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AIRPORT AND AIRWAY TRUST FUND: THE FUTURE OF AVIATION FINANCING

HEARING

BEFORE THE

COMMITTEE ON FINANCE UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

FIRST SESSION

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AIRPORT AND AIRWAY TRUST FUND: THE FUTURE OF AVIATION FINANCING

THURSDAY, JULY 12, 2007

U.S. SENATE,
COMMITTEE ON FINANCE,
Washington, DC.

The hearing was convened, pursuant to notice, at 10:09 a.m., in room SD–215, Dirksen Senate Office Building, Hon. Max Baucus (chairman of the committee) presiding.

Present: Senators Rockefeller, Bingaman, Schumer, Stabenow, Salazar, Grassley, Lott, Smith, and Roberts.

Also present: Thomas Barthold, Acting Chief of Staff, Joint Committee on Taxation.

OPENING STATEMENT OF HON. MAX BAUCUS, A U.S. SENATOR FROM MONTANA, CHAIRMAN, COMMITTEE ON FINANCE

The CHAIRMAN. The hearing will come to order.

Today we will explore the state of the Airport and Airway Trust Fund, also known as the Aviation Trust Fund. I thank our witnesses for being here, especially Dr. Mark Hansen, who flew from the Bay Area to join us.

Dr. Hansen, in addition to a thank-you from the Finance Committee, I am authorized to say that you will receive 4,824 Frequent Flyer Miles for your trip. [Laughter.]

Thirty-seven years ago, Congress enacted the Aviation Trust Fund to finance capital investment in the aviation system and to cover a small portion of the system's operating cost. Much has changed since 1970, both with the Aviation Trust Fund and with aviation generally. Trust fund revenues have gone from zero to about $12 billion a year.

The nature of the trust fund has also changed. In the trust fund's first year, Congress, in the Nixon administration, fought over whether the trust fund should finance just capital projects or overall aviation operations as well. In the last 37 years, the trust fund has evolved to become a hybrid of the two. The Aviation Trust Fund now finances nearly half of FAA operations.

Finally, the amount of money remaining in the trust fund, what folks call the "uncommitted balance," has also fluctuated wildly. The uncommitted balance of the fund has gone from zero in 1970 to a high of over $11 billion in 1999, to less than $2 billion today. Much of the recent drop in the fund's balance occurred after 9/11, when many Americans just stopped flying.

Roughly half of the trust fund's revenue comes from passenger ticket taxes, so the post 9/11 downturn in the trust fund's balance

came as no surprise. That downturn also argues for a more predictable stream of revenue to fund the aviation system.

While the trust fund has changed a great deal, aviation itself has changed even more. In 1973, in response to a series of hijackings, airlines started screening passengers and their carry-ons. A few years later, airline deregulation occurred, removing the requirement that airlines serve certain areas, like rural Montana.

In the 1980s, air traffic controllers went on strike. Airline bankruptcies piled up, and the Aviation Trust Fund lapsed for the first time, as Congress was unable to agree on how to reauthorize its taxes.

The 1990s brought the Internet, and with it, online booking of air travel. At the beginning of this decade, 9/11 was not only a watershed event in American history—and world history—it also permanently changed the way that we fly.

What does the future hold? More change. By 2016, the U.S. air traffic system will handle an estimated 61,000 flights a day. That is an increase of about one-third. In the same year, 2016, the number of passengers on U.S. flights will increase from about 740 million trips per year to around 1 billion per year.

Technology is also changing. Jets are more affordable than they used to be, and their use in business aviation has increased accordingly. Business aviation is expected to increase even more in the coming years.

Jets are also changing the commercial sector, as we saw on Sunday, with the introduction of Boeing's 787 Dreamliner that is lighter, quieter, and greener than today's planes. The Dreamliner is being touted as the next generation of commercial aircraft.

There is wide agreement that we need a next generation of the air traffic control system as well. The NextGen system will lead to a safer, more efficient air traffic system.

But questions remain: how much will this new system cost, and who is going to pay for it? Those are the questions we will try to answer today and at the subcommittee hearing next week.

Throughout our work, this committee will be working to find and to fund an air traffic system that is fair, reliable, and efficient. I hope that today's hearing will be a positive step in that direction.*

As for Dr. Hansen's miles, I have just learned that those miles are redeemable only for magazine subscriptions. [Laughter.] So, Dr. Hansen, I guess you will have some reading material for the flight home.

I thank everybody for joining us, and I would like to turn to Senator Grassley.

Senator GRASSLEY. I wonder if I could have Senator Rockefeller go ahead of me?

The CHAIRMAN. Sure. Senator Rockefeller?

I would like to just introduce and say that Senator Rockefeller has done a lot in this area, as has Senator Lott. I want to thank you, Senator, for all that you have done and am very interested in your comments.

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*For additional information on this subject, *see also,* "Present Law and Background Information Relating to Financing of the Airport and Airway Trust Fund and Airports," Joint Committee on Taxation staff report, July 11, 2007 (JCX–42–07).

OPENING STATEMENT OF HON. JOHN D. ROCKEFELLER IV, A U.S. SENATOR FROM WEST VIRGINIA

Senator ROCKEFELLER. Well, thank you, Mr. Chairman. I appreciate that very much. In fact, I have been either Ranking or Chair of the Aviation Committee of Congress for over 10 years now. Senator Lott and Kay Bailey Hutchinson have done the same thing.

Senator Lott and I have crafted this bill, and I think we have crafted a very strong reauthorization bill that lays the groundwork for the Agency to modernize the air traffic control system, to fund infrastructure, improve safety, and protect small community service.

Now, what do I mean by that? There is one thing that has to be made very, very clear, and that is that we are the only industrialized nation in the world that does not have a digitalized air traffic control system. The only one. That is an enormous waste of time. It is enormously expensive to keep it going and to keep it repaired.

We are going to have to—we have no choice—not only maintain the analog system which we now have—which monitors all these planes, some 36,000 planes in the air at any given time, on average, during a day, two-thirds of which are general aviation planes, incidentally—and we are going to have to build a digitalized system to catch up with other countries. So that is sort of a little background on that.

So we face this very difficult task of reauthorizing aviation taxes, always a popular, warm-hearted subject. Senator Lott and I have proposed a simple adjustment to fuel taxes as a way to bring some equity among the users of the system. I understand that some of my colleagues have other ideas, and we will be able to discuss this in other meetings.

I do not believe that commercial airline passengers should continue to subsidize corporate jets. Let me put that more clearly. Under the present analog system of air traffic control, which is inefficient, which is deteriorating, and which is expensive——

Senator ROBERTS. Would the Senator yield just for a moment?

Senator ROCKEFELLER. No, I will yield when I am finished.

Senator ROBERTS. Just for a brief question.

Senator ROCKEFELLER. Yes, sir?

Senator ROBERTS. Could you say "business jets" instead of "corporate jets?" Just a suggestion.

Senator ROCKEFELLER. Yes. And when I talk about general aviation, 90 percent of all general aviation is excluded from what I am talking about, from the fees that I am going to be talking about.

Senator ROBERTS. I understand that, sir. It is just, some people use the word "corporate" as a pejorative as opposed to a "business" jet, a small business jet coming from Dodge City, KS. Just a suggestion.

Senator ROCKEFELLER. All right. My people say "corporate," your people say "business." We will figure out a neutral word.

And 92 percent of all the costs of the air traffic control system, the analog one which we now have, are paid for by legacy or commercial passengers and airlines. Eight percent, even though two-thirds of the flights in the air at any given moment, many of them—not all of them, many of them—using the air traffic control

system are paid for by general aviation. By any standard, this is totally unfair to consumers of commercial aviation.

So I do not want to have this system where commercial airline passengers continue to subsidize jets. I will just leave out the word for the moment. Corporate jets, I would say.

The current tax system is unfair to rural customers—to rural customers—because of the higher fares our constituents have to pay. We need to develop a system that is fair to the 700 million passengers a year, and that reflects the enormous growth of general aviation.

General aviation is going to continue to grow by leaps and bounds, far ahead of commercial aviation, especially high-end jets, which I would refer to as corporate jets, that use the air traffic control services but do not really pay for it and do not want to. They do not want to. It is an ever-increasing burden on our aviation system. These are facts.

Ninety-two percent of the costs of the system is paid for by commercial airlines, which means people. The Commerce Committee took one important step towards developing part of a comprehensive funding system for the FAA.

I believe that the Commerce Committee's creation of a new $25 surcharge, which goes into the trust fund which has already been spoken of by the Chairman, is dedicated only for the building of a digitalized air traffic control system, that $25 fee.

Now, figure—whatever you want to call it, a corporate jet, a business jet, a large jet, small jet—a $25 fee if you are flying from here to anywhere is not exactly a back-breaker. I am told that it will buy a pack of Coke to put on board.

So the surcharge is dedicated only for air traffic modernization. For no other purpose can it be used. We have to have that digitalized system to keep our planes safe. It must be a fundamental component of the Agency's future financing.

The general aviation community has aggressively opposed paying the $25 surcharge, despite the fact that only 10 percent of high-end business jets would be required to pay it. Again, I repeat: 90 percent of all general aviation planes are excluded from this horrendous $25 fee, which I do not consider much of a back-breaker. Ninety percent of the fleet would be exempt under what Senator Lott and I propose.

In concluding, let me make it very clear. If we do not restore equity to the financing structure that funds the FAA, then, as Chairman of this Aviation Subcommittee, I will address the equity issue by looking for ways to limit the access of general aviation to congested air space. This only makes sense.

You look at the busiest airports, you look at the commercial aviation, you look at the people sitting on tarmacs in West Virginia and Dodge City, KS, and all kinds of other places, in Iowa and Montana, and they cannot take off because cities are congested. Well, they are mostly congested with private airplanes trying to land.

So, I will address that equity issue by limiting the access of general aviation to congested air space. There are ways to do that, and we will find those ways. Teterboro. I mean, I really believe that once corporate CEOs are delayed getting into Teterboro or other

places and they are forced to sit on hot tarmacs like our constituents are, they may be inclined to pay their $25, or whatever.

So, Mr. Chairman, I think this is a very, very serious matter of equity. There will be those who claim that it is going to ruin the general aviation industry. There are others who can show you reams of studies showing that most—at least half, and a growing proportion—of the corporate jets that we make are sold in Europe where these fees are already, at higher levels, tacked onto the cost. So, equity, fairness, and modernity, is what we seek. Thank you.

The CHAIRMAN. Thank you, Senator.

Senator Lott has also been very involved in this issue. It is a break from custom, but Senator Lott, before Senator Grassley speaks, I would defer to Senator Lott. Maybe Senator Grassley, first. If you are ready to go I will let you speak first, then Senator Lott.

OPENING STATEMENT OF HON. CHUCK GRASSLEY, A U.S. SENATOR FROM IOWA

Senator GRASSLEY. Aviation is a very important part of the American economy. It is vital to all rural and urban communities that the people there are able to travel timely, safely, and cost-efficiently worldwide. Whether it is the businesswoman, the tourist, or the grandparent visiting grandchildren, efficient, affordable, safe air travel is imperative and expected.

Congress is faced with reauthorizing aviation legislation. This committee oversees all the dedicated taxes funding aviation. Since 2001, the aviation world that existed in the last reauthorization has changed dramatically.

With this reauthorization, we will have the opportunity to reshape our system to reflect today's realities and to further modernize our air traffic system and airports to provide more efficient and safe travel. The United States has one of the best records of aviation safety. However, we are back to the level of air traffic that we saw before 9/11, and it is forecasted that we will continue to grow much in the future.

We must prepare for tomorrow. It has become obvious that the solutions of the past do not reflect the flying realities of today. Certainly the funding solutions of the past, then, will not offer the funding solutions for the future.

Reauthorization is always contentious. While we may have differing approaches on how to provide funds to the trust fund, we can agree on some major principles. All of us have a vested interest to ensure a stable, dependable, predictable revenue flow to the trust fund.

First, we need to ensure that we have adequate funding to modernize our air traffic control system. In light of the capacity issues and the 1950s equipment being used to manage our skies, we cannot miss this opportunity to provide the funds that will allow the next generation of air traffic control to be implemented as quickly and prudently as possible.

I think of this 1950s technology and I remember the first 1950s television set I had a chance to view. We viewed just "snow," as you might call it. Now as we put that 1950s television away probably 30 years ago, we are now still using 1950s technology for what

we are doing here. So now is the right time to replace the old radar technology with real-time GPS technology. The American people deserve our investment in this new technology.

Second, we need to honestly look at the diversity of the airport system to structure funding for the safety and fairness of every airport in America. It is important throughout this process to remember the needs of rural States and communities, and I think, of course, of Iowa.

It is true that, with our elaborate air transportation system, people who live near hub airports have the opportunity to take advantage of air travel somewhat efficiently and at reasonable prices. However, those in rural areas have more difficulty. This challenge has become even more difficult after 9/11, when most small communities were reduced to one air carrier with less frequent flights.

