of an administrator. We have recommended that more, not less, responsibility be delegated to OHMS. We have recommended this because the Office has proven over time to be approachable, determined to give fair hearing to all, and capable of making a decision, though we may not always agree. We know OHMS will make the most of any resources given.

PREPARED STATEMENT OF SHIPPERS, CONTAINER MANUFACTURERS AND TRANSPORTERS

Industries involved in the shipping and transporting of hazardous materials are joining together to support the functions performed by the Office of Hazardous Materials Safety (OHMS) of the Department of Transportation's (DOT) Research and Special Programs Administration (RSPA). We believe that OHMS and RSPA are pivotal in maintaining the safety and integrity of our national transportation system. The reasonable standards and effective regulations developed with the participation of the regulated industries and our local communities permit very hazardous, yet essential, materials to use the same transportation infrastructure as passenger cars and trains, and school buses, with a high degree of safety. It is essential that OHMS be adequately funded and staffed to assure that our transportation infrastructure is maintained and enhanced to support continued growth and expansion of our economy.

The hazardous materials transportation industry in the United States is comprised of producers and distributors of chemical and petroleum products and waste, transporters by rail, highway, air and vessel, and manufacturers of containers. There are 800,000 shipments daily—approximately 300 million shipments a year. It is a trillion dollar industry that employs millions of Americans. Hazardous materials include chemicals, petroleum products, explosives, industrial and medical gases, hazardous wastes, radioactive wastes and consumer goods such as fingernail polish, household cleansers, and swimming pool additives. Hazardous materials are used every day by every American. They are on every railroad and highway and at every shipping and airport terminal in the United States and abroad. They are essential to our quality of life, provide jobs for millions of Americans and, as a major export, enhance our trade balance.

The commonality of these materials in transportation is that they can be hazardous if not handled, packaged, marked and transported in a safe manner. The safety record of this industry is extraordinary considering the potential of these materials to cause serious harm. The federal office responsible for administering the Hazardous Materials Transportation Act is the Office of Hazardous Materials Safety in the (OHMS) in the U.S. DOT's Research and Special Programs Administration (RSPA). OHMS, to the extent its budget allows, works cooperatively with the State and local governments, many federal and international agencies and the many constituencies impacted by the program including the regulated industry, the public, and safety and environmental groups.

The hazardous materials industry and emergency responders support the federal hazardous materials program for safety reasons but also because it assures the efficiency of the movement of these materials between modes, within and between states and between the U.S. and points abroad. This is important to our nation's economy and, of course, the hazardous materials transportation industry itself. The significance of this business, both domestically and internationally, to the economy and the potential impact on public safety and health and the environment makes this a necessary and proper federal program.

We believe that the current program is working to accomplish the objectives of safe and efficient transportation. The program must remain a strong and effective

federal program within the DOT. The primary reason the intermodal hazardous materials program works as well as it does is that OHMS has been delegated responsibility for setting and implementing hazardous materials transportation policy and coordinating the Department's hazardous materials transportation programs. The Associate Administrator of OHMS reports directly to the Administrator of RSPA. The transportation community, emergency responders, and the public benefit from "one-stop" communication with DOT on matters affecting hazardous materials transportation. This organizational strength also facilitates communication and policy oversight between the Department and the Congress. Dilution of this responsibility could have a negative impact on the program.

There are improvements that can be made in this extraordinary federal program that are related to the budget. We would be pleased to work with the Appropriations Committees to assure that the hazardous materials program remains strong, efficient and responsive to the needs of the public and the transportation community.

Congress should consider the following issues and concerns.

DOT's budget request for the hazardous materials transportation program should be adequate to further the goals of the Hazardous Materials Transportation Act. The stated intent of Congress in enacting the HMTA was the furtherance of: efficient, uniform and consistent laws and regulations for hazardous materials transportation; enhanced safety and accident prevention; and a network of trained emergency responders. DOT's strategic plan and the fiscal year 1999 hazardous materials transportation budget should reflect these goals.

The staffing level and pay grades should be structured to assure that OHMS has the resources, including the expertise, to carry out an effective program and to provide the necessary coordination and support for the Department's intermodal hazardous materials transportation enforcement program.

DOT's budget request proposes that DOT be authorized to use funds from the Emergency Planning and Training Grants (for State and local hazardous materials planning and training) to assist small businesses in complying with the hazardous materials regulations. We oppose this diversion of funds away from the State and local training programs. This is contrary to the original congressional intent in establishing this grant program. DOT should continue to sponsor initiatives, including conferences, training materials and information hotline, to aid small businesses in complying with the Act but these initiatives should be funded from the operating budget of the Office of Hazardous Materials Safety, as in previous budgets.

Support for the OHMS's international program should be increased. As you know the uniformity of our domestic regulations with the international standards for hazardous materials transportation are critical to our industry's global competitiveness. If an international standard for packaging differs from a U.S. standard, generally the international standard will prevail, with potential safety and cost impacts for the American public and the transportation industry. It is vitally important that OHMS provide leadership in international standard setting.

On the domestic front, uniformity between state and federal requirements has been recognized by Congress as essential to ensure the safe, environmentally protective and efficient movement of hazardous materials. OHMS and RSPA's legal staff has served the Secretary as the source of legal expertise in determining issues of uniformity. This dedicated legal expertise should be maintained.

In conclusion, the following associations representing companies involved in the shipping and transporting of hazardous materials support a strong, efficient, responsive and adequately funded hazardous materials safety program to assure the safety of the nations vital transportation system.

Institute of Makers of Explosives; Compressed Gas Association, Inc.; National Tank Truck Carriers; Chlorine Institute, Inc.; National Paint and Coatings Association; National Propane Gas Association; Association of Waste Hazardous Materials Transporters; National Association of Chemical Distributors; Association of Container Reconditioners; American Trucking Association; The Fertilizer Institute; National Private Truck Council; Edison Electric Institute; Railway Progress Institute; and National Industrial Traffic League.

PREPARED STATEMENT OF THE INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA

Mr. Chairman and Members of the Subcommittee: The Interstate Natural Gas Association of American (INGAA) appreciates the opportunity to submit testimony for the record regarding fiscal year 1999 funding for the Office of Pipeline Safety (OPS), which is part of the Research and Special Programs Administration (RSPA) at the Department of Transportation (DOT).

The Interstate Natural Gas Association of America (INGAA) is a trade organization which represents virtually all of the interstate natural gas transmission companies operating in the United States, as well as natural gas transmission companies in Canada and Mexico. INGAA's member companies transport over 90 percent of the natural gas consumed in the United States through over 280,000 miles of interstate pipeline.

As we have stated before, pipeline safety is a top priority for all of INGAA's member companies. We work closely with the Office of Pipeline Safety to seek ways to continue to improve on our safety record. While pipeline transportation is the safest method of transporting energy to our growing economy, we are pursuing new ways to improve our efforts. In particular, we are focusing on new technology and more sophisticated ways to manage risk to the public. Some of our member companies have applied to participate in the risk demonstration program approved as part of the "Accountable Pipeline Safety and Partnership Act". (Public Law 104–304) will permit these companies to tailor their safety programs to focus more accurately on addressing the actual risks that challenge various segments of their pipelines.

The OPS and the pipeline industry agreed to the authorized levels set forth in Public Law 104–304. In this legislation, Congress adopted two authorization amounts, one that caps the entire OPS budget ($36.442 million for fiscal year 1999) and one that caps the portion that can be raised through pipeline safety user fees ($29 million for fiscal year 1999). The budget submitted this year by the Administration again breaks both of these caps.

INGAA is more supportive of the budget request that was submitted to the Office of the Secretary by OPS which we obtained through a Freedom of Information Act request. This budget sets the pipeline user fee at $28 million and takes an additional $1 million from the existing OPS reserve account. It also takes $7.4 million from the Oil Spill Liability Trust Fund.

INGAA supports continuing to draw down the OPS reserve account to a fiscally responsible level. Third party damage is a significant cause of pipeline accidents and the primary cause of public injuries and fatalities. INGAA supports the diversion of excess reserve funds to provide grants to one-call centers and for state risk management grants. Providing grants to one-call centers helps to improve notification procedures and practices which are important accident prevention measures. Allocating these grants directly to one-call centers maximizes the effectiveness of these dollars.

State pipeline safety representatives have been encouraged to participate in the interstate pipeline risk management demonstration program. States want to be closely involved in evaluating risk management as a safety strategy and to play an active role in reviewing the projects as they develop. INGAA can support a drawdown of the OPS reserve account of $.5 million to support these state grants for the next two to three years until the report on the demonstration program is submitted to Congress. At that time, it should be appropriate to consider sunsetting this grant.

INGAA supports an increase in the amount of funds OPS obtains from the Oil Spill Liability Trust Fund. OPS has indicated that it will be spending a significant amount of resources over the next few years regarding environmental policy, ground water protection, oil spill response, and coordination with states regarding hazardous liquid pipelines. The Oil Spill Liability Trust fund was established for the purpose of funding these activities. OPS has a number of responsibilities under OPA90 and it is appropriate that these activities be funded directly from that trust fund.

In the R&D area, we support an increase in the funding for non-destructive evaluation up to the amount in the OPS budget proposal to the Office of the Secretary of $593,000.

INGAA also can support providing additional money from the Oil Spill Liability Fund for mapping as this project will include environmentally sensitive areas. It is our understanding that the funding requested in 1999 will allow the completion of 70 percent of the national pipeline mapping system. The remaining 30 percent is for segments of the pipeline network where the operator is in the process of migrating from a paper system to a digital database or where the pipeline operator needs to update his/her records through field verification. We understand that OPS will wait for the digital data as it is the most cost beneficial format for the operator to submit and for OPS to process.

INGAA thanks you and the Subcommittee for the opportunity to submit this testimony on the OPS budget for fiscal year 1999.

MULTIMODAL TESTIMONY

PREPARED STATEMENT OF THE COALITION OF NORTHEASTERN GOVERNORS

The Coalition of Northeastern Governors (CONEG) would like to thank you for this opportunity to share the organization's views. The Governors would like to thank the subcommittee for its support and funding for the broad range of transportation programs that make up our vital intermodal system. We encourage you to continue this support in fiscal year 1999.

An integrated, safe and adequately financed national surface transportation system, as provided for in the Intermodal Surface Transportation Efficiency Act of 1991, is essential to the economic, social and environmental well-being of the Nation and the Northeastern states. This system includes the highway and rail infrastructure over which cars, trucks, buses, commuter, intercity and freight rail provide essential mobility for people and goods in urban, suburban and rural communities.

In addition, the Northeast's intermodal transportation system contributes to the financial and economic success of our nation by providing a critical link to national and international economies. This extensive and aging system—highways, bridges, transit and their connections to air and water-based ports—facilitate the seamless flow of people and commerce among the Northeastern states. They tie this important regional market to the Nation economically, thereby contributing to the Nation's ability to compete in a global economy. The Northeastern states are the Nation's largest consumer markets. In addition, materials and finished products generated in the region are distributed to markets throughout the Nation on its transportation systems. Our border crossings and port facilities are gateways to the global marketplace.

The CONEG Governors urge the subcommittee to support, to the highest possible level, funding which maintains and enhances a connected, seamless, intermodal, national transportation system. More specifically, the CONEG Governors recognize and call for the subcommittee's support of the following investments which have national and regional significance:

Maximize the Federal investment within a strong Federal-State-local partnership.—The CONEG Governors urge the subcommittee to invest, to the maximum extent possible, in the Nation's transportation infrastructure. Such federal investments reinforce the link between transportation and social and economic well-being, and also act as important economic multipliers that enhance the region and the Nation's ability to compete. America's transportation needs, especially in the Northeast states, far exceed current expenditures in all modes.

Invest in safety.—Safety remains the primary concern of the Governors. Motor vehicle crashes exact a tremendous toll on American society. The National Highway Traffic Safety Administration estimates the total economic cost of motor vehicle crashes in 1994 to be $150.5 billion, costing taxpayers $13.8 billion or the equivalent of $144 per household. Programs such as Operation Lifesaver, and other efforts to improve highway and railroad grade crossing safety, are excellent examples of successful programs.

Increase the highway obligation ceiling.—The overwhelming majority of freight and passenger traffic in the Northeast moves by road. Nearly two-thirds of all North American trucking tonnage passes through the Northeast, reflecting its status as a major importer and exporter of merchandise and the home of major ports serving the Nation. The region's trucking industry is the most locally oriented in the Nation, with nearly 65 percent of the trucks operating fewer than 50 miles from their base. This high proportion of local traffic reflects the concentration of population and vehicles along a narrow corridor in the region.

We applaud the subcommittee's effort to provide additional funds by increasing the Federal-Aid Highway Obligation Ceiling in fiscal year 1998 to $21.5 billion. Continuation of these efforts is critical, with a recommended goal in fiscal year 1999 of the levels established for the highway and transit programs in the ISTEA reauthorization.

Continue support for transit.—Public transportation continues to play a vital role in the lives of millions of residents in the Northeast, both urban and rural. For example, the Governors strongly support reform of the Nation's welfare laws and regulations. Particularly in the Northeast, the Governors view transit as one means of bridging the distance gap between home and job. The challenge is magnified by the dispersion of jobs throughout a multi-state region. The ability to link trips becomes essential. Federal funding is critical to stimulate transit's efforts to meet these challenges.

We encourage your support of transit operating assistance. We are grateful that the subcommittee was able to preserve a modest amount of federal operating assist-

ance in fiscal year 1998, and hope that can continue in fiscal year 1999. We also thank the subcommittee for the flexibility to use these funds for preventative maintenance of the transit system. Transit services and the federal operating assistance that supports them play an equally vital role not only in large cities, but even more importantly in small cities and in rural areas of the Northeast. These funds must cover a large geographic service area. While rural households—compared with urban households—are more likely to have a car, those rural residents dependent on public transportation have limited options for service, and are usually elderly or disabled. Many of these rural trips are for essential services: access to employment opportunities, health care, and nutritional and social service programs.

The federal transit program provides essential capital funding for investment in our nation's transit infrastructure. The Federal New Starts program encourages investment in new transit infrastructure in order to pursue the goals of reducing congestion and improving air quality. New Jersey's Urban Core project, which includes our nation's first Design-Build-Operate-Maintain transit project, the Hudson-Bergen Light Rail Transit System, is an excellent example of a successful New Start project. The Northeast also relies on the Fixed Guideway Modernization program and the rest of the transit capital program to enable investment on the many transit systems on which our economy depends.

Continue Federal capital investment in intercity passenger rail and the Northeast Corridor.—The Governors continue their strong support of funding for national intercity passenger rail. Intercity passenger rail makes a unique contribution to the complex fabric of the Northeast's mobility. The Northeast Corridor and its feeder system is the financial linchpin of the national passenger rail network. The Governors look forward to the imminent completion of the Northeast Corridor Improvement Project (NECIP) between Boston and New York City. By reducing travel time and increasing rail ridership, additional capacity is provided for both the highway and aviation systems. In addition, NECIP provides air quality benefits which improve the quality of life for the Northeast and contributes to attainment of Clean Air Act goals.

Improved intercity rail service will bring more passengers to central business districts in all major Northeast cities. It will also spur growth in suburban and smaller urban areas such as Route 128 outside Boston, Massachusetts and New Haven, Connecticut. We therefore urge an appropriation of $200 million for the NECIP/Northeast High Speed Rail Improvement Project (NHRIP) Grant.

The Governors applaud the subcommittee's success in achieving full funding in fiscal year 1997 for NECIP and the Rhode Island Rail Development Project as well as identifying funding for the Pennsylvania Station Redevelopment Project in New York City. We note that the entire Northeast Corridor (Boston to Washington) is in need of investment to bring its various systems into a state of good repair, and we urge the subcommittee's continued commitment to funding Amtrak at the levels authorized in the Amtrak Reform and Accountability Act of 1997 (Public Law 105–134). This carefully crafted agreement provides Amtrak with the operating and capital framework necessary to become a cost-effective, efficient national passenger rail system.

The Governors encourage Congress to direct the U.S. Department of Transportation to reprogram funds to initiate the independent assessment study of Amtrak as called for in Section 202 of the Amtrak Reform and Accountability Act of 1997 (Public Law 105–134). Further, we ask Congress to provide adequate funds to complete the study. This time-sensitive review is essential for the work of the Amtrak Reform Council and others interested in the future of a national intercity passenger system.

Support investments in new technologies.—In many congested urban areas, building new infrastructure or expanding existing infrastructure are not viable options. We thank the subcommittee for its past support of the I–95 Corridor Coalition to enhance the safety and capacity of the existing highway and transit systems. For example, the electronic toll system on the Tappan Zee Bridge handles 1,000 vehicles per hour, compared to 350–400 vehicles per hour handled by manual tolls. Therefore, we urge your support of the Intelligent Transportation System Priority Corridor Program in general, and the I–95 Corridor Coalition in particular and recommend that the subcommittee provide $5 million to continue the efforts of the Coalition.

Continue Federal participation in research and development and public/private partnerships.—With an eye to the future, we encourage continued federal participation in the public-private research and development partnership in areas such as turbo-electric locomotive development, transit fare collection systems, electronic toll collection, deployment of diesel multiple unit train sets, and maglev systems.

The development and implementation of these systems offers transportation and economic benefits. For example, growing worldwide demand for high speed train products will create lucrative job opportunities for thousands of skilled American workers. The use of biodiesel in locomotives could be a productive area for testing as a way to reduce harmful emissions. Planning and development funds could help implement and expand the ISTEA 1010 program which will eliminate the hazards of railway-highway crossings in up to five railway corridors. Further, the Federal Railroad Administration's Next Generation High-Speed Rail Program continues to make a valuable contribution to the development of the next generation non-electric locomotive (both diesel and turbo). Federal funding of the program, in conjunction with a state-private partnership, would be a wise investment.

Fund border crossings and other improvements linked to international agreements.—Freight mobility is a key to maintaining regional and national competitiveness in a global economy. To improve international trade and competitiveness, funds should be available for international border crossings, ports, intermodal facilities, and other improvements which are identified as a result of the North American Free Trade Agreement and other international agreements. For example, the Calais, Maine—St. Stephen, New Brunswick crossing is the seventh busiest in the Unites States. However, it has a critically insufficient infrastructure to handle the current traffic.

In summary, this year promises to be a time of profound challenges to transportation systems, particularly in the Northeast. These include the authorization of multi-year planning and funding of surface transportation programs beyond the current extension of the Intermodal Surface Transportation Efficiency Act of 1991; implementation of the Amtrak Reform and Accountability Act; the transformation of Conrail; pending changes in air quality standards; the transportation needs of former welfare recipients; and an increase in international trade. Continued, thoughtful investments by this subcommittee will make a dramatic difference in enabling the Nation and the region to provide safe and efficient transportation for its citizens.

The Coalition of Northeastern Governors would like to thank Chairman Shelby, Ranking Member Lautenberg, and the rest of the subcommittee for the opportunity to present this testimony and for your dedication and support for the Nation's transportation investments.

PREPARED STATEMENT OF KIRK BROWN, SECRETARY, ILLINOIS DEPARTMENT OF TRANSPORTATION

Mr. Chairman and Members of the Subcommittee, we appreciate the opportunity to submit testimony concerning fiscal year 1999 U.S. DOT appropriations on behalf of the Illinois Department of Transportation (IDOT) to the Senate Appropriations Subcommittee on Transportation and Related Agencies. We thank Subcommittee Chairman Richard Shelby and the members of the Committee for their past support for a strong federal transportation program and for taking into consideration Illinois' unique needs. Our recommendations for overall funding priorities and our requests for transportation funding for special Illinois' interests are described below.

HIGHWAY OBLIGATION LIMITATION

IDOT urges the Subcommittee to set a fiscal year 1999 obligation limitation consistent with the level in the final surface transportation reauthorization bill. Since we expect the final bill to significantly increase highway authorization levels, we would expect the fiscal year 1999 obligation limitation to increase similarly.

Funding promised by ISTEA authorizations during the fiscal year 1992–1997 period was not provided because of the restrictive obligation limitations. To be able to truly utilize the expected higher funding from the surface transportation reauthorization legislation, annual obligation limitations must match authorization levels. Federal funds are a crucial element in state and local highway preservation and improvement programs. These programs support an efficient highway infrastructure which in turn is a crucial element supporting the state and national economies.

INTELLIGENT TRANSPORTATION SYSTEMS EARMARK

If the Subcommittee earmarks Intelligent Transportation Systems (ITS) highway funds in fiscal year 1999, Illinois, along with Wisconsin and Indiana, requests an earmark of $6.3 million for projects in the Gary-Chicago-Milwaukee (GCM) corridor.

Over the last four years, the GCM Corridor, along with I–95, southern California, and Houston area corridors, has overcome significant institutional issues and cre-

ated a framework for building regional ITS interoperability. Illinois, Indiana and Wisconsin continue to develop joint, coordinated, multimodal efforts that are compliant with the ITS National Architecture. These projects improve the traveling safety, mobility and productivity of the 10 million people who live and conduct business in the 16 counties connecting the metropolitan areas of the GCM Corridor. The proposed earmark would support these continuing efforts so that the three states can continue building a true multimodal, coordinated ITS system.

TRANSIT DISCRETIONARY GRANTS

Bus capital

IDOT, the Regional Transportation Authority (which oversees the planning and financing of transit in the six-county northeastern Illinois area), the Chicago Transit Authority (CTA) and PACE (which operates suburban bus service) jointly request an earmark of $40 million in fiscal year 1999 Section 5309 bus capital funds for the CTA, PACE and downstate providers. This joint request is a demonstration of our mutual interest in securing funding for essential bus capital needs throughout the state.

The joint request will be for funds for two downstate facilities and to purchase buses in order to replace over-age vehicles and to comply with federal mandates under the Americans with Disabilities Act. All of the vehicles scheduled for replacement are at the end of their useful life; many are well beyond their expected useful life. Downstate urbanized areas have 70 buses older than the standard 12-year design life and CTA has 380 buses beyond the design life. Illinois transit systems need discretionary bus capital funds since regular formula funding is inadequate to meet all bus capital needs.

New systems and extensions—MetroLink

IDOT supports the Bi-State Development Agency's (the bus and light rail service operating agency serving the St. Louis region) request for an earmark of $64 million in fiscal year 1999 New System funding for the MetroLink light rail system which serves the St. Louis region. This amount is for the eastward extension in St. Clair County, Illinois from East St. Louis to Belleville Area College including final engineering, land acquisition, construction and rail car acquisition. The line now in service has been a tremendous success and ridership has far exceeded projections. The Administration entered into a Full Funding Grant Agreement for the extension project in 1996.

New systems and extensions—Metra commuter rail extensions

IDOT supports Metra's (the commuter rail operating agency serving the six-county northeastern Illinois region) request for an earmark of $52 million in fiscal year 1999 to continue New System funding for design and engineering to upgrade and/or extend service on three lines—the North Central, SouthWest, and Union Pacific-West. These planned improvements are in areas where significant population and development increases have already been experienced and are projected to continue well into the 21st century. The projects will improve and/or extend commuter rail service which will in turn reduce highway congestion and contribute to attaining clean air objectives.

TRANSIT FORMULA GRANTS

Section 5307 urbanized area funds

IDOT urges the Subcommittee to set the appropriation for fiscal year 1999 Section 5307 Urbanized Area Formula Grants consistent with the authorization set in the final surface transportation reauthorization bill. Since we expect the final bill to significantly increase transit authorization levels, we would expect the fiscal year 1999 appropriations for transit to increase similarly.

Section 5307 is a formula grant program for urbanized areas which provides capital and operating assistance for public transportation. In Illinois, these formula funds are distributed to 18 urbanized areas which provide approximately 560 million passenger trips a year. IDOT supports the continuation of operating assistance at least to the smaller, under 200,000 population, urbanized areas. A further reduction in the current level of federal operating assistance would especially harm these areas, likely necessitating further fare increases and service cuts. Strong federal funding support for transit service in urbanized areas is necessary to enable transit to continue the vital role it plays in providing urban transportation service.

Section 5311 rural and small urban formula funds

IDOT supports fiscal year 1999 funding for the Section 5311 Rural and Small Urban program at the final authorization level set in the final surface transportation reauthorization bill.

The Section 5311 program plays a vital role in meeting mobility needs in the nation's small cities and rural areas. Adequate federal funding assistance for this program is very important to transit systems in Illinois. The needs in these areas are growing yet their local revenue sources continue to be very limited. In Illinois, such systems operate in 41 counties and 7 small cities, carrying approximately 2.3 million passengers annually.

AMTRAK APPROPRIATION

IDOT supports a fiscal year 1999 appropriation at least at the fiscal year 1998 level of $543 million to fund capital and operating expenses.

Amtrak operates a total of 50 individual trains throughout Illinois as part of the nation's passenger rail system, serving approximately 3 million passengers annually. Of the total, Illinois subsidizes 18 state-sponsored trains which provide intrastate service in four corridors (Chicago to Milwaukee, Quincy, St. Louis, and Carbondale) transporting nearly 514,000 passengers in fiscal year 1998. Amtrak service in key travel corridors is an important component of Illinois' multimodal transportation network and continued federal capital and operating support is needed.

AIRPORT IMPROVEMENT PROGRAM (AIP) OBLIGATION LIMITATION

IDOT supports a fiscal year 1999 AIP obligation limitation as close as possible to the authorization level to be set in the reauthorization bill for aviation programs which will be developed by the Commerce, Science, and Transportation Committee. IDOT supports a limitation at least at the fiscal year 1998 level of $1.7 billion.

The AIP program provides federal funding support for airport preservation and improvements needed at general aviation and commercial airports—which served 605 million people flying on the nation's air carriers in 1996. Enplanements are expected to grow to nearly one billion by 2008 and airports must make improvements to safely and efficiently serve this rapidly growing demand. We believe that the AIP program has suffered disproportionate reductions in past appropriation bills and that there is a legitimate need to increase the obligation limitation.

The recent underfunding of the AIP program has caused substantial problems, particularly for general aviation, reliever, commercial service and small primary airports. Larger primary airports have been able to more than replace reduced AIP funding with Passenger Facility Charge (PFC) revenue, but small airports are not able to generate sufficient additional revenue to offset the major reductions in federal support. Therefore, adequate AIP funding is especially important for these airports.

This concludes my testimony. I am keenly aware of the pressures you face trying to meet demands for increased transportation funding given the balanced budget agreement spending constraints. However, an adequate and well-maintained transportation system is critical to the nation's economic prosperity and future growth. Your recognition of that and your support for the nation's transportation needs are much appreciated. Again, thank you for the opportunity to discuss Illinois' federal transportation funding concerns.

PREPARED STATEMENT OF THE INTERNATIONAL COUNCIL OF AIRCRAFT OWNER AND PILOT ASSOCIATIONS

IAOPA URGES U.S. TO CONTINUE OPERATING LORAN-C

Frederick, MD.—The International Council of Aircraft Owner and Pilot Associations is urging the U.S. government to continue operating the land-based Loran-C navigation system as a back-up to the satellite-based GPS system.

"Loran-C is an important navigation aid for worldwide general aviation and aerial work operations," said IAOPA President Phil Boyer. "While GPS will become the primary worldwide navigation system, Loran is still needed as a secondary, back-up system."

The U.S. Department of Transportation (DOT) plans to decommission the U.S. Loran-C navigation system in the year 2000. But due to pressure from Loran users, Congress ordered DOT to review that decision. The technical consulting firm Booz-

Allen & Hamilton, Inc. was hired to study the technical merits and costs/benefits of extending the life of Loran-C.

In comments for the Booz-Allen study, IAOPA said that Loran-C was an important and useful means of navigation in the Americas, the Far East and Europe. An estimated 130,000 Loran-C receivers are installed in aircraft around the world. Recent advances in receivers and antennas have solved many Loran operational shortcomings such as precipitation static interference.

IAOPA said that Loran transmitters were already built and paid for. Compared to the costs of an entirely new navigation system, upgrading and maintaining the Loran-C system for non-precision instrument approaches would be very economical. For example, the entire U.S. Loran system could be upgraded for about the same cost as yearly maintenance of the U.S. VOR navigation system.

IAOPA said the Loran-C could also serve as an alternative means for transmitting differential GPS (DGPS) correction signals in Europe.

DGPS improves position accuracy to permit precision instrument approaches into many airports. In North America, DGPS signals will be broadcast from geostationary satellites as part of the U.S. Federal Aviation Administration's Wide Area Augmentation System (WAAS).

"But aviation users worldwide may be reluctant to rely solely on satellite-based navigation systems," said Boyer. "Without a supplementary system like Loran-C, that reluctance may prevent us from realizing the full potential of the Global Navigation Satellite System."

Noting that some nations are reluctant to depend on a navigation system completely controlled by the U.S., IAOPA said that an enhanced Loran-C system would allow governments to maintain sovereign control over a second navigation system. Several European nations have already committed to implementing their own Loran capability—Eurofix—to distribute DGPS correction signal.

"Loran-C must be viewed as a global system that will benefit many different users for some time to come," said Boyer. "We recommend that Loran-C be retained as a navigation system within the United States and that it also be upgraded and improved to realize its full potential as a component of the future world radionavigation system."

IAOPA is the international organization representing pilots and aircraft owners of 45 nations on international issues. IAOPA represents the interests of general aviation before international aviation organizations such as the European Union and the International Civil Aviation Organization (ICAO).

PREPARED STATEMENT OF FRANK L. JENSEN, JR., PRESIDENT, HELICOPTER ASSOCIATION INTERNATIONAL

In response to your request for comments regarding the proposed decommissioning of Loran-C in the year 2000, the following is provided for your consideration.

The Helicopter Association International (HAI) is the professional trade association of more than 1,400 member organizations, which operate, manufacture or otherwise support the civil helicopter industry. HAI's members operate over 4,000 civil helicopters, safely flying more than two million hours each year. Since 1948, HAI has been dedicated to promoting the helicopter as a safe and effective method of transportation, and to the advancement of the civil helicopter industry.

HAI and its members consider Loran-C as a crucial element of the total navigation system for aviation. It is generally assumed that the Global Positioning System (GPS) will constitute the future primary means of navigation. However, GPS is not yet proven, and there are doubts as to the timeliness of implementation of GPS and its reliability. There is as yet no augmentation system that will provide the degree of precision that is essential for aviation users. Instances of ships running aground while utilizing GPS serve as indicators that GPS is not sufficiently accurate or reliable to provide precision navigation information to aircraft.

Without augmentation, and with this country's system of VOR's and ILS's to be dismantled, aircraft will be unable to fly to precision minimums. Loran-C is the only currently available technology that can readily and cost effectively be adapted to augment GPS to provide the precision that is critical to aircraft operations.

Discontinuance of Loran-C cannot be justified on budgetary grounds. Loran-C has an estimated 1.3 million users in the aviation, marine and timing communities. The annual cost of operating Loran-C is approximately $8 million. With Loran-C extended to Alaska, that cost increases to approximately $14 million. This cost is minuscule if stated as a cost per user.

Doctrines of navigation espoused by the U.S. Coast Guard and the FAA emphasize the importance of secondary or backup navigation devices or systems. Loran-

C is the one proven navigation system that is widely utilized in the maritime industry and to some extent in aviation. Technology currently exists that would enhance Loran-C for wider use in aircraft by providing more precise, real-time navigation information. Loran-C is a reliable, established and proven navigation system that not only would provide a land-based backup to GPS but could also be used to enhance GPS. Loran-C will continue to be supported in Europe and in Asia. The U.S. aviation and maritime transportation industries are global. HAI strongly believes that termination of Loran-C would be shortsighted, a false economy and would introduce a significant and totally unnecessary dysfunction within our trading community.

Loran-C is widely supported by its users, in the aviation community in general and within the helicopter community particularly. Its expanded application to aviation use would be relatively low cost, well received, and would provide the margin of safety that redundancy of systems provide. In the same context of having two engines, dual hydraulics or secondary electrical systems, this nation's transportation infrastructure must have redundancy in its navigation systems. To assure the safety and well-being of those traveling in the air and on the sea, it is vital to support funding for and improvements to Loran-C. HAI strongly supports this highly successful, proven and cost effective system. Discussions of Loran-C should not be in the context of extending it beyond 2000 or to 2015, but rather of extending it indefinitely.

If you have any questions, please contact me or Glenn Rizner, HAI's Vice President of Operations, at (703) 683–4646.

PREPARED STATEMENT OF HENRY M. OGRODZINSKI, PRESIDENT AND CEO, NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

Founded 67 years ago, the National Association of State Aviation Officials (NASAO) represents the men and women in state government aviation agencies, who serve the public interest in all 50 states, Guam and Puerto Rico. These highly skilled professionals are full partners with the federal government in the development and maintenance of the safest and most efficient aviation system in the world.

Following early work in Vermont, NASAO began working with the Federal Aviation Administration in the early 1980's on the development of instrument approach procedures using Loran. The first joint meeting of the two governmental partners on this issue was held in Columbus, Ohio in February 1985 and was hosted by the Ohio Bureau of Aviation. Following that meeting, the "Loran Planning Work Group" held semiannual workshops until the completion of the mid-continent gap project in 1991. When that was in place, eight Loran non-precision instrument approaches had been published. Shortly after the commissioning, the FAA canceled these eight approaches because to date, no manufacturers had produced a TSO approved unit capable of flying the approaches.

Throughout this period, thousands of Loran receivers were purchased by civil aviation users because of the remarkable en route capability and constant reliability and accuracy that it provides. The TSO'd IFR en route Loran units were readily available from a number of manufactures along with VFR units. Recognizing the value of this new air navigational aid, many aircraft owners purchased units for their aircraft and have used them since for both VFR and IFR en route operations. The significant rise in use was noted by states which began documenting the number of installed units within aircraft based in their respective states. In addition, the Wisconsin Bureau of Aviation prepared the enclosed comprehensive analysis concerning the adverse economic impact that would result for general aviation if Loran were shut down.

With these issues in mind, the state aviation agencies, in support of the public interest which they serve including the general aviation community, are compelled to advocate the continued operation and future development of Loran for aviation use. Even as far back as September 1994, the membership of our organization expressed its support for Loran with the adoption of the enclosed NASAO Resolution in which the language urges "the U.S. Secretary of Transportation and the Congress of the United States to ensure that the U.S. operated Loran-C navigation system remains in place until the programmed termination in 2015." Loran is a proven and stable land-based navigation system that provides full coverage for our country and the adjacent maritime area and its continuance into the 21st Century is vital to the success of our nation's aviation system.

Tied directly with the states' support for the continued operation of Loran beyond 2000, is the concern for adopting GPS as a sole source navigational aid. NASAO is a strong advocate for the development of GPS technology. The development of stand-alone GPS approaches has been perhaps the greatest single advancement to aerial

navigation since the development of the instrument landing system (ILS) over a half a century ago. We're on the verge of WAAS and LAAS three-dimensional approaches which will further revolutionize the aerial navigation industry. We are getting closer to obtaining even greater benefits of GPS technology as the new millennium approaches.

Even in light of the existing effective and reliable operation of GPS, we can not accept the reliance on a single navigational aid for IFR operations. The continued operation of Loran is logical as its a time-based area navigation system which uses basically the same principals as GPS from a pilots/users standpoint. Having used Loran for IFR en route provided many general aviation pilots with excellent training for the use of GPS. The strength of signal and national coverage of Loran across the continental United States justifies its continued operation alone. Loran provides far more coverage across the continent then NDB's and VOR's/TACAN's either utilized separately or combined. This universal coverage also comes at a fraction of the cost of one GPS satellite, or the cost of running the current NDB and VOR/TACAN system throughout the country.

In closing, on behalf of the state aviation agencies across the country and their customers, NASAO wishes to go on record as strongly urging the continued operation of Loran until at least 2015 as called for in previous versions of the Federal Radionavigation Plan (FRP). Furthermore, that FAA continue to evaluate the use of Loran as a supplement for GPS as an aerial navigation aid well beyond the year 2000.

PREPARED STATEMENT OF ANDREW V. CEBULA, VICE PRESIDENT, NATIONAL TRANSPORTATION ASSOCIATION

The National Air Transportation Association (NATA) represents aviation businesses nationwide that provide a variety of services at our nation's airports that own, operate and service aircraft. The nearly 2,000 NATA members serve millions in the traveling public, airlines, general aviation and the military through fuel sales, maintenance, flight training, aircraft rental and on-demand aircraft charter services. NATA is committed to the enhancement of our nation's navigation systems through integration of new technologies. However, NATA believes that such advancements must occur only with proven systems that provide cost effective, improved services and safety enhancements.

Although the rapid progression of satellite navigation and the Global Positioning System (GPS) will become a valuable part of navigation in the future, NATA is convinced that Loran-C should have a continuing role in navigation. Loran-C is a very cost-effective, proven and reliable technology that is highly compatible with GPS. Loran provides enormous and unique benefits because of its utility to aviation, marine, surface, telecommunications and other users. Substantial Loran-C user and infrastructure investment has been made and should not be lost. NATA joins with other Loran users and organizations representing the beneficiaries of Loran technology in urging the continued funding of Loran-C until at least 2015 as previously called for in the U.S. Federal Radionavigation Plan (FRP).

Aviation requires a highly reliable, precision system navigation mix that provides redundancy in the case of unforeseen problems. This principle has been a cornerstone of long-standing U.S. transportation policy and system safety, capacity and efficiency goals. While the goal of decommissioning ground-based navigation systems (VOR/NDB/DME) is logical in light of rapidly advancing technology, satellite systems are still developmental and very unproven. Loran-C provides a necessary aviation safety alternative that works as an augmentation to GPS. It is a well-proven technology that can and does support the needs of aviation.

GPS is a valuable tool during en route flight operations; however, complex questions remain about its limitations and vulnerabilities. In fact, in the recent Report of the President's Commission on Critical Infrastructure Protection, titled "Critical Foundations: Protecting America's Infrastructures," plain and unequivocal concerns are expressed about relying on sole means technology. The report assesses the general lack of preparation by the Department of Transportation (DOT) and agencies like the Federal Aviation Administration (FAA) to deal with "cyber threats." It recommends, among other actions, that the Secretary of Transportation: "* * * Fully evaluate actual and potential sources of interference to, and vulnerabilities of, GPS before a final decision is reached to eliminate other radionavigation and aircraft landing guidance systems * * *."

There is no doubt that navigation is moving toward heavier reliance on satellite technology, and NATA supports many of these enhancements because they have the potential to reduce operations costs and promise other benefits. However, it does not

make sense prematurely phase out a cost-effective, reliable system like Loran-C in which substantial user and infrastructure investment has been made. Such a decision could also leave the Nation's transportation and communications infrastructure vulnerable to disruption in the future.

The infrastructure to support continuation of Loran is already in place. The technology continues to be a cost-effective system that is widely utilized in the United States and, in fact, is blossoming internationally. Incremental Loran revitalization improvements could reduce infrastructure operating costs to less than $10 million annually.

The case for continuation of Loran is clear, whether viewed solely from an aviation perspective, where the majority of general aviation aircraft are already equipped, or viewed from the broader vantage point of other users across the entire U.S. economy—marine, surface, telecommunications, power and utility companies, the National Weather Service, the military and others.

Loran-C is most compatible with, and can enhance, satellite technology while remaining an independent system. The technology has unanimous support of users because of its broad-based utility, substantial safety benefits and low operating cost. NATA strongly supports steps to enhance and revitalize the Loran infrastructure and believes there is a continuing role for Loran as part of the future navigation mix until at least 2015 as was previous U.S. policy.

PREPARED STATEMENT OF ELAINE DICKINSON, ASSISTANT VICE PRESIDENT, GOVERNMENT AFFAIRS, BOAT OWNERS ASSOCIATION OF THE U.S.

As a national association that represents over 500,000 recreational boat owners, we have a vital interest in the future of the Loran-C radionavigation system. This letter will serve as our comments for the DOT Loran-C Study being prepared for a report to the U.S. Congress.

Loran-C has served the boating community extremely well since the 1970's with reliable service and affordable receivers. The proposed early phase-out of Loran service is of major concern to hundreds of thousands of recreational users throughout the U.S. and abroad. With a magnitude of civil users estimated to be 1.2 million, 80 percent of them marine users, a rapidly expedited shut-down by the federal government would severely impact this broad user community.

When the Global Positioning System was first coming on-line, the civil user community was promised in successive Federal Radionavigation Plans that Loran would not be phased out until 2015, allowing a safe and economical transition period. For federal policy makers to do less but could jeopardize the safety of thousands of vessels and aircraft.

The reasons why we believe it is important to vessel operators to have Loran continue for at least another 10–15 years, if not indefinitely, are as follows:

—*Magnitude of the User Group.*—No other navigation system has so many vessel and aircraft owners depending upon it. Over one million citizens use Loran and this number may be conservative. While GPS receiver sales have clearly grown in recent years, many of those GPS users are using both systems or using Loran as a check on their GPS readings. A drastic change in stated federal policy will create skepticism among this broad user community with regard to any future DOT decisions as well.

—*Reliability.*—Even though GPS has gained acceptance as a global navigation system, it has not attained the reliability of Loran, nor is it at the point of serving all needs to be designated as the sole U.S. system for all types of users. Boat owners have complained for years about the government's own policy of "Selective Availability," degrading the civilian GPS signal. Until this policy changes, boat owners have good reason to question the signal they're receiving from GPS. Loran continues to provide 10-meter repeatability which is extremely beneficial to thousands of users to relocate prime fishing areas, underwater wrecks and other important spots. Vessel operators from charterboat captains to sport drivers have hundreds of waypoints recorded on Loran that simply cannot be converted to GPS.

—*Economic impact.*—Loran receivers, an American-made product, have been priced low enough to make them affordable to large numbers of the boating public and for a change in government policy to render an estimated half-billion dollars worth of private equipment obsolete is unfair to consumers. In recent years, as many as 90,000 Loran receivers have been sold annually. Contrary to assumptions about boat owners, they are not wealthy and not willing to spend $500 for every new "toy" that comes on the market. The investment in naviga-

tion equipment is a cautious decision and one that has been based, in part, on long-term policy of DOT not to phase out Loran before 2015.

To obtain the great accuracy of Differential GPS, to override "Selective Availability", requires an additional expenditures of at least $500 to buy a Differential receiver, in addition to a $200 (low-end) GPS receiver. The lack of consistency in government policy is hurting the marine marketplace as consumers are more confused than ever over what system to invest in. Many are reluctant to invest in GPS as long as SA is on and Differential GPS requires additional cost. The fact that DOT has not abided by its own Federal Radionavigation Plans adds to the confusion in a significant electronics market.

—*Back-Up*.—Is one system wise, from the aspect of public safety as well as national security? For civil and military users to depend only upon one system that is satellite based is short-sighted. GPS could be subject to failure, attack, solar disruptions or any host of unforeseen threats. At the very least, Loran provides a land-based back-up that is controlled within our borders where it can be safeguarded and easily repaired or upgraded. GPS should have at least a solid 10-year track record before it becomes our only system.

—*An integrated system*.—The Loran infrastructure and performance is proven and relatively efficient to maintain and operate. DOT and DOD should fully explore the potential for an integrated Loran/GPS system where each system's strengths and weaknesses are balanced to the advantage of all users. Costs should be shared within DOT, between the FAA and the Coast Guard, rather than having the Coast Guard bear cost. We believe the Coast Guard's decision to eliminate Loran has been driven mainly by short-term budget and manpower considerations, not long-term navigation goals.

On behalf of the 12 million recreational boaters in the U.S., we appreciate this opportunity to comment and we'll be happy to assist with the preparation of the DOT report in any way.

TRANSIT-RELATED TESTIMONY

PREPARED STATEMENT OF WILLIAM W. MILLAR, PRESIDENT, AMERICAN PUBLIC TRANSIT ASSOCIATION

INTRODUCTION

The American Public Transit Association (APTA) appreciates the opportunity to testify on the fiscal year 1999 Transportation Appropriations bill. On behalf of our 1,100 member organizations we are grateful for the Transportation and Related Agencies Subcommittee's outstanding work on the fiscal year 1998 Transportation Appropriations Act. The $4.84 billion transit funding level, an increase of more than 10 percent above fiscal year 1997—while not as large as the increase granted to highway assistance programs—is a welcome recognition of transit's many contributions to a balanced transportation system in which all modes work together.

Across the country transit operators are working diligently to serve their customers, to invest in new facilities and services that attract new riders, and to make transit part of the fabric of community life in rural counties, small towns, and large metropolitan areas. We are gratified that our customers have shown their support through ridership increases, and that Congress has increased funding for these worthwhile endeavors.

In this regard, we strongly support the transit title of S.1173, the Senate Intermodal Surface Transportation Efficiency Act (ISTEA) reauthorization bill. The bill was approved with strong bipartisan support and calls for significant increases in transit and highway spending. S.1173 would increase funding for the federal transit program to $6.8 billion in fiscal year 1999, and the Senate Budget Resolution adds about $60 million in fiscal year 1999 to baseline outlays to accommodate the increase. In total, the budget resolution increases outlays by $2.7 billion over the next five years in order to accommodate additional transit spending authorized by the Senate bill. We urge the Subcommittee to follow the Senate Budget Resolution's guidelines and to fund the transit program as close as possible to the $6.8 billion level in fiscal year 1999.

A YEAR OF SUCCESS AND NEW CHALLENGES FOR TRANSIT

Events of the past year have reaffirmed the importance of the federal transit program as an essential part of a balanced, comprehensive transportation program:

—Figures for fiscal year 1997 indicate an increase in ridership nationwide over fiscal year 1996 for every mode of transit. A noteworthy achievement was heavy

rail's increase in the third quarter of Calendar Year (CY) 1997, even compared to the third quarter of CY 1996 when Atlanta's MARTA system carried its huge Summer Olympics ridership;

—Total bus ridership in the U.S. is making a comeback, with increases of 1.71 percent in the fourth quarter of CY 1996, and 1.35 percent, 2.51 percent and 3.32 percent in the first, second, and third quarters of CY 1997, respectively. Bus service, in communities large and small, continues to provide essential mobility for millions of Americans;

—Many bus and rail transit systems created new services or opened new facilities, many with great success in reaching new markets—some close to home. Since its December opening, the MCI Arena has proven to be an economic boon to downtown Washington, D.C., and initial reports indicate that more than half of MCI Arena event patrons use Metro;

—The July 1997 report titled "Dollars & Sense: The Economic Benefits of Public Transportation in America" provided new insights into the many ways that public transit benefits the economy;

—A second report, "Commuter Rail: Serving America's Emerging Suburban/Urban Economy," detailed the economic impacts of commuter rail investment; and

—All of us in the transit industry were deeply gratified that Mrs. Rosa L. Parks accepted APTA's first Lifetime Achievement Award in March 1997, in a ceremony at Washington, D.C.'s Union Station. Throughout the past year, many people have mentioned how glad they are that the transit industry has recognized this heroic woman's role in the struggle for civil rights.

TRANSIT FUNDING NEEDS

With adequate resources, transit can provide essential mobility to millions of Americans every day. We note that annual capital needs still far exceed available federal, state, and local funding.

A recently released U.S. Department of Transportation (DOT) estimates that we need to invest $14 billion each year just to maintain and upgrade existing transit conditions. An APTA study found that the transit industry's capital funding requirements average $15 billion per year over a ten-year period. No matter whose numbers you use, the need is there. Over a ten-year period these needs include——

—$38 billion for new vehicles, including 67,800 buses and 51,400 vans;

—$25 billion for new bus facilities including parking lots for bus passengers;

—$13 billion to modernize bus facilities and equipment;

—$23 billion to modernize and rehabilitate existing fixed guideway rail and bus facilities, stations, and maintenance facilities;

—$46 billion for additional fixed guideway services that respond to new customer demands; and

—$5 billion to rehabilitate more than 14,900 buses, rail cars, and other vehicles to extend their useful lives.

APTA firmly supports continuation of a strong federal role in setting transportation policy and funding infrastructure investments. ISTEA and the annual appropriations measures have supported balanced national transportation policies, recognizing that one federal role is to ensure that all modes are adequately maintained so they can complement each other.

In addition, in light of these costs and other program initiatives of the federal transit program, we ask that appropriate resources be made available to fund the critical administrative needs of the Federal Transit Administration (FTA).

Federal mandates

APTA supports the goals of the Americans with Disabilities Act (ADA), the Clean Air Act, federal drug and alcohol testing laws, and the Clean Water Act. However, the costs of these worthy goals add at least $1.5 billion each year to transit capital and operating costs. Absent sufficient federal funds to cover these costs, many transit systems are forced to sacrifice some existing services.

As noted in last year's testimony, transit agencies met the January 27, 1997 compliance deadline to make paratransit service comparable to fixed-route service, but their ADA capital and operating costs may be as much as $1.4 billion annually for the next several years. The demand for ADA paratransit service is expected to grow, and complementary paratransit service will still be required even after all fixed-route service is fully accessible. The noble vision of ADA must be fulfilled with the support of our entire society. The costs of compliance should not be placed disproportionately on transit riders, yet that is what happens if service is reduced, or fares raised, or plans for expanded service canceled, as a consequence of ADA-related expenses.

FISCAL YEAR 1999 TRANSIT FUNDING

We urge the Subcommittee to build on your successful fiscal year 1998 efforts and approve the maximum possible funding for the federal transit program. We want to commend you for providing a ratio of formula to discretionary funding that is closer than previous appropriations acts to the ISTEA ratio of $1.36 in formula funds for each $1.00 in discretionary funds. APTA urges the Subcommittee, in developing its fiscal year 1999 bill, to:

—Retain the fiscal year 1998 language on preventive maintenance and expanded flexibility for transit systems in urbanized areas (UZA's) with fewer than 200,000 people, which has been enormously helpful to transit agencies dealing with cuts of more than 80 percent in federal operating assistance;

—Preserve operating assistance at the current level, at least until the authorizing committees have a chance to act on the issue, since even with preventive maintenance the loss of operating assistance has been difficult for some transit agencies;

—Maintain balance within the federal transit program by funding formula and discretionary programs in a manner consistent with their relative funding shares under ISTEA, and maintain the 40:40:20 ratio among the Discretionary program's New Start, Fixed Guideway Modernization, and Bus/Bus Facility components;

—Help transit systems fully implement service associated with the Americans with Disabilities Act without compromising existing services by allocating sufficient funding to meet all needs; and

—Designate funds for the Transit Cooperative Research Program (TCRP) and assure that FTA has appropriate resources to fund its administrative needs.

We believe that federal investments in transportation infrastructure should be increased, and that your Subcommittee deserves a significantly higher 602(b) allocation. All surface transportation programs, including transit, should receive a fair share of any increases in the allocation.

Preventive maintenance

We support the continuation into fiscal year 1999 of the fiscal year 1998 Act's language that includes preventive maintenance as an allowable capital expenditure under the transit program. Both the House and Senate ISTEA reauthorization bills include similar provisions. Preventive maintenance is important for preserving and maintaining assets and investments. It offers transit agencies important flexibility in adjusting to the decrease in federal operating assistance. It also helps establish a consistency with the guidelines that govern the federal highway and transit programs.

As APTA testified last year, we do not anticipate a major outlay impact from the inclusion of preventive maintenance as a capital expenditure. Indeed, several large metropolitan areas, and the transit agencies that serve those regions, have chosen to use federal funds primarily for capital needs rather than for preventive maintenance, further reducing the possibility of a major outlay impact.

The preventive maintenance language has helped to create a more level playing field between the highway and transit programs, since highway funds could already be spent on maintenance purposes. Neither the FHWA program's expansion of eligibility to include maintenance nor the recent expansion in FTA's definition of eligible capital activities resulted in a significant change in outlay rates. Based on this evidence we believe that the preventive maintenance language does not lead to a significant change in the transit program's outlay curve. In any case, first-year transit outlays are only about 35 percent of the comparable outlay rate for FHWA programs.

Access to jobs

Last year, APTA's testimony to this Subcommittee stressed that transit is vital to the success of welfare reform. As Secretary Slater has since noted, transit is the "to" in welfare to work. I recently wrote to all 50 state governors to emphasize transit's role in welfare to work and to urge them to make transit's role known to their social services agencies.

Some 94 percent of welfare recipients who must move into the work force do not own cars and must rely on public transit to get to work. The cost of commuting to and from work by transit can be as low as 10 percent of the annual cost to own and operate an automobile. That can make a critical difference in an entry-level worker's budget.

Because most new jobs are in the suburbs, transit operators are working to provide special "reverse commute" and suburb-to-suburb bus, rail and van services to

match center city residents with suburban jobs. Job access in rural areas is another difficult challenge.

APTA has created two task forces to deal with aspects of this issue. The APTA Jobs Task Force will encourage transit systems and businesses to hire welfare recipients. The Access to Jobs Task Force will highlight the positive role that transit can play in making welfare to work a success, and provide a means to share information on successful programs with APTA members and encourage coordination of activities by transportation providers, health and human service agencies, and private firms. The difficulty of the challenge should not be underestimated.

A recent report entitled, "Assessment of the Joblinks Demonstration Projects: Connecting People to the Workplace and Implications for Welfare Reform" concludes that "transportation is a necessary component in the package of services needed to implement welfare-to-work programs." It notes that the effectiveness of transportation solutions depends on: Availability of jobs at shift times that can be served by available drivers and vehicles; Availability of workers who can fill these jobs; and Coordination between transportation providers, human service agencies, and employers.

We are encouraged that the Department of Labor (DOL) Welfare to Work grant program includes transportation as an eligible activity, and that the Department of Health and Human Services (HHS) has programs and block grants for transportation and other needs. To focus on these programs and encourage coordination among the various human service and transportation agencies at the federal, state, and local levels, APTA testified earlier this year before the House Appropriations Committee's Labor, Health and Human Services, and Education Subcommittee.

APTA is encouraging transit agencies to collaborate with other agencies on applications for these grants. While we view this as an opportunity to help meet a critical national need and to expand transit ridership, we also want to dispel any impression that transit agencies already have the resources to provide welfare-to-work services without potentially adverse effects on existing services and customers.

Research programs

APTA continues to be very supportive of all of the research components of the Federal Transit Act. A federal transit research program can foster innovation and technology deployment needed to improve transit service across the nation and keep American suppliers of transit goods and services healthy and vibrant.

One of ISTEA's small but important milestones was the creation of the Transit Cooperative Research Program (TCRP), established as a counterpart to the Highway Cooperative Research Program. We appreciate your Subcommittee's support for TCRP over the years, and we want to emphasize that the transit industry strongly supports TCRP as established by ISTEA. We are concerned, however, that the fiscal year 1998 Act changed the traditional policy of earmarking funds for TCRP. For fiscal year 1998, we understand that FTA is not in a position to fund the program at the fiscal year 1997 level of $8.2 million. To prevent this from happening in fiscal year 1999 and to assure the viability of a program modeled after the successful National Cooperative Highway Research Program, we urge the Subcommittee to designate funds for this program at least at the fiscal year 1997 level.

TCRP is the first national research program to give the transit community a direct role in setting a research agenda. TCRP Reports have addressed the problems of greatest concern to transit agencies, including such critical issues as rural transit planning and service delivery assessment, access to transit for people with disabilities, and a wide range of operational, scheduling, maintenance, and other issues. There is no other source for these studies; they cannot be carried out at the local level. Moreover, they enhance transit service providers' ability to help achieve a wide range of federal objectives.

This investment in research is paying off. Projects to date include software for transit risk managers; a study on low-floor light rail vehicles, which minimized the risks associated with new rail car design; safe operating procedures for alternative fuel vehicles; a facilities and equipment management system; standardized light rail signing for improved safety; reduced visual impact of overhead wire; and transit management information systems. TCRP also funds an international transit studies program, which is invaluable in educating transit managers about innovations and practices in transit systems around the world. And, I might add, lets us tell our story around the world, too. In short, TCRP is a small program with a very big payoff.