Commercial carriers only fly into 500 airports, although that is a business choice and there are other airports they could serve. However, it is also reasonable to understand that it is more expensive for them to do business in rural America.

Over the past decade, a new prong has developed in the aviation industry. Traditionally, the focus has been on just two main categories: commercial aviation and the private airplanes for individual or business use.

Today we have a growing new class of business aviation, which includes new dynamic fractional jet ownerships. The new business class is anticipated to grow at a much faster rate than other segments. This new prong is providing valuable opportunities for businesses to enhance efficiencies and productivity, and is also a potential way for rural areas to have more transportation opportunities.

While this is good news and may be a saving grace for struggling rural economies, the growth of business aviation is creating more stress on our national air traffic system.

Under current law, the trust fund has been overwhelmingly funded by excise taxes paid by the American flying public. Those excise taxes have been included in the passengers' ticket expense, and the commercial carriers have been a trusted and steadfast partner as an agent of the Federal Government in collecting and remitting the excise taxes through the passenger ticket system.

As we evaluate the funding for the future, this committee will need to make decisions over the funding responsibilities that should be allocated to all participants to include the passengers, the airlines, and the owners and operators of the aviation inventory across the country.

Finally, we on this Finance Committee have a fiduciary responsibility to try to ensure that the excise tax system is straightforward, that it is fair, and not an administrative burden. We will also continue to review tax schemes and their opposite point of view.

We will work to ensure that wrongdoers cannot whipsaw the government trust, nor manipulate unfair competitive advantage over the honest taxpayer by scamming the trust out of the excise taxes designed to fund the safety of the skies.

In fact, this committee's continued vigilance over fuel fraud scams continues to pay off for the trust funds. Just this week, a U.S. Attorney announced indictments of three Houston men in a

scheme where they purchased $10 million in kerosene and later sold it as diesel fuel in Houston area stations.

They conspired to avoid paying millions of dollars in Federal fuel excise taxes, cheating the American people of the funds to build roads and maintain airports, to the detriment of the honest taxpayer.

As we work through this reauthorization, I expect ongoing reviews for any lack of compliance in all areas of excise, including the aviation taxes that we are discussing. I would appreciate the input from all of our government witnesses as to the areas that they could be helpful with in this reporting and enforcement so that we do not have these scams.

Thank you.

The CHAIRMAN. Thank you very much, Senator.

Senator Lott?

OPENING STATEMENT OF HON. TRENT LOTT, A U.S. SENATOR FROM MISSISSIPPI

Senator LOTT. Well, thank you, Senator Baucus, Mr. Chairman, for having this hearing. I know that you and Senator Grassley and the committee have a lot of things you are working on, so having these hearings is not easy.

But I do want to urge that there be a second hearing at some point that is a balanced hearing from the industry so that we can get not just the government views we are going to hear from this morning, but so we can get some information from the industry, commercial, general aviation, airports, the whole spectrum——

The CHAIRMAN. I might say, Senator, there is going to be a subcommittee hearing on this very question next week.

Senator LOTT. And I do want to urge that we make sure that it is a balanced group.

The CHAIRMAN. It will be. Balance is in the eyes of the beholder, but I think both in your eyes and in this Senator's eyes, it will be balanced.

Senator LOTT. Very good. I want to take a minute—and I apologize for this, because I always try to make it a rule to be brief in my opening statements so we can actually hear the witnesses—to make a particular point to thank a couple of other people.

First, I want to thank Senator Rockefeller for the way he has handled this legislation in the Commerce Committee. We talk about doing things in a bipartisan way around here, but we do not find a way to do it very often.

Senator Rockefeller and I have been total partners in this effort. We have been sensitive to each other's concerns. We have stood together and fought off attacks which were sometimes misinformed and unfortunate to say the least. But I just wanted to say publicly how much I appreciate the way Senator Rockefeller has handled this.

Senator Grassley talks about rural and small State service of the industry. Certainly Senator Rockefeller and I are sensitive to that. Represented here today are Kansas, Iowa, Montana, West Virginia, Mississippi. We have one big State with a great airport, Detroit, but I assure you, we want to make sure that we do things that

allow the industry to provide the best possible and most affordable service to the smaller States and more rural areas.

I also want to take a minute to recognize the outstanding service of the FAA Administrator, Marion Blakey, who is here today. She has been a real champion for the industry. I think she has provided courage, strength, outstanding leadership. She is accessible. She does not live in the ivory tower of the Department of Transportation. She actually comes up here and meets with Senators of both parties and talks through problems, concerns, and solutions.

I do not know how many more times she is going to appear before this committee. I suspect she would be happy if it were the last one. But she has done a great job in trying to emphasize the needs of the industry, highlighting the importance of modernizing our air traffic control system and the need for proper financing. She could have sent just plain vanilla: oh, let us just extend it and be happy. She did not do that.

She sent a proposal—a significant proposal—forward. It got twisted around a little bit as it went up the line, but she was not deterred. She supported what she had to support when it came to the Congress, and we dumped on it some. She did not run for the hills, she just hung right in there. When we, shall we say, polished it up a little bit, made a few little changes, she said, good, let us do that. She is a woman of action.

So, I just wanted to acknowledge her tremendous service in this very important position and thank her for being here today, and wish her well in the future. And it has nothing to do with the fact that she actually spent her younger years in Mississippi. [Laughter.]

Now, on the subject at hand, I have been working in this area a good portion of my career in Congress, now 35 years. I have spent a lot of time working in transportation generally because I think transportation is about growth and economic development, the creation of jobs and future accessibility.

I am talking the whole package: lanes, trains, planes, ports and harbors. We need it all. We are not doing enough in hardly any of those areas, but I think particularly in aviation.

We have struggled along, but it is time we make the big leap, that we really look to the future. If we do not, we are going to have congestion, we are going to have unsafe air lanes, and we are going to have Europe and the rest of the world leaving us in their dust. So we have to do something. I worked on FAA reauthorization in 2000 with Chairman Bud Schuster. In 2004, it was truly bipartisan: McCain, Hollins, Rockefeller, and I.

So this is the third time. For some weird reason, this one looks like it is the hardest of all. It is because we are trying to do a little something more. We are trying to have a fairer distribution of our efforts in who pays for what. So we can just kind of muddle along if we want to, or we can really try to modernize.

Now, the industry came in before the Commerce Committee and said, great, we want reauthorization and we want modernization. But so far, nobody wants to contribute to that effort or they want somebody else to pay the price. That somebody is always the commercial side.

Everybody says, yes, we want a great new industry, we want modernization, and we want the commercial airlines to pay for all of it. Oh, by the way, we want more for everything else in our particular area of concern. I will not name anybody here because I am not here to make anybody mad at this point. [Laughter.] But I am prepared to do it down the line.

Now, here is the problem. The Commerce Committee reported our bill May 16. The Finance Committee has its sequential opportunity and they have this hearing, another hearing, and then somewhere along there we have to act. But the FAA reauthorization expires the end of September.

Generally the attitude of Congress now is, what, me worry? Do not worry, we will have money in the fund. The authorization, all the taxes and fees, expire September 30. People say, oh, well, that is all right, we have some money left in the fund. You had better check it, because there is not as much in there as you think.

Everybody says, oh, well, do not worry, we will just extend everything for a year. Do not count on it. This Congress has not been able to pass gas so far—[laughter]—let alone extend anything. We are playing with fire here. Now, we need to find a way to do something here. It is not partisan. This is about service to the American people and an industry that is critical to our future.

So all of you who are lying over in the weeds saying, I am going to get my part no matter what, and by the way, the airlines are going to pay for it, forget it. This time we are going to have a fair bill or no bill. I am prepared to go to the mat. Maybe we need to wring the system out a little bit.

So, I think we need to do this. We need to modernize. I have people, representatives—probably some of them in this room—saying, well, wait a minute. Maybe we do not need any more extra money. We can actually do everything we need to do with what we are going to get. Not. All that guarantees is that we will push off another 5 years the process to get to the next generation. This is the time, now, to replace our antiquated existing system and go for the modern system.

I associate my remarks with everything that Senator Rockefeller said. This is one place where I believe this Congress can actually get something done that will be good for the American people, for the people who fly in our industry, and for the industry itself. So I have been storing up those remarks. I assure you, I could have a lot more animated remarks at the appropriate time.

But if everybody does not quit trying to hide and let somebody else do this, and we want bigger, more modern airports, more landing strips, better pay for our workers, more profits or for the airlines not to be bankrupt, we would like business jets to be built, hey, I like all of that.

But everybody is going to have to "ante up and kick in now." A great comment from Morgan Freeman in the movie, "Glory." This is a time when we've got to all "ante up and kick in." The Finance Committee has to step up to the question of how we finance this next generation.

Thank you very much, Mr. Chairman, for allowing me to have a little extra time here and for having this hearing.

The CHAIRMAN. I appreciate that, Senator. I deeply apologize to the witnesses for this flight delay. [Laughter.]

Senator ROBERTS. Mr. Chairman, a parliamentary inquiry.

The CHAIRMAN. The Senator will state it.

Senator ROBERTS. My question is, we have heard 45 minutes of testimony from people who have worked very hard on this for over 2 years, and I congratulate them. They are my colleagues and my friends. But it is 45 minutes basically in favor of user fees, with the inference that the general aviation industry is opposed to modernization. They are not. They would like to pay—they would not like to pay, but they will pay—an increase in the fuel tax.

Now, I have 5 minutes of questions to ask of the witnesses, but we have had 45 minutes. That is not fair and balanced. That is not Fox. That is not even CNN.

I just wonder, with 5 minutes—and I am not on the subcommittee. So when we have the witnesses, *i.e.,* from general aviation, I do not know if I could be a guest or watch, or whatever else it is. But there are just a couple of things that have been said. I am not trying to set the record straight, I just have a different view.

We have spent a great deal of time making very brief comments in terms of opening speeches, which really have been a very natural kind of speech from people who have worked so terribly hard to modernize the system, which I respect.

So, having said that, I just wonder, in the go-around here, with the number of people, are we going to be limited to 5 minutes and that I only ask questions and I simply let the 45 minutes sit out there without any further comment, or what?

The CHAIRMAN. Well, Senator, I would say that the strength of your arguments, given your——

Senator ROBERTS. Can I summarize in 5 minutes?

The CHAIRMAN. No. I think the fair way to handle this, basically, is to let us get to the witnesses. When we get to questions, we will give you a little more time.

Senator ROBERTS. I would guess that perhaps the people who have made the speeches will be long gone by then. Maybe I can write them a note or meet with them on the floor.

The CHAIRMAN. You will get time. Let's go to the panel. But you will get time, Senator. You make a fair comment. It is a fair point. All right.

Let's begin with our witnesses, now. First, with Marion Blakey, Administrator of the Federal Aviation Administration. Ms. Blakey has headed up the FAA since 2002.

Peter Orszag, Director of the Congressional Budget Office. Thanks, Dr. Orszag, for all that you have done. You are a regular before this committee, and I am sure many other committees, too. Thanks for all that you do.

Gerald Dillingham, Director of the Physical Infrastructure Issues at GAO. Thank you, sir, for being here.

Mark Hansen, whom we have already introduced. Although professor of Civil and Environmental Engineering at Cal-Berkeley, his areas of research include transportation, economics, and air transportation.

Finally, Tom Barthold, Acting Chief of Staff, Joint Committee on Taxation, will not issue a statement but is here to provide the committee with answers to technical questions.

Ms. Blakey, proceed.

STATEMENT OF HON. MARION C. BLAKEY, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, WASHINGTON, DC

Ms. BLAKEY. Thank you very much, Chairman Baucus. I will try to go quickly, because I do realize that we are under some time constraints. But I have to say to you, to Senator Grassley, and to the entire committee, I have had the pleasure of working with most of you directly and it has been a genuine pleasure.

I also want to thank you for your focus on aviation safety. The U.S. aviation system is the safest system in the world and we continue to keep that record intact, so I do want to thank you on that as well.

What brings me here today is the very real concern faced by industry, government, and passengers alike. As has been noted, the taxes that fuel the Airport and Airway Trust Fund will expire on September 30, 80 days away. We need Congress to act. Indeed, the flying public is depending on this committee for the leadership and support for which you have been known for all these many years.

To be sure, America's aviation system is reaching critical mass. Unless we transform it with state-of-the-art technology as Senator Rockefeller is noting and provide a stable revenue stream to pay for it, America is going to be unable to handle the growth that is headed our way.

Forecasters are anticipating a billion passengers by 2015, and with the airlines using smaller aircraft and the advent of personal taxis, very light jets, there is little question that the aviation activity will grow dramatically across all segments of the industry. We welcome that, but we have to be able to accommodate it.