Safety

Given the current concern about transportation safety including the phenomenon of "road rage," support for transit is important because all modes of transit are

among the safest forms of transportation in terms of accidents per millions of passenger miles. In fact, "Dollars & Sense" concludes that there are over 190,000 fewer annual deaths, injuries, and accidents than would be the case if people who use transit made the same trips by personal vehicle. It is important to provide individuals with access to safe transit service and to provide transit agencies with the resources to maintain their strong safety record. I am pleased to note that we are sponsoring jointly with the FTA a workshop on fatigue and safety, and we trust that it will lead to increased joint efforts on safety issues.

Metropolitan mobility and economic growth

As mentioned earlier, the release of the "Dollars & Sense" Report by a coalition of transit-supportive organizations including APTA provided additional confirmation of the ways that transit can be an effective tool for economic development.

"Dollars & Sense" finds that American taxpayers receive at least four dollars back from each dollar of public investment in transit. The Report also finds that everyone, not just the transit rider, shares in this positive return. The Report discusses four kinds of economic benefits of transit:

—Mobility benefits come from enabling people to participate more effectively in society as producers, consumers, and citizens. This category alone provided an estimated $33.7 billion in benefits to transit riders according to a 1993 study—more than double the $16.2 billion cost of public expenditures on transit in that year.

—Efficiency benefits reduce the cost and economic impact of vehicle use. As costly as congestion is in terms of lost time and productivity, wasted fuel, and other expenses—more than $50 billion per year and rising—without transit, these costs would be another $19+ billion a year higher. Families in transit-friendly areas can save hundreds of dollars per year by riding transit instead of driving for some trips, and up to $5,000 per year if the availability of transit allows them to get by with one less car than they would otherwise own.

—Economic development benefits result when transit encourages and facilitates new development. "Dollars & Sense" includes many specific examples from around the country.

—Economic productivity benefits result when transit improves national economic productivity. Economist David Alan Aschauer has estimated that increased public investments in infrastructure would lead to increases in the Gross National Product and in private investment.

Sufficient funding for transit promotes efficient use of all transportation dollars by subjecting every proposed project to available alternatives. From fiscal year 1992 through 1997, local officials chose to use about $3.5 billion in flexible federal funding for their communities' transit needs. It is estimated that American businesses will lose $24.5 billion annually over the next 20 years because of traffic congestion. If the federal government fails to invest adequately in transit, gridlock and the corresponding losses in economic productivity will worsen.

Commuter rail

Our study on commuter rail released last year—"Commuter Rail—Serving America's Emerging Suburban/Urban Economy"—quantifies the economic benefits that commuter rail in the U.S. generates, not only in the regions they serve, but also for the nation. Benefits flow to a broad constituency of commuters, taxpayers, businesses, and metropolitan areas. Public funding of commuter rail makes these benefits possible, providing needed capital investment and drawing riders away from more costly forms of transportation. Commuter rail uses these funds in a cost-effective manner: per-passenger-mile operating expenses have remained stable and farebox recovery rates are near 50 percent.

Small town and rural transit

In the nation's small urbanized areas (UZA's)—those with fewer than 200,000 people—and rural counties, transit provides essential mobility and access to jobs, social and health services, church, and stores. An estimated 30 million non-drivers in rural America depend on transit; in some cases its availability allows the elderly to stay in the homes they cherish and out of more expensive nursing homes. A soon to be published report from the Transportation Research Board will show that $3 is returned for every $1 of federal investment in rural transit. APTA supports proposals to increase small UZA and rural transit funding. We believe that all federal assistance to these areas should be available for capital or operating needs, so that transit operators in these communities will have the maximum flexibility to meet local needs. We appreciate the Subcommittee's support for the fiscal year 1998 Act's language on this point, which is similar to provisions in the House and Senate reauthorization proposals.

The Congressional Appropriations Committees have done a commendable job of allocating the funds for these programs, which help meet important large-scale, long-term needs, including bus capital requirements, that are not easily addressed through the formula program. The existing program structure is right for the transit industry and our customers.

CONCLUSION

In closing, we ask that the federal transit appropriations for fiscal year 1999 build on the success of this year's bill by——

—Providing the highest levels of funding possible to meet transit's critical needs as specified in the Senate Budget Resolution;

— Retaining the current act's language on preventive maintenance and flexibility for smaller areas;

—Designating funds for the continuation of the small but useful Transit Cooperative Research Program; and

—Assuring that FTA has adequate funding to carry out the duties that Congress has assigned it.

PREPARED STATEMENT OF SCOTT LANSING, EXECUTIVE DIRECTOR, CHATHAM AREA TRANSIT AUTHORITY

Mr. Chairman and Members of the Subcommittee, on behalf of the Chatham Area Transit Authority (CAT), I appreciate the opportunity to present my statement in the hearing record for Outside Witnesses.

First, I would like to thank the Subcommittee for the funds provided for the past two years for our transit needs. While the House of Representatives provided the full amount ($8,000,000) of CAT's funding needs for the Downtown Transfer Center and Intermodal Circulator, the result through the Conference Agreement was $4,000,000. CAT officials respectfully request that the balance of the needed funding, $4,000,000, be provided in the Fiscal year 1999 Transportation Appropriations Bill.

CAT will begin obligation provided in prior year appropriations for this project before September 30, 1998.

For fiscal year 1999, CAT is requesting $9.8 million for: (1) Completion of funding for the Downtown Transfer Center ($4,000,000); and (2) Desperately needed bus replacement funds ($5.8 million). Each component is discussed below.

DOWNTOWN TRANSFER CENTER

The Downtown Multimodal Center will be located on a 35,000 square foot tract of land near the Civic Center. The facility will also stand at one of the gateways to the historic district, and offer improved service to the community through passenger waiting areas, office space, parking and other features to enhance travel, work and living conditions in the downtown area.

The donation of County owned land will be used as an in-kind cost-share match. The total cost of $11 million lacks the essential $4 million in Federal funding.

CAT requests that the Senate provide the $4 million lost last year. Fiscal year 1999 funding of $4 million is critical for the completion of this project.

BUS REPLACEMENT

Currently half of CAT's bus fleet have accumulated over 500,000 miles per vehicle. This puts these 33 buses at the end of their useful and designed life. The total funding needed to replace these buses is $10 million. CAT is seeking $5.8 million of the total in fiscal year 1999.

Mr. Chairman, thank you for this opportunity to present CAT's needs before your Subcommittee. CAT's Board and I thank you for your efforts on CAT's behalf. We earnestly and sincerely request that you consider carefully CAT's defensible and justifiable request for $9.8 million from the Federal Transit Administration for fiscal year 1999.

PREPARED STATEMENT OF NORMA STANTON, CHAIRMAN, DALLAS AREA RAPID TRANSIT BOARD OF DIRECTORS

INTRODUCTION

My name is Norma Stanton, and I am Chairman of the Dallas Area Rapid Transit (DART) Board of Directors. It is indeed a pleasure to present this written testimony in support of DART's fiscal year 1999 appropriation request of $50 million for the North Central Light Rail Transit (LRT) Extension and $10 million for the replacement of transit buses.

APPROPRIATION REQUEST

I am pleased to submit for consideration, the DART fiscal year 1999 "New Start" discretionary funding request of $50 million and $10 million from the "Bus" discretionary category. The New Start funds will be dedicated to the North Central LRT Extension of the 20-mile DART LRT Starter System (see attached map). The funds will be used for light rail vehicles, real estate and construction. The North Central LRT Extension construction is scheduled to begin in October, 1998.

The 12-mile North Central LRT Extension is a key element of DART's Program of Rail Projects being requested for authorization in the new ISTEA legislation. This $1.18 billion Program of Rail Projects (North Central, Northeast, Northwest, and Southeast Corridors) will be funded with $795 million of local funds and a $383 million federal authorization request. The local funds represent 67 percent of the total project cost. This continues DART's philosophy of providing a substantial local overmatch, as was done on the LRT Starter System.

With respect to the bus request, DART has committed approximately $144 million of Formula and Congestion Mitigation Air Quality funds and $31 million of local match to replace 14–18 year old buses over the next five years. In addition to these resources, DART requests $10 million in funding of current and future orders totaling 633 vehicles, which includes 200 powered by natural gas. The $10 million would fund approximately 35 vehicles.

The table below provides information on previous appropriations and the current request.

FISCAL YEAR 1999 APPROPRIATIONS REQUEST

[In millions of dollars]

	Prior years	Fiscal year 1999 request
North Central Light Rail Transit Extension: Light Rail Vehicles, Construction and Real Estate	27.5	50
Replace 35 Transit Buses	.....	10

MAJOR ACCOMPLISHMENTS

DART operates a 20-mile light rail transit system and a 10-mile commuter line between Dallas and Irving. In addition to the rail services, DART operates a variety of transportation alternatives including high occupancy vehicle lanes (HOV), 130 fixed bus routes, paratransit services for the mobility impaired, rideshare programs and corporate trip-reduction programs.

With the introduction of rail and expanded HOV services, total annual ridership on all DART services rose dramatically from 48.5 million in fiscal year 1996 to 69.9 million in fiscal year 1997. In recognition of these new services and the agency's major accomplishments, the American Public Transit Association has named DART its Transit Agency of the Year.

EXCEEDING EXPECTATIONS

DART's new rail services are generating ridership well beyond initial projections, with more than 35,000 passengers per day. DART rail is generating extensive economic development around stations and along rail corridors as it increases mobility choices for workers. Consequently, business and community leaders are calling for the agency to accelerate its rail expansion commitments. The citizens of North Texas are eager for DART to complete these major transportation projects in a timely fashion.

With your support, DART will be able to further improve the transportation options for North Texas and help the region to remain a vibrant area to live and work.

You may rest assured that we will continue to work diligently to get these projects funded, built within budget and in operation on schedule.

Beginning later this year and through 2003, the North Central and Northeast LRT lines will be under construction. The table below depicts the current status and implementation schedule.

PROGRAM OF RAIL PROJECTS—IMPLEMENTATION SCHEDULE

Line	MIS	PE/EIS or EA	Final design	Start construction	Open for revenue service
North Central	Completed June 1994.	Completed April 1997.	April 1997–Jan. 2000 (Staged).	Oct. 1998 (Staged) ..	2001/2002/2003
Northeast	Completed Nov. 1995.	Completed Dec. 1996 (EA).	Feb. 1997–June 1999 (Staged).	August 1998 (Staged).	2001/2002
Southeast	Feb. 1998–Late 1999.	Late 1999–Mid 2001.	Mid 2001–2004 (Staged).	2003 (Staged)	2005/2008
Northwest	Feb. 1998–Late 1999.	Early 2000–Late 2002.	Late 2002–2005 (Staged).	2004 (Staged)	2006/2007

MILES TO GO

DART's Transit System Plan calls for the development of 58 miles of light rail, 37 miles of commuter rail, and 98 miles of high occupancy vehicle lanes. The fiscal year 1997 Financial Plan projects the sources and uses of funds for DART's projects through the next 20 years. The Financial Plan projects $6.1 billion in locally funded operating expenses and $5.6 billion in capital costs. Federal funding accounts for only 19 percent of capital investments and 9 percent of overall expenditures. This significant local commitment by DART is shown graphically on the next page.

REGIONAL MOBILITY

DART plays a significant role in meeting the challenging regional mobility needs. The Program of Rail Projects is contained in the approved North Central Texas Council of Governments' "Mobility 2020: The Metropolitan Transportation Plan" and is also programmed in the Regional Transportation Improvement Program for Discretionary funding. DART's rail projects relate directly to one of the more important Mobility 2020 Goals: "Develop a balanced, efficient and dependable multimodal transportation system which reduces demand for single occupant vehicle travel."

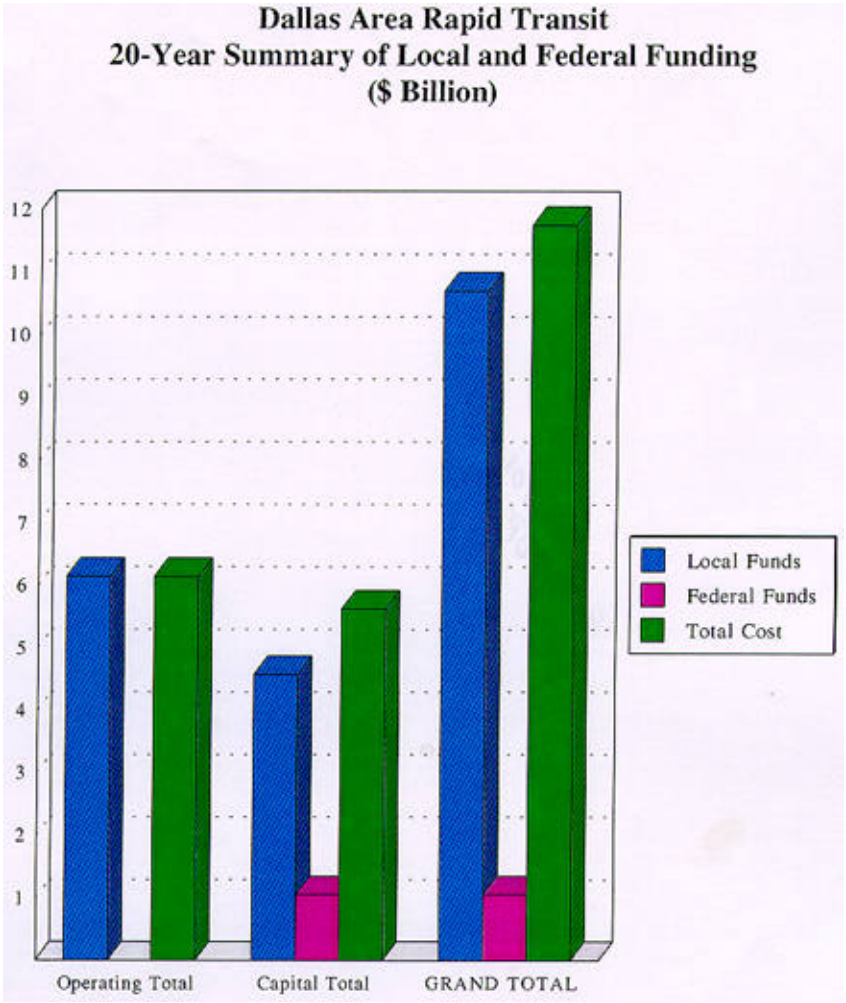
The entire DART rail system is contained in the Mobility 2020 Plan utilizing local and discretionary funds. The Metropolitan Transportation Plan has a $3.0 billion rail system component which complements the $16 billion programmed for regional congestion management and highway improvements.

DART's rail program is an integral part of the regional, multimodal transportation system of light rail, commuter rail, HOV, and roadway improvements. Elements of the LRT Starter System are also a Transportation Control Measure for meeting air quality standards in this ozone non-attainment area.

The North Central Texas Council of Governments estimates in its 2020 Mobility Plan that the North Central light rail transit extension to Plano will carry an additional 35,000 trips per day. If those same 35,000 additional trips were made in single occupant vehicles, three more lanes would be needed during peak periods to have the capacity to handle the additional traffic.

The Dallas-Fort Worth area is growing at a tremendous rate, it is estimated that the region's population will be nearly 5 million people by the year 2000. In fact, in 1996 the region gained an additional 114,00 residents—a population equivalent of two DART member cities—Carrollton and Farmers Branch. This growth has created a greater need for transportation improvements, and DART is planning and operating the needed mobility services.

DART has met the challenge of providing a multimodal system for its customers. Its services include bus, light rail, commuter rail, paratransit, and HOV lanes. The citizens have in turn responded by not only riding the system but by supporting DART's efforts at the polls and through continued support as demonstrated by more than 20 resolutions passed by member city Councils and chambers.

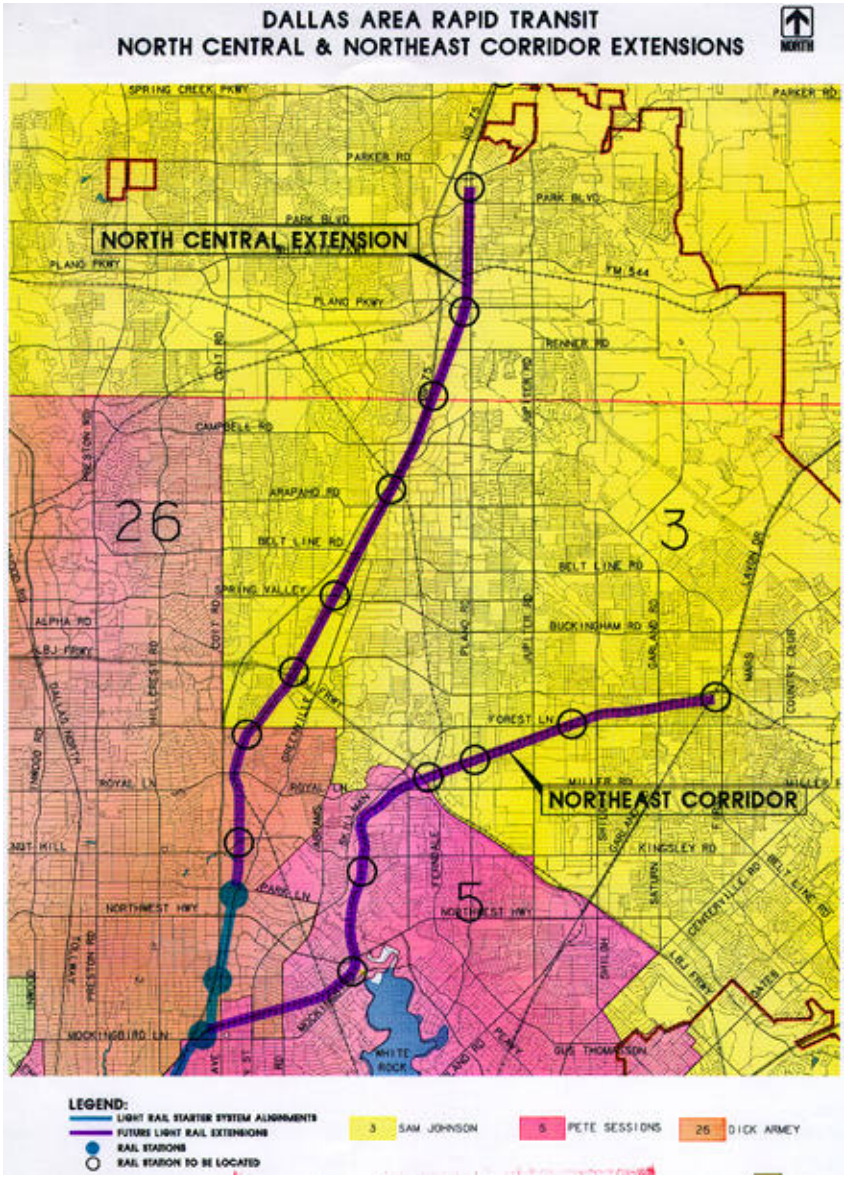


CONCLUSION

The citizens of the DART Service Area have chosen to invest a substantial amount of their sales tax to implement the Transit System Plan. The funding requests made here are realistic and have been taken from the Board-approved DART Financial Plan, which has also been examined by many of the finance directors of DART's member cities.

Costs are based on a specific future schedule of project implementation, as was done on the Light Rail Transit Starter System. DART has shown that it can capably manage a large, multi-million dollar project, keep it on schedule and within budget. Any delay in funding will lengthen the project and eventually increase costs to the taxpayers.

We urge your endorsement of DART's fiscal year 1999 funding request totaling $60 million, in order to keep the momentum we have collectively gained. DART is planning, building, and operating transportation services now for the future mobility of the region.



PREPARED STATEMENT OF JULIE M. AUSTIN, EXECUTIVE DIRECTOR, FOOTHILL TRANSIT, WEST COVINA, CA

Mr. Chairman, members of the Subcommittee, my name is Julie Austin, and I am the Executive Director of Foothill Transit (Foothill) in West Covina, California.

Thank you very much for the opportunity to submit testimony to this subcommittee. Foothill's funding request for $2.5 million in Section 3 bus capital discretionary funding for the construction of our second bus facility in the western end of California's San Gabriel Valley will enable us to complete both of our required bus operations and maintenance facilities in a cost-efficient manner. Mr. Chairman, I recog-

nize the difficult tasks before this Subcommittee and commend your leadership in determining the allocation of available transportation resources during this critical congressional budget period. We are very appreciative of the support provided to Foothill by this committee over the past three years. Should the committee give favorable consideration to our request for fiscal year 1999, we want to assure you that we are ready to obligate the funds immediately and quickly complete this project.

With the $23.5 million in Section 3 discretionary funding approved over the past three years, we were able to complete our first facility in Pomona within a fast-track nine-month construction schedule, and it was completed within budget. In fact, FTA's Administrator for Region IX, Leslie Rogers, spoke at the facility's dedication ceremonies and commented that Foothill was true to their word—the federal money was used to construct our Pomona facility within the promised nine-month, fast-track schedule, and it was completed within budget. The federal investment in this project is expected to result in cost savings of $80 million over the life of these two facilities.

Foothill Transit started as an experiment and has evolved into a national model for public/private partnerships, providing cost effective, high quality transit service. This request for bus capital discretionary funds is a unique and excellent example of how to put the public/private concept into practice. We believe you will agree from the audited information attached that Foothill is one of the best investments of taxpayer dollars in these times of limited funds.

Foothill has established a reputation of providing outstanding customer service. In five separate customer surveys, Foothill Transit drivers have consistently received ratings above average or greater by more than 80 percent of our customers. Customers also rate Foothill Transit buses very highly on their cleanliness, comfort and graffiti-free appearance.

HISTORY

The Foothill Transit Zone was created in 1987 as a public/private partnership. It is governed by an elected board comprised of mayors and councilmembers representing the 21 cities and appointees from the County of Los Angeles who are members of a Joint Exercise of Powers Authority. It provides public transit services over a 327 square-mile service area. Foothill Transit was initially established as a three-year experiment to operate 20 bus lines at least 25 percent cheaper than the Southern California Rapid Transit District (now MTA), with those savings to be passed on to the community through more service and/or lower fares. A three-year evaluation conducted by Ernst & Young showed that Foothill's public/private arrangement resulted in cost savings of 43 percent per revenue hour over the previous provider. Foothill has established itself as a success despite various court challenges. Providing top quality, cost-effective service to its customers, Foothill charged only 85 cents as a base fare until July 1, 1997—the same fare charged by the RTD in 1986. The fare schedule was restructured in 1997 to raise the base fare by a nickel, reduce the complicated zone structure, and actually reduce fares for Metrocard users. Rather than discouraging customers, this restructuring resulted in a 10 percent increase in ridership during the first six months of implementation. Forty percent of Foothill's operating costs are covered by farebox revenues (state law only requires a 20 percent ratio of fare revenues to operating costs).

Foothill has no employees. All management and operation of Foothill Transit service is provided through competitive procurement practices. The Foothill Executive Board has retained my employer, Forsythe & Associates, Inc., to provide the day-to-day management and administration of the agency. The management contractor oversees the maintenance and operation contractors to ensure adherence to Foothill Transit's strict quality standards.

Using this new approach to delivering transit services, Foothill Transit has been able to:

—Keep operating costs low while putting 68 percent more buses on the street;
—Increase revenue generated from the farebox by 74 percent;
—Increase service hours by 89 percent; and
—Increase ridership by 61 percent.

Foothill Transit uses NO federal operating assistance. All operating funds were provided through bus fares and local sales tax until July 1, 1996, when Foothill Transit finally became eligible for state operating subsidies allocated to other transit operators. Proposition A and Proposition C are each a one half cent sales tax levied in Los Angeles County to support public transit. When the Foothill "experiment" began, no capital funds were made available to purchase buses. Therefore, buses were financed using innovative long-term financing over the 12-year life of the vehicles. Until recently, Foothill has paid for all of its buses out of its operating funds.

Since fiscal year 1989, Foothill Transit has paid over $26.7 million in bus lease payments out of local operating dollars. Foothill did not receive any Section 9 capital funds to pay a portion of its annual bus lease payments until fiscal year 1995.

WHY THIS BUS CAPITAL REQUEST?

An independent Facility Feasibility Analysis completed in 1995 indicated that, if the requested funding is provided, Foothill Transit can achieve over $80 million in savings over the life of the two facilities. This savings will be used to implement Foothill Transit's Strategic Master Plan, which calls for a 50 percent increase in service, and the development of eight timed transfer centers to ease transit connections for our customers. Foothill is also working on redesigning its bus stops to make them more attractive for the customer, the community, and to provide an economic stimulus in our communities.

Although we have completed our first facility in Pomona, Foothill's El Monte bus facility is a leased facility provided by our contractors. This facility is not optimally sized for either the current and projected fleet. Ownership of a new facility with sufficient capacity will encourage competition and allow smaller contractors to provide service under contract to Foothill Transit.

Approval of this federal Section 3 bus capital appropriation for construction of Foothill's second bus facility will have the following impacts:

—Properly located facilities reduce deadhead mileage, maximize vehicle life, and provide significant operating savings;

—Facilities owned by Foothill Transit eliminate the recurring costs with each renewal of the service contract for leasehold improvements, depreciation, and the purchase of major equipment that has a life cycle greater than the 3-year life of the service contract;

—Facilities provided by Foothill also provides a more level playing field for operating contractors, thereby stimulating greater competition and achieving additional savings;

—Ownership provides the agency the opportunity to construct an alternative fueling facility on the site, reducing emissions in a region that ranks as one of the worst areas for air quality in the country;

—Facility ownership enhances the ability of the agency to ensure continued operation of its service should a contractor default; and

—Proper placement of facilities is secured in the rapidly developing San Gabriel Valley (the fastest growing region in Los Angeles County).

CONCLUSION

Mr. Chairman, Foothill Transit has a ready-to-go project and can immediately obligate these funds. Foothill Transit has:

—Initiated an environmental study;

—Awarded contracts for architectural and construction management services;

—Obtained a short-term loan from the Metropolitan Transportation Authority to allow us to acquire a site; and

—Identified a proposed site for the second facility.

Appropriation of funds for this innovative project will allow Foothill Transit to meet its commitment to our customers as outlined in our Strategic Master Plan. Also, service will continue to be expanded and enhanced to meet the demand for increased mobility throughout the rapidly growing San Gabriel and Pomona Valleys.

These funds will provide a significant contribution to continue the national model that has already been established to maximize the use of public funds.

Mr. Chairman, that concludes my statement. Please note the attached charts and tables that illustrate Foothill Transit's success. Thank you for this opportunity and your consideration of our request. Please feel free to contact me if we can be of any assistance.

FOOTHILL TRANSIT

	Actual change			RTD and MTA performance indicators—RTD/MTA total system performance			If RTD had kept the Foothill lines			Foothill transit advantage—Foothill compared to MTA		
	RTD in 1986	Foothill in 1997	Percent change	RTD system in 1986 [1]	MTA system in 1997	System percent change	RTD in 1986	RTD/MTA percent change	Best case MTA in 1997	Best case MTA in 1996	Foothill in 1997	Foothill advantage
COMPARATIVE REPORT CARD												
Vehicle service hours	285,859	539,044	88.6	6,864,141	5,916,159	(13.8)	285,859	(13.8)	246.410	246,410	539.044	118.8
Boardings	9,453,027	15,249,854	61.3	445,222,973	342,702,821	(23.0)	9,453,027	(23.0)	7,278,831	7,278,831	15,249,854	109.5
Operating cost	$24,177,583	$29,976,494	24.0	$460,222,417	$598,343,775	30.0	$24,177,583	30.0	$31,430,858	$31,430,858	$29,976,494	(4.6)
Farebox revenue	$6,853,411	$11,895,660	73.6	$189,146,589	$207,610,383	9.8	$6,853,411	9.8	$7,525,045	$7,525,045	$11,895,660	58.1
Subsidy required	$17,324,172	$18,080,834	4.4	$271,075,828	$390,733,392	44.1	$17,324,172	38.0	$23,905,813	$23,905,813	$18,080,834	(24.4)
Peak buses	127	213	67.7	1,873	1,606	(14.3)	127	(14.3)	109	109	213	95.7

	Actual change			RTD and MTA performance indicators—RTD/MTA total system performance			If RTD had kept the Foothill lines			Foothill transit advantage—Foothill compared to MTA		
	RTD in 1986	Foothill in 1997	Percent change	RTD system in 1986 [1]	MTA system in 1996	System percent change	RTD in 1986	RTD/MTA percent change	Best case MTA in 1997	Best case MTA in 1997	Foothill in 1997	Foothill advantage
FOOTHILL ADVANTAGE												
Cost/boarding	$2.56	$1.97	(23.1)	$1.03	$1.75	68.9	$2.56	68.9	$4.32	$4.32	$1.97	(54.5)
Revenue/boarding	$.72	$.78	7.6	$.42	$.61	42.6	$.72	42.6	$1.03	$1.03	$.78	(24.5)
Subsidy/boarding	$1.83	$1.19	(35.3)	$.61	$1.14	87.3	$1.83	87.3	$3.28	$3.28	$1.19	(63.9)
Farebox ratio (percent)	28.3	39.7	40.0	41.1	34.7	(15.6)	28.3	(15.6)	23.9	23.9	39.7	65.8
Boardings/hour	33.1	28.3	(14.4)	64.9	57.9	(10.7)	33.1	(10.7)	29.5	29.5	28.3	(4.2)
Cost/hour	$84.58	$55.61	(34.3)	$67.05	$101.14	50.8	$84.58	50.8	$127.55	$127.55	$55.61	(56.4)
Subsidy/hour	$60.60	$33.54	(44.7)	$39.49	$66.95	67.2	$60.60	67.2	$97.02	$97.02	$33.54	(65.4)

[1] Excludes Foothill lines, for fair comparison.

Note: Applying the MTA system data to the lines Foothill Transit acquired provides the Best Case operation of these lines by the MTA. This assumes continued operation of the six lines which RTD announced it would drop, and that these lines would have performed the same as all other RTD/MTA lines.

Source: MTA TPM form for fiscal year 1996 (excluding TSE/BDOF).

PREPARED STATEMENT OF PERRY J. MAULL, TRANSIT DIRECTOR, CITY OF GAINESVILLE, FL, REGIONAL TRANSIT SYSTEM

I would like to thank Chairman Shelby and the Members of the Transportation Appropriations Subcommittee for the opportunity to appear before you to request an earmark of bus discretionary funds in the amount of $8,750,000 to fund the acquisition of 25 new low-floor buses and related equipment. These buses will enable the City of Gainesville, in cooperation with our partners, Alachua County, the Florida Department of Transportation, and the University of Florida, to dramatically enhance bus service to the University of Florida campus.

I realize your time is very limited, but I would like to highlight why Gainesville needs this extraordinary allocation of discretionary capital funds for acquisition of 25 expansion buses.

In December, 1996, the University of Florida's Presidential Task Force on Transportation and Parking made its recommendations for a major change in how students, faculty, and staff commuted to campus. In the past, the 42,000 students and another 16,000 faculty and staff have relied on their personal automobiles to get to campus. Parking has been relatively plentiful and cheap. However, as the University of Florida grows to some 60,000 students and a significant increase in faculty and staff to support those students. The Presidential Task Force recommended that parking availability be constrained and that parking price be increased in the future. To enable a policy of limited parking and increasing its cost to work a major expansion of public transit service to the University of Florida campus. The Presidential Task Force recommended that transit routes serving the campus be enhanced with 10 minute service, requiring the addition of some 25 buses on six different routes.

In March, 1997, the students at the University of Florida authorized by referendum that up to a $1.00 per credit hour fee be imposed on themselves for support of public transit services. In return for all 42,000 students paying this fee, each student would have unlimited access to the City of Gainesville's Regional Transit System. A student public transit fee will be implemented for the Fall Semester of 1998. The Florida Department of Transportation has pledged to match these student fees with service demonstration funds over the next two years.

Working with our partners, we have already been able to implement enhanced bus service, utilizing surplus buses acquired from other Florida transit systems. More buses will be added this fall when the student fee allows all students access to the bus system by merely showing their student ID's. Ridership is up dramatically over last year. In fact, on Wednesday, January 14, 1998, we had a record-breaking daily passenger boarding of 17,549. Never before has RTS carried as many passengers as on that day. Average daily ridership is up some 4,000 per day, and this is before the students have unlimited access to the bus service.

Your allocation of bus discretionary capital funds to Gainesville will be helping an experiment, already underway and showing much early promise, to enhance to quality of life for our community and to show the State of Florida, and the nation, that public transit can play an integral part in the transportation system.

Thank you.

PREPARED STATEMENT OF FATHER WILLIAM L. GEORGE, S.J., FATHER T. BYRON COLLINS, S.J., SPECIAL ASSISTANTS TO THE PRESIDENT, GEORGETOWN UNIVERSITY AND REV. LEO J. O'DONOVAN, S.J.

Mr. Chairman and Members of the Committee: We are Father William L. George, S.J., and Father T. Byron Collins, S.J., Special Assistants to the President of Georgetown University, the Reverend Leo J. O'Donovan, S.J. We appreciate this opportunity to submit this testimony to the Subcommittee on the 40-Foot, Fuel Cell Powered Transit Bus Commercialization Program.

The Federal Transit Administration continues to support the Fuel Cell Transit Bus Commercialization Program within its existing Research and Development budget. Support provided by this subcommittee, coupled with the money supplied by the Department of Defense, has kept the U.S. in the forefront in bringing transportation Fuel Cells to the marketplace. These efforts have produced this nation's only viable electric vehicles powered by Fuel Cell power. We would like to thank the Committee for their continuing support of the Fuel Cell bus program as a means to a cleaner environment and as a way to reduce this country's dependence on petroleum fuels.

In fiscal year 1999, we identify a requirement of $12.0 million to facilitate the transition of technology from test vehicles to actual transit operations which is so necessary to complete the commercialization process. This level of funding accommo-

dates the development of two additional Fuel Cells from the competing domestic vendors, fabrication of the electric drive trains, and purchase and integration of the next two Fuel Cell buses. To truly effect a transition to operations, it is imperative that these Fuel Cell buses be placed in the hands of operators. Only in this manner can we obtain widespread user and rider acceptance to spur the demand for this safe, clean technology. The Administration's request of $4.0 million for this program is not sufficient to do even a minimally successful program.

Although transit buses emit only a small fraction of the pollutants in the world, success in this application will accelerate the introduction of Fuel Cells for trucks, automobiles and military vehicles. This is the big environmental payoff for Fuel Cell technology. The Fuel Cell Bus Commercialization Program can be the catalyst to accelerate the introduction of Fuel Cell powered cars. We don't have to wait ten years to see Fuel Cell vehicles on the road, the transit buses can go into commercial use in the heart of our largest cities within the next three years.

Great progress has been made to date. The world's first operational transit bus Fuel Cell power plant capable of running on a liquid fuel has been built and tested. The bus and electric drive train are complete; the parts are coming together now into a complete electric vehicle fully responsive to the industry's needs. This bus will be on display at the American Public Transit Association trade show in Phoenix this May.

Georgetown has consistently stressed liquid fuel as the only energy source that can provide the range and refueling convenience necessary for Fuel Cell bus commercialization in the foreseeable future. Others are now following our lead. This first, commercially-viable Fuel Cell bus will be a true showcase of the practical application of this exciting technology. Design of a second type of Fuel Cell has also been complete and the first unit should be ready to go into a bus by the end of this year.

These significant achievements resulted from the efforts of a nationwide team of industry experts. Georgetown University administers these activities drawing upon fourteen years experience with Fuel Cell buses. However, the hardware is developed across the country. The Fuel Cells are produced in Connecticut and California, the electric drive train is made in New York, the bus is fabricated and integrated in New Mexico, and system integration is led from McLean, Virginia. Other components are made throughout the nation. The goal of the FTA Grant is to make industry ready to commercialize the technology. Georgetown has built the team to make that happen.

We could have accomplished more. Fiscal year 1998 funds were less than half of what was requested. Priorities had to be established which slowed progress. A second Fuel Cell bus will have to await future funding and other efforts to reach commercial success have been postponed. The world is not waiting. Fuel Cell technology was little known outside of the space community when we first came to you to initiate the program. Your foresight has stimulated a world-wide effort to capitalize on the potential of Fuel Cells for automotive applications. Europe and Japan are pouring major resources to bring the technology to the marketplace. Fuel Cell powered automobiles are projected to be available within six years. The first vehicles my be of Japanese or German origin. This nation had a clear lead in the technology just a few years ago; we can not allow it to wane. The FTA program is the only U.S. funded effort that can produce operating vehicles in the near term. These Fuel Cell buses will spur the introduction of automotive Fuel Cells.

Georgetown is confident that the technology is truly ready for commercialization. However, it is not feasible to commercialize a product with only one of each type of vehicle. We must transition the technology to operations. This is achieved be getting transit buses into the hands of the operators to permit them to experience the advantages of the technology and identify any necessary improvements. Multiple vehicles are absolutely essential to prove technology readiness. The program that we recommend will help assure U.S. Fuel Cell technology leadership. We prayerfully ask for your continuing assistance to put this vital technology into the hands of the American people.

PREPARED STATEMENT OF COMMISSIONER PETER MCLAUGHLIN, VICE CHAIR, HENNEPIN COUNTY REGIONAL RAILROAD AUTHORITY, MINNEAPOLIS, MN, AND CHAIR, TWIN CITIES METROPOLITAN LRT JOINT POWERS BOARD

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to present our views to the Subcommittee. I would ask that this testimony be made a part of the official record regarding the fiscal year 1999 federal appropriations request for the U.S. Department of Transportation.

This request is for the next increment of funding for fiscal year 1999 for the Twin Cities Transitways proposal which centers around the Hiawatha Avenue Transitway. This request stems from a year of hard work, intense discussion, growing excitement and a long-awaited commitment by the State Legislature and the Governor to provide the local match required to advance this project. The Twin Cities Transitways proposal includes the Hiawatha, Riverview and Northstar Corridors. This program of projects ties the region together by connecting the major economic centers through the development of an integrated transportation system.

The funding we are requesting for fiscal year 1999 is as follows:

—1. Hiawatha Avenue Corridor from downtown Minneapolis to the Minneapolis-St. Paul International Airport (MSP) and the Mall of America;

—2. Riverview Transit Corridor from the eastside of St. Paul to MSP and the Mall of America; and

—3. Northstar Transitway Commuter Rail/Corridor from downtown Minneapolis through Anoka County and on to St. Cloud, Minnesota.

Please see the attached map as a reference.

OBJECTIVES

The Twin Cities metropolitan area population is now 2.6 million. It is the 15th largest metropolitan area and one of a very few that depends upon an all bus transit system. Until recently, the Twin Cities have managed to escape the problems of the larger older urban areas. Now, however, we are seeing the adverse effects of congestion, dispersal of manufacturing jobs to suburban locations and declining neighborhoods.

Congestion levels in the Twin Cities are increasing dramatically and are affecting the mobility of its residents. The number of trips on the regional transportation system is increasing by four percent per year. Auto occupancy rates have fallen to 1.12 persons per vehicle, the lowest level since record keeping began. Consequently, the number of miles of congested freeways has tripled in the last decade and congestion is expected to increase another 35 percent by the year 2000. At the same time, transit use over the past ten years, as in most other cities with all bus fleets, has fallen dramatically.

The Twin Cities cannot afford to build its way out of congestion. Adding roadway capacity to accommodate additional single-occupant vehicle trips results in an escalating spiral of vehicular demand, feeding into the very problem it tries to solve. Increased traffic results in additional pollution, including vehicle emissions, adding to mitigation and clean-up costs. Increased travel time results in lowered productivity in the delivery of goods and services. Land use issues are magnified, as the demand for public systems, including transportation, water and sewer and other utilities spread to areas farther out, draining resources from more densely developed areas where they are more cost effective to provide.

UNITY AT STATE AND LOCAL LEVEL

For the first time in history, there is broad State and local support of the Twin Cities Transitway Project. This show of unity has been translated into a State capital commitment approved by the 1998 State Legislature and signed by Governor Arne Carlson of:

—$40 million to match federal funds for preliminary engineering, final design and construction of LRT in the Hiawatha Avenue corridor,

—$3 million for a major investment study, engineering, preliminary engineering and implementation in the Riverview corridor, and

—$1,500,000 for a major investment, study engineering and implementation in the Northstar corridor.

This is a significant step forward in identifying the State/Local match for the project. As we testified last year, we plan to move forward with a significant State-local overmatch of nearly 50 percent for the construction phase of this project, instead of the minimum requirement of 20 percent.

It is important to note that this state financial commitment results from a strong consensus that has grown steadily over the last year. The consensus is that we must enhance our investment in transit to allow our regional transportation system to continue to function effectively.

HIAWATHA

The Hiawatha Avenue Transitway Corridor is the Twin Cities region's highest priority corridor for a transit improvement. This corridor serves three of the largest economic and job centers in the region. Downtown Minneapolis currently provides

140,000 jobs; Airport, 18,000 jobs; and Airport South-Mall of America about 21,000 jobs. An improved transit system will enable thousands of job seekers to gain access to these very important job centers.

A Final Environmental Impact Statement approved by federal highway and transit agencies selected Light Rail Transit (LRT) as the preferred transit alternative for this corridor. Consequently, nearly all of the right of way required for a transit improvement has been preserved by Hennepin County and MN/DOT. This federal request and the 1998 State funding for transitway implementation is based upon LRT technology as the preferred option.

During fiscal year 1998, the Hiawatha Corridor was allocated $10.5 million in federal funds and those funds are being used to begin construction of the Transitway from downtown Minneapolis to 46th Street.

In fiscal year 1999, we would request a dedicated amount of $29 million for this Corridor from the Section 5309 New Rail Start Capital funding category of the Federal Transit Act. These funds would be matched by $10 million from the State and $7 million from Local sources, resulting in a State/local overmatch of 37 percent. These funds will be utilized to complete preliminary engineering, final design and continue construction of the Transitway for the entire corridor between downtown Minneapolis and Bloomington. This schedule, of course, would necessitate the timely approval of each phase of the project by the Federal Transit Administration (FTA).

RIVERVIEW

The Riverview Corridor is a 9.5-mile corridor centered around T.H. 5 (Shepard Road)/West Seventh Street connecting the Hiawatha Avenue Transitway Corridor (Airport—Mall of America) to downtown St. Paul. The Riverview Corridor provides many of the same opportunities as the Hiawatha Corridor. Downtown St. Paul is clearly one of the major economic centers of the region with about 68,000 jobs. The Corridor between downtown and the airport connection to Hiawatha is primed for redevelopment. Improved transit in this corridor provides tremendous opportunities to open up the job markets within the Corridor as well as the opportunity to connect job seekers in St. Paul with the job markets at the airport and Mall of America.

In fiscal Year 1998, a Major Investment Study (MIS) will be started that will include alternative alignments and modes. There is also a focus on economic development and transit-orientated development throughout the Corridor. The Request for Proposals (RFP) for the MIS has been issued with responses due in April, 1998.

For Fiscal year 1999, we would request a dedicated amount of $5 million for this Corridor from the Section 5309 New Rail Start Capital funding category of the Federal Transit Act. With a total project cost of $6.25 million, the State/local match would be $1.25 million or a 20 percent match. The funds will be used to complete the MIS, conduct engineering as appropriate and begin implementation of selected transit improvements within the Corridor.

NORTHSTAR

The Northstar Corridor is a 60-mile transportation corridor linking the City of Minneapolis, Anoka and Sherburne Counties, and the City of St. Cloud, Minnesota. The Northstar Corridor includes the Burlington Northern/Santa Fe Railroad mainline. The Northstar Corridor is the fastest growing area in Minnesota and one of the fastest growing corridors in the nation. The Northstar Corridor is the primary transportation route for automobile, truck, and rail travel. As the area grows, each of these modes will continue to suffer from increasing congestion and declining safety. This Corridor connection with Hiawatha in downtown Minneapolis will complete a north/south area link between St. Cloud and the northern metropolitan area to downtown Minneapolis and onto the airport and the Mall of America. This Corridor has also been designated by the Metropolitan Council as a high priority corridor. In the last year, the Northstar Corridor was ranked by the Minnesota Department of Transportation as the highest potential corridor for the development of commuter rail in the Twin Cities metropolitan area.

In fiscal year 1998, the Corridor received an allocation of $350,000. With those funds the Corridor started a Major Investment Study (MIS), including alternative alignments and modes with a principal focus on evaluation of commuter rail alternatives between downtown Minneapolis through Anoka and Sherburne Counties to St. Cloud. Responses to the RFP for the MIS have been received with contract work to begin on May 1, 1998. Work for this phase is scheduled to be completed in December 1998.

For fiscal year 1999, we request a dedicated amount of $6 million for this Corridor from the Section 5309 New Rail Start Capital funding category of the Federal Transit Act. With a total project cost this year of $7.5 million, the State/local match

would be $1.5 million or a 20 percent match. These funds would be used to continue the MIS, conduct engineering and environmental work as appropriate. There will also be an effort to begin implementation of selected transit improvements within the Corridor.

SUMMARY OF REQUEST FOR FEDERAL FUNDS

Therefore, we are requesting the designation of $40 million of federal Section 5309 New Rail Start Capital funds for fiscal year 1999 as follows:

[Dollars in millions]

Corridor	Federal funds	State/local	
		Amount	Percent
Hiawatha	$29	$17.00	37
Riverview	5	1.25	20
Northstar	6	1.50	20
Total	40	19.75	33

Mr. Chairman, we have tried to present a conservative request based upon funding levels that we believe can be obligated or expended in the next fiscal year. It is important to maintain the revenue stream in order to insure that the project proceeds without interruption. As we all know, delays in construction could mean significant increases in costs.

CONCLUSION

Mr. Chairman, I am presenting this testimony to you today representing the seven counties of the Twin Cities metropolitan area. These projects have the full support of those counties, the Metropolitan Council and the Minnesota Department of Transportation. The mayors and councils of the cities of Minneapolis and St. Paul also support this program of projects.

The Twin Cities region is in full agreement and committed to a transitway in the Hiawatha Corridor, planning and phased implementation of the Riverview Corridor and continued support for the Northstar Corridor to Anoka County and on to St. Cloud. The Metropolitan Council has endorsed the project as the region's highest transit priority. The Minnesota Department of Transportation will be the recipient of any federal funds.

We are all in agreement and want to move ahead with this important transit proposal. We thank you your assistance last year and we ask that you help us continue our partnership in bringing Transitways to the Twin Cities region.

Thank you for your consideration of this request.

PREPARED STATEMENT OF THE INDIANAPOLIS NORTHEAST CORRIDOR PROJECT

Mr. Chairman and Members of the Subcommittee, while we are not requesting any funding for fiscal year 1999, we are pleased to report that in our area of the Heartland the momentum continues to build for mass transit solutions to the traffic congestion that plagues the Indianapolis Northeast Corridor. We would like to thank this Committee for providing the catalyst for this momentum in the form of a fiscal year 1998 appropriation of $1.25 million toward the Major Investment Study (MIS). We are pleased to report we have been able to achieve a 30 percent local funding match, greater than the required 80–20 match for New Starts. With the local funding share agreements totaling $500,000 in place, the MIS is underway with the consultant selection process completed and orientation meetings scheduled. In addition to this local and state match, there are also some exciting developments in the private sector, which will enhance the viability of this project and which we detail below.

We are aware that local match is important to the Committee in determining the allocation of federal resources, and we are pleased to report that our 30 percent local share is being split as follows:

	Amount	Percent
State of Indiana	$250,000	50.0
City of Indianapolis	125,000	25.0
Hamilton County	31,250	6.25
City of Carmel	31,250	6.25
City of Noblesville	31,250	6.25
Town of Fishers	31,250	6.25

Indianapolis Mayor Stephen Goldsmith and State Senator Luke Kenley of Noblesville have been selected as Co-Chairmen of the Executive Committee overseeing the MIS process. Cooperation among the State of Indiana, the City of Indianapolis and the suburban areas of the Northeast Corridor has been good. We have also added the Beech Grove Amtrak Maintenance Center to the study area as a possible site for a light rail yard and shops.

Additionally, three other developments are of significant interest to this project.

(1) To date 17 communities or counties in the Indianapolis metropolitan area have adopted resolutions supporting the creation of a regional transit authority.

(2) The Lilly Endowment, a private philanthropic foundation, is sponsoring a $500,000.00 Vision Planning process to develop community consensus and public support for mass transit solutions to transportation congestion problems in the nine county region. This process will include over 50 public information meetings and provide for large quantities of support materials (videotapes, brochures, etc.) to distribute to the public during the process. This effort will supplement the MIS process and help develop public consensus for the local elected officials. Lilly Endowment's support is a great benefit in the Indianapolis region.

(3) Last week, a group of downtown Indianapolis business and governmental leaders revealed plans to move forward with the possible construction of a light rail/trolley system that would link major downtown destinations through a two-mile loop system. A feasibility study is currently underway and the project would be funded by local public and private funds. The estimated cost is $30–40 million dollars.

Such a system could eventually become Phase I of an overall light rail system serving the Northeast Corridor if that is the recommendation of the MIS executive committee. It would also help reduce the amount of federal funds that might be requested on behalf of the Northeast Corridor project.

In summary, significant steps are being taken in the region to provide a solution to the Northeast Corridor congestion problem. Preliminary recommendations from the MIS process should be available early in 1999 and will be forwarded to Congress and the Federal Transit Administration.

PREPARED STATEMENT OF SUPERVISOR YVONNE BRATHWAITE BURKE, COUNTY OF LOS ANGELES, FIRST VICE CHAIR, BOARD OF DIRECTORS, LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY (MTA)

Mr. Chairman and Members of the Committee, on behalf of the Los Angeles County Metropolitan Transportation Authority (MTA), Board of Directors, I thank you for the opportunity to submit testimony supporting the region's transportation network which is key to the future of Los Angeles County's livable communities and economic growth. As the Vice Chair of the MTA Board of Directors and a member of the Los Angeles County Board of Supervisors, I am pleased to request fiscal year 1999 Appropriations funding for the MTA's regional transportation projects and programs.

The County of Los Angeles is populated with over 9 million people, which is equivalent to the ninth largest state in the nation. The economic vitality of the region, state, and nation depends on an efficient and reliable transportation system that supports our economy and communities. The Federal Government's investment in the region's transportation network helps drive our economy and infrastructure.

Southern California is home to one of the nation's busiest trade areas. The County of Los Angeles contains two of the nation's most successful ports, Long Beach and Los Angeles. Additionally, the Los Angeles International Airport (LAX) is located within the County's boundaries. We look forward to the completion of the Alameda Corridor project which will dramatically increase the County's ability to move goods and people efficiently and economically.

Our fiscal year 1999 Appropriations funding request, which is before you today, will allow us to progress towards accelerating our bus replacement schedule and

allow us to continue to construct the MOS–3 North Hollywood Extension of our Metro Rail Red Line Project. The request of $25 million of Section 5309 Discretionary Bus Capital funds and $100 million of Section 5309 Discretionary Fixed Guideway/New Starts funding for our North Hollywood Extension will enable us to further improve our Metro Bus services and extend our Metro Rail system.

NEW MANAGEMENT TEAM

In 1997, the MTA Board brought in a new Chief Executive Officer (CEO), Julian Burke, whose top priority was to put the MTA's financial house in order. In December 1997, the MTA's new management team led by Mr. Burke presented to our Board of Directors a re-forecasted fiscal year 1997–98 Capital and Operating budget which achieved operating efficiencies, management and service changes.

At a January 14, 1998 Special MTA Board of Directors Meeting, the CEO recommended and the MTA Board reaffirmed the completion of the MOS–3 North Hollywood Extension. With this action, the MOS–2 project to Hollywood and the MOS–3 North Hollywood Extension are now the only rail projects that the MTA will proceed with construction until the MTA can determine the ability and timing of financing our other planned rail projects. In addition, the MTA will support and engage in an ongoing effort to preserve all funding, especially federal funding, authorized and programmed for these other rail projects.

I am confident that the new management team headed by CEO Julian Burke will continue to work towards rebuilding the agency's credibility. I also am confident that they will be able to do this while supporting and advancing the MTA's regional transportation mission.

FISCAL YEAR 1999 APPROPRIATIONS REQUEST

The MTA's request for $25 million of Section 5309 Discretionary Bus Capital funds will assist us with our efforts to accelerate our bus replacement schedule and address the Federal Consent Decree requirements for improved regional bus service. The $100 million in Section 5309 Discretionary Fixed Guideway/New Starts funds for fiscal year 1999 is consistent with the Administration's fiscal year 1999 request of $100 million. The fiscal year 1999 Appropriations request will help us to continue constructing the Metro Rail Red Line Project to North Hollywood by its current Revenue Operations Date (ROD) of December 2000.

METRO BUS SERVICE

Los Angeles area commuters travel smart by using the MTA's Metro Buses. The Metro Bus system is one of the largest bus systems in the nation. The regional service covers 1,443 square miles of revenue service daily. Metro Bus daily boardings total over 1 million annually on 180 bus routes. Our system has more than 18,500 Metro Bus stops in the service area.

The MTA has progressed in expanding peak-hour service by increasing the Metro Bus active fleet. In 1997, the MTA increased service by adding 106 peak vehicles. The MTA has expanded peak-hour service on heavily used lines, has adjusted schedules, and continues to improve equipment reliability and availability. Recent ridership surveys show that overcrowding has been reduced to 15 standees or fewer during rush hours on the most heavily used lines. We have added a new pilot program using 66 additional peak vehicles on routes designed to improve access to employment and educational opportunities as well as medical facilities particularly for transit-dependent residents.

Also within the last year, the MTA Board approved the replacement of the current fleet of 2,400 buses by the year 2010. Additionally, the Board's plan ensures that by the year 2010, all of our vehicles will use clean fuels.

CLEAN-FUEL VEHICLES

The MTA Board has made the use of clean-fuel vehicles one of its priorities. The MTA leads the nation in developing alternatively fueled clean transit vehicles and has the largest clean fuel fleet in the nation. By the end of the year 2000, the MTA will have more than 980 compressed natural gas (CNG) powered buses.

We are now receiving delivery of an order of 250 new CNG buses. Delivery of this purchase began last fall and will be completed in August 1998. The MTA Board of Directors approved an option to buy 50 additional CNG buses which are scheduled to be delivered between August 1998 and April 1999. Delivery of an additional 223 new CNG buses is scheduled between April through December 1999.

Thanks to Congress, last year the MTA received an additional $10 million in federal funds to continue its partnership with the FTA in the development and testing

of the clean-fuel, lightweight, defense technology prototype vehicle known as the Advanced Technology Transit Bus (ATTB). In addition to the CNG bus procurement, the MTA Board on my motion recently approved ATTB elements as part of its bus acquisition plans and authorized the staff to include the ATTB-type components in future MTA procurements.

CONCLUSION

California's and Los Angeles County's competitive position in the global marketplace depends on a reliable transportation system. Mr. Chairman, we thank you and the Appropriations Committee for your continued support of Los Angeles County's intermodal transportation system.

We continue to urge Congress and the Administration to allow the maximum level of funding for transportation investment and infrastructure. We respectfully request Congress to continue to fund the Capital Formula Program at the highest level.

The MTA's fiscal year 1999 Appropriations request of $25 million in Section 5309 Discretionary Bus Capital funding for our bus replacement program will assist the MTA in meeting the needs of our transit-dependent riders and the requirements of the Federal Consent Decree. In addition, the MTA's request of $100 million for Section 5309 Discretionary Fixed Guideway/New Starts funding will allow us to continue to construct the MOS–3 North Hollywood Extension of our Metro Rail Red Line Project.

The region's expanding transportation network is a critical part of the local, state, and national economic future. The transportation industry provides direct employment and allows our citizens to travel to and from work, school, housing and recreation. We look forward to your continued investment in our transportation programs. The federal share allows the region to remain competitive in the global economy, ensures mobility for our public, relieves congestion, and improves the air quality and the environment.