As we have before us the lessons of 2000, 2006, and so far, 2007, we do need to pay attention: long lines on the tarmac right now, wasted fuel, wasted time, a system that quietly and steadily grinds to a slower and slower pace, with delays, missed connections so often from those rural airports we were talking about, and high frustration.

What is more, the annual cost of delays is $9 billion right now. We can prevent this gridlock, but we do have to take action. The time is right. The FAA has shown over the past several years that we are very capable of managing the effort to the NextGen.

In the mid-1990s, Congress freed us from antiquated personnel and acquisition rules, slicing miles of red tape. Your direction was to operate more efficiently, and we have done so. I am very proud to tell you this morning that over 90 percent of our major capital programs are on schedule and within budget this year.

With all of this as context, we know the linchpin of our success in launching a next generation air transportation system lies in this reauthorization. Our best efforts at operating more like a business will fall short without a specific and direct link between our revenues and the cost of operating the system.

As this committee well knows, aviation is absolutely critical to our economy. Indeed, the failure to put NextGen in place could cost

the United States over $22 billion by 2025. That means delayed flights, delayed packages, gridlock, all the things we have talked about. But the tough issue is, how do we pay for it?

Today's tax system is unfair to commercial airline passengers, while the fastest-growing segment of aviation—which we are very proud of and very proud to enable—are business jets, and they are paying relatively little. It is a matter of equity.

Let me just show you one chart, because I think it makes it pretty clear why. This illustrates between two types of aircraft, a large commercial jet and a business jet, what the actual taxes are that are being paid in right now.

You see we are talking about $3,600 on a flight from JFK to LAX, whereas, for a business jet, it is $300, less than a tenth. The cost to the FAA to handle those flights? Exactly the same.

The tax revenue is also vulnerable to fluctuations in ticket prices because of our reliance on a 7.5-percent excise tax. It has nothing to do with the cost to provide the service. And when we are trying to fund long-term capital investments in NextGen, this is an inherently unstable and unpredictable way to operate from a revenue standpoint.

The primary goal of the Administration's comprehensive reform legislation is to tie the cost of providing the service to our revenue and to ensure that we do have adequate funding for the major capital investments coming up.

The key to success is to have a direct link between cost and revenues. It is a simple business principle, and it works. To operate more efficiently, the system will have to be flexible as costs change, because they will, allowing the FAA to be nimble when it comes to making adjustments that our customers are going to require.

The CHAIRMAN. I have to ask you to summarize.

Ms. BLAKEY. To wrap it up?

The CHAIRMAN. Please.

Ms. BLAKEY. Let me just show you one thing, because I think it might be interesting for you all to see. Over here I have the future of the aviation system. We are talking about a digital, satellite-based system. This very lightweight, small unit is the one that will be on the ground, helping to guide, with the system that is in the air, those satellites that are already in place, the NextGen.

It is critically important to be able to put this whole system together. So I would like to ask you to make the most of the next 80 days. We definitely need this reauthorization.

The CHAIRMAN. Thank you very much, Ms. Blakey.

[The prepared statement of Ms. Blakey appears in the appendix.]

The CHAIRMAN. Dr. Orszag?

STATEMENT OF DR. PETER ORSZAG, DIRECTOR, CONGRESSIONAL BUDGET OFFICE, WASHINGTON, DC

Dr. ORSZAG. Mr. Chairman, Senator Grassley, members of the committee, I am pleased to appear before you today, although I have to say, after the type of week I am having, Dr. Hansen's Frequent Flyer Miles are looking pretty appealing. [Laughter.]

My testimony makes four points. First, about 80 percent of the FAA's funding for 2007 was provided from the Airport and Airway Trust Fund, as my first chart in the packet that you have in front

of you shows. The remaining 19 percent was appropriated from the general fund.

The trust fund is an accounting mechanism in the Federal budget that records specific cash inflows from revenues related to air transportation and cash outflows from programs that receive resources from the fund.

Annual spending is not automatically triggered by the collected tax revenue, but is instead controlled by budget authority and obligation limits in each year's Appropriations Act.

The trust fund receives revenue from taxes levied on the transportation of persons and cargo by air and on jet fuel and gasoline used in both commercial and general aviation.

The breakdown is shown in the next chart, with roughly two-thirds of it coming from passenger taxes. Since 2003, receipts have grown an average of about 7 percent annually, roughly the annual gain in nominal GDP over the same period.

CBO has estimated the trust fund's future balances under certain assumptions, and these projections have received a lot of attention, so I want to explain them carefully.

Under our baseline assumptions over the 2008 to 2017 period, the Airport and Airway Trust Fund would have a total of $158 billion credited to it through those revenues that I just mentioned, and outlays from it would total $135 billion.

Some people have suggested that, therefore, there are additional resources that could come from uncommitted balances in the trust fund. It is very important, however, to realize that the spending that is part of those projections is based on our baseline assumptions, which are defined from the Budget Act, and they may not correspond to what actually will occur.

They take an enacted level of budget authority this year and simply inflate it out using overall inflation, and that may not correspond to what is appropriated in the future or what the future needs are.

In fact, if you adopted the Vision 100 funding formula or S. 1300, as ordered reported, which will change the general fund contribution, you wind up with only $1.6 billion in uncommitted funds at the end of 2017, a much different picture.

The second point in my testimony is that congestion and delays in air travel have been steadily increasing. In 2006, more than 650 million passengers boarded domestic flights. The increasing stress on the air traffic control system resulting from rising demand for air travel has been exacerbated by a decline in the average size of aircraft. The average domestic passenger aircraft had 10 fewer seats in 2006 than in 1998.

The growth in demand for air traffic services and airport capacity has not been matched by increases in those services or that capacity, and delays are the result. In the most recent data for the first 5 months of 2007, more than 25 percent of flights arrived more than 15 minutes late, and of those flights 65 percent were more than 30 minutes late. Passengers bear a large portion of the resulting economic cost in the time lost to those delays, nearly 81 million hours in 2006 alone.

The third point in my testimony is that the FAA's proposal for substantial investments in a new air traffic control system has two

important components: first, the Agency proposes to develop and build substantial new facilities and equipment that it estimates could cost between $15 and $22 billion by 2025; and, second, in order to pay for that, the FAA has proposed replacing the current system of taxes and fees, largely based on passenger volume and fares, with fees based on aircraft operations and taxes on fuel and international departures.

That brings me to my final, and perhaps most fundamental point. Broadly speaking, either taxpayers or users of air traffic control services will pay for the air traffic control system. Although some benefits of air traffic accrue to the economy as a whole, most of the benefits accrue to the users of aviation services, the people who are flying. Therefore, a strong economic case can be made that users of air traffic control services should pay for a substantial portion of the associated cost.

In addition, most of the current taxes that are levied are based on the number of passengers and the fares they pay, about two-thirds of the trust fund's collections, for example. The link between individual passengers and the costs they impose on their air traffic control system, however, is weak. As has already been pointed out, the differences in the taxes paid are substantially different than the costs that are imposed on the system.

I am not going to comment directly on the FAA's cost allocation model that was proposed, but the general concept of more closely linking the fees that are paid to the costs that are imposed on the system, including the cost of congestion, is a sound economic principle that would better align the incentives for expansion and for use of the air traffic control system with the underlying costs.

Thank you very much.

The CHAIRMAN. Thank you, Dr. Orszag.

[The prepared statement of Dr. Orszag appears in the appendix.]

The CHAIRMAN. Mr. Dillingham?

STATEMENT OF GERALD DILLINGHAM, DIRECTOR, CIVIL AVIATION ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE, WASHINGTON, DC

Mr. DILLINGHAM. Thank you, Mr. Chairman, Senator Grassley, Senator Rockefeller, Senator Lott, and members of the committee.

My testimony this morning addresses three issues: first, to what extent can FAA's current funding structure support its activities, including NextGen; second, what might be some unintended consequences of selected funding provisions in the Senate and House reauthorization bills; and, third, what are some of the critical unanswered questions that should be a part of the discussion about the cost of NextGen and funding the FAA?

With regard to the viability of the current funding structure, we think that FAA's current funding structure, which consists primarily of the Airport and Airway Trust Fund and the general fund, can support FAA activities, including NextGen. Both FAA and the CBO project that this structure would generate substantially increasing revenues over the next decade.

Those forecasted revenues could support a substantial amount of additional spending. There is, however, a considerable amount of uncertainty within the structure, including the extent to which rev-

enues actually materialize as forecasted, the ongoing cost of both operating and modernizing the air space system, as well as the increasing competition for general funds.

In any event, Congress could also choose to provide additional funding within the existing structure by raising the rates of one or more of the current excise taxes, or increasing the general fund contribution. Despite its ability to provide adequate revenues to match planned spending, FAA's current funding structure does raise concerns about equity and efficiency.

This is the case because today's air space user may pay more or less than the cost of the air services they receive. As a result, the operators may not have sufficient incentives to use scarce air traffic resources in the most efficient manner.

With regard to our second issue, unintended consequences of selected funding provisions, some examples of these provisions in S. 1300 are those that would require the FAA Administrator to impose a surcharge of $25 on most flights and the provision that would authorize debt financing for capital projects.

On one hand, a surcharge would help pay for NextGen capital projects and create an incentive for efficient use of air traffic services. On the other hand, some stakeholders question the equity of charging the same fee for all sized aircraft that are subject to this fee. These stakeholders also raise the possibility that such a fee could lead to reduced air services for small and rural communities.

The bill's provision to allow FAA to seek debt financing in the capital market is a proposal that could possibly create a stable revenue source, but it would also cost the government more than paying for its investments with appropriations or borrowing from the Treasury.

House bill 2881 contains a provision which allows raising the Passenger Facility Charge and a series of FAA fees. Raising the cap on PFCs would provide additional revenues for aviation infrastructure investment. It would, however, likely benefit larger airports more than smaller airports, and could also reduce the demand for air travel.

The new and increased fees for FAA certification and registration would also provide additional revenues for FAA. This is an outcome which we support because some of the fees have not been raised for more than 40 years.

For example, it would still cost the same $5 it cost in 1964 to register an aircraft with the FAA. The caution we offer here is that when fees are established for aviation activities, care must be taken that they do not have a negative impact on safety.

Turning now to some unanswered questions. The questions include: what is the precise technological content, schedule of implementation, and cost of NextGen infrastructure?

A second question: what are the estimated cost savings that FAA can realize from operational improvements and other cost-saving activities over the next several years?

To what extent can the infrastructure needed for NextGen be acquired in public/private partnerships or leased to save money and provide maximum flexibility as technology advances?

Mr. Chairman and members of the committee, as you know, a timely reauthorization is critically important. During the last reau-

thorization of the tax structure in the mid-1990s, the debate lasted for 2 years. The taxes and fees expired and the cost to the aviation system was roughly $5 billion in taxes and fees that were never recovered.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, Mr. Dillingham.

[The prepared statement of Mr. Dillingham appears in the appendix.]

The CHAIRMAN. Finally, Mr. Hansen?

STATEMENT OF MARK HANSEN, PROFESSOR, DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING, UNIVERSITY OF CALIFORNIA, BERKELEY, CA

Mr. HANSEN. Thank you for the opportunity to accumulate miles and give my own perspective on the trust fund and how it should be changed to develop an air transport system that the U.S. needs and deserves.

In my view, such a system must do three things: it must evolve in response to changing needs, be financed with tax contributions from all user classes that contribute to this need, and, when necessary, allocate services in a manner that gives priority to those who pay.

The U.S. has always led the world in finding new ways to both supply and use civil air transport. The Giants moved to San Francisco after improved air transport made it readily accessible to the rest of the Nation.

We innovated airline deregulation, which has been adopted in most of the developed world. Deregulation created a whole new class of air carrier, the low-cost carriers which are now sprouting up around the globe.

Deregulation made air travel affordable to the masses, but less palatable to high-end users. This led to a strong growth in the market for business jets, deliveries of which tripled in the 1990s. These jets allow those with means to fly nonstop between thousands of U.S. airports, and to do so on their own schedule. A wide range of methods for providing on-demand air transportation have allowed a diverse set of customers to participate in this market.

Innovation in on-demand air transport continues. A new generation of 2- to 6-seat very light jets is entering the market. They will enable fundamentally new service concepts. For example, Day Jet is pioneering the use of VLJs as shared taxis, providing next-day service to individual customers.

Another example is a company called MVP Air that is poised to enter the intercollegiate athletic travel market. Using 30-seat jet aircraft, MVP plans to transport college teams on routes which are not well-served by commercial air carriers.

Consider, for example, a Big Sky game in which Montana visits Northern Arizona. A charter would take just 3 to 4 hours campus to campus, while the best commercial airline option would require, each way, two stops, 10 hours, and 200 miles of airport access travel.

The economics of on-demand air travel rest primarily on individuals' and companies' willingness to pay more for air transport in exchange for time savings. For the Big Sky, we calculated, for an

athletic charter to make sense, we would have to value collegiate athletes' time at $3.70 an hour, about half the new minimum wage.

While the athletes would no doubt agree that their time is worth more than this, we will see what the colleges think. This typifies the kind of decisions that will determine the ultimate market potential for on-demand air transport.

Infrastructure and air traffic service providers must strive to accommodate traffic changes resulting from on-demand air transport. As on-demand air service providers have joined traditional airlines on higher-altitude jet routes, minimum vertical separations have been reduced, sectors redesigned, and control decision support tools introduced to make more room.

But faced with possible proliferation of on-demand small jet services, some believe that even more fundamental transformation is required. The transformed system, NextGen, is envisioned to increase en route and terminal capacity by as much as threefold over the next 20 years.

Recognizing uncertainty in just how far the on-demand phenomenon will go, NextGen proponents seek a system where this is determined by the market without regard to infrastructure limitations. The broad outlines of this system are being developed, as we all know, by the Joint Program and Development Office.

NextGen offers a technical solution, but it is equally important to solve the problem of finance. This is where trust fund changes are required. Commercial airlines generate 95 percent of the funds for the current system.

If the structure of the taxes feeding the trust fund is not changed, we face the prospect of financing a system designed to serve an increasingly diverse set of users through a system of taxes that falls overwhelmingly on just one subset. This is obviously unfair and regressive. It is also inefficient and risky. It is inefficient because it makes air travel artificially expensive and on-demand air transport artificially cheap. It is risky because trust fund receipts will depend on the demand for commercial air travel, while system costs depend on the totality of flight traffic. NextGen should be financed in a balanced manner that reflects how each type of user contributes to the cost of the required system transformation.

If NextGen cannot be financed in this way, we should plan for a more limited set of capacity enhancements geared to the needs of commercial airlines. For this to work, FAA must have the authority to restrict access to congested parts of the system in a manner that favors those who are footing the bill. This can be done administratively or through market mechanisms.

It may be that non-airline users would prefer this solution, agreeing to avoid certain parts of the system in exchange for a reduced tax burden. The key point is that they should not have both unrestricted access and a virtually free ride. Thank you.

The CHAIRMAN. Thank you, Mr. Hansen. That was very helpful. I appreciate it very much.

[The prepared statement of Mr. Hansen appears in the appendix.]

The CHAIRMAN. I will begin with you, Ms. Blakey. The key question is, what is the cost of NextGen? There are lots of estimates. They are all over the lot. But if this committee is going to deter-

mine what the proper balance of taxation should be, fees should be, say, between commercial aviation and general aviation, we need to know how much money we need to raise. So we need a pretty firm estimate as to what NextGen, which you all agree is needed, is going to cost.

Ms. BLAKEY. A lot of work has been done on this, Senator, over the last 12 to 18 months. At this point we are very clear that the cost of NextGen for the next 5 years for the infrastructure, meaning from the standpoint of the revenues we are talking about, is $4.6 billion. That is what we will need over the next 5 years to keep NextGen on track. We know that over the course of the entire period we are talking about somewhere between $15 and $22 billion.

The CHAIRMAN. The entire period is what, in years?

Ms. BLAKEY. Out to 2025. Out to 2025. Now, that is a range, but it is a range because there are variables: how fast or slow do you go; what is the cost of money? As well as, in the far-out years there are some technologies that have yet to be developed.

But I would say, there is no corporation in America that can tell you exactly how much its capital investments are going to be in 2025, but the estimate we are giving is a good one.

The CHAIRMAN. Now, in addition to providing new technology, is the FAA taking into consideration the points made by Mr. Hansen, the small jets and the problems that on-demand are going to create, and all the various ramifications that he mentioned?

Ms. BLAKEY. For the investments that I am spelling out, we are striving to serve the needs of all of the users of the system. So the on-demand, the new very light jets, the GA (general aviation) community, as well as, of course, the commercial carriers; that investment will allow us to accommodate all of those.

The CHAIRMAN. Mr. Hansen, do you agree that the FAA's formulation of NextGen will take into account the future developments that you foresee?

Mr. HANSEN. I believe it absolutely takes those demands into account. FAA's forecasts project very large increases in certain segments of GA, particularly the high-performance jets, and those forecasts are certainly related to the NextGen planning.

NextGen is inherently a high-risk venture, it is a mega-project, and as such there are many risks to its success. But these do not include the failure to anticipate the possible demand for on-demand air services.

The CHAIRMAN. Ms. Blakey, again, your estimates up to 2025 are how much that it is going to cost in addition?

Ms. BLAKEY. For the infrastructure, $15 to $22 billion. There is also a cost of equippage, because you have to have aircraft equipped to work in the system, and that is between $14 and $20 billion.

The CHAIRMAN. Who is going to pay for that?

Ms. BLAKEY. That will be paid by the operators of those aircraft.

The CHAIRMAN. Other comments from either Dr. Orszag or Mr. Dillingham as to the amount that NextGen is going to cost and whether to adequately foresee the points made by Mr. Hansen?

Mr. DILLINGHAM. Mr. Chairman, I think that there is still a lot unknown in terms of what NextGen is going to cost. I agree with

the Administrator that the further out you get, the less you can really expect to have tight estimates. But there are some things, like exactly what is going to be in NextGen, that are still a work in progress.

Also, issues of the research and development and the demonstration projects that are going to precede the implementation of NextGen are still works in progress. So it is much closer than it was 18 months ago, but there is still that range that we need to be aware of.

The CHAIRMAN. Dr. Orszag?

Dr. ORSZAG. CBO has not analyzed the cost of NextGen itself. But I would note—and that is why I used the FAA's numbers in my oral remarks—that there is a general tendency or concern for initial estimates to turn out to be too low, so just a broader concern about the degree to which we underestimate capital investment costs as they turn out.

The CHAIRMAN. So how much do we have to generally increase taxes and fees by what yearly amount to reach a reasonable estimate? Has anybody estimated that? How much? Is it a billion more per year? Two billion more per year? What?

Ms. BLAKEY. On average, over the period of developing the NextGen and putting it in place, it is $1 billion a year. That is what we estimate. I would also point out that the estimates that we see, the range we are putting out here for you, are very consistent with what the Europeans are also planning for and funding. So there is a very parallel cost structure to the one that we are discussing here.

The CHAIRMAN. Does that assume the same proportionate contribution and general revenue?

Ms. BLAKEY. That is simply a question of, how much does it cost? It does not go to the question of how much should be general revenue versus how much should come from specific taxes and fees.

The CHAIRMAN. But do you recommend the same proportion? What is it, about 20 percent is general revenue today? Is that correct?

Ms. BLAKEY. Nineteen.

The CHAIRMAN. Nineteen. Do you think that should be maintained?

Ms. BLAKEY. It is very close to what the administration proposed in our proposal. Yes. Exactly.

The CHAIRMAN. And does anybody have a view on that? Dr. Orszag?

Dr. ORSZAG. I do not necessarily have a view on it. That component has often been justified or motivated by the argument that there is a public good or there is some larger economic benefit being provided by an air traffic system.

The CHAIRMAN. Thanks. All right.

Senator Grassley?

Senator GRASSLEY. I have two questions I have to get an answer on, but something just came up here, so do not take a long time to answer. But you were talking about demonstrations. What are the demonstrations all about? I thought other people elsewhere in the world are doing what we are talking about doing and we wanted to catch up with the rest of the world.

Ms. BLAKEY. There are a lot of developments around the world and we are——

Senator GRASSLEY. Well, if other people are doing it, is that not demonstration enough for us that we can move ahead?

Ms. BLAKEY. Well, I think what is accurate is that we have pioneered a fair amount of the technology we are talking about, but that same technology—the core of it is something called Automatic Dependent Surveillance Broadcast—is being put in place in a number of places. Russia and Sweden just announced they were going forward with it. Australia is going forward with it. The Europeans are going forward with it.

But it is still important, obviously, as we put these things in place, you have to also develop all of the benefits in terms of how you use technologies like that, and we are very much working on that to make sure that demonstrations support, how far can you get in terms of weather information in the cockpit, all sorts of things that it can do.

Senator GRASSLEY. All right. Thanks for educating me.

Now let me ask you what I have to have answers for. Mr. Dillingham, in your statement you mentioned that the proposed $25 surcharge could have a negative effect on air service for small and rural communities. Tell us a little bit more about how that can happen, because this is very important to rural America.

Mr. DILLINGHAM. Yes, sir. Senator Grassley, what I was referring to was that, by and large, regional carriers are the ones that served the small and rural communities, and in many cases the profit margin for those regional carriers is relatively slim. This $25, in some cases, could push them over the brink so that they would stop that service.

Then coming in from the other side is the essential air service, which services small and rural communities as well. What that would mean is that communities would then be eligible for essential air services and that would have the government probably having to lift the cap for essential air services communities as well. So, that is what we mean by the potential for an impact on them, because the profit margin is so small, $25 up and down each time.

Senator GRASSLEY. All right.

Then that is a danger if you start looking more for the essential air service. For years, that program has always been under attack in Congress and people have been trying to eliminate it.

Mr. DILLINGHAM. Yes, sir.

Senator GRASSLEY. And so if it had more demand, it would probably be more in trouble.

Mr. DILLINGHAM. Yes, sir. I think that one of the considerations that will have to be made in terms of the $25, or any fee that is attached, is how is it going to affect small and rural communities.

Senator GRASSLEY. All right.

Now, for all of you—or at least the four of you who have spoken—what do you think about replacing the current 7.5 percent ad valorem ticket tax with a tax on passengers that is based on distance traveled?

Ms. BLAKEY. Well, certainly distance traveled is a much closer approximation of the actual cost of the system. It still is the case that it costs approximately the same to move a small jet as a large

jet, and so the numbers of people on board, again, it gets to be a question of, how close do you want to come to what it is actually costing us to do? But distance traveled does have, as I say, more relationship than certainly just a flat excise tax, which is what we are working with right now.

Dr. ORSZAG. I would concur with that judgment. I should probably clarify something that I had said during my oral remarks. If you are looking to make an efficient allocation of the costs and the fees collected, you want to tie the fees collected to the additional costs that are imposed on the system from an activity, and that tends to be related to—the first approximation—the flight itself and less to the number of people on the flight.

Therefore, I agree that moving towards distance traveled sort of moves in that direction. Still, fundamentally, two jets with half the number of people as a larger jet will impose twice the cost but pay the same tax if they are flying the same distance under that kind of proposal.

Senator GRASSLEY. Mr. Dillingham?

Mr. DILLINGHAM. Senator Grassley, I agree that it does move the system towards a closer link between costs and revenues, at least in the en route sector. However, it does not address the terminal sector. But it is a closer approximation than we have now with the ticket tax, which has no relationship.

Senator GRASSLEY. All right.

Mr. Hansen?

Mr. HANSEN. I would not support that proposal over the current ticket tax. I think much of the flight activity in the current system is generated by the motivation to serve business users who pay higher fares and prefer higher frequencies.

In that respect, I think the current system does better than the system you suggested, and they both do a lot worse than a system that is not based on payload at all, but on flight activity.

Senator GRASSLEY. I am done.

The CHAIRMAN. Thank you.

Senator Rockefeller?

Senator ROCKEFELLER. Administrator Blakey, I think you get the sense that you are much admired by this committee. But one of the facts of life is, your term expires on September 13th of this year. If we were to move forward with this bill and we were able to get it through this committee, the financing part of it, and it would be on the floor and it would be on the floor in September, would this committee have any chance of convincing you to stay on, at least until the end of September?

Ms. BLAKEY. Senator Rockefeller, you and I have talked about the fact that I am a 1-term FAA Administrator, and I committed to 1 term, and that I will serve. You know how much I would like to see this bill come to successful fruition. If it were helpful to the Secretary of Transportation, the administration, and this committee, and if we were running to the finish line, I would do everything I could in whatever capacity I could. You know that.

Senator ROCKEFELLER. That is generous and that is kind.

Administrator Blakey, the FAA recently completed a cost allocation study to determine which aviation system users generated what specific costs. You had a chart, but can you tell the committee

again what your study tells us about jets and piston aircraft, and commercial and GA use of the system, who pays what, currently?

Ms. BLAKEY. I would be happy to. We did a very detailed cost allocation. It analyzed 600 different costs in the system, 600 different unit costs, and broke them out in terms of where they needed to be allocated from the standpoint of the use of the system.

And whenever it was a fixed cost and it was one that we felt you could legitimately put against the existing commercial service, that is where we put it. So remember that, in terms of variable costs, we then assigned them as we saw the use of high-altitude terminals, differences in airports, et cetera.

It comes down to this. The costs right now, 97 percent are borne by the commercial aspects of aviation, commercial users, whereas the fact is, they are using 73 percent of the cost.

Right now, general aviation is using 16 percent of the cost and they are paying 3 percent. That is how it breaks out. There are additional costs in there, because obviously there are things like public use aircraft, the use of the military, et cetera, so there is a delta there, but that is really how it breaks out.