PREPARED STATEMENT OF PATRICK R. JUDGE, PRESIDENT, LOUISIANA PUBLIC TRANSIT ASSOCIATION

SUMMARY—LOUISIANA FISCAL YEAR 1999 FEDERAL APPROPRIATIONS REQUEST FEDERAL TRANSIT ADMINISTRATION (FTA)

New Start Rail, 49 U.S.C. Section 5309 (Formerly Section 3).

	Appropriations
New Orleans Canal Street Corridor Project	$113,000,000
New Orleans Desire Street Streetcar	41,600,000

Bus and bus related facilities, 49 U.S.C. Section 5309 (Formerly Section 3). (Appropriations request only.)

	Federal [1]	Local	Total
Baton Rouge: Upgrade Downtown Transportation Center/ Build 5 Transfer Terminals	$750,000	$187,500	$937,500
Jefferson Parish; East Bank Park and Ride	2,500,000	625,000	3,125,000
Lafayette:			
Multimodal Transportation Center	1,000,000	250,000	1,250,000
Replace 4 buses	800,000	200,000	1,000,000
Louisiana Department of Transportation & Development, Public Transportation:			
Replace 123 vans (Rural & E&H)	1,600,000	400,000	2,000,000
Rural Transit Expansion (vans)	1,200,000	300,000	1,500,000
Monroe: Renovate maintenance facility	2,000,000	500,000	2,500,000
New Orleans:			
Central Maintenance Facility	8,000,000	2,000,000	10,000,000
Lease Maintenance Program (3 years)	32,000,000	8,000,000	40,000,000
Shreveport:			
Maintenance facility	700,000	175,000	875,000
Replace 4 buses	920,000	230,000	1,150,000
State Infrastructure Bank—Transit Account	1,600,000	400,000	2,000,000
St. Tammany Parish: Mandeville Park and Ride facility	300,000	75,000	375,000

	Federal [1]	Local	Total
Totals	53,370,000	13,342,500	66,712,500

[1] Amounts to be prorated should full funding not be realized.

Thank you for the opportunity to submit a statement to the Senate Subcommittee on Transportation Appropriations on behalf of the transit providers represented by the Louisiana Public Transit Association (LPTA).

The Louisiana Public Transit Association (LPTA) represents over 120 transit providers in Louisiana including rural providers, specialized transit services, and the state's urban and suburban systems.

LPTA is requesting funding for a number of vital transit projects across Louisiana. The LPTA is coordinating this statewide effort to assist Louisiana transit systems in meeting their need for basic capital equipment, such as replacement buses and facilities. Due to the difficulty in obtaining section 5309 funding (formerly section 3) for bus and bus related facilities through the Federal Transit Administration (FTA) application process, the LPTA presents its statement to this committee in an effort to meet the state's long-standing transit needs.

Before explaining our project requests, the LPTA wishes to thank the subcommittee for its role in appropriating $13,900,000 for the $44.3 million fiscal year 1998 request made by Louisiana's transit providers. That funding will go a long way in helping the Louisiana transit providers.

The total Louisiana request for fiscal year 1999 under FTA section 5309 bus and bus related funding is $53,370,000. The request is for 11 projects of varying size and cost from eight transit agencies.

Briefly, those requests are for:

The City of Baton Rouge, Capitol Transportation Corporation (CTC), is requesting a total of $750,000 for two projects important to the capital region. The funding is requested to upgrade the current major transfer facility located in downtown Baton Rouge. In addition, CTC is also proposing to build five (5) minor transfer facilities at locations on the periphery of their service area. These facilities will allow for more efficient transfers between existing transit routes. Baton Rouge has been designated a non-attainment area under Clean Air Act standards. The projects are positive for the environment, are critical to the need to control costs, and are necessary to reduce the need for capacity intensive infrastructure projects in the Baton Rouge ozone non-attainment area. Each project is expected to have a positive effect on congestion, energy reduction and travel time.

Jefferson Parish, which funds and oversees two private transit systems on each side of the Mississippi River, Louisiana transit on the east and westside transit on the west, is seeking funding of $2,500,000 to construct a park and ride facility for its east bank service area. The facility would connect via express and regular fixed-route bus service to the New Orleans central business district. The park and ride is proposed for the airline highway corridor which is heavily traveled and is currently enjoying a rejuvenation due to the recent construction of a minor league baseball stadium. Jefferson Parish currently operates two other park and ride facilities, both of them within their westbank service area.

The City of Lafayette, through the City of Lafayette Transit System (COLTS) is seeking the remaining $1,000,000 of federal funds needed to reconstruct and reconfigure a site currently operating as a postal facility adjacent to an Amtrak station. The Lafayette Multimodal Transportation Center will serve as the terminal for the COLTS system, a Greyhound station, and as an enhanced Amtrak stop for the Sunset Limited. The Postal Service will also continue to use a portion of the site. Further, the transportation center will be connected to the airport via a presently operating COLTS line. The $3,500,000 project already has been designated with a positive environmental impact statement and is in the design phase with architectural plans being over 75 percent complete. Construction is scheduled to begin in March of 1999. The fiscal year 1998 and fiscal year 1997 transportation appropriations bills designated $750,000 and $752,000, respectively, towards the terminal project.

COLTS is also seeking $800,000 to replace 4 transit buses that have exceeded their useful life of twelve years and are not accessible under ADA requirements.

The Louisiana Department of Transportation and Development, specifically the Office of Public Transportation, is in extreme need of another $1,600,000 of federal funding to allow the replacement of 46 vans for both rural and specialized transit providers across Louisiana. The application for this funding has been pending before the FTA for nearly four years. All the vans to be replaced are inaccessible under ADA, exceed the useful life standard of 5 years by 2–4 years, and are far beyond

the 100,000 miles cited as the mileage standard. Obviously, safety and dependability problems with vehicles of this size is a growing concern for the rural, elderly and disabled community across Louisiana. Additional demands for vans are expected to meet the demands of welfare reform.

In order to meet the increasing demand for transit service in Louisiana's rural areas, the LPTA is requesting another $1,200,000 of section 5309 funding for expansion of the state's rural transit systems by 35 vehicles. Currently, many of the state's rural parishes do not have rural transit providers due to the LA DATD's backlog of replacement needs for existing operators. In addition, many current rural operators need to expand to meet the demands of welfare-to-work and other basic transportation needs as the population expands and ages in those rural areas. The program would be administered through the existing rural transit program of the Louisiana Department of Transportation & Development.

The City of Monroe, through the Monroe Transit System (MTS), is requesting funding to renovate, expand, and update their aging maintenance facility in the amount of $2,000,000 for the $2,500,000 project. MTS will renovate the 15 year old facility by adding bays to be dedicated to conduct cost saving preventative maintenance checks and to equip the facility with modern and safer equipment. In addition, MTS is planning to reconfigure the facility to allow for drive-through capability and space for added inventory. The facility is MTS only maintenance garage and the work proposed will make it much more efficient and economical to operate.

The City of New Orleans, through the Regional Transit Authority (RTA), is requesting $32,000,000, which represents three years of payments under its innovative lease/maintenance program recently approved in-concept by the Federal Transit Administration. This new program will allow the RTA to enter into a lease and maintenance agreement with a commercial leasing company for the lease and maintenance of 75 new buses and 100 near new buses. The agreement will also allow the RTA to benefit from the recent changes that allow for the treatment of maintenance costs under a lease as an eligible capital expense. Penske Truck Leasing, through the RTA's RFP selection process, will be the lessor of the buses as well as provide for the maintenance of the buses. The financing will be by ABN–AMRO.

With 451 vehicles, the RTA operates the largest system in Louisiana by providing service to nearly 180,000 riders per day in a city that is 20 percent transit dependent. The buses leased will significantly reduce the operating expenses of the RTA and enhance its ability to provide dependable service.

The RTA is also requesting $8,000,000 to continue progress on its heavy duty central maintenance facility (CMF). The $15,268,000 project is now in the architectural design stage.

Finally, as you are probably aware, the RTA has pending two new start rail requests, one for the Canal Street corridor project (about to begin final design) for $113,000,000 and another $41,600,000 for the reconstruction of the Fabled Desire streetcar line (MIS expected to begin by May). Extensive detail of those projects will be provided by the RTA in separate testimony.

The next request is on behalf of the City of Shreveport and its Sportran transit system for funding of a long needed upgrade and expansion of its 33 year old maintenance facility. The $700,000 federal request will allow Sportran to proceed to consolidate and revamp a facility in which the design and equipment is seriously outdated. For example, the roof is too low to service buses with lifts. Also, a 15-year-old bus washer needs to be replaced. Finally, the facility lacks adequate space to store and service the system's vehicles. Sportran recently had to cancel a private maintenance contract for its paratransit system, thereby increasing its maintenance load by 30 percent. Currently, Sportran is renting storage space a half mile away for parts. There are no meeting or training rooms and barely enough office space for four desks. Sportran has purchased the adjacent lot and has completed preliminary planning for the expansion.

Sportran is also requesting $920,000 to replace four transit buses that have exceeded their useful life of twelve years and are not accessible under ADA requirements.

On behalf of the Louisiana's transit operators, the LPTA is requesting $1,600,000 to fund the transit account of Louisiana's proposed State Infrastructure Bank (SIB). With the enabling legislation and governing structure already in place, the State Infrastructure Bank is awaiting the expected approval by Louisiana voters in the form of a constitutional amendment this fall. The SIB will be administered through the Louisiana State Treasurer's Office. As you probably are aware of the concept, the SIB will allow for the borrowing of funds by transit providers which will allow them to proceed and complete projects timely without waiting for their yearly allocation of funds. Use of SIB funds could conceivably reduce by years and thousands of dol-

lars the time and cost of many transit projects/programs. Repayment could take the form of dedicating future allocations or other available revenue sources.

The last request is on behalf of St. Tammany Parish which is requesting $300,000 for a park and ride facility to be located in Mandeville, a city located within western portion of the parish. St. Tammany Parish is located directly north and northeast of the city of New Orleans across Lake Pontchartrain. It is the fastest growing area of the region. The park & ride facility is to be located near the Lake Pontchartrain causeway and is expected to draw local residents which should help limit the expansive growth of traffic on the causeway. This project will be the second park & ride facility for the residents of St. Tammany Parish.

The Louisiana Public Transit Association urges and requests that Congress appropriates to the highest levels possible under the terms authorized under the future ISTEA legislation. While not complete at the time of this statement, both the Senate and House versions of the renewed ISTEA are showing increased levels of funding for transit—increases that are sorely needed by all of transit. The LPTA sincerely hopes that Congress follows through on that promise by appropriating to the levels authorized.

Thank you for your time and consideration with these requests on behalf of Louisiana's transit systems.

TRANSIT IN LOUISIANA

Louisiana has 152 providers of public transit. Currently there are 10 transit systems operating in the major metropolitan areas of the state, with an eleventh expected to begin operations within months. Another 33 agencies serve as rural transit providers and 109 agencies provide specialized public transit. The division of type is based on Federal Transit Administration (FTA) guidelines.

Louisiana transit operators provide over 85,000,000 rides per year—232,000 per day—utilizing well over 1,100 vehicles.

The profile of transit ridership tends to be between the ages of 18–65, female with white riders making up over 80 percent of the passengers in rural areas while minority riders make up over 50 percent the riderahip in areas of 200,000 population and above.

Many transit riders have no other way to get to work, to school, to medical care or to shop. Transit dependency runs as high as 95 percent of transit riders in some of Louisiana's rural areas. The New Orleans region ranks 7th in passenger trips per capita. New Orleans, if ranked alone, would rank second between New York and Boston.

Transit providers employ over 2,000, directly generating an annual payroll exceeding $46,000,000. Spinoff employment for contractors, suppliers, etc. would also approach the $50 million mark.

Transit means economic development to congested and rural areas as well as to those persons simply needing a ride to work.

Louisiana Transit already plays a big role in reducing the state's Welfare rolls. Many systems are already working with Project Independence and other Public/Private employment programs and employers by providing dependable, inexpensive transportation.

Transit's role continues to grow with the continuing "greying of Americans," the passage of the Americans with Disabilities Act, the adoption of the Clean Air Act, the need for economic development within congested areas, attempting to keep liability insurance costs down, the need for coordinated transportation services and deficit reduction, and now, Welfare Reform.

Of the $420 million in gas taxes generated for transportation in Louisiana, only $6 million or 1.4 percent is designated for public transit needs.

LOUISIANA'S MAJOR TRANSIT SYSTEMS

System	Vehicles [1]	Passengers (Yearly)	Employees	Routes
Alexandria	13	665,015	32	8
Baton Rouge	53	4,201,127	106	22
Jefferson	57	3,871,659	126	14
Kenner [2]	2	243,000	4	2
Lafayette	16	1,795,000	27	12
Lake Charles	12	372,433	.....	.....

LOUISIANA'S MAJOR TRANSIT SYSTEMS—Continued

System	Vehicles [1]	Passengers (Yearly)	Employees	Routes
Monroe	20	835,890	45	16
New Orleans (RTA)	[3] 463 [4] 44	68,999,031	1,400	52
St. Bernard	6	137,193	8	3
Shreveport	58	3,578,000	105	16
Slidell/St. Tammany	N/A	N/A	N/A	N/A
Houma	N/A	N/A	N/A	N/A
Totals	744	84,698,348	1,853	

[1] Includes Demand Response (Paratransit) vehicles.
[2] Operated by the Regional Transit Authority.
[3] Buses.
[4] Streetcars.
Source: 1997 LPTA Survey/1994 National Transit Database (in part).

LOUISIANA'S MAJOR TRANSIT SYSTEMS

[Percentage of Operating Budget]

System	Fare/percentage	Local	Federal	States
Alexandria	$.35/13.0	52.0	27.0	8.0
Baton Rouge	$1.25/39.0	43.0	12.0	6.0
Jefferson	$1.00/76.0	4.0	35.6	13.6
Kenner	$.80/42.7	33.0	24.0	([1])
Lafayette	$.45/15.0	48.0	29.0	7.0
Lake Charles	$0.0/11.0	41.0	44.0	3.0
Monroe	$.60/22.0	43.0	26.0	9.0
New Orleans	$1.00/40.0	48.0	5.0	4.0
St. Bernard	$1.00/22.0	20.0	51.0	6.0
Shreveport	$.90/31.0	51.0	8.0	8.0
Slidell/St. Tammany	N/A	N/A	N/A	N/A
Houma	N/A	N/A	N/A	N/A

[1] Kenner utilizes its state funding for its Park-N-Ride service.

LOUISIANA'S SUBURBAN/URBAN SYSTEM

CONTACTS

Alexandria—ATRANS

Patrick Leaumont, General Manager, ATRANS, 2021 Industrial Park Road, Alexandria, LA 71301, (318) 441–6087, FAX (318) 441–6047.

Baton Rouge—Capitol Transportation Corporation (CTC)

Michael McCleary, Executive Director, Capitol Transportation Corporation, 1111 Seneca, Baton Rouge, LA 70805, (504) 343–8331, FAX (504) 383–3235.

Houma (Future)

Kevin Ghirardi, Terrebonne Parish Consolidated Government, P. O. Box 6097, Houma, LA 70361, (504) 873–6890, FAX (504) 873–6439.

Jefferson Parish—Louisiana Transit & Westside Transit

Pat Johnson, Transit Administrator, Jefferson Parish Transit Administration, 21 Westbank Expressway, Gretna, LA 70053, (504) 364–3450, FAX (504) 364–3453.

Lafayette—COLTS

Lee Roy Dugas, Transit Manager, Dean Tekell, Transp. Engineer, City of Lafayette Transit System, P.O. Box 4017–C, Lafayette, LA 70502, (318) 261–8545, FAX (318) 261–8041.

Lake Charles—LTS

S. S. Ike Hall, Transit Director, Lake Charles Transit System, P.O. Box 900, Lake Charles, LA 70602–0900, (318) 491–1253, FAX (318) 491–1587.

Monroe—MTS

Ken Monroe, General Manager, Monroe Transit System, P.O. Box 1431, Monroe, LA 71201, (318) 329–2206, FAX (318) 329–2868.

New Orleans & Kenner—RTA

William Deville, Deputy General Manager, Patrick Judge, Dir/IGR, Regional Transit Authority, 6700 Plaza Drive, New Orleans, LA 70127, (504) 248–3842, FAX (504) 248–3637.

St. Bernard—SBURT

Lonnie Campbell, Transit Manager, SBURT, 8201 W. Judge Perez Drive, Chalmette, LA 70043, (504) 277–1907, FAX (504) 278–1529.

Shreveport—SPORTRAN

Eugene Eddy, Resident Manager, SPORTRAN, 1115 Jack Wells Boulevard, Shreveport, LA 71137, (318) 673–7400, FAX (318) 673–7424.

Rural public transportation providers

Acadia Parish, Lloyd Guidry	318/788–1400
Ascension Parish, Grace Garon	504/473–3789
Assumption Parish, Rosa Lou Molaison	504/369–7961
Avovelles Parish, Joyce Laborde	318/253–9771
Bienville Parish, Elton Lamkin	318/263–8936
Bossier Parish, Manuel Duque	318/747–1045
Caldwell Parish, Dottie Etheridge	318/649–2584
Cameron Parish, Dinah Landry	318/775–5668
Claiborne Parish, Jean Reynolds	318/927–3557
Concordia Parish, Dorothy McDonald	318/336–7887
DeSoto Parish, Betty Walker	318/872–3700
E. Feliciana Parish, Elsie Smith	504/683–9862
Evangeline Parish, Janice Guillory	318/363–5161
Iberville Parish, Nora Painia	504/687–9682
Jefferson Davis Parish, Helen Langley	318/824–5504
Lafourche Parish, Gaylia Simons	504/537–6784
Lincoln Parish, Rosalind Jones	318/251–5136
Livingston Parish, Mary Alice Core	504/664–9343
Madison Parish, Harold Ogden	318/574–2921
Natchitoches Parish, Norma Metoyer	318/357–3250
Pointe Coupee Parish, Betty Dailey	504/638–4402
Red River Parish, Mary Wailes	318/932–5721
St. James Parish, Tom Watson	504/562–2307
St. Landry Parish, Donald Robinson	318/948–3651
St. Martin Parish, Earline Countee	318/332–3063
St. Mary Parish, Jane Powers	318/328–4100
Tangipahoa Parish, Debi Fleming	504/748–7486
Vermilion Parish, Bernice Hebert	318/893–2563
Vernon Parish, David Hudgens	318/239–0311
Washington Parish, Jane Rester	504/839–4535
Webster Parish, Gordon Ervin	318/377–7022
W. Feliciana Parish, Patricia Gilmore	504/635–6719
W. Ouachita Parish, Jeanette Ellington	318/324–1280

PREPARED STATEMENT OF THE METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY

EXECUTIVE SUMMARY

Metro Atlanta is one of the fastest growing major metropolitan areas in the nation, with a population now exceeding 3.6 million. In order to provide improved transit service to this expanding region, the Metropolitan Atlanta Rapid Transit Au-

thority (MARTA) is requesting Federal financial support for two major capital programs in fiscal year 1999. These programs consist of the continued development of the North Line heavy rail extension to North Springs and the purchase of clean-air buses.

MARTA respectfully requests the Appropriations Committees of the 105th United States Congress to earmark $62,623,646 in fiscal year 1999 FTA New Fixed Guideway and Extension funds for the continued development of the North Line Extension Project. This project was authorized in ISTEA and is the subject of a Full Funding Grant Agreement between the Federal Transit Administration (FTA) and MARTA. The requested funds will be utilized for the continued development of the heavy rail extension to the Sandy Springs and North Springs Stations.

MARTA's North Line rail service will consist of over nine miles of heavy rail transit and five stations upon completion in December 2000. Currently, there are over seven miles of track and three stations that opened for passenger service in June 1996. The opening of these initial North Line stations increased MARTA's total operating rail system to 46 miles of track and 36 stations.

Additionally, MARTA has significant capital funding needs in support of our Bus program. As part of an effort to improve air quality in the non-attainment Atlanta region, MARTA is committed to the use of clean-engine vehicles. To further this commitment, we respectfully request the Appropriations Committees of the 105th Congress to allocate $19,500,000 in fiscal year 1999 FTA Section 3 Bus and Bus Related funds for the purchase of 75 clean-air buses.

The background, rationale and justification supporting these requests are set forth in the following pages.

OVERVIEW OF THE ATLANTA REGION

Metro Atlanta is one of the fastest growing major metropolitan areas in the United States. The metro area's growth rate from 1990–1997 was approximately 23 percent—the growth leader of all metro areas over two million people. Metro Atlanta has added over 670,000 people since the 1990 census and now has a population of over 3,635,000. By the year 2020, the population of the Atlanta MSA should approach five million.

Atlanta has become a major metropolitan area of international importance. Always a primary transportation hub, Atlanta is served by Hartsfield International Airport—the second busiest airport in the World. Atlanta currently ranks 11th among U.S. cities in the number of national corporate headquarters. The area's robust economic growth is expected to continue with recent forecasts calling for the addition of 374,000 jobs in the 10-county region between 1995 and 2005.

The area to be served by the North Line Extension Project is the fastest growing segment of the Atlanta region. The Atlanta Regional Commission projects that this corridor alone will have grown by 144 percent between 1980 and 2005. Employment will grow even faster: up 422 percent from 53,000 to 277,000 over the same time period. As the geographic center of the region migrates north, there is a visible need to improve access between the burgeoning north Atlanta suburbs and the central city and international airport to the south.

Not surprising, given the growth in population and employment, the Atlanta area has a significant air quality problem. In accordance with the Clean Air Act Amendments (CAAA) of 1990, the EPA has classified the Atlanta region as a serious non-attainment area for ground level ozone. This air quality problem translates to serious health concerns for our residents. Ground level ozone is particularly harmful to those with asthma, children, the elderly and those who exercise outdoors.

Much of the pollution that forms Atlanta's ozone is due to transportation-related motor vehicle emissions. As the region grows, traffic volumes—and resultant vehicular emissions—continue to increase.

Traffic congestion has now reached crisis proportions, particularly in the northern suburbs to be served by the MARTA North Line Extension. Vehicle miles traveled (VMT) in Metro Atlanta have increased 65 percent over the last decade, due in part to the booming growth north of the City. Atlanta now has the highest level of vehicle miles traveled per person in the U.S. The provisions of both the Clean Air Act Amendments (CAAA) and ISTEA point to rail transit service as the solution to mobility problems in this major development corridor.

The air quality problem facing the metro area has now reached a critical stage. The region's failure to meet targeted emissions reductions has resulted in a recent cutoff of federal funds for new highway projects. Of increasing concern is the realization that the region will not meet the targeted 1999 air quality standard, which may result in additional sanctions. Clearly, viable alternatives to single occupant vehicle travel must be implemented if the Atlanta region is to continue to prosper.

Current projections indicate sustained growth north of the city, and MARTA transit services will be crucial to meet the growing public transportation requirements. As the region goes forward into the new millennium, the mobility and air quality challenges are enormous. MARTA is ready to be the vehicle carrying metro Atlanta's citizens into the future.

OVERVIEW OF MARTA

In March 1965, the Georgia General Assembly, by a vote of 205 to 12, passed the Metropolitan Atlanta Rapid Transit Authority Act, thereby creating MARTA. The sole purpose was to plan, build and operate a public mass transportation system serving the metropolitan area, including the city of Atlanta and its five surrounding counties. The local referenda ratifying participation in the Authority succeeded in the city of Atlanta and all but one of the five counties. The following six years were devoted to technical studies, reports, forums and public hearings to confirm the need for a long range regional transportation plan.

Voters in the City of Atlanta, Fulton, and DeKalb Counties approved the Rapid Transit Contract and Assistance Agreement (RTCAA) in November 1971. The RTCAA described in detail the planned service improvements for bus and rail, and authorized the local governments to impose a one-cent MARTA sales tax.

MARTA currently operates a state-of-the art, intermodal regional transit system which fully integrates rapid rail, fixed route bus and paratransit service. At present, the combined bus-rail system carries 67 million passengers annually over 53 million vehicle miles of service area. MARTA currently operates heavy rail service over 46 miles of track to 36 passenger stations, and bus service over 1,520 route miles using 159 routes. Our demand-responsive paratransit service operates over 1,518,000 vehicle revenue miles annually.

MARTA, while proud of our past accomplishments, strives for continuous quality improvement in customer service delivery and business management. Some recent highlights are as follows:

—As the Official Provider of Public Transportation for the 1996 Summer Olympic Games, MARTA carried more than 25 million passengers over a 17-day period.

—MARTA has experienced a steady increase in ridership since the Olympics. Ridership increased 3.6 percent (after adjusting for Olympic period patronage) during fiscal year 1997. Ridership during the recent five-month period (September 1997 to January 1998) was up 9.1 percent over the same period one year ago.

—MARTA is a leader in providing accessible transit services for disabled persons. Our complementary ADA paratransit service has nearly doubled the number of daily trips operated and new customers certified during the past year.

—Through an innovative public/private partnership, MARTA, Atlanta Gas Light Company and the State of Georgia are jointly proceeding with, and funding the use of, compressed natural gas (CNG) fueled buses.

—MARTA, in partnership with the Georgia Department of Transportation, has become a leader in the deployment of Intelligent Transportation Systems (ITS) infrastructure. MARTA is continuing to refine and expand our ITS capabilities, and now has the most comprehensive, integrated and complex application of ITS in the transit industry.

—Through the focused implementation of our Strategic Plan, MARTA has initiated several expanded customer service initiatives. These include a 10-point MARTA Pledge to Our Customers and a one-stop Customer Service Center.

—MARTA operates one of the most secure transit systems in the country. Our well-trained professional police force is one of only two transit police departments in the U.S. to be nationally accredited. Based on innovative crime prevention programs, Part I offenses on the system have declined 30 percent this year.

—Based on customer feedback, a "Not on My MARTA" Campaign focusing on zero tolerance of quality of life violations was initiated last year. As a result, there has been a steady decrease in smoking, eating and drinking on the system, with a favorable customer response.

—The MARTA Partnership Program, which enables area employers to subsidize the cost of fare media for their employees, continues to expand and now includes 110 employers and over 16,700 rider customers.

—MARTA is forging a partnership with private enterprise in the creation of Transit Oriented Development adjacent to our rail stations. Currently, we are evaluating proposals from the private sector to develop a 47-acre site that has been assembled around the Lindbergh Center Station.

—MARTA is the best solution for compliance with Clean Air Act Amendment requirements for the metro area's congestion and air quality problems.

UPDATE OF THE MARTA RAPID TRANSIT RAIL PROGRAM

The current MARTA rail system consists of 46 miles, 36 stations, and 238 rail cars. At present, the network includes two (2) main trunk lines (North/South and East/West) that intersect in the Atlanta Central Business District, and two (2) branches (Northeast and Proctor Creek) (see map at Enclosure 1). The last three stations placed in revenue service—Buckhead, Medical Center and Dunwoody—were completed in June 1996 as the initial phase of the new MARTA North Line.

Through the completion of the North Line segments through Dunwoody, the Federal contribution to MARTA's rapid rail development program has been 54 percent of the total $2.8 billion invested to date. MARTA has been fortunate to obtain Federal funding to build one of the country's premier transit systems. As MARTA continues its progress toward the expanded RTCAA plan configuration, focus has now turned to the North Line Extension currently under development.

NORTH LINE EXTENSION

Project Background and Description

The central portion of the Atlanta northern corridor has become a dense urban center that rivals downtown Atlanta. It is the largest of the six edge cities in the metropolitan area. More than 20 million square feet of mixed use space exists now or is under development. Just north of this core, another 30 million square feet of commercial space either exists or is planned for development. This explosive growth has led to significant automobile traffic congestion and delays. Traffic counts on the GA 400 expressway serving the corridor already exceed those predicted for the year 2010. Additionally, the demand for public transit to transport workers from the central city to jobs in the corridor is increasing.

Based on the existing and projected high rate of growth in this area, in the late 1980's local officials in the Atlanta region—after receiving extensive community input—determined that MARTA heavy rail was the preferred transportation alternative for the corridor. Following the completion of the environmental review process in 1991, the North Line Extension project was authorized in ISTEA. FTA subsequently entered into a Full Funding Grant Agreement with MARTA for the development of the 1.9 mile portion of the extension beyond Dunwoody Station through and including the Sandy Springs and North Springs stations, including the purchase of additional rail passenger cars.