Senator ROCKEFELLER. My final question is also to you. You got a lot of heat for the fuel tax increase that you proposed for general aviation in the administration's bill, about a 50-percent increase, as I recall it. But you were actually giving general aviation a break, and I want to probe you with this question.

If you had taken into account the full array of costs that general aviation imposes on the system, the analog system, like low-activity towers and flight service stations which you recommended to be paid for by the general fund, how much higher would the general aviation fuel tax have been to cover those costs?

Ms. BLAKEY. You know, you are right about the heat on this, so I did look at that pretty carefully. Wherever possible, as I say, we took those costs off of general aviation. If GA piston users were paying their fully allocated costs, the general aviation gas tax would have to be nearly $4 a gallon.

For jet fuel, it would have to go up to $1.15 per gallon. Our proposal contrasts pretty favorably with those rates, as you can see, but that is what it would actually cost to cover the service.

Senator ROCKEFELLER. I thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Roberts, here is your chance.

Senator ROBERTS. Thank you. The key, it seems to me, is modernization. I think we all agree to that. I would say that the general aviation community, other than being described indirectly or directly by some on the committee, is not unreceptive to an increase in the gas tax. Most of the piston-driven airplanes, however, do not use instrumentation that gets into the cost in regards to the FAA.

I understand that when Senator Rockefeller says that 90 percent of the general aviation community has been exempted from this, that is what some call affectionately the "mosquito air force." I know the reason for that, and I see their reason for that. I also have the opportunity to talk to Ted Stevens on the floor from time to time, so consequently I understand that.

Basically, I think it is not the fee, not the $25, it is the structure that I think the general aviation community is so upset about, or so worried about, so concerned about, because they are for modernization as well.

In terms of the structure, we are talking about the administrative costs, we are talking about a new system, we are talking about a new Federal responsibility of what kind of a program you or your successor will have to administer. I would call it a user fee bureaucracy, but that is a pejorative, and so I will not do that.

So all of general aviation is opposed to the fee, even the ones, *i.e.,* the 90 percent of the so-called "mosquito air force," and I think that should be made part of the record.

I want to say that I fully respect and admire the work done by Senator Lott and Senator Rockefeller and the time that they have put into this. But I cannot help but be reminded from Mr. Dillingham's comments about the thin margin of profit in regards to what I call our regional puddle jumpers, which I fly a lot.

As a matter of fact, there came a day in a thunderstorm, going from Kansas City to Wichita, that I decided I would not do that any more, and so I drive a lot in Kansas.

But be that as it may, the first essential air service subsidy—or investment, if you want to call it that—in regards to transportation to rural America by air started in Dodge City, KS and in Wichita, and it was an outfit called Air Midwest.

The first person to testify in favor of that was because of a public hearing and a complaint by a bus union. The buses came to Dodge City once a week, just like the stage. So we thought that that really was not a problem, but they wanted a hearing.

That person was me, representing Senator Pierson and Senator Dole. At that time, we had Air Midwest serving Wichita, Great Bend, Dodge City, Garden City, Liberal, Diamond, and then on to Denver. At six stops, that is 150 bucks under this proposed $25 fee.

Now, that is not a lot of money, but they operated on a very thin margin. Like everything else, plans do not usually work out exactly the way people want. We got into some real high fuel costs and we got into some mergers, and now we have essential air service.

But it goes from Wichita, I think, from Dodge City to Denver, and Wichita, perhaps, to Garden City on certain flights to Denver, so that fee would be dropped. But I just wanted to underline the importance of Mr. Dillingham's comments in that regard and to indicate that that was back prior to 1980. So, I have been interested in this for a long time.

Let me just say that I think that there is an impression—it is not an intended impression, but I think there is an impression—that when we use the words "corporate aircraft"—and Jay, I did not mean to get into this and interrupt your presentation, although I have been known to do that in the past and you have been known to put up with me, which I appreciate.

But some examples of general aviation, business aviation, if you will—I see we call it "gulf stream" instead of "business," but then that is beside the point. Angel Network provides free air transportation for cancer patients. Aero Chapter in Chesterfield, MO uses jets and turbo-props to transport donated organs. Medical Impact

Health Care System, six of them from West Virginia. A dialysis clinic in Tennessee.

I think we ought to remember that general aviation is not some kind of a corporate villain in regards to how we describe people. Anywhere Map is in Pittsburg, KS. I will not get into the owners.

Ethanol products. Mr. Grassley has left. Ethanol products out of Wichita, KS. I do not know, Senator Rockefeller, whether the president and the athletic director of the esteemed university in West Virginia, *i.e.,* the Mountaineers, would not, or should not, have a business jet, small business jet that would go to all the Bowl games that you win, in football or basketball games in the Final Four, the Sweet Sixteen, or whatever. I just do not know that. But that is what I am trying to point out, that these are folks who many times have no real access to commercial aircraft. So I just want that impression to be set straight.

General aviation members. We have just gone through a drought, a blizzard, and a town being wiped away by a tornado, and now many counties are under water in Kansas. We have had many general aviation members volunteer planes to move equipment and people just as fast as they can. They move, as I said, organ transplants, taking families to visit service members in military hospitals, and also natural disasters.

So I do not know what we would have done without the general aviation industry, on top of the National Guard, on top of FEMA, on top of the Salvation Army, on top of the Red Cross in the four disasters that we have had in Kansas. So, I think that they are certainly good citizens in that respect.

Now, my questions, and I will try to make them brief. Thank you for your patience. Administrator Blakey, on page 5 of your testimony you claim that the current funding system incentivizes incredible growth in the general aviation traffic.

If this is true, why does the FAA's most recent aerospace forecast state that, at the end of 2006, non-commercial aircraft activity remained 16 percent below activity in 2000, given that the tax system has not changed that much over this period of time?

We have had preferential tax treatment, and should have had, for the airlines, more especially with the pensions, so that is not a question. But why is the tax system now attributable to forecasted growth in this sector of aviation? Do other factors not play a role in the forecast?

Ms. BLAKEY. There are a lot of factors that play a role in the forecast, and of course there is a lot that is lumped into the category that you are talking about.

What we are clear about though is that, in terms of the growth in business aviation, turbine users, there is a 35-percent growth in that sector since the year 2001. It is remarkable, it is excellent, but it is growing at twice the speed of commercial airline traffic. So we do have to look at this in the segmented form.

I also would note one thing, because I think it is important. I could not agree with you more, Senator, about the importance of a lot of the charitable and public use activity in general aviation. It has always been a backbone in this country; for so much, it is important. It is important to know that, both under S. 1300 and

under the administration's proposal, those are tax-exempt operations.

Senator ROBERTS. I understand.

Ms. BLAKEY. And they will remain so under these bills as well.

Senator ROBERTS. I understand that.

Do you have a cost estimate for administering any new user fees as to who would do that: what kind of regulations, what kind of paperwork, when they fill it out, this, that, and the other?

Ms. BLAKEY. I think it is one of those things that depends on what it is and how broad a group, and you can make a number of estimates on this. We think it would be a relatively low amount, because obviously there are services all over this country that send out billing and invoices at a very cost-efficient rate.

Whether it is done entirely internally within the U.S. Government structure or whether it is done as something that is done on a competitive basis by people who do this for a living, it is a very small percentage of revenue that comes in under most of the scenarios. It does depend on who is it that is being billed, how frequently, and how much.

Senator ROBERTS. The testimony of the good doctor from CBO states that congestion and delays simply represent a cost increase. Your testimony also notes that 2007 is expected to be the worst year ever for transportation delays. At these large hub airports, what percentage of the annual operations are attributed to general aviation and what percentage for commercial aviation?

Ms. BLAKEY. I will have to look for a precise figure for that. If I can get it for you while we are up here, I will certainly do that. At the large hub airports, it is a larger percentage, obviously, of commercial than of GA.

But again, business aviation is going into the large hub airports. That is part of the purpose, of course, is being able to get to our large metropolitan centers. Let me see if I can get you a percentage on that, though. I will take a look.

Senator ROBERTS. Well, you can get back to me on that.

Ms. BLAKEY. All right.

Senator ROBERTS. Why do we not do that so you do not have to take the time.

[The information appears in the appendix on p. 60.]

The CHAIRMAN. Senator, why don't you give me a little indication of how much longer you will be here?

Senator ROBERTS. One minute and 37 seconds longer. [Laughter.]

The CHAIRMAN. All right. Thank you.

Senator ROBERTS. So the airlines determine the flight schedules, which are a key cause for delays and congestion. I am not saying that is a one-for-one cause by any means. The congestion, in turn, increases the strain and cost on the system.

The 4.3-cent per gallon fuel tax on commercial aviation encourages, obviously, airlines to operate using the most efficient routes. If we are to eliminate this tax outside the price of fuel, I do not know what incentive that the airlines would have to use the most efficient routes. All of us fly airlines. All of us fly the commercial airlines.

I am not going to get into names, but there are three or four that are no more than a cattle car and the rest of them are doing the

best that they can. So I just do not think that really giving the airlines a tax break is the best way to start modernization. I think we have to foster better cost-efficiency.

One other thing. Mr. Dillingham, I see in your Footnote 14 that GAO has concerns with the study that the FAA conducted to allocate costs. The FAA then based its reauthorization proposal on that study. Do you believe the FAA's cost allocation study is fair?

Mr. DILLINGHAM. Senator Roberts, we looked early on at FAA's cost allocation study and we determined that, based on what we were able to do at that point in time, that there were some issues with the analysis and the way that it was done that caused us some problems in terms of being able to say that it was an accurate delineation of costs. However, this is the second study that FAA has done with regard to cost allocation and this was a much better done study, more methodologically sound.

I think that some additional work needs to be done to be completely satisfied with this, but unless something major changes, the general conclusion that the general aviation community is not paying as much for the services that it uses as it should would still hold true.

Senator ROBERTS. But the general aviation community, again, has not said they are not willing to pay more in a gas tax. It is the user fee and the user fee structure, and that—I do not want to say elephant, or that trunk, is under the nose of the tent. I do not know where the $25 goes.

One last comment, Mr. Chairman.

The CHAIRMAN. Yes. You have used almost 15 minutes.

Senator ROBERTS. I apologize. Professor Hansen, you flew all the way here from California to recommend that Congress——

The CHAIRMAN. And over one minute and 37 seconds.

Senator ROBERTS [continuing]. And the Finance Committee actually relinquish jurisdiction on setting aviation taxes and give that authority to an advisory panel. You have also said that business jets were able to move the Giants to San Francisco and the Dodgers to L.A. I tossed that in.

You, sir, are a very brave man to advise us that we ought to give up this jurisdiction. The only thing I see here is, you obviously must be from Berkeley. [Laughter.] I am done. I am done.

The CHAIRMAN. Thank you.

Senator Lott?

Senator LOTT. Thank you, Mr. Chairman. I will try to save you a little time by just asking a couple of questions.

First of all, I think it is very important, Madam Administrator, that we clarify whether or not you are likely to have enough money coming into the system over the next 5 years to move into the next generation of modernization. I think it is GAO who says, well, there may be enough.

But there are questions about it because services may change and all kinds of events could intervene to, in fact, cut that down. But I am hearing from certain segments of the industry that do not want to have to contribute anything more that, hey, what are you up to here? I mean, you have more than a billion coming in a year above what you actually need.

Now, we need to clarify that. If we do not need more money, I still think we need to change around some of the responsibilities and make sure it is fair. But do we need some additional revenue or not?

Ms. BLAKEY. Senator, we are looking at the fact that the NextGen essentially does cost, on average, $1 billion more a year to be able to support that.

The fact is, the reason why we are advocating a cost-based structure is that we believe it is critical to bring in what it takes to fund the system, because there are several key assumptions here. It depends on, as they say, pick your number.

How much are we funding AIP for? If the funding for the airports program continues to increase at the rate historically it has, I would say that this is a major factor in whether or not the assumptions are correct. It puts a lot of pressure on there being adequate money there.

We also do not know, because of the fluctuations in ticket prices, how much revenue will be coming in. We see those as being very significant factors in terms of whether there is enough money.

And the final thing I would say is, as I have looked at the CBO—and we do not fundamentally disagree with the analysis that CBO has put forward—it does suggest that spending has to be held down between now and 2010.

We want, as much as possible, to front-load the funding for the NextGen because that is the way we can handle the delays we have right now, and that is the way we can get the benefits, the cost benefit analysis, which works much better for these investments. So waiting until way out on the curve has a lot of costs that are fundamental to the system.

Senator LOTT. Thank you.

Only one other question, and I will address this to GAO. It is with regard to cost estimates of what a fee would cost. There are legitimate concerns that it would lead to bureaucracy, difficulty in complying with the fees, and so forth.

Now, I understand you did a review of air traffic control systems of other countries, including systems that were funded by user fees. Based on that experience, what do you estimate it would cost to collect the $25 surcharge that has been proposed here?