The new MARTA North Line begins at the junction with the Northeast Line 0.8 mile north of the Lindbergh Center Station. The initial portion of the new North Line was constructed in the median of Georgia State Highway 400 ("GA 400"), a six-lane toll road built to interstate standards connecting I–85 with the pre-existing GA 400 freeway north of the Perimeter (I–285). This segment of 7.5 miles and three stations (Buckhead, Medical Center and Dunwoody) opened ahead of schedule in June 1996. This segment was financed with 26 percent Federal funds and 74 percent local funds. Now, MARTA requests $62.6 million in fiscal year 1999 Federal funds to continue the North Line Extension Project beyond Dunwoody Station.

The Dunwoody Station, which opened in June 1996, serves the large retail centers and office developments in the Perimeter Mall area and a number of upscale hotels nearby. (See Major Developments in North Atlanta map at Enclosure 2.) This station is located immediately north of the I–285 perimeter freeway. Ridership demand at Dunwoody has substantially exceeded projections, and a second parking deck to accommodate customer demand is now under construction adjacent to the station.

The North Line Extension for which funding is now requested begins at the end of the Dunwoody Station tail track and proceeds 0.9 mile northwest in subway to the Sandy Springs Station. (An aerial photograph of the Extension can be found at Enclosure 3.) From Sandy Springs Station, the line extends one mile north on the east side of the GA 400 freeway to the North Springs Station.

The Sandy Springs Station will be located at the hub of the extensive development of corporate office complexes and full service hotels north of the Perimeter Center area. The station, located one mile north of the Dunwoody Station, will serve the local area with significant park/ride capacity (1,100 spaces) as well as provide a convenient intermodal connection for local bus service. Sandy Springs will be an underground station with provisions for direct connections to the major transit oriented development planned for the immediate vicinity. According to year 2005 projections, Sandy Springs Station will be used by 11,332 patrons daily, including 2,692 during peak hours.

The North Springs Station will be built adjacent to the Georgia 400 expressway, thereby providing easy access for bus feeder routes as well as automobile commuters bound for intown destinations. This end-of-line station will include a 2,460 space park/ride facility divided into two areas: a six-level deck (2,180 spaces) for those

traveling southbound on GA 400 and a 280-space surface lot for local neighborhood residents. North Springs Station will serve as a major intermodal node and will alleviate the heavy traffic congestion on GA 400. One of the unique characteristics of the station are the exclusive access ramps connecting GA 400 directly with the station parking deck. According to year 2005 projections, North Springs Station will be used by 24,979 patrons daily, including 3,464 during peak hours.

The Sandy Springs and North Springs stations will be built in full compliance with the Americans with Disabilities Act (ADA): Each station will include a visual public address system, tactile warning edge strips, accessible ramps, Braille and high contrast signage, and glass-enclosed elevators. Both stations will open for revenue service in December 2000.

The MARTA North Line Extension will result in significant long-term economic benefits to both individuals and businesses. This extension will encourage reverse commuting from areas of high unemployment in the central city to job-rich suburban employment centers. Several major international corporations are headquartered in the project area, including United Parcel Service (UPS) and Holiday Inn Worldwide. Also, the regional offices of several high tech firms, including Hewlett Packard and MCI, are located in the North Line corridor.

This extension will significantly improve mobility between this burgeoning growth area and major points of origin/destination to the south. The estimated economic benefit resulting from reduced congestion is projected to be $377 million, with an estimated benefit of $216 million in travel time savings. The extension will provide a direct rapid rail connection to Hartsfield International Airport (24 miles to the south), which has a MARTA station inside the main terminal. Travelers' boarding the train at North Springs during rush hour will be at the Airport within 42 minutes.

Project Status

The project is progressing on schedule towards the targeted December 2000 revenue service date. Construction of the line section between Dunwoody and Sandy Springs and the Sandy Springs station shell began in October 1996, and construction of the station interior work will start in January 1999. Construction of the North Springs Station is underway, and initial earthwork activities are now completed at the station site. Construction of the line section between Sandy Springs and North Springs is also underway. Detail design of systemwide (automated train control, trackwork, communications, etc.) improvements began in July 1996. The design of the roadway access ramps and overpass bridge connecting North Springs station with the GA 400 expressway is approximately 30 percent complete.

In late 1996, MARTA's reevaluation of expanded customer service demands and estimated patronage growth in this rapidly developing area resulted in a decision to increase the number of rail cars to be acquired to support this extension. The planned rail car requirement has been increased from 28 to 56 passenger vehicles, a net increase of 28 cars. The contract to procure these vehicles was awarded in February 1998, with initial delivery scheduled for fiscal year 2000.

The North Line Extension above Dunwoody, through Sandy Springs to North Springs Station, is estimated to cost $467.4 million. This estimate is based on completion of the project in the year 2000 and includes $132.3 million for the design and purchase of 56 passenger vehicles. This estimate is $20.3 million lower than the cost estimate submitted to Congress last year. The decrease in the estimated cost of the project is due to the per unit cost savings realized from the recent (February 1998) award of the rail car procurement contract. MARTA was able to achieve a significant economy of scale with our rail car manufacturer by consolidating our vehicle requirements into a single base contract, as opposed to obtaining the same quantity of vehicles through a series of contract options as had been originally planned.

Appropriations requested for fiscal year 1999 will primarily fund the next year of construction activity at Sandy Springs (station and line segment) and North Springs (station and line segment).

Financial Status

The initial phase of the North Line through Dunwoody Station has been constructed at a cost of $362.3 million, with a federal share of only $92.5 million (26 percent). The balance of the North Line (North Line Extension) is budgeted at a cost of $467.4 million and is expected to be financed with 80 percent Federal ($373.9 million) and 20 percent local ($93.5 million) funds. Included in this cost estimate is the acquisition of 56 additional rail cars required to provide service on this extension.

Taken together, the entire North Line—from the junction south of Buckhead through North Springs—is programmed at a total cost of $830 million, of which $363 million, or 44 percent, will be locally funded. This sizable local contribution

demonstrates the Atlanta region's significant commitment to this vital transportation improvement.

Upon completion in December 2000, MARTA's North Line rail service will extend 9.4 miles in length, with five stations (Buckhead, Medical Center, Dunwoody, Sandy Springs and North Springs) and 5,188 park and ride spaces.

UPDATE OF THE MARTA BUS PLAN

MARTA's fixed-route bus fleet consists of 704 transit buses. There are 159 bus routes that cover 1,520 route miles and, on a daily basis, MARTA buses travel 99,902 vehicle miles. Our buses operate a total of 26.7 million annual vehicle revenue miles. During 1997, MARTA experienced an average daily bus ridership of 242,000.

MARTA is committed to providing safe, reliable and accessible bus service to our customers. MARTA's bus replacement plan is based on replacement of existing vehicles after 12 years (or 500,000 miles) of service life in accordance with FTA guidelines. The Plan's objective is to maintain an average fleet age of approximately six (6) years. The average age of MARTA's bus fleet is currently 7.5 years, with a total of 193 buses that are now in service eligible for retirement by the end of fiscal year 1999.

MARTA strives for safety in the operation of buses and successfully competes with other comparable systems for safety recognition. Recently, MARTA received the 1997 Allen S. Boyd Special Achievement Award for bus safety from the American Public Transit Association.

MARTA has committed to provide 100 percent accessibility of our bus fleet. Currently, the fleet is 80 percent wheelchair accessible, and all future bus purchases will meet ADA guidelines for accessibility. Currently, there are 144 non-wheelchair accessible (1986-model) buses which remain in service. These buses should be replaced within two years, based on federal funding availability. Our goal is to reach 100 percent accessibility by the Year 2000.

MARTA has embarked upon an innovative program to integrate Intelligent Transportation Systems (ITS) technology with our bus operations. At present, 241 buses are equipped with automatic vehicle locator (AVL) devices. AVL provides "real time" schedule adherence and vehicle location information to MARTA customers and operations management, and is the foundation for other ITS applications (such as automated passenger counters, and in-vehicle announcement systems).

MARTA's demand-responsive paratransit service continues to serve more customers through greater operating efficiencies resulting from the application of automated scheduling and dispatch technology. At present, our fleet of 75 lift-equipped vans provides approximately 1,060,000 passenger miles of ADA-related service on an annual basis.

Due to the serious air quality problems in the Atlanta region, MARTA has embarked upon a program to convert up to one-third of our bus fleet to compressed natural gas (CNG) operation by the end of the decade. Through the combined assistance of the Congress, the FTA, the State of Georgia and the Atlanta Gas Light Company, MARTA recently acquired 118 CNG-fueled buses. This was our initial procurement of CNG buses with the ultimate goal of acquiring 200 CNG buses before the year 2000. These extremely clean-burning CNG buses exceed the EPA emission requirements under the Clean Air Act Amendments.

MARTA is introducing CNG-fueled buses to the Atlanta region through a significant partnership with the Atlanta Gas Light Company (AGL). A new $28 million CNG bus maintenance and refueling facility, paid for with AGL and MARTA funds, recently began operation. Cleaner fueled buses will help the Atlanta region meet its ambient air quality goals for 1999 and beyond.

FISCAL YEAR 1999 FEDERAL FUNDING REQUEST

MARTA respectfully requests the Appropriations Committees of the 105th United States Congress to provide fiscal year 1999 Federal Transit Administration (FTA) Major Capital Investment funds to address two specific transit needs, as follows: (i) $62,623,646 in New Fixed Guideway Systems and Extension funds to continue the North Line Extension Project; and (ii) $19,500,000 in Bus and Bus Related funds for the purchase of approximately 75 replacement clean-air buses.

New Fixed Guideway and Extension Funds

MARTA is requesting $62,623,646 for the continued development of the North Line Extension above Dunwoody, through Sandy Springs to North Springs Station. This amount reflects the scheduled fiscal year 1999 funding level contained in our Full Funding Grant Agreement (FFGA) with FTA, plus the amount needed to make

up for the difference between the FFGA-programmed amounts for fiscal year 1997 and fiscal year 1998 and the actual allocations received by MARTA. (In fiscal year 1997, the amount appropriated for this project was $2.9 million less than the FFGA-specified amount, while in fiscal year 1998 our actual funding level was $7.6 million less.)

The requested $62.6 million in fiscal year 1999 FTA New Starts and Extension funds will support the following project activities: continued construction of the Sandy Springs Station and parking deck; completion of North Springs line segment construction; continued construction of the North Springs Station, parking deck and tail track; initial construction of the GA 400 highway—North Springs station access ramps; and the initial pre-production (mobilization, engineering and tooling) cost associated with the rail car procurement. Total MARTA contractual obligations for the construction of these segments through October 1, 1998, are estimated to be $371.5 million. Thus, there is a clear justification for continued Federal funding during the upcoming period.

MARTA is requesting a total (multi-year) Federal contribution of $373,922,400 for the North Line Extension project. This funding level represents 80 percent of the total estimated project cost of $467,403,000. Of the total proposed Federal share, $198,146,866 has been secured to date either through previous Congressional appropriations or FTA reobligations to the Project. MARTA expects to request total additional Federal appropriations of $175,775,534 to complete this project, including the $62,623,646 now requested for fiscal year 1999.

The balance of the proposed Federal contribution remaining to be funded in future years, assuming the appropriation of the full amount requested, will be $113.2 million [$373.9 million—$198.1 million (past years)—$62.6 million (fiscal year 1999) = $113.2 million]. These out-year funds will be needed to complete construction activities and procure the 56 additional rail cars required for this extension.

Section 3 Bus and Bus Related Funds

The amount of $19,500,000 is respectfully requested as the Federal share to purchase approximately 75 new clean-emission buses to replace aging, non-wheelchair accessible buses. This level of funding in fiscal year 1999 will enable MARTA to achieve our goals of making the bus system 100 percent wheelchair accessible as well as convert one-third of our bus fleet to CNG operation by the end of the century.

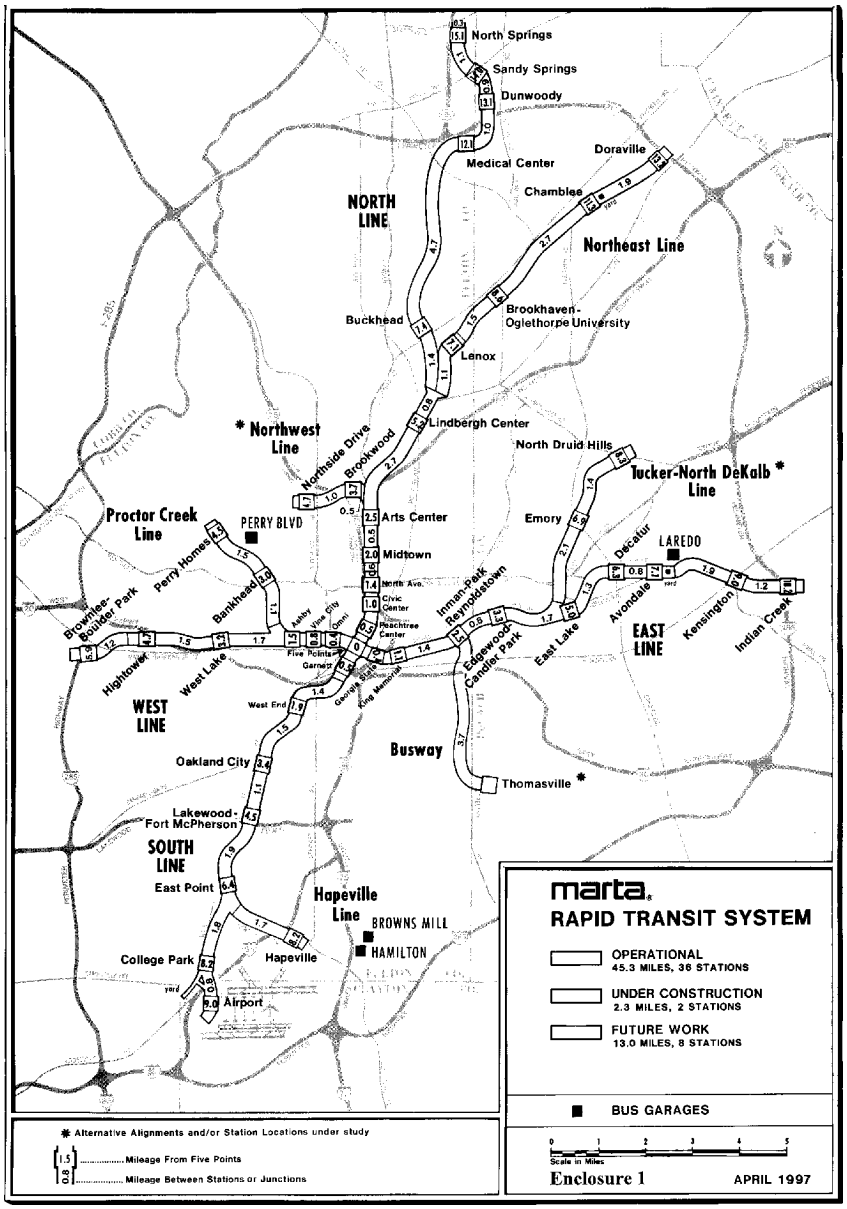
The $19.5 million requested would be matched with $4.9 million in local MARTA funds for a total project cost of $24.4 million. This estimated total cost is based on a projected average unit cost of $325,000 per bus. These funds will be used to acquire approximately 75 transit buses, which represents only a portion of MARTA's total bus replacement requirements over the next 18 months. It is currently planned that these new vehicles will include a mix of transit bus models to meet specific service and operational requirements, as follows: (a) 36 CNG 40-foot buses; (b) 22 clean diesel 30-foot buses; and (c) 17 clean diesel 40-foot buses. All of the buses to be acquired will be of low floor design. Low floor buses are wheelchair accessible, allow for easy and convenient boarding by all passengers, and are economical to operate. It is also anticipated that these buses will be equipped with automated vehicle locator (AVL) devices.

MARTA's bus replacement plan calls for 144 buses that will have exceeded the normal 12-year service life to be retired by the end of fiscal year 1998, with 49 more buses eligible for retirement in fiscal year 1999. To date, federal funding has been secured for only 47 of the 144 buses that should be replaced in 1998. Thus, there is a clear justification for continued Federal funding during the upcoming period.

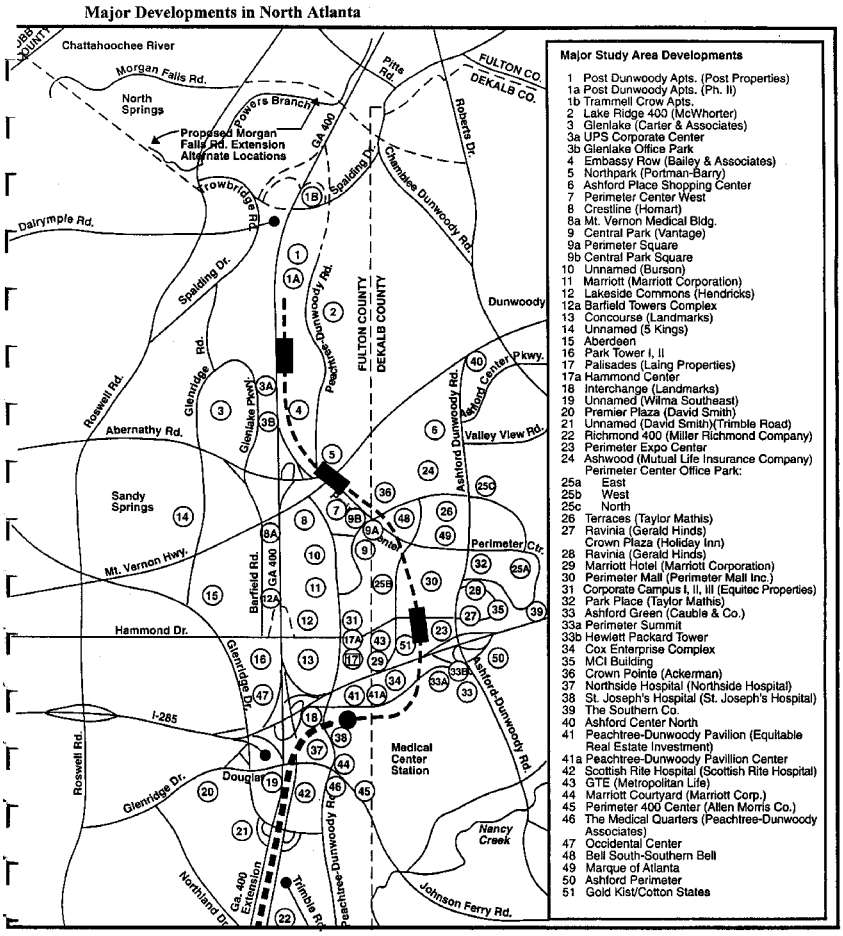
All buses being replaced will exceed the minimum FTA replacement criteria of 12 years or 500,000 miles of accumulated service, and are not wheelchair accessible. The new buses will fully meet the requirements of the Americans with Disabilities Act (ADA), as well as, the Clean Air Act Amendments (CAAA). Efforts to bring the bus fleet into full compliance with these two statutes are crucial to meeting the mobility, accessibility and air quality goals of the Atlanta region.

MARTA is indeed grateful for the vital assistance previously provided by the Congress in support of public transportation in the Atlanta region. The continued support of the Congress is essential if Atlanta is to realize the promise of ISTEA, comply with the Clean Air Act Amendments and meet the transportation challenges facing our growing region.

ENCLOSURE 1.—RAIL SYSTEM



ENCLOSURE 2.—MAJOR DEVELOPMENTS IN NORTH ATLANTA



PREPARED STATEMENT OF VICE MAYOR JOSE SMITH, CITY OF MIAMI BEACH, FL

Mr. Chairman and Members of the Transportation Subcommittee: I am Jose Smith, Vice Mayor of the City of Miami Beach, Florida, on behalf of Miami Beach.

The City respectfully submits a transportation-related project for a discretionary earmark through the Federal Transit Administration, within the fiscal year 1999 Transportation Appropriations Bill. The City-proposed earmark of $7 million will be used toward a Miami Beach multimodal transit center project that will support the City's existing electric shuttle park-and-ride service, known as the Electrowave.

This innovative and environmentally-friendly park-and-ride program is presently serving South Beach—a congested, urban-residential, and commercial historical district of Miami Beach. However, an outlying transit center/parking facility to support the park-and-ride and other transit services is still needed.

The multimodal center will provide a vital transportation hub for the area, bring commuters and visitors together with parking, an information center, the local and regional transit services, as well as the Electrowave. Employees of South Beach businesses will also park-and-ride from this facility, which will be strategically located to serve the incoming traffic from an arterial causeway. The transit center will also include a full-scale facility for the Electrowave program and its electric battery-operated vehicles.

In addition, the multimodal center will serve as the terminus of an east-west multimodal corridor—a regional transportation project which proposes to interconnect the Florida Turnpike, the Palmetto Expressway, the Dolphin Expressway and I–95, with the Miami International Airport/Intermodel Center, downtown, the Seaport, and Miami Beach.

The Electrowave program is included in the five-year Transportation Improvement Program of Miami-Dade County and has the financial support of the City, the Florida Department of Transportation, the FTA/Miami-Dade Transit Agency, the Florida Power and Light Company, and other clean air and energy organizations.

A fiscal year 1999 discretionary FTA fund earmark toward a Miami Beach multimodal center project is critical to the long-term effectiveness of the Electrowave park-and-ride service and to our City's interconnection with a 21st-Century east-west multimodal transportation corridor.

PREPARED STATEMENT OF BEVERLY JONES, MEMBER OF THE BOARD OF DIRECTORS, NATIONAL EASTER SEAL SOCIETY

Mr. Chairman, I am Beverly Jones, a member of the National Easter Seal Society Board of Directors. I am pleased to submit this testimony to the Senate Transportation Appropriations Subcommittee on behalf of the National Easter Seal Society in support of fiscal year 1999 Project ACTION funding. I am supporting this important Easter Seal program for many reasons.

I am the mother of two teenagers, a full time court stenographer and part-time model, an avid tennis player and a national spokesperson for people with disabilities. In September 1984, I was involved in a car accident that resulted in a spinal cord injury. In that instant, my life changed as I realized that many of the common daily activities that I had taken for granted now presented significant challenges. I turned to Easter Seals in my home state of Tennessee and they steered me in a direction that gained me greater independence.

I was fortunate to be selected as the 1997 Easter Seal Adult Representative and to travel the country to talk about the contributions that people with disabilities can make to society. As the Adult Representative, I spoke about the work of Easter Seals and issues of importance to children and adults with disabilities. I am committed to breaking down negative stereotypes as well as attitudinal and physical barriers that confront people with disabilities so that we can live with equality, dignity and independence.

During my year as the National Easter Seal Society Adult Representative, I had the opportunity to testify before the House Transportation Appropriation subcommittee in support of funding for Project ACTION and to submit testimony to the Senate for their consideration. I was thrilled to play a small role in helping to raise the awareness of Congress to the transit needs of people with disabilities was very empowering. We were pleased when the Senate Transportation Appropriations subcommittee approved the fully authorized amount of $2.0 million in fiscal year 1998 money.

In part because of my successful experience working with Easter Seals on legislative activities, I was nominated to the Board of Directors of the National Easter Seal Society and serve on the committee that helps Easter Seals establish its legislative priorities. Seeking continued funding so that Project ACTION can continue to promote transit accessibility remains one of our core objectives.

In the past, this subcommittee has heard from transit providers how important Project ACTION is to local communities that are working to comply with the Americans with Disabilities Act (ADA). In my statement I want to emphasize how important the work of Project ACTION is to people with disabilities. On the local level, I serve as the county Americans with Disabilities Act (ADA) coordinator. This brings me in contact with numerous individuals with disabilities and I've come to understand how important access to transportation is for Americans with disabilities. In short, it allows them to work and remain independent. By and large people with disabilities want equality and equal opportunity. It angers me when I see people with disabilities portrayed as people who want special treatment.

As society becomes more accessible and as attitudinal barriers continue to fall, we must make sure that our transportation systems maintain the pace toward full accessibility. The availability of accessible transportation remains a key determinant to securing employment for many disabled Americans. We live in an increasingly mobile society: to be employed today means to commute. Imagine if you or your staff had to conduct your daily activities without access to any form of public transportation.

The efforts of this subcommittee make a tremendous difference in the everyday lives of people with disabilities all across America because people with disabilities as a group tend to be heavily dependent on public forms of transportation. There are some 25 million transit dependent people with disabilities in America today. Without access to transportation, these citizens cannot benefit from the promise of full participation in society that Congress envisioned when you passed the ADA.

In recent years we have made tremendous progress and accessibility is increasing nationwide: fixed-route bus fleet accessibility has grown to nearly 75 percent; rail station access has increased; and, most importantly, the disability and transit communities have learned to work together to promote cooperative solutions instead of meeting only in street protests and in costly courtroom battles. Project ACTION is the singular, most positive force bringing the transit and disability communities together. We continue to believe that this cooperative approach is the best hope for continued progress toward a fully accessible society.

Project ACTION is authorized under ISTEA at $2.0 million per year and has received full funding during the appropriations process each year since 1991. The National Easter Seal Society is working with the House and Senate committee leadership to continue and expand Project ACTION as a part of the ISTEA reauthorization process and is hopeful that, upon final passage, the authorization level that supports Project ACTION efforts will be substantially increased.

The National Easter Seal Society is seeking an appropriation of $3.0 million for fiscal year 1999. There is a compelling reason to seek this increase. The demand for Project ACTION expertise is increasing exponentially. Transit providers are demanding direct and ongoing technical assistance to meet ADA requirements in a cost-effective manner. Many of the solutions to transportation accessibility issues have already been developed through Project ACTION-sponsored research and demonstration programs. Project ACTION now needs sufficient funds to disseminate these resources and to help implement these cost-effective solutions in communities across the nation.

The costs of running a national ADA technical assistance operation are substantial and growing rapidly. Calls, faxes, e-mails and requests for direct and immediate technical assistance have grown dramatically in the last three years. Last quarter, Project ACTION received over 1,500 calls for direct technical assistance alone. As Project ACTION has marketed its services to stakeholders and had successes solving local ADA concerns, requests for the Project's assistance have grown. Because of the phase-in of ADA transportation requirements, many transit systems are just now facing difficult and sometimes costly ADA requirements. Transit systems that are currently in compliance need ongoing technical support to remain in compliance.

With the support of this subcommittee, Project ACTION has become the nation's foremost resource on transportation accessibility. Since this subcommittee established Project ACTION, it has sponsored innovative research, funded demonstration projects, provided technical assistance to thousands of transit providers, and developed an impressive resource center with information on the most cost-effective ways to achieve accessibility. The Director of Project ACTION, Nancy Smith, has a concrete plan for using the vast experience and expertise that the Project has developed to continue to find the best and the least expensive ways for transit providers to meet their ADA obligations.

On behalf of the millions of people with disabilities who rely on public transit and the transit operators working to serve them, the National Easter Seal Society wants to thank this subcommittee for its past support of Project ACTION. The National Easter Seal Society respectfully requests this subcommittee to provide $3.0 million dollars to continue to fund Project ACTION in fiscal year 1999. This funding level will ensure that Project ACTION can continue to develop and disseminate workable solutions to the most critical issues facing transit operators as they implement the ADA.

We understand the fiscal constraints under which this subcommittee operates. However, Project ACTION is a credible, cost-effective, and creative program that has strong support among people with disabilities and their national representatives, transit providers, the American Public Transit Administration and within the Federal Transit Administration. This spirit of cooperation would not be possible without the leadership of this subcommittee. Easter Seals is grateful for your support and we look forward to continued collaboration.

Thank you.

PREPARED STATEMENT OF ROBERT H. TUCKER, JR., CHAIRMAN, REGIONAL TRANSIT AUTHORITY

Thank you for the opportunity to submit a statement to the subcommittee on behalf of the Regional Transit Authority (RTA) of New Orleans and Jefferson Parish. The Regional Transit Authority is requesting funding for four major transit projects.