Mr. DILLINGHAM. Senator Lott, it is hard to say how much it would cost to collect the $25 surcharge, but let me tell you, in reference to the work that we did for the Commerce Committee, we looked at several international ATSPs, or Air Traffic Service Providers, that did charge and collect a user fee.

Basically, Euro Control collected most of those fees for the European community. We found that it came to less than 1 percent, closer to three-tenths of a percent for the billable that they had. We found a similar thing in Canada, which is more like the U.S. than some other places.

Again, it was less than 1 percent, closer to about two-tenths of a percent. In some cases—I think someone mentioned it earlier this morning—these things can be contracted out to organizations where that is what their business is. So, bottom line, from what we can see, it is a relatively short expense on this.

Senator LOTT. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Salazar?

Senator SALAZAR. Thank you very much, Chairman Baucus.

Let me just, first of all, say thank you to the witnesses for traveling so far and participating in this hearing on this very important issue.

Let me ask two or three questions. First, to Administrator Blakey, with respect to the impact of the proposed tax and user fee program that you and the Commerce Committee have proposed, what would be its impact on rural areas?

I share the concerns of Senator Roberts in terms of those States that are very, very big where you essentially have what I call the two Americas, you have the America that is close to the big hub airport, as we do in Denver, with 3 million people, and you have those places that are served by essential air service, which are 200 or 300 miles away.

The ability to be able to access quality air transportation is very different in rural communities than it is in larger communities. That is just a real fact of life. So what would be the consequence in terms of moving forward with the Commerce Committee proposal in terms of transportation in rural areas?

Ms. BLAKEY. Well, we are very concerned about, and want to foster transportation to, small communities in rural areas. It is a fundamental good in all of this. So we have tried in every way in our proposal to take into account the low-activity towers, the small operations certainly are ones that we were proposing not be costed into the cost of the fees and taxes that would be on both commercial and general aviation, but would be funded from the general fund. So, that was one way that we looked at care to small communities.

I would also point out that the $25 fee, as we did the analysis on that, also we do not think would have significant impact. We are looking at the specifics on all of this, because obviously it is a part of a package that you all will be putting together of a larger financing picture. But as we see it, it would have a relatively small amount of impact, and frankly no impact for those who are using essential air service.

Senator SALAZAR. All right. Let me just say this. As we move forward, I have not taken a position here and do not know whether I will be supporting this proposal or trying to come up with another proposal, or where I am going to be on it.

But for me, one of the key issues, as we fundamentally restructure what we are going to be doing in terms of fees and taxes with respect to aviation for NextGen, is going to be how we deal with the reality of essentially what is the second-class transportation system that we have through the air into rural communities. It is going to be a key issue for me.

Let me ask you a second question, if I may. That is, with respect to the costs, I think you said we need about $4.5 billion for NextGen for the next 5 years. I will note, in a very parenthetical sense here, that we are spending $10 billion a month in Iraq today, which is something that we are talking about on the floor. But you talk about $4.5 billion to essentially rehabilitate and take our air

transportation system in America to the kind of quality and efficiency and modernization that we want.

How accurate are you that that $4.5 billion number is what we need for the next 5 years? What is the delta between that amount and what we would have coming in under the current system if there were no changes at all that would be made to it?

Ms. BLAKEY. If I said $4.5 billion, I misspoke. It is $4.6 billion, to be exactly precise, over 5 years. The confidence we have in that figure is highly granular, because we know exactly what programs we would be funding. We have begun the funding on a number of them, so we, I think, can very accurately project what those costs are going to be.

I would remind you that the FAA's track record in recent years has been excellent in terms of keeping its capital programs on schedule and on budget. Over 90 percent have hit that. Last year, it was 97 percent. So, I believe you can have confidence in the figure.

Senator SALAZAR. All right. So let us say that we are confident then in that figure of $4.6 billion based on your statement there. I think Senator Roberts was asking the question about, someone has said we have $1 billion more coming into the system than we currently need. Without changing the current structure that we have in place, is the money there to do the $4.5 billion needed for NextGen without a change?

Ms. BLAKEY. The money is definitely there under the administration's proposal because it is a cost to——

Senator SALAZAR. Not under the administration proposal. That is not my question. Under the current system.

Ms. BLAKEY. It depends, again, on what the funding is during those 5 years for a number of the line items and what the revenue is. I might turn to Dr. Orszag here, because he has also looked at that.

Dr. Orszag?

Senator SALAZAR. Dr. Orszag, please?

Dr. ORSZAG. I do not have a direct answer to your question, but what I will say is, anyone who is taking our baseline and using that as a justification for saying that money will be there needs to very much realize that that baseline assumes a level of spending that is based on baseline assumptions and the methodology for that, which means that the spending does not keep pace with economic activity, for example, nor with the number of flights and passengers. So that is not a sound basis for evaluating—it is not a prediction of the future.

It is simply an extrapolation or a system used for baseline purposes and should not be used to evaluate whether "money" will be there or not, because future spending may well diverge from the set of assumptions that underlie the baseline.

Senator SALAZAR. Thank you.

The CHAIRMAN. Thank you.

Senator Schumer?

Senator SCHUMER. Well, thank you, Mr. Chairman. I thank you for holding the hearing.

I know we are talking about financing, but obviously how interested you are in the financing depends on where the money is

going. As you know, Madam Administrator, my real problem is with the FAA's job in New York, and that is what I want to talk about and ask some questions about.

There are growing congestion delays and technical problems in New York. It is reaching a crisis point. I am a regular traveler out of New York. I spend a lot of time studying the statistics and the numbers: weather problems stay about the same, traffic stays about the same in certain airports, and yet delays are greater than ever and at times you would never expect, even when there are no weather problems.

So the people of New York who fly know it. They call my office all the time. Yet, the FAA seems to be in denial about this, saying everything is hunky-dory, everything seems to be good, everything is on track. It is unacceptable to me that, with all the technology we have, that a thunderstorm hundreds of miles out of the flight path, brings our airports to a standstill.

Dozens of routine flights now are delayed almost on a daily basis. The airports—LaGuardia, JFK, Newark—the economic artery of my State, depend on the aviation network, and it is completely clogged. Delays end up being through the roof. Near misses are on the rise. Total airport shutdowns have become common.

I say this not just by looking at the numbers, but by being a traveler. I have flown back and forth between Washington and New York, which is my home and where my family has lived for, now, 27 years. It has never been worse than it has been this spring and summer. Never been worse.

So the bottom line is, how could the FAA let this happen? How can the FAA say that it is the guardian of our skies when things have deteriorated so dramatically and you want an increase in the fees? I would like to see that things are going to get better.

Now, specifically, I have a few questions about this. First, in May, the last month where we have statistics, there were five near misses in the air space above New York City. That is unacceptable. Aircraft are required to stay at least three miles apart. Some were found to be as close as 500 feet apart, and that could be a disaster waiting to happen. So I, first, want to know, what is the FAA doing to ensure the safety of air passengers to prevent near misses?

I am going to ask a second question and let you answer both of them. The second involves the air traffic controllers and the impasse that you and they have had for the last 2 years. Rather than take sides on that impasse, I want to see results.

The number of men and women in the towers is fewer than it should be. In LaGuardia, it should be 36; there are now 26. In JFK it should be 36; there are 29. In Newark it should be 40; there are 29. Large numbers of them are planning retirement. We need more controllers in the towers in New York. We need them quickly. What is being done to solve that impasse? Those are my two first questions.

Ms. BLAKEY. Senator Schumer, I think this discussion illustrates the fact that we need to be in closer touch, and I certainly look forward to briefing you in detail because, with regard to your broad point, the FAA is certainly not in denial. It is the subject of this hearing.

I have, over, and over, and over again said that the air traffic system in this country is over-taxed. It is 1960s technology. There are only so many things that we can do to continue to try to patch and make what is very old technology continue to work.

We also, as you may be aware, are seeking to redesign air space. We have a major endeavor that has been taking place over 10 years in the New York, New Jersey and Philadelphia area that we are seeking to complete that can reduce delays by as much as 20 percent. We have major initiatives on at JFK.

But there is no question about the fact that you are flying in some of the most congested air space we have, with airports that at this point do not have an adequate air traffic control system until we go to the NextGen, and we will do everything in the meantime to scale up.

With regard to the question about near misses, what you are referring to is a system where anyone may contact us and say they believe that there was a loss of separation: pilots, whether they are general aviation, whether they are commercial, et cetera. I would make the point that "near misses," operational errors, are, in fact, down. Our controllers do a wonderful job, so the trend is absolutely in the other direction.

But we are investigating anything that is reported over that system. What we have found so far preliminarily on the ones that you have mentioned, is that in each case where the aircraft was under FAA control, the pilots were notified of another aircraft being nearby or their alert system also came on, and there was not in any case any extreme action required. So, I think you should feel that the system does work, and it has worked.

Senator SCHUMER. Five hundred feet is pretty close. That is a matter of seconds.

Ms. BLAKEY. Again, we will look at all these in specific. If there are changes that we need to make, believe me, we will make them.

Let me just also mention again, I think this illustrates the fact that we need to be providing you more briefings and more information, because the figures that you were using for our facilities—you mentioned 29 for JFK; there, in fact, are 35 there. On LaGuardia, you mentioned 26; there are, again, 35 there.

Senator SCHUMER. How about Newark?

Ms. BLAKEY. I will have to get you a Newark figure. Here is my table of all of the facilities.

Senator SCHUMER. Right.

Ms. BLAKEY. So watch me while I search a moment here.

Senator SCHUMER. We spoke to the controllers in the tower, and they give us these numbers.

Ms. BLAKEY. I am sorry. They are inaccurate. But I would be happy to show you the personnel records to make sure we are on the same page here. Newark. Let me see if I can find Newark quickly.

The CHAIRMAN. Well, thank you, Senator. I think we are going to have to move on. Thank you.

Senator SCHUMER. I will just ask you to send it to me in writing, please.

Ms. BLAKEY. Not a problem.

Senator SCHUMER. Thank you, Mr. Chairman.

The CHAIRMAN. I would be interested in that result myself, frankly. Thank you very much.

Senator SCHUMER. Thank you, Mr. Chairman.

[The information appears in the appendix on p. 61.]

The CHAIRMAN. Senator Bingaman?

Senator BINGAMAN. Thank you very much. I am sorry I was not here for all of the earlier testimony. I am just trying to understand all the different policy objectives that we are trying to accomplish in this area. One, obviously, is to raise the revenue needed to modernize the system. That is obvious.

Second, we obviously want to encourage increased air transport in under-served parts of our country. I think everyone would agree with that. We want to avoid increased congestion in the urban areas. That is what Senator Schumer was just talking about.

In light of those three policy objectives, why would it make any sense to eliminate the fuel tax on commercial airlines?

Ms. BLAKEY. Well, the administration's proposal does not do that.

Senator BINGAMAN. Does not propose that. Right.

Ms. BLAKEY. So I would point that out. I think, again, the consideration for your committee is going to be, what does the entire financing system and package look like together, because there are interacting points here.

Senator BINGAMAN. Right. Right.

Ms. BLAKEY. What I do think, though, is important to take into account is what has been discussed a good bit here today, and that is the fact that the system is inequitable as it is right now.

Senator BINGAMAN. And I understand that.

Ms. BLAKEY. Airlines are paying much more than their fair share.

Senator BINGAMAN. You believe strongly we should have a cost-based structure. I am not disagreeing with that, but I still do not understand. You can have a cost-based structure, as you have proposed, without eliminating the fuel tax for commercial airlines.

Ms. BLAKEY. I would agree with you. I think various elements of financing have to come together to create an equitable allocation of the costs. Certainly there can be—and as I say, the administration did propose—that there continue to be a fuel tax that the commercial airlines would pay.

Senator BINGAMAN. If you are also going to raise some of the revenue from some type of fee per flight or surcharge per flight, which is what the Commerce Committee, I guess, has suggested, it would seem to me to make a lot of sense, in order to pursue these kinds of objectives that I have outlined, to make a distinction between congested hub airports and the rest of the country.

I can understand Senator Schumer's concerns, and I share them, about flying in and out of LaGuardia and in and out of JFK. In my State, what I am trying to do is to ensure that we do not do anything to discourage flights in and out of Silver City, and Española, and Reserve, NM and places like that, where really their only way to get to and from major urban areas is by aircraft sometimes.

So it would seem to me, if we are going to have any kind of a fee—I do not know that that makes sense to do—but if we were going to enact a fee we should certainly not apply it to small, non-

congested airports or flights in and out of those. Would any of you have a thought on that?

Dr. ORSZAG. I guess people are turning to me. I will take a crack at it. I think congestion pricing can have a significant effect on leaning towards a more efficient outcome, so your general intuition is correct.

The key there is, there would be some differential between the congested and the non-congested areas. Whether there should be any fee imposed on the non-congested areas comes back to what additional costs are imposed from flights in and out of those areas. They still have some air traffic costs associated with them.

Senator BINGAMAN. All right.

Ms. BLAKEY. In terms of the cost allocation that we did, we did take into account the costs that are imposed at major hubs. They are very different from less-congested airports and air space that is much less congested. We tried to make sure that we were allocating the costs correctly from that standpoint.

Senator BINGAMAN. But the administration did not recommend any kind of surcharge or fee per flight, as I understand it. Am I misunderstanding that?

Ms. BLAKEY. We did not. What we did was a cost-based system of fees based on the actual cost of using those various components of the system. We also talked in terms of a fee for certain very highly used airports that everyone would be paying.

Senator BINGAMAN. These 30 top large hub airports.

Ms. BLAKEY. The 30 top. Right. Correct.

Senator BINGAMAN. And you do think a fee would be appropriate with regard to people flying in and out of those large hub airports?

Ms. BLAKEY. That was the way we looked at this, yes. But we certainly tried to make sure that we were allocating accurately between the congested terminals and the ones that are not.

Senator BINGAMAN. All right.

I will stop with that, Mr. Chairman. Thank you very much.

The CHAIRMAN. Thank you, Senator, very much.

I have a question for Mr. Barthold; that is, basically the current tax structure that general aviation works or does not work with, and the degree to which they work with it.

Generally, as you know better than anybody here, commercial airlines have a 7-year depreciation on their planes, whereas general aviation, business aviation, is 5 years. On top of that, there are lots of different techniques that can be used to lower the costs to the owners of private planes.

I will read a quote here. This is a fellow from New York who has a plane. He said, "Not only did ATC"—that is a tax consultant—"help me realize the income tax savings available on the ownership of my aircraft, but I was also able to purchase it without paying any sales tax on the purchase price."

So I guess I am basically asking, from a tax fairness and a tax equity perspective, your suggestion of what this committee might look at in terms of the code as it applies to not only commercial, but also in this case, especially, private aviation.

Mr. BARTHOLD. Senator, you are correct that the depreciation recovery period for commercial aircraft is 7 years, and that for busi-

ness use of aircraft, other than contract-carrying passengers or cargo, is 5 years.

Naturally, one might ask the question, why the difference? I think the real question for the committee to think about is, what is the economic depreciation? These are different sorts of assets, so it is possible that the economic depreciation might well be different for the two types of assets.

I might remind the committee that, in fact, you asked the Treasury Department for a study relating to updating depreciation lives in a number of different uses a couple of years ago, and the Treasury Department responded that they thought that there was, indeed, some need to update lives, but did not give any specific recommendations at that time. So, this might be an area that the committee might want to seek further information on in terms of what really is the economic depreciation of these different assets.

As you are aware, for example, the commercial airlines spend a substantial amount of money in terms of maintaining their aircraft, updating the airframes, putting on new wings to give them a very long life and use, and that can, of course, affect their economic value and resale. That could be an argument for why there could be different depreciation lives, but it would seem that it would warrant further investigation.

The other point that you raised in your question seems to go to general concerns that some people have expressed about non-business use of aircraft by businesses. I did note in the one quotation that you cited that the individual essentially said that he had avoided paying sales tax.

It seemed to suggest that he might have been purchasing his aircraft primarily as a pleasure craft, but had the aircraft purchased by a business that he owned. Many States, under their State sales taxes, provide exemption for business purchase of capital equipment.

So if you were able to either factually, or perhaps aggressively, label the purchase of his aircraft as a business asset, he may have avoided paying the State sales tax. That, of course, is not a Federal tax issue. Others have raised different questions in terms of non-business use of aircraft purchases purchased by businesses for other business purposes.

I might remind the committee that in 2004 legislation, the committee did address some of these concerns. It was referred to in committee as the Sutherland Lumber case, and it relates to when there is an income inclusion to an employee for transportation provided on a business aircraft for other than a business purpose, such as flying you out to play a round of golf, or the like, and when and what the business may properly deduct as a business expense in those situations. So, the committee did act somewhat in that area.

In terms of a recommendation, as you are aware, the Joint Committee staff has recommended that there be an equalization in the treatment of all employees, what the Congress enacted as part of the American Jobs Creation Act in 2004.

It gave one rule for deduction of expenses related to aircraft use when the non-business travel was provided to owners or top officers of the business, and there is a separate rule for employees who are below that senior level.

So, both on grounds of simplicity and in terms of really sort of properly measuring income and cost to the business, the Joint Committee staff has suggested that it would be appropriate to have the same rule apply to all employees.

The CHAIRMAN. Well, thank you very much. Those are good comments. I think it is an area that the committee is going to look into, namely as we work out the general questions that have been raised here today.

I also, at the same time, want to look at the taxation and depreciation in similar provisions with respect to both general aviation, as well as commercial aviation. It is an opportunity to try to get some fairness here.

I am going to turn the whole hearing over to the Senator from New York, because I have to leave at this moment.

Senator SCHUMER. Thank you. I only have about 5 minutes more of questions.

The CHAIRMAN. I am sorry. But I want everybody to know that this committee takes this issue very seriously. We like to pride ourselves on solving problems. This is a big one. There is a lot of controversy on how much we should pay.

This committee will undertake this challenge very vigorously to try to find a good, fair, equitable solution here. I suspect we will probably be consulting with many of you here as witnesses, as well as some others, as we try to fashion that result. But we will, in this committee, find a solution.

I have high expectations that it is going to be one that not everybody is going to love, but the hope is that it is one that everybody will recognize as, hey, that is within the bounds of reasonableness, it is basically fair, and that is what we will attempt to do. Thank you very much.

The Senator from New York.

Senator SCHUMER. Thank you, Mr. Chairman.

I just would like to resume my questioning of Administrator Blakey.

The numbers you gave me, I am told, include administrators, supervisors, and people who are trainees. The numbers we are talking about are numbers of people who are supposed to be watching the screens; those three categories do not. Is that incorrect? Are the numbers you gave me, 35, all people watching the screens?

Ms. BLAKEY. They are people watching the screens. They do include people in training. As you probably know, the way we work with our developmentals, as they are called, is they do, once they have gone through full academic training, begin working certain sectors. They qualify on a sector, then they take on another sector in the air space. So they are eyes on the screens. They are eyes on the aircraft coming in. But at the same time, they are learning additions to their jobs.

Senator SCHUMER. Right.

Ms. BLAKEY. But the figures I gave you do not include supervisors and managers.

Senator SCHUMER. All right. But the people who are trainees do not watch a screen alone, they are with somebody else. They are not an extra set, an additional set of eyes.

Ms. BLAKEY. You have people who are looking over their shoulders. Again, that is why you have operational supervisors and managers in those facilities helping with that.

Senator SCHUMER. I am told that the numbers that I have given are the numbers of eyes on the screen as opposed to eyes supposed to be, but we will debate that later. I have limited time.

Ms. BLAKEY. I would be happy to come up and talk with you in detail about it.

Senator SCHUMER. Here is my next question. In March, LaGuardia, a very crowded airport, had 3 percent less traffic than in the previous year. This is March of 2007, March of 2006. You compared weather patterns, and every meteorologist would agree that the weather was actually better in March of 2007 than 2006 for flying. Yet, the delays were up a significant percentage. Why is that?

Ms. BLAKEY. Because everything is not a function of the airport and the airport surface. You have three major airports, plus Teterboro, all interacting during that same time. It is a function not only of what the airport itself can accommodate, but what is going on in the air space. It is also in the end route air space.

If you are having problems with either weather or congestion that can go out as far as Chicago, we can have ground holds and ground stops at LaGuardia, which certainly will slow up the traffic. I am sorry, I do not have the exact scenario for March right now in front of me. I would be happy to look at it.

Senator SCHUMER. I would ask you to give me an explanation as to why March was——

Ms. BLAKEY. But it has to do with en route, it has to do with the complex in that area, as well as the specific airport.

Senator SCHUMER. All right. Next question. You said that all of your technological changes are on schedule, or 90 percent of them, I think you said.

Ms. BLAKEY. Ninety percent is accurate.

Senator SCHUMER. Here is the problem. In my judgment—and this may not be your doing—the administration has so starved the FAA for the funding it needs, given the increase in travel, that the schedules are stretched out in slow walk. For instance, radar systems, which are vital. It is going to cost $916 million, as I understand it, and it is not going to be deployed until 2013.

The experts tell me, if they wanted to spend more money per year, they could deploy it a lot quicker. It would not take 6 years from now—and this is a few years back from when they started—to do it.

But my question is, do you ever go to OMB and argue for more funding for things like this? Do they tell you no? Then what do you do about it? It is not acceptable to say that this important system, which could really help us fly better, quicker, and avoid the delays, will not come on board until 2013.

Ms. BLAKEY. I am not clear, frankly, what group of equipment you are putting into the $916 million, but I would be happy to look at that figure and see what that might be about. I can tell you that we always sit down in the course of developing a budget for the following year, in a 5-year projection of budget costs, and look at what the most critical needs are in the system.

Senator SCHUMER. Let me just say, it is the ARS–11 system.

Ms. BLAKEY. All right. I will be happy to take a look at ARS–11. I know that that deployment actually is proceeding on schedule, so I do not think there are issues there, but I would be happy to see.

Senator SCHUMER. No, no. What I am saying here is, the schedule itself is very stretched out because, as with many agencies, not yours alone, this administration is sort of starving government agencies if you are not in the right two or three.

I think a good part of your job is to fight for more funds and not say that this very important system will not take effect until 2013. You can come here and say it is on schedule, but it is the schedule that is the problem. It is not good to be on schedule when it is going to finish by 2013.

Ms. BLAKEY. Well, certainly we do not feel starved for funds, so I will tell you that, in terms of the administration's position on funding capital programs, we have a very strong track record.

The issue of ASR–11s, they obviously interact with other technology. You have a planned development for every airport and for the facilities that those radar are supporting. Different forms of technologies all come into play because they interact with each other. ASR–11s, for example, are a part of the STARS system, the modernized TRACON system. You again deploy as it makes good sense, and you can bring those in together.

Could you speed things up? You could always speed things up. But Senator, one thing I would caution about is, we are also trying to move to the NextGen. That is a satellite-based, very, very different system. So what we are trying to do is put in place the funding that goes to that.

Senator SCHUMER. Now, again, you talk to people who work in the control towers, they talk about leaks, they talk about poor equipment. They say—they say—that it is very hard to get money out of the FAA to do normal things, that they are capitally starved. So, again, we will have to continue this discussion. I do not want to hold the panel up.

But my reading is that things could be a lot better if we adequately funded the agency, and that we are not. This agency is where safety ought to come first and the passenger convenience ought to come second. To this administration, the bottom line for them is more important certainly than the second factor, and maybe even sometimes than the first.

So we will have to continue this discussion and debate. But I cannot tell you how disappointed my constituents are in how things are going this summer in terms of flights and their on-times, their delays, their cancellations, and everything else.

With that, I thank you for listening. I want to thank the entire panel for being here, and look forward to continuing the discussion.

I guess—and this is the first time I have been Chairman of this committee—we are adjourned.

[Whereupon, at 12:12 p.m., the hearing was concluded.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

STATEMENT OF MARION C. BLAKEY, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, BEFORE THE SENATE COMMITTEE ON FINANCE, ON FINANCING THE NEXT GENERATION AIR TRANSPORTATION SYSTEM, JULY 12, 2007

Good morning, Chairman Baucus, Senator Grassley, and Members of the Committee.

It is a pleasure to be here today and I thank you for the opportunity to address an issue of great national significance. Indeed, it is a scenario that affects every man, woman and child in this great nation. It impacts every business, from blue chips to the corner store. And, it is a situation that requires prompt action by this Committee and the Congress. September 30th—and the expiration of the aviation taxes that currently fund over 80% of the FAA's budget—is only 80 days away, and only 51 that Congress will be in session. Mr. Chairman, you have recognized the significance of that date and the urgent need for timely action by holding this hearing today, and I thank you for that.

Need for change

As you are well aware, the volume of traffic in the national airspace system is rapidly approaching critical mass. For years, the word "gridlock" has been bandied about. For years, experts have pointed to a system that is stretched too thin, a system that simply won't be able to accommodate all those looking to use it. We had a glimpse of this problem with the delays in the summer of 2000, and then the pressure eased with the drop in demand after 9/11. But, thanks to the hard work of the industry, aviation has bounced back and we are now at a critical decision point.

John F. Kennedy once said: "The time to repair the roof is when the sun is shining." Well, for our air transportation system the storm clouds aren't just on the horizon, the raindrops are starting to fall.

As passengers, we know, and not just from headlines, that 2006 was the worst in history for air transportation delays—even worse than 2000. Based on the first six months of this year, it is clear 2007 will be even worse.

Notably, these record-setting delays are occurring simultaneously with the safest period in American aviation history. This is no surprise, because the FAA's top priority is safety. We will never sacrifice safety, even in the face of rising congestion.