Before explaining the requests, the Regional Transit Authority extends its sincerest appreciation to the members of this subcommittee for the support demonstrated towards its requests for the last fiscal year. As you may recall, upon enactment, the Fiscal Year 1998 Transportation Appropriations Bill included $9,000,000 for RTA's buses and facilities from Louisiana's $13,900,000 statewide bus appropriation, $6 million for the Canal Streetcar Project and $2 million for the Desire Streetcar Project. We are very grateful to the subcommittee for its role in providing that critical funding.

For fiscal year 1999, the Regional Transit Authority is requesting federal funding for the following projects:

—$113,000,000 for the Canal Streetcar Project
—$32,000,000 for RTA's lease/maintenance program
—$41,600,000 for the return of the Desire Streetcar
—$8,000,000 for the RTA Central Maintenance Facility

CANAL STREETCAR PROJECT

The Canal Street corridor project will restore light rail transit service to the city's most important transit corridor. For fiscal year 1999, the Regional Transit Authority is requesting $113,000,00 of FTA section 5309 (formerly section 3) new start rail funding to construct the project.

The project completed the major investment analysis phase in the fall of 1995 and the environmental impact statement (EIS) was completed in August of 1997. The FTA issued the favorable "Record of Decision" on August 28, 1997. Currently, the project is about to enter into final design. Construction is expected to begin in the mid—late 1999.

The total value of the Canal Streetcar Project, including the proposed city park spur, is approximately $181 million. To date, Congress has appropriated $32.5 million towards the project.

The Canal Street corridor connects with 70 percent of the Regional Transit Authority's 62 transit lines and seven suburban routes. In the future, the route could connect with Amtrak and the local greyhound bus terminal at the New Orleans Union Passenger Terminal.

The streetcar's track will be placed primarily within existing medians which will allow the RTA to remove buses from the currently congested traffic stream. The EIS analysis predicts 20 percent growth of ridership over the 18,000 per day currently utilizing the bus service within the corridor.

In a major effort to reduce the overall cost and scope of the project, the RTA has implemented two strategies, both during construction and operation:

First, the canal streetcar track will match the recently regauged track of the Riverfront streetcar which now matches that of the historic St. Charles streetcar line. The common gauge will allow the RTA to use the existing Carrollton streetcar facility of the St. Charles streetcar as a heavy duty maintenance facility for all three lines as well as the proposed Desire line. Thus, the RTA will avoid the cost of duplicating a similar facility. However, a separate storage and inspection facility for daily maintenance and cleaning of the streetcars will be built due to capacity constraints at Carrollton.

The second part of the strategy will be to assemble the streetcars in New Orleans by the RTA technicians and craftsmen whom recently built seven streetcars for the revamped Riverfront streetcar line. The RTA will be able to save approximately $400,000–$600,000 per vehicle by taking this approach. Estimates are that for an outside firm to bid on the streetcars, which are a one-of-a-kind design, it would cost the taxpayer anywhere from $1.6 to $1.8 per vehicle. RTA approximates its costs at $1 million to $1.2 million. As well as building the seven Riverfront cars, the Carrollton shop recently overhauled the entire 36 car St. Charles fleet. This facility and its workers are uniquely suited to construct the canal streetcars competently and economically. Furthermore, with RTA employees assembling the new streetcars, the quality of the cars will be ensured by drawing from their expertise maintaining the existing fleet.

The streetcars will be basically replicas of the venerable, and no longer available, Perley Thomas type that now traverses the St. Charles line. However, the canal cars will be ADA accessible and air conditioned.

LEASE/MAINTENANCE PROGRAM

As its highest priority request under the FTA bus and bus facility program, the Regional Transit Authority (RTA), is seeking $32,000,000 representing three years of payments under its innovative lease/maintenance program recently approved in-concept by the Federal Transit Administration. This new program will allow the RTA to enter into a lease and maintenance agreement with a commercial leasing company for the lease and maintenance of 75 new buses and 100 near new buses. The agreement will also allow the RTA to benefit from the recent changes that allow for the treatment of maintenance costs under a lease as an eligible capital expense. Penske Truck Leasing, through the RTA's RFP selection process, will be the lessor of the buses as well as provide for the maintenance of the buses. The financing will be by ABN–AMRO.

With 451 vehicles, the RTA operates the largest system in Louisiana by providing service to nearly 180,000 riders per day in a city that is 20 percent transit dependent. The buses leased will significantly reduce the operating expenses of the RTA and enhance its ability to provide dependable service.

This request, as well as the central maintenance facility request that follows, is once again a part of the fiscal year 1999 Louisiana statewide request for FTA bus program funding. That effort is led by RTA staff and is coordinated through the Louisiana Public Transit Association. We hope our cooperative attempt will yield additional support once more to benefit the state's other transit systems as well as the RTA.

DESIRE STREETCAR LINE

The RTA is requesting $41,600,000 of FTA section 5309 new start funds to restore much of the 4 mile route of the fabled Streetcar Named Desire through some of New Orleans oldest and historic neighborhoods. The project is about to enter the major investment study phase by May of 1998. Congress has appropriated $4 million of FTA new start funding to the project.

The proposed Desire streetcar line will allow the RTA to consolidate a number of bus routes away from the historically and structurally sensitive French Quarter. The line is expected to improve the overall efficiency of the RTA system by allowing for higher operating speeds and shorter travel time for buses now forced to use congested French Quarter streets. The Desire streetcar will provide direct service to the French Quarter, Faubourg Marigny and Bywater neighborhoods which are otherwise inaccessible to regular transit service. In addition, the line will serve two major defense facilities; the U.S. Coast Guard Support Center and the Navy's F. Edward Hebert Defense Complex.

CENTRAL MAINTENANCE FACILITY

As its second highest priority under the FTA section 5309 (formerly section 3) bus program, the RTA is requesting $8,000,000 to continue progress on its heavy duty central maintenance facility (CMF). The $15,268,000 project is now in the architectural design stage. This request is also a component of the cooperative statewide request.

The current outdated facility was originally scheduled for demolition in the fall of 1995, but was postponed due to site selection delays and until construction of a new CMF was assured. This project will relocate and rebuild the RTA's only heavy bus maintenance facility. The present facility, which undertakes extensive repairs such as, engine and transmission change out as well as major component and body rebuilds, has been deemed inadequate and obsolete for the systems maintenance needs. The existing site is not conducive to an efficient, long-term approach to maintain an active and aging bus fleet. The new facility will help RTA to further reduce its operating expenses.

TRANSIT PROGRAM APPROPRIATIONS

The regional transit authority urges and requests that Congress appropriates to the highest levels possible under the terms authorized under the future ISTEA legislation. While not complete at the time of this statement, both the Senate and House versions of the renewed ISTEA are showing increased levels of funding for transit—increases that are sorely need by all of transit. The RTA sincerely hopes that Congress follows through on that promise by appropriating to the levels authorized.

Thank you for your time and consideration with these requests on behalf of the regional transit authority.

For your reference, attached you will find additional information on the RTA and its requests.

Administration of Services

RTA HISTORY

The Regional Transit Authority is a political subdivision created by the Louisiana State Legislature in 1979. After taking over the operation of bus and streetcar service in 1983, the RTA expanded service to the city of Kenner in 1985. The service presently consists of 62 bus lines, the St. Charles Streetcar line, and the Riverfront Streetcar line.

PURPOSE

The main purposes of the RTA are to develop a regional transit plan, maintain a permanent funding source for transit in the metropolitan New Orleans area and be responsible for the operation of the regional transit system. The primary goal of the Regional RTA is to provide comprehensive, efficient regional transit service, designed to meet the needs of the communities it serves.

BOARD OF COMMISSIONERS

The Regional Transit Authority is governed by a board of commissioners appointed by the member parishes of Orleans and Jefferson. Of the eight-member board, five are from Orleans Parish and three are from Jefferson Parish. The board of commissioners establishes the policies and procedures for the RTA. Meetings are held on the second Tuesday of each month. Members of the RTA Board of Commissioners are: Chairman Robert H. Tucker, Jr., Orleans Parish; Daniel Alfortish, Jefferson Parish; Ronald Gardner, Orleans Parish; Dennis A. DiMarco, Jefferson Parish; Nat LaCour, Orleans Parish; Charlotte Burnell, Jefferson Parish; Earline Roth, Orleans Parish; LeRoy Bailey, General Manager of TMSEL. There is currently one vacancy on the RTA Board of Commissioners.

DAY-TO-DAY OPERATIONS

Transit Management of Southeast Louisiana, a private corporation, is contracted to oversee the day-to-day operations of the transit administration.

Bus and streetcar drivers are members of Amalgamated Transit Union, Local 1560. Dispatchers, Scheduling Clerks, Transit Tellers, and Transit Instructors are members of Amalgamated Transit Union, Local 1611. Maintenance workers are members of the International Brotherhood of Electrical Workers, Local 1700–4.

Summary Profile Data

Operational Statistics

Fleet Size:	
Buses	371
Streetcars	41
Paratransit Vehicles	40
Average Fleet Age:	
Years for buses	7.1
Years for streetcars	74
Vehicle Usage:	
Buses and streetcars on AM peak	323
PM peak	343
Non-peak	152
Number of Routes	62
Vehicle Miles (millions)	12
Annual Vehicle Hours (millions)	1.1
Passengers Carried Daily	190,000
Passengers Carried Weekly (million)	1.3
Passengers Carried Annually (million)	70
1996 Diesel Fuel Use (gallons)	3,730,381
1996 Gasoline Fuel Use (gallons)	125,015

Employee Data

Total Number of Employees	1,232
Operators	674

Maintenance	337
Administration	221

Financial Data (CY 1998 Budget)

Total Operating Expenses	$72,612,928

Fiscal Year 1999 Congressional Requests

Canal Streetcar Corridor:	
Authorization	$145,000,000
Appropriations	112,500,000
Desire Streetcar:	
Authorization	45,600,000
Appropriations	41,600,000
Central Maintenance Facility: Appropriations	8,000,000
Lease/Maintenance Program (3 years): Appropriations	32,000,000

CANAL STREET CORRIDOR

Scope.—Reinstatement of Light Rail/Streetcar service to the Canal Street Corridor of New Orleans. The 4.15 mile (8.3 round trip) line will extend from the New Orleans riverfront at the Mississippi to the Mid City neighborhood.

Funding.—$144,967,740 of Federal Transit Administration (FTA) New Start authorization is requested for the project. To date, $32,573,000 of FTA New Start funds have been obtained through Congressional appropriations.

ISTEA authorized $4.8 million for alternative analysis, preliminary engineering and an environmental impact statement in 1992.

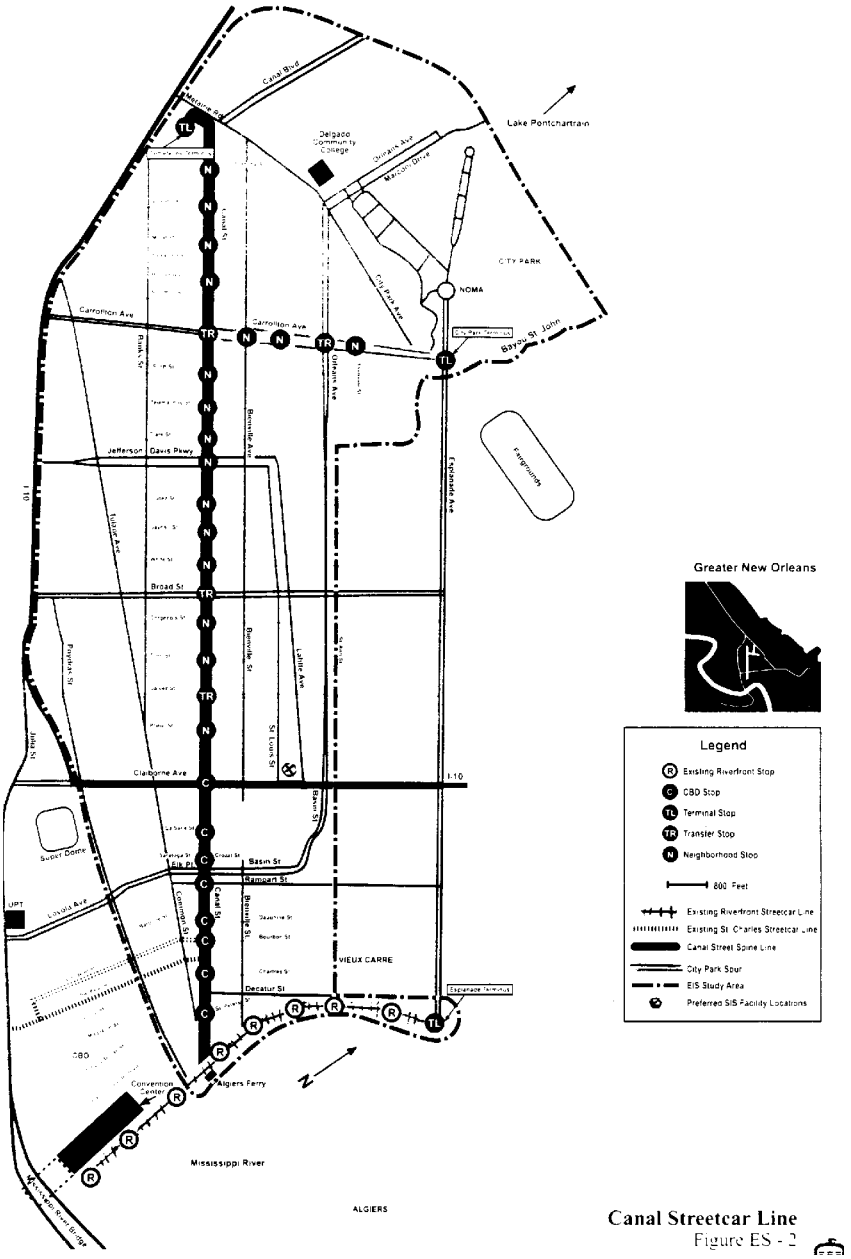
Matching funds of $24,800,000 are being sought through the State of Louisiana Capital Outlay process for this vital transportation infrastructure project.

Total.—$181,209,700 Project Total.

Statement.—The return of light rail service to downtown New Orleans will promote economic development and significantly reduce congestion and auto emissions. Streetcar service will enhance access to major state investments, such as the Louisiana Superdome, the Convention Center, the LSU/Tulane Medical District, and the proposed arena. 30 diesel fueled vehicles will be removed from this corridor once streetcar service is restored. Ridership on the streetcar is anticipated to exceed the current bus count of 20,000 by an additional 18,000 passengers.

Status.—This project has completed Major Investment Analysis (MIA). Corridor selection, the approval of the Locally Preferred Alternative (LPA), was made on March 28, 1995. Preliminary engineering and the Draft Environmental Impact Statement was completed in May of 1997. The final EIS was completed in August of 1997 with the Record of Decision issued soon thereafter. Final Design will be underway this Spring.

Construction is projected to begin in 1999 with the line opening in the year 2001. Included will be innovative project cost savings proposals, including the regauging of the Riverfront line and the proposed Canal Street line to utilize an existing heavy maintenance facility, and the assembly of the streetcars locally.



Canal Streetcar Line
Figure ES - 2

TRANSACTION SUMMARY

THE REGIONAL TRANSIT AUTHORITY LEASE/MAINTENANCE PROGRAM

The Regional Transit Authority of New Orleans, Louisiana (the "RTA") desires to enter into a lease/maintenance agreement with a commercial leasing company for the lease and maintenance of 75 new buses and 100 near new buses. The RTA will structure the lease utilizing Federal Transit Administration (the "FTA") regulations, Capital Leases—49 CFR 639. The RTA has undertaken the Determination of Cost-Effectiveness pursuant to CFR Sections 639.21, 639.23 and 639.25. The RTA's objective is to benefit from the treatment of maintenance costs under a lease as an eligible capital expense.

Scenario One—New Buses

PENSKE Truck Leasing Company (the "Lessor") has been selected through an RFP selection process to provide the RTA with 175 new buses under a lease/maintenance agreement. Under the terms of the agreement the Lessor will lease the buses to the RTA as well as provide the maintenance on the buses. For State law purposes, the term of the lease will be for one year, to end on the last day of the RTA's fiscal year, December 31. At the expiration of the initial term, the Lease shall automatically be extended upon appropriation by the RTA's Board of amounts sufficient to pay lease payments. It is the expectation of the RTA and of the Lessor that the agreement will extend for 12 years. The purchase of the 175 buses will be financed by ABN–AMRO at an estimated interest rate of 6.35 percent.

Scenario Two—Near New Buses

In late 1996, the RTA purchased 100 new Orion Buses and 6 new Chance Buses. To take advantage of FTA Innovative Financing Techniques, the RTA proposes to sell the "near new" Orion buses to the Lessor. Under the terms of a lease/maintenance agreement, the RTA will then lease the near new buses from the Lessor. The term of the lease will be as described above in Scenario One. This transaction differs from Scenario One because we propose to use the proceeds from the sale of the buses to make lease payments over the remaining life of the buses or 11 years. To that end, we will deposit the proceeds in an escrow account at an interest rate sufficient to make lease payments over the life of the buses. This arrangement is expected to yield an additional $1.0 million up front. The escrow would be set up so that no additional FTA moneys would be required nor RTA local match. The purchase of the 106 buses will be financed by ABN–AMRO.

CENTRAL MAINTENANCE FACILITY—RELOCATION/RECONSTRUCTION

Scope.—Design and construct a replacement heavy repair facility for the RTA bus fleet. The current facility was deemed inadequate and obsolete and is to be demolished in order to complete the redevelopment of the Canal Maintenance Facility.

Funding.—$12,214,400 of Federal Transit Administration Section 3 Bus/Bus Facility Program was requested for fiscal year 1996. $3,000,000 was appropriated in fiscal year 1996. Additional funding was put towards the project from the total $9,000,000 appropriated to New Orleans in fiscal year 1997, thus making this request for fiscal year 1999 $8,000,000.

The $3,053,600 of local match will be provided by the Regional Transit Authority.

Total.—$15,268,000.

Statement.—Replacement of the Central Maintenance Facility has become the highest priority for the Regional Transit Authority's maintenance efforts. The facility will be key to such heavy duty repairs as engine and transmission change-outs, major component rebuilds, body repair, central parts storeroom and maintenance training. Once the former facility is demolished as part of the Canal Maintenance Facility redevelopment, major repairs will be required to be made temporarily at another RTA facility where conditions will obviously not be conducive to permanent location. Most importantly, the construction of the Central Maintenance Facility will allow RTA to consolidate and close at least one other major facility, thus allowing the RTA to reduce overall operating expenses.

Status.—Site evaluation and appraisals are complete. Design has commenced. The current Central Maintenance Facility at Canal Street is scheduled for demolition upon assurances of the funding and construction of a new CMF.

DESIRE STREETCAR LINE—RECONSTRUCTION

Scope.—Design and reconstruct the fabled Streetcar Named Desire route as the major transit artery it once was. Utilizing the venerable Royal and Bourbon/Dauphine Streets, the four mile (8 miles round-trip) line would travel through the his-

toric New Orleans neighborhoods of Bywater, Faubourg Marigny and the Vieux Carre (the French Quarter). The route was "rediscovered" when investigating the possible downriver extension of the Riverfront Streetcar line which was scrapped due to poor ridership projections.

Funding.—$45,600,000 in authorization and funding is requested from the Federal Transit Administration Section 3 New Start program through Congressional legislation.

The $13,400,000 of local match remains to be identified.

In fiscal year 1997, $2,000,000 was appropriated to conduct the required Desire Corridor Major Investment Study. Another $2 million was appropriated in fiscal year 1998.

Total.—$57,000,000.

Statement.—This proposed line should deliver a much higher and effective level of transit service to the French Quarter, Faubourg Marigny and Bywater neighborhoods than exists presently. It will allow the removal of all transit vehicles from the historically and structurally sensitive French Quarter while providing direct CBD service to/from two major defense facilities located at the far end of the line along the Industrial Canal. The line is expected to improve the overall efficiency of the system by allowing higher operating speeds and shorter travel time for buses forced to utilize congested French Quarter streets.

Status.—RTA will begin the Major Investment Study in the Spring of 1998.

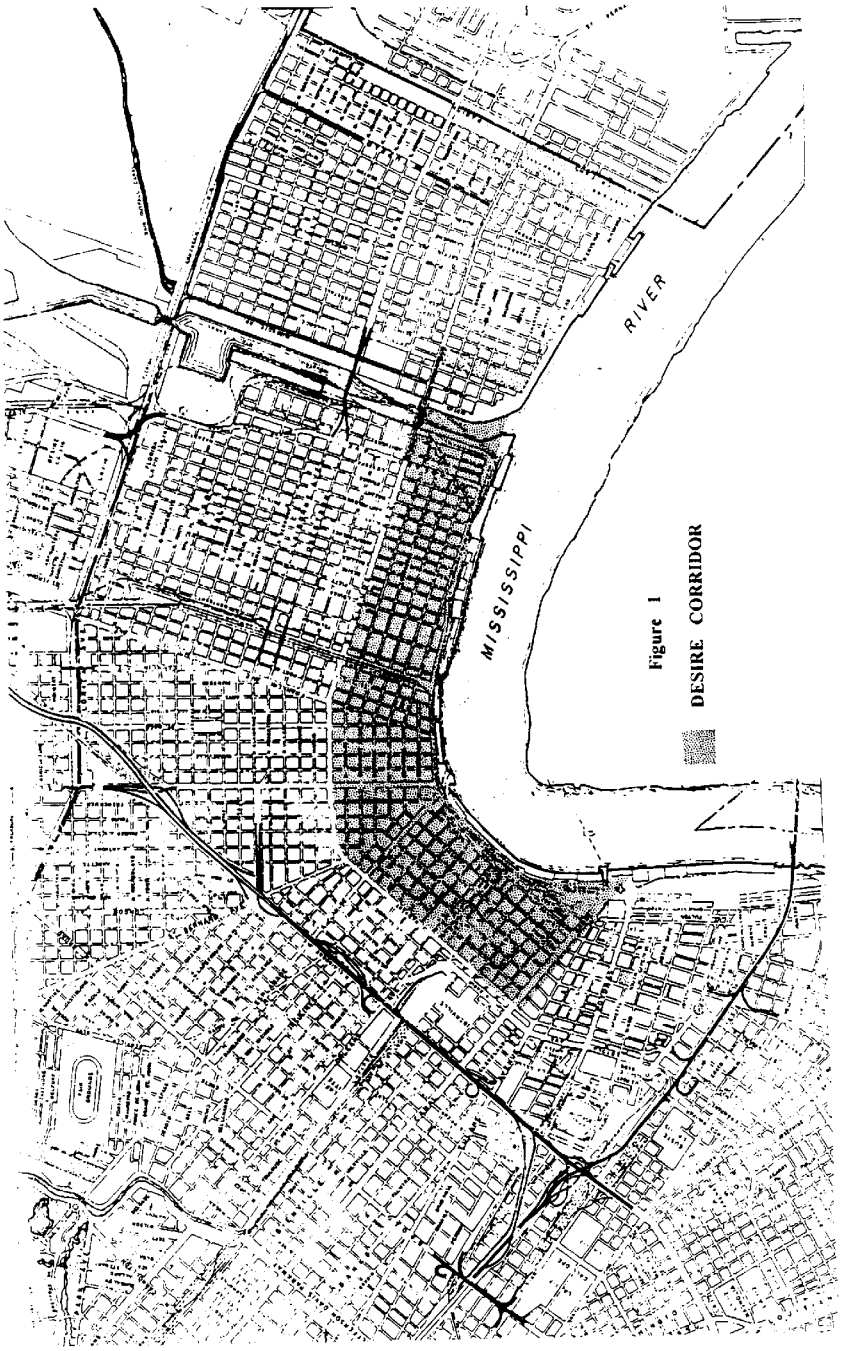


Figure 1

PREPARED STATEMENT OF THE NIAGARA FRONTIER TRANSPORTATION AUTHORITY

INTRODUCTION

The Niagara Frontier Transportation Authority (NFTA) appreciates the opportunity afforded by the Subcommittee on Transportation and Related Agencies Appropriations to present testimony in support of its project initiatives for transportation appropriations in federal fiscal year 1999. The Niagara Frontier Transportation Authority (NFTA) is a regional multi-modal transportation authority responsible for air, water and surface transportation in Erie and Niagara Counties. NFTA businesses include a bus and rail system, a paratransit system, two international airports, a small boat harbor and transportation centers in Buffalo and Niagara Falls.

In support of its transportation mission, the NFTA respectfully requests your consideration of the following transportation appropriations requests in fiscal year 1999. The appropriation requests are described in the following narrative.

PROJECT APPROPRIATIONS

Federal Transit Administration Bus Capital

Appropriate $6 million for HUBLINK, the NFTA Transit Restructuring Program.

Federal Aviation Administration Airport Improvement Program

Appropriate $21 million under the FAA Airport Improvement Program to permit the acquisition and demolition of the Buffalo Airport Center.

HUBLINK

As reported last year, Metro, the NFTA's public transit business center, is working to meet the difficult financial challenges that impact the viability of the transit system. Fundamental changes in the demographic characteristics of Western New York have altered transportation patterns in and around the urban area that have been prevalent for nearly 50 years. Population shifts to the suburbs have occurred but, for the first time, the loss of population in the central city has been accompanied by a similar migration of business activity as well. Thus, Metro is faced with a changing market of potential transit riders. Metro's current service radiates out from the Central Business District (CBD) to suburban areas and primarily meets that traditional travel demand. In order to be competitive, Metro needed to redesign its system to meet the changing demands for service.

A strategic business planning effort that recognized changing demographic characteristics for both population distribution and employment spawned the need to restructure local transportation services. Furthermore, these changing demographic patterns are not unique to Western New York. Across the country, we see the movement of jobs and population to the suburban areas. We think our project provides a national model to meet the changing transportation needs that result from this movement.

HUBLINK, the term coined for the transit restructuring program, is a comprehensive coordinated public transportation system designed to provide enhanced mobility throughout Western New York. Through enhanced mobility, HUBLINK can achieve the objective of connecting people to jobs and providing taxpayers with more value for their tax dollar. HUBLINK marshals available resources in a new, comprehensive transit solution for the twenty-first century.

The Goals of The HUBLINK Project focus on: Jobs, value for tax dollars, and quality of life.

During the past year, technical work has been completed to develop a new mobility plan for Metro. Plan implementation has begun. A description of the plan follows.

THE MOBILITY PLAN

The HUBLINK transportation system is designed to meet the needs of individuals throughout Western New York including job seekers seeking access to employment outside of the urban core, suburban residents traveling between communities, individuals with disabilities and senior citizens. The HUBLINK system builds upon existing service and further offers services in urban, suburban and rural areas tailored to each areas specific needs. A key feature of HUBLINK is a series of strategically placed transit centers or HUBS. The HUBS will offer convenient transfer points between transportation modes to improve access and mobility. HUBLINK is designed to provide taxpayers with the maximum value for their tax dollars, through the effi-

cient coordination of multiple programs and by encouraging more ridership on the bus and rail system.

The system consists of three interconnecting and complementary service networks described below:

REGIONAL SERVICE NETWORK

The regional service network is designed to serve travel in the urban core of the region and long distance travel across the region. These travel needs can be served efficiently with current modes of transit. The traditional transit components of this network are urban bus service, rail service, regional fixed bus service and para-transit service. Enhanced reverse commute services and employer based service would be added or enhanced as needed. The construction of up to 24 HUBS, some with transit centers and park and ride facilities is envisioned. Supporting elements such as bicycle and pedestrian access would complete this network.

LOCAL SERVICES NETWORK

The HUBLINK plan calls for a variety of small bus or van services to provide for local trips and feeder/distribution service to and from hubs in lower density area of the region. NFTA will fund a portion of the cost of these services. Local municipalities, human service agencies and private companies will contribute the balance of the funding to provide the service. This program will permit localities to select service options tailored to their individual service needs. For suburban service, the options include local circulator service and employment center shuttles. For low population density rural areas, options include demand responsive service and volunteer ridesharing.