However, the system is in trouble and everyone who flies knows it. The problem is we have already squeezed out virtually every ounce of capacity that's available to us. We are building runways, redesigning airspace, and working with our stakeholders to get the most out of what we have. But the fundamental problem is we are working within the constraint of air traffic control technology that is half a century old. The amount of traffic the system can handle is limited by radars, a 1950's technology, that update too slowly, and by the speed of voice communication between pilots and air traffic controllers. That system is simply not going to accommodate future aviation demand.

What lie ahead, according to our forecasts, are over a billion commercial passengers annually by 2015, 36% more than in 2006. At the same time, the aviation system will

have to contend with an ever-increasing number of business jets, including the new very light jet models. In fact, our forecasts report the number of GA and air taxi jets will grow twice as fast as commercial aircraft over the next fourteen years. This results in three and a half times as many GA and air taxi jet flight hours by 2020 as there were in 2006. This growth is fantastic for the future of aviation, but we can't get there with our current air traffic control system.

NextGen

Fortunately, there is good news on the horizon. We know the answer to the challenge that brings us here today. America needs the Next Generation Air Transportation System (NextGen). Without it, we will cease to set the pace for global aviation. We will be the country others use as a "lessons-learned" example—the country that identified its problem but couldn't fix it.

We have a clear vision for NextGen and a plan to execute it, including $4.6 billion of NextGen-related investments over the next five years. These plans were developed in partnership with stakeholders from across the spectrum of aviation, from pilots and airlines to mechanics to Wall Street and beyond. In fact, every segment of aviation agrees we need NextGen—and we need to begin implementing it now. The capacity, safety, and environmental benefits are enormous. The tough issue is how to pay for it.

Cost-based funding

I firmly believe a cost-based funding structure is our best chance of transforming the aviation system into NextGen quickly and efficiently. This is not a new idea. Numerous bipartisan commissions have recommended cost-based funding for the FAA over the last two decades, and air traffic control providers in every other developed country have cost-based funding. We do not. That is unfair to those who fly in the system and will hinder the implementation of NextGen.

Presently, there is little connection between what users pay into the system and the costs they generate, and this detachment leads to over-consumption of air traffic services, and ultimately congestion. We know the system is not cost-based from the results of the FAA's most recent study. Using comprehensive cost accounting and activity data, we put together the most detailed and transparent cost allocation ever done by FAA or, we believe, by any other air traffic control provider.

Costs in our study were classified by type of air traffic service. This includes dividing airports into large, medium and low activity categories. We evaluated over 600 cost accounting projects and divided the costs between two main user groups—high performance turbine aircraft and piston aircraft. The study considers piston users to be "marginal" and assigns them virtually none of the system's fixed costs, except at the low activity towers. And our allocation recognizes that a jet in the middle of Montana does not drive the same costs as a jet going into O'Hare. But a corporate jet using exactly the same air traffic services as a commercial jet does drive the same costs.

However, under the current tax system, corporate jets contribute very little tax revenue despite often using virtually the same airspace and services as a commercial airliner. For example, a typical commercial airliner flying from LaGuardia to Miami would pay approximately $2,015 in taxes. In contrast, a large private jet, flying the same distance, through the same airspace, using the same air traffic services, would pay roughly $236 in fuel taxes. This boils down to the passengers flying on commercial airlines subsidizing the flights of corporate executives and others who fly private jets, and a system that incentivizes incredible growth in general aviation traffic. On a system-wide basis, our cost allocation found that general aviation drives about 16% of the costs of the air traffic control system, while only paying about 3% of the taxes, a situation that is unsustainable given the growth in GA flight time that we expect. I recognize there has been a lot of rhetoric about fairness over the last few months. However, the sheer numbers are hard to refute. And it's important to note that in the Administration's proposal, we only proposed that GA users pay 11% of the total tax burden, with 10% coming from turbine users and 1% from piston users. That's a particular break for piston users, who would pay less than one-quarter of the air traffic costs allocated to them.

The commercial taxes are currently not cost-based either. The primary source of the commercial tax revenue comes from the 7.5% excise tax that we all pay on the price of commercial airline tickets. This results in different passengers on the same airplane paying different amounts into the Airport and Airway Trust Fund. The same flight on two different days would generate two different amounts of revenue depending on how

many passengers are on the plane and what they paid for their tickets. In short, tying the aviation system's revenue to the price of a ticket may have made some sense before airline deregulation, but it now has nothing to do with the cost to provide service and is an unfair way to fund the operation of our national airspace and the transformation to NextGen.

I know there are some who argue that the current tax system can support the FAA, even if it is not cost-based. While it may be possible to finance pieces of NextGen through the existing taxes, the existing system is inflexible and will not enable the implementation of NextGen as quickly or as rationally as a cost-based funding structure. For instance, some users have said that they would pay additional fees to achieve the efficiencies of NextGen sooner; under the current tax system, this type of flexibility is not possible. We do project revenue to grow under the current system, but the fact that revenue is projected to grow over the long term really misses the point. Keep in mind that not only are we facing the implementation costs of NextGen—which is a two-decade long project--but we also have to operate and manage traffic growth within the current system immediately. Without a cost-based revenue structure that encourages the most efficient use of the airspace, we are vulnerable to short-term increases in delays throughout the system and to long-term funding volatility for NextGen as ticket prices fluctuate. With cost-based financing, the factors that drive our costs—such as how many flights users make and how far they fly—would also drive our revenues. Under the current taxes, there are limited incentives to use resources efficiently, since system users do not pay based on costs. With a cost-based structure, users would understand the impact of their

actions and also see a direct relationship between investments we make and the costs they pay. Finally, without cost-based financing, commercial airline passengers will continue to subsidize corporate jets, and the disparity will only get worse since private jet activity will grow significantly faster than commercial flights.

In short, cost-based financing will improve the efficiency and fairness of the system, and set us on a predictable path towards a NextGen system of technology that allows us to use a lot more of the sky.

This year is a once-in-a-generation opportunity, presenting a rare chance to leave an extraordinary legacy for our children. But to develop the NextGen system successfully, we need a revenue stream that is tied to the actual cost of our operations. We need a revenue stream that's equitable and rational. Our financing system should be balanced, fair, and provide predictability, reliability, and stakeholder involvement. It must also take into account the valuable and unique role that aviation plays in small communities across the country.

Consistent with these principles, we proposed a hybrid system of cost-based user fees, cost-based taxes and a general fund contribution to pay for the cost of specific public good services. The key to such a financing system is to have a clear link between costs and revenues. And, of course, if it is to be truly cost-based, the amount of money coming in must be adjustable as costs change—both upwards as we invest in NextGen and

downwards as we reap the benefits of a more efficient system in future years. That sort of adjustability is more challenging to do with taxes than with user fees.

Building flexibility into our revenue stream is also important to allow us to spend the revenue we generate where and when we need it. Without the ability to spend what comes in, we will not be able to support the NextGen transformation. One of the ways our bill would achieve this is by directly counting the incoming user fees against the spending of those fees in annual appropriations.

We are pleased S. 1300 supports the need to transform the aviation system by providing funding through a modernization surcharge that supports NextGen-related capital projects. I hope the Finance Committee will use this building block in the construction of a fair and cost-based financing system for the FAA. We know that the Administration's bill has led to a spirited debate over financing the air transportation system. Regardless of what type of financing mechanism is ultimately adopted, we believe it is imperative that such a system mirror actual costs and charge those responsible for the services provided to them.

Price of inaction

As I mentioned at the outset, there is an urgent need for action. The expiration of the current taxes is less than three months away. Ten years ago, the last funding debate resulted in a series of lapses in aviation taxes during two years of short term fixes. During that time the Airport and Airway Trust Fund lost 10 months of tax revenues. At

that time, the uncommitted balance of the Trust Fund was sufficient to sustain the FAA, but the start-stop nature of the short-term fixes caused serious problems for programs such as AIP. Today, the Trust Fund's uncommitted balance is equivalent to less than two months of appropriations. Thus, a lapse in tax authority would have real and significant consequences. The aviation system cannot afford a lapse that puts air transportation – the lifeblood of our economy - at risk.

Short-term extensions without a long-term solution are not a good option either. Extensions would not address the need for reform or congestion relief, would postpone the hard decisions, and would make it difficult to implement the airport grant program in particular. Additionally, immediate legislative action is necessary to advance NextGen initiatives. If funding reform is not approved with sufficient lead time to implement the new system at the start of FY 2009, $450 million in new FY 2009 NextGen investments are particularly at risk. Critical investments in automation, advanced communications systems, facilities, and system integration could be significantly delayed.

Outyear Costs

Finally, we note that section 313 of S. 1300 threatens the FAA's ability to control its costs in the outyears. Under this provision, in the event of a negotiation impasse, the matter would go to binding arbitration. The Administration opposes legislative efforts that would limit the FAA's ability to manage its workforce and that would threaten investment in critical aviation safety programs.

Also, the authorization levels in the Senate Commerce bill are significantly higher than those proposed in the Administration's bill for the airport grants program. Authorization levels consistent with the Administration's proposal would adequately support the capital program and reduce the need for higher taxes to support the authorization levels.

Conclusion

This committee will make some serious decisions over the coming weeks affecting the future of the aviation system. Before you make these determinations, I ask that you take a step back and look at the big picture. In it you will see passengers crowded into terminals, delays piling up—from large hubs to small communities, but you will also see an opportunity to make real progress, in a balanced, fair way for the aviation community as a whole, not just for a select few.

So far, in the Senate's action on the aviation reauthorization, I have been impressed by the recognition of two undeniable facts. First, NextGen technology and programs are necessary to carry U.S. aviation into the first quarter of this century and lay the foundation for what lies beyond. Second, there is a great deal of inequity built into the current tax structure and this is an opportunity to correct it.

It is clear that we share many of the same goals for the future of aviation. A more efficient, safer, higher-capacity and more environmentally-friendly aviation system is essential to the continued vitality of America's economy. NextGen is that system, and

we must seize the opportunity this year to deliver it with a cost-based and fair financing structure. I look forward to working with you to achieve that goal by September 30th.

Mr. Chairman, that concludes my prepared statement. I would be happy to answer your and the other Senators' questions at this time.

Questions for the Record for Marion C. Blakey
Airport Airways Trust Fund: The Future of Aviation Financing
July 12, 2007
Chairman Max Baucus

Questions from Chairman Baucus

Question 1: The Airport and Airway Revenue Act of 1970 established the Airport and Airway Trust Fund, to pay for the capital and operating costs of the U.S. aviation system. The original Act contained a wide range of taxes to finance the trust fund, including the following:

a. International departure tax of $3.00
b. Avgas tax of 7¢/gallon
c. Jet fuel tax of 7¢/gallon
d. Aviation tires tax of 5¢ per pound
e. Aviation tubes tax of 10¢ per pound
f. Registration tax of $25 plus 2¢ or 3.5¢ for each pound above 2,500

If this series of taxes were adjusted for inflation, what would the rates be in today's dollars?

FAA response: Based on general consumer price inflation,[1] the tax rates from the Airport and Airway Revenue Act of 1970 would be approximately the following in today's dollars:

a. International departure tax: $16.19 per passenger
b. Avgas tax: 37.8¢ per gallon
c. Jet fuel tax: 37.8¢ per gallon
d. Aviation tires tax: 27¢ per pound
e. Aviation tubes tax: 54¢ per pound
f. Registration tax: $135 plus 10.8¢ for each pound above 2,500 (non-turbine aircraft) or $135 plus 18.9¢ for each pound above 2,500 (turbine aircraft).

Question 2: According to a 2006 study by the Natural Resources Defense Council (*Trash Landings: How Airlines and Airports Can Clean Up Their Recycling Programs),* in 2004 the U.S. air travel industry discarded enough aluminum cans to build 58 Boeing 747s. The study estimates that recycling 70 percent of these aluminum cans would save enough energy to power 5,000 U.S. households a year, and reduce carbon emissions by the equivalent of taking 9,000 cars per year off the road. Do you agree with this assessment? If so, how should Congress, FAA and the industry work together to promote a better recycling rate?

FAA Response: We are familiar with the December 2006 Natural Resources Defense Council report on airport recycling. The report identified three major sources of

[1] As measured by the Consumer Price Index – All Urban Consumers (CPI-U) between May 1970, when the Airport and Airway Revenue Act of 1970 was enacted, and June 2007 (latest reported month)

recyclable materials: the airlines (responsible for 47% of material generation), terminal tenants such as restaurants (41%) and terminal public areas (12%).

FAA supports airports' efforts to increase their recycling rate and reduce the environmental impacts of airports. As soon as we issue guidance we will be able to support airports developing Environmental Management Systems (EMS) and individual recycling plans by funding these plans with Airport Improvement Program (AIP) grant funds. Developing recycling plans will allow airports to make recycling easy for the user, while remaining effective and economical for the airport.

Many airports