COORDINATION SERVICES NETWORK

The coordination network consists of a variety of transportation services provided by public and private providers. These include human service agencies and educational institutions. The HUBLINK plan proposes a more efficient utilization of existing resources through voluntary collaboration. To facilitate this collaboration, a Mobility Coordinator is envisioned to manage the network to maximize service availability, improve efficiency, minimize duplication, and close gaps in the current service.

The HUBLINK system will integrate a variety of traditional and non-traditional modes of transportation. A seamless means of fare collection is necessary to facilitate the integration. Passengers must be able to easily transfer from one carrier to another at the various transit hubs that will make up the system. To this end, NFTA is undertaking a fare collection study to determine system needs. The study will determine the appropriate fare structure and optimal technology. A system that employs swipe card technology is under serious consideration. Swipe cards, similar to pre-paid cards used in other businesses, may be interfaced with other transportation facilities such as parking ramps and toll booths. Swipe cards have been used successfully in transportation systems application nationally and we believe the technology can succeed for our system, as well.

HUBLINK requires a new fare collection system to replace the Metrobus fare collection system which is outmoded from both technical and marketing perspectives. Metro is cannibalizing equipment to maintain the existing system, only possible because our peak bus fleet requirements have decreased. A new system will afford accurate revenue and passenger counts, necessary for system performance measurement. Also, new technology is easier to maintain and more customer friendly, and passenger convenience can enhance ridership. The procurement of a new fare collection system for Metro is needed to maintain existing transit infrastructure, as well as to support the HUBLINK system. The new fare collection system is scheduled for procurement in fiscal year 1999.

The implementation of the HUBLINK system is planned over six years, beginning in 1998–99 and ending in 2003–04. The phases correspond to geographic areas that will be integrated into the system. The phases were established as a result of demand estimation and community interest in supporting and using HUBLINK services.

The total capital cost of the implementation of the HUBLINK and fare collection systems is estimated at $46 million between 1999 and 2004. Capital costs include $20 million for the construction and upgrade of transit hubs, $19 million for the purchase of vehicles, $5 million for a replacement fare collection system, and $2 million for customer information systems and start-up expenditures.

LEGISLATIVE ACTION

At this time to further HUBLINK implementation, NFTA seeks a $6 million bus capital appropriation within the fiscal year 1999 transportation appropriations to support capital expenditures including: upgrading two transit hubs, the procurement of 10 transit vehicles, information systems network hardware, data input, and customer information displays, and a replacement fare collection system.

BUFFALO NIAGARA INTERNATIONAL AIRPORT

The second initiative for which we seek funding consideration from the transportation appropriations committee concerns improvements to alleviate safety limitations at the Buffalo Niagara International Airport.

Phase I of Master Plan improvements at the Greater Buffalo International Airport consisted of the $157.7 million Airport Improvement Program. Phase I improvements included the construction of a new terminal, roadway system, airside improvements, and parking structure. These facilities were opened on November 3, 1997. The new airport was renamed the Buffalo Niagara International Airport (BNIA) to reflect recognition of the entire Western New York region.

Certain elements of the airport improvement program, namely the acquisition and demolition of the Buffalo Airport Center (BAC), formerly the Westinghouse plant, and Runway 14/32 safety improvements, were deferred to Phase II. These projects would remove safety constraints on airside operations and facilitate long term airport development needs.

Now that Phase I improvements are nearly complete, the NFTA is focusing on the completion of Phase II of the Airport Improvement Program. Property acquisition is justified as a safety improvement to Runway 14/32. Acquisition and subsequent demolition of the BAC property will remove a safety area obstruction and operational limitations on Runway 14/32. Furthermore, safety area improvements to Runway 14/32, included in the BNIA Master Plan for implementation after the acquisition and demolition of the BAC, can be undertaken. These improvements will afford the continuation of existing airport operations during future rehabilitation of main Runway 5/23.

LEGISLATIVE ACTION

NFTA seeks a fiscal year 1999 transportation appropriation in the amount of $21 million under the FAA Airport Improvement Program to permit the acquisition and demolition of the Buffalo Airport Center.

PREPARED STATEMENT OF PAUL P. SKOUTELAS, EXECUTIVE DIRECTOR, PORT AUTHORITY OF ALLEGHENY COUNTY, PITTSBURGH, PA

Chairman Shelby and members of the subcommittee, I am pleased to submit testimony on behalf of Port Authority of Allegheny County, the principal public transportation provider in the Pittsburgh urbanized area. Port Authority carries 75 million public transportation riders annually within a 730 square mile area through a variety of services including bus, busway, light rail, incline, and the nation's largest specialized paratransit system.

As Executive Director of Port Authority of Allegheny County, it is my privilege to present this testimony regarding Port Authority's request for fiscal year 1999 transportation earmarks for the Stage II light rail transit project, a major component of Port Authority's "rail 21" program, and for the purchase of buses. The "rail 21" program is comprised of several different rail projects including Port Authority's Stage II light rail transit project and the Northshore/CBD fixed guideway project.

Port Authority is requesting $100 million of section 5309 "new start" funds for the Stage II project in fiscal year 1999. Port Authority is also requesting a section 5309 "bus/bus facility" earmark of $30 million to be used to acquire approximately 125 buses in fiscal year 1999. Procurement of new buses will enable Port Authority to continue modernizing its fleet and ensure the continuation of transit service to its customers.

RAIL "21" PROGRAM

Light rail transit Stage II system

Port Authority's light rail transit system, also known as the "T", is a twenty-five mile light rail transit system serving the city of Pittsburgh and the South Hills communities of Allegheny County.

The South Hills light rail system, part of an extensive trolley network formerly operated by the Pittsburgh Railways Company and its predecessors, was acquired by Port Authority in 1964. Between 1980 and 1987, Port Authority completely reconstructed 10.5 miles of the system, a project referred to as Stage I.

Stage I entailed construction of the downtown Pittsburgh subway and rehabilitation of Port Authority's Panhandle Bridge over the Monongahela River, modernization of the old trolley line to South Hills Village via Beechview and Mount Lebanon, construction of the Mount Lebanon transit tunnel, reconstruction of the Allentown line, construction of a new rail car maintenance facility and operations control center and purchase of fifty-five articulated and air-conditioned light rail cars. Also included was the completion of the 2.5 mile Allentown line in 1992.

The Stage II light rail transit system which was designated a "new start" project in the Intermodal Surface Transportation Assistance Act of 1991 (ISTEA) involves the reconstruction of twelve and one-half miles of the Overbrook, Library, and Drake trolley lines to modern light rail standards. The environmental assessment for the project was completed in 1993 and preliminary engineering will be completed in April 1998. Rebuilding the three lines on their existing alignments includes double-tracking the Overbrook line, replacing bridges, stabilizing slopes, adding retaining walls, constructing new stops and stations, and installing signal, communications and electrical power systems. The Drake line would also be built to light rail standards. The Library line would be rebuilt on its existing right-of-way. Additionally, the acquisition of approximately twenty-seven new light rail vehicles is proposed, and approximately 2,400 new park and ride spaces will be added. It is projected there will be seven construction contracts, two procurement contracts and one contract for construction management services awarded during calendar 1998. The current project is estimated at a total of $492.8 million or $392.2 federal share.

BUS PURCHASE

Port Authority is also requesting $30 million of section 5309 bus/bus facility funds in the fiscal year 1999 transportation appropriations bill to be used toward the procurement of approximately 125 buses. The new buses will replace buses which have completed their useful service lives and are eligible for retirement by virtue of age or mileage standards. The buses will be used in Port Authority's overall route network which serves 260,000 riders each day, or about 75 million annually.

It is our fervent desire that your subcommittee will continue increasing the overall level of investment in transportation infrastructure which is of national importance. Your subcommittee has enabled undercapitalized and physically deteriorated public transportation systems in our great cities, suburban communities, and rural areas to be rejuvenated. Further, this subcommittee has helped create an interstate highway system and airport network that is the envy of the world. Now, it is imperative that all levels of government continue to develop our transit and surface transportation networks.

Finally, I want to thank you for your leadership and also the subcommittee for its past support and commitment to surface transportation programs, particularly, for those that affect public transportation.

I look forward to an active and ongoing dialogue with the subcommittee in the coming years. I would be pleased to submit any additional information at this time as would be useful to the subcommittee.

PREPARED STATEMENT OF REGIONAL TRANSPORTATION COMMISSION, CLARK COUNTY, NV

INTRODUCTION

The Regional Transportation Commission of Clark County, Nevada (RTC) is pleased to have the opportunity to present this testimony to the Subcommittee in support of our fiscal year 1999 funding requests.

The RTC is a public entity created under the laws of the State of Nevada with the authority to operate a public transit system and administer a motor fuels tax to finance regional street and highway improvements. In addition, the RTC is the Metropolitan Planning Organization (MPO) for the Las Vegas Valley. As the public transit provider, the RTC operates Citizens Area Transit (CAT), a mass transit system that moves more than 3.5 million passengers a month and recovers nearly 50 percent of its operating and maintenance costs from the farebox.

The RTC, acting as the public transit authority, requests that the Subcommittee give positive consideration to the four projects described in this testimony. Specifically, the RTC requests funding from Section 5309 (formerly Section 3) in the

amount of $6.5 million for PE and final design for a 5.2 mile initial operating segment of a fixed guideway system; $3.8 million for bus fleet expansion; $4.6 million for a Passenger Terminal facility; and $2.3 million for a CNG refueling facility. As shown in this testimony, these four projects are critical to the continued development of an intermodal transportation system capable of meeting the needs of the fastest growing transit system in the United States.

PLANNING CONTEXT

Las Vegas Growth and Development.—The Las Vegas metropolitan area continues to experience explosive growth. While acknowledged internationally as a premier resort destination, the Las Vegas Valley also represents a community of over 1.3 million permanent residents. The economy of the Las Vegas Valley is characterized by a favorable business environment, a strong job market, an absence of a business and personal income tax, and a comparatively low property tax by national standards. This environment has fostered an era of extraordinary growth that, since 1990, has fueled the creation of over 150,000 new jobs and has witnessed the influx of over 400,000 new residents to the valley. Current projections indicate that population and employment will continue to increase, exceeding 2.0 million residents and 750,000 jobs by the year 2015.

In addition to the strong residential community living in the Valley, Las Vegas continues to remain a world class resort destination which welcomed over 29 million visitors in 1997. With over 100,000 hotel rooms available, the Las Vegas Resort Corridor offers a wide variety of recreational and entertainment opportunities, and unparalleled convention and meeting facilities. On any given day, the actual population of Las Vegas (defined as residents and tourists), exceeds 1.5 million persons. Ensuring adequate mobility is essential to maintaining a superior quality of life for residents and a pleasant visitor experience.

The Resort Corridor of Las Vegas is, however, more than world renowned resorts. It also contains a broad array of land uses that are not typically associated with the public image of Las Vegas. For example, the northern boundary of the Resort Corridor includes a substantial section designated by the City of Las Vegas as a redevelopment area to which public investments are targeted for urban revitalization. In contrast, the southern area of the Resort Corridor includes office uses, health care, shopping and educational facilities (including UNLV and several elementary and middle schools).

Although it covers only 10 percent of the land area of Las Vegas, over 50 percent of the regional employment is located within the Resort Corridor, while 93 percent of the area residents live outside the corridor. Current job densities in the Resort Corridor approximate 56 jobs per acre. This is similar to the conditions that exist in the central business districts of Portland (OR), Sacramento, San Diego, St. Louis, Pittsburgh, Cleveland, Buffalo, and Baltimore. All of these communities have determined that a fixed guideway system is an appropriate transportation investment and have committed substantial resources to the development and operation of fixed guideway systems.

All of these activities contribute to the centrality of the Resort Corridor. In 1996, of the 4.0 million daily person trips made in the Las Vegas Valley, 63 percent were commuter trips focused on destinations in the Resort Corridor. The mixing of land uses coupled with the ever increasing scale of the community also contributes to the high levels of transit ridership experienced by CAT. More importantly, the continued rapid growth reinforces the attractiveness of a fixed guideway system as part of the transportation infrastructure and service fabric.

Major Investment Study.—The extensive and sustained growth in the Las Vegas valley has created significant transportation challenges. In October of 1997, the RTC adopted a Major Investment Study (MIS) that identified four strategies designed to ensure that traffic congestion will not worsen over the next 20 years from levels currently experienced. The four strategies include: (1) construction of an 18 mile fixed guideway system serving the Resort Corridor; (2) expansion of CAT fixed route service to 500 peak service buses; (3) initiation of a TDM/TSM program designed to incentivize transit in all of its forms and fund low cost traffic management projects, respectively; (4) completion of the Resort Corridor street and highway system by finishing nine roadway projects, including the construction of Resort Boulevard—a new collector-distributor parallel to Las Vegas Boulevard. Completion of all of these projects will ensure that Las Vegas taxpayers will continue to have timely access to their jobs, avoid the disruptive affects of continual road construction, reduce reliance on the Single Occupant Vehicle and foster the on-going efforts of the Las Vegas Valley to meet the mandates of the Clean Air Act Amendments of 1990.

In light of the RTC's adopted MIS and the documented success of the CAT system, the RTC has four initiatives it has prioritized for transit discretionary funding in its Regional Transportation Plan and the Transportation Improvement Program adopted in January of 1998. These priorities include continued funding of Fixed Guideway preliminary engineering/final design, acquisition of rolling stock for CAT, construction of a Transfer Terminal Facility in the Resort Corridor and construction of a Compressed Natural Gas refueling station. Each of these projects as documented in the Regional Transportation Plan (RTP) reflect the RTC's long term commitment to advance the usage of mass transit technologies as a means to effectively address growing commuter travel demands. In fact, with 63 percent of all valley wide trips either beginning, ending or traveling through the Resort Corridor, the RTC cannot continue to rely solely on roads or buses, but instead must act now to begin implementing all elements of the MIS.

FIXED GUIDEWAY SYSTEM—PRELIMINARY ENGINEERING AND FINAL DESIGN

The CAT system represents a significant commitment by the RTC to address the travel needs of residents and visitors alike. However, as documented in the Resort Corridor MIS, a higher level of mass transit is clearly necessary in a city of 1.3 million. Despite the dramatic growth and expansion of CAT, the Las Vegas Valley continues to experience rising congestion levels, especially in the area known as the Resort Corridor. The expansion of the bus system can address some of these needs in the short term, but there is a limit to the number of buses that can be put on the streets and, in fact, in the number of streets and highways that can be built. The MIS illustrated that projected travel demands, if addressed only through road construction, would require the construction of 18 north-south and 20 east-west and arterial lanes through the Resort Corridor.

The objective of the fixed guideway system is to provide residents and visitors with environmentally clean, cost effective public transportation services that will meet the dramatically increasing transportation needs of the Las Vegas Valley. The proposed fixed guideway system (depicted in Exhibit A) contains 18.4 miles of double track, elevated, automated guideway; providing service to 28 stations and three major terminal stations. The system includes a core system and an extension to McCarran International Airport. The core system consists of 15.6 miles of guideway, 25 stations and two major terminals. The cost for the full system is approximately $1.14 billion. To facilitate the design, construction, and operation of this project, the RTC is currently considering a turnkey procurement. The RTC is seeking an authorization of $225 million for Phase 1 of the project in the ISTEA legislation being developed by Congress, representing a 45 percent Federal share over the proposed 5 year authorization period.

The RTC has commenced initial preliminary engineering activity for a 5.2 mile initial operating segment referred to as Phase I (depicted in Exhibit B). The RTC received a fiscal year 1998 Section 5309 earmark for the fixed guideway project in the amount of $5 million. The RTC has submitted a grant application and LONP request for those funds, and, consistent with the agency's normal Federal grant cycle, anticipates receiving and beginning expenditure of those funds this summer. The RTC has also conducted a thorough analysis of vehicle technologies and is in the process of analyzing the appropriate technology for the system and developing vehicle specifications. The RTC next intends to proceed with more specific project definition and the Draft Environmental Impact Statement (DEIS) on the entire 18 mile system. To this end, the RTC requests the sum of $6.5 million in Section 3 new start funding for the continuation of preliminary engineering and design for this project.

CITIZENS AREA TRANSIT—BUS FLEET EXPANSION

Citizens Area Transit (CAT) began service on December 5, 1992. At that time, CAT represented the largest single start-up of new bus service in North America. CAT has proven extraordinarily successful. Annual CAT ridership has grown from 14.9 million riders in 1993 to over 41.0 million riders in 1997; a growth rate of over 175 percent in only 5 short years. Las Vegas is the fastest growing city in the United States, but the CAT system is growing at a rate faster than the growth in the area's population, employment, hotel rooms, visitor volumes, airport passengers, vehicle miles traveled, and auto registrations in the same time period. While the CAT routes operating along Las Vegas Boulevard provide service to over 900,000 passengers per month, this accounts for only 25 percent of the total monthly ridership. Indeed, although the CAT route on Las Vegas Boulevard carries in excess of 67 passengers per service hour, three of the CAT residential routes meet this relative passenger performance level as well (compared to the national average of 33.8

passengers per service hour). Clearly, many Las Vegas residents rely heavily on the CAT system to get to work, school, shopping, medical services and recreational facilities. Providing mass transit services throughout the Las Vegas Valley, CAT has become an essential element in the Las Vegas community.

To respond to the burgeoning demand for transit services, the RTC has continually increased bus service. Since startup, total annual hours of revenue service have increased by 56.4 percent; from 585,134 hours in 1993 to 915,451 in 1997. Similarly, annual vehicle miles have doubled; from 6,384,660 miles in 1993 to 12,771,276 miles in 1997. In October of 1997, the RTC instituted a 15 percent service increase upon receipt of 20 additional coaches, pushing annual service hours to over 1 million hours of service. The CAT systems has successfully increased ridership while remaining operationally efficient. Costs per passenger have dropped consistently since startup, to approximately $1.15 per passenger. Meanwhile, the farebox recovery rate of CAT averages over 50 percent, one of the highest farebox recovery rates in the nation. Some routes on heavily traveled corridors have a farebox recovery ratio of over 100 percent. In 1997, CAT was recognized by the American Public Transit Association (APTA) as the winner of the Outstanding Achievement Award—Bus System of the Year for the 151–600 bus category.

Despite the CAT systems remarkable growth, the RTC has been unable to yet attain the service levels needed and desired by the riding public. To provide convenient access throughout the community, and establish transit as a viable option for motorists, the RTC adopted a minimum service goal of 30 minute frequency or better for all CAT routes. Since start-up, the RTC has continually worked toward achieving this goal and currently provides 30 minute frequencies or better on 51 percent of the routes. However, the single largest constraint faced by the RTC to providing more service has been the availability of additional equipment. In 1997, CAT carried its considerable ridership of over 41 million passengers on a total fleet of only 215 coaches. When compared to other peer cities, CAT transports up to 3 times the number of passengers per vehicle. This passenger load factor is not sustainable over the long term in terms of the enormous demands placed on existing rolling stock, and makes expansion of the fleet size an absolute necessity.

The RTC is currently preparing a procurement for 33 additional vehicles for expansion of the CAT fleet. However, even more vehicles will be needed to meet the ever growing demands for expanded services. To continue to expand CAT services, the RTC requests $3.8 million in Section 3 bus discretionary funds to purchase 14 additional vehicles which would be used to provide more frequent services on a number of heavily utilized routes. Consistent with past appropriations requests, the RTC will provide a substantial overmatch of 30 percent in local funding for these equipment purchases.

BUS PASSENGER TRANSFER FACILITY

In December of 1997, the RTC opened its new Integrated Bus Maintenance Facility (IBMF), a 36.6 acre, $35 million state-of-the-art facility to house and maintain the CAT fixed route and paratransit fleets. This facility will serve as a national model for transit maintenance facilities. The RTC greatly appreciates the Federal appropriations which made this facility a reality. With the completion of the IBMF, the RTC is now in a position to concentrate on developing and improving passenger facilities for the many patrons of the CAT system.

To ensure comfort and convenience for the passengers of the CAT system, the RTC plans to build a network of terminal/transfer facilities throughout the Las Vegas Valley. Terminal/transfer facilities will provide locations where passengers have the opportunity to easily transfer between routes, passengers have shelter from the elements, and coach operators have access to necessary amenities. In addition, terminal/transfer facilities will provide opportunities for a reasonable interface between fixed route and paratransit services. At this time, the CAT system currently has only one terminal/transfer facility in the downtown area, known as the Downtown Transportation Center (DTC), which was built in 1987 prior to the initiation of the CAT system. With the ever-increasing demands for additional services, there is a critical need for additional terminal/transfer facilities.

The RTC has identified several areas throughout the Las Vegas Valley where facilities are being pursued, the most notable being in the South Resort Corridor area. In this area, the CAT system is currently utilizing private property as a transfer facility. Six CAT routes now converge on private property belonging to a hotel/casino at the southern end of the Las Vegas Strip. While the generosity of the property owners is appreciated, there are no conveniences or amenities dedicated to the riding public of the CAT system. The RTC has identified several sites that would support a South Resort Corridor Transit Center, and is moving forward with procur-

ing a consultant to perform the necessary Environmental Assessment and design for a facility. In order to expediently move to construction of the facility, the sum of $4.6 million is requested in Section 3 bus discretionary funds for construction of this important facility.

CNG FUELING FACILITY

The dramatic growth in population and employment in Las Vegas has resulted in a tremendous increase in traffic congestion and a significant deterioration in regional air quality. Pursuant to the Clear Air Act of 1991, the Environmental Protection Agency has designated the Las Vegas airshed as a serious non-attainment area for carbon monoxide (CO) and PM10 (inhalable particulate matter; 10 microns or less). Transit is an essential element in the region's overall strategy to reduce traffic congestion and improve regional air quality. In its role as the MPO and transit operator, the RTC is constantly promoting additional methods to help improve air quality.

When CAT paratransit services were initiated, the RTC mandated the entire paratransit fleet use an alternative fuel. The paratransit fleet consists of 120 vehicles which all use compressed natural gas (CNG) to help the RTC promote air quality standards. With this paratransit fleet, the RTC is currently the largest single sponsor of an alternative fuel fleet in the Las Vegas Valley. Currently, the RTC owns only 2 facilities throughout the Valley where these vehicles are fueled. It is the RTC's intention to build an additional satellite fueling facility for CNG fuel and for use in an electric power demonstration program. To fund this program, the RTC requests $2.3 million in Section 3 bus discretionary funds for assistance in building this facility.

In conclusion, the RTC is requesting the total sum of $10.7 million in Section 5309 bus discretionary funds for the CAT fixed route system, and $6.5 million in Section 5309 new start funds for continued preliminary engineering of a fixed guideway system. The RTC genuinely appreciates the Federal assistance it has received to date. Together, we have built an award winning public transit system in just 5 short years. We look forward to continuing to work together on these important projects.

PREPARED STATEMENT OF DIANA DEGETTE, U.S. REPRESENTATIVE, FIRST CONGRESSIONAL DISTRICT, STATE OF COLORADO

Chairman Wolf and Members of the Subcommittee, my name is Diana Degette, U.S. Representative from the First Congressional District from the State of Colorado. I am here today on behalf of the Denver Regional Transportation District—RTD. I appreciate this opportunity to inform you of our progress in constructing the next light rail corridor in the Denver region—the southwest corridor. I wish to thank the subcommittee for their support of our 1998 request. At this time, I would like to request your further assistance in obtaining a fiscal year 1999 appropriation of $60 million to keep our project on schedule.

RTD provides public transit service to over 2 million residents of the six counties and 37 municipalities in our 2,400 square mile district—one of the largest transit districts in the nation. Our fleet of 868 buses and 17 light rail vehicles carried over 71 million passengers in 1997, our eleventh consecutive year of increased ridership.

In 1994, RTD completed its first light rail project, the central corridor on time and within budget. The 5.3 mile central corridor light rail has exceeded our original projections of 14,000 riders per day. We are now carrying 15,000 riders per day. This light rail line which cost $130 million was financed totally with RTD local funds.

Mr. Chairman, RTD is continuing its progress in developing rapid transit by extending the construction of light rail from our present central corridor light rail line to the southwest corridor. The 8.7 mile southwest light rail extension will serve three major activity centers: the Denver central business district, a major regional retail and commercial center in Englewood currently under major redevelopment and the Littleton central business district. This project will also provide service to the residents of Douglas County—the fastest growing county in Colorado and one of the fastest growing counties in the United States.

In its first year of operation, the southwest light rail transit project is projected to provide its passengers with a 56 percent travel time savings as compared to the same trip by automobile. By 2015, this light rail project is expected to cut auto travel time in half, saving its 22,000 passengers over 25 minutes per trip. The value of this travel time savings is expected to reach over $9.5 million annually by the year 2015. In addition, the southwest corridor light rail project allows RTD to oper-

ate more efficiently. By the year 2015, RTD can provide this light rail service at $2.60 per passenger trip compared to a similar trip by bus that would cost $3.10—a 19 percent savings per rider. Additionally, RTD estimates that the cost per new rider, as per FTA guidelines, is $3.23; a very favorable figure.

In acknowledgment of the important benefits to be derived from this project, the Federal Transit Administration and RTD, entered into a full funding grant agreement in 1996 in the amount of $177 million. The full funding grant agreement provides $120 million in new start federal funds. The balance of project funding is provided by RTD local funds in the amount of $38.5 million and with $18 million from flexible federal funds contributed by the Colorado Department of Transportation and the Denver Regional Council of Governments—our region's MPO. It is to be noted that this is the first major project in the State of Colorado where flexible federal funds, as allowed by ISTEA, were provided to transit.

Construction started on the southwest corridor light rail project in January of 1997. Included in the written testimony submitted are pictures of actual construction activity as well as a map, fact sheet and other pertinent information.

I am pleased to inform you today that the southwest corridor light rail project is within budget and on schedule. RTD has obligated and accrued $123.2 million or 70 percent of the total cost of this project. Of this amount, RTD has received only $25.8 million in federal new start funding. In order to keep this project on schedule, RTD has not only committed all their match funds of $38.5 million but has advanced this project another $52.9 million. This is truly a good faith effort on the part of RTD in keeping this project moving forward and on schedule for an opening date of July 2000.

RTD's request for $60 million takes into account the $40 million programmed in the full funding grant agreement for fiscal year 1999 plus the previous years funding shortfall of approximately $8 million. According to the full funding grant agreement, RTD was to receive a total of $33 million by this time in the project's schedule. To date, only $25 million was received. The $60 million also includes an additional $12 million—funds that were scheduled for the year 2001 as part of the full funding grant agreement. This money is needed now to meet fiscal year 1999 contractual obligations and expenditures.

In summary, this request reflects the reality that the southwest corridor is scheduled to be opened in July of the year 2000. Without a significant fiscal year 1999 appropriation, it will be difficult for RTD to keep the construction of this project on budget and within the schedule. As we all know, delays in project construction translate to increased project costs and lost revenues. Therefore, in order to keep this project on track, RTD will need a fiscal year 1999 appropriation of $60 million.

In addition to RTD's commitment to keep this project moving forward, the southwest corridor project also enjoys support from community groups, local businesses and the residents of the southwest rapid transit corridor area. This project continues to receive broad-based support from the metro area's elected officials. Letters of support are included in our written testimony.

In conclusion, RTD is well underway with the construction of the southwest corridor light rail project. RTD has demonstrated a strong commitment to keep this project on schedule by advancing its own local funds. RTD has a proven record of accomplishment through its efficient handling of the construction of its central corridor line. The project, itself, responds to the principles of fiscal responsibility, technical merit, and has the active support of state and local governments as well as the absolute support of the community it serves.

The southwest corridor light rail project is vital to our region's ability to meet the challenges of rapid growth.

We are seeking your support for our fiscal year 1999 appropriation request of $60 million for this important project.

Thank you for this opportunity to address the subcommittee and for your consideration of our request.

LIST OF WITNESSES, COMMUNICATIONS, AND PREPARED STATEMENTS

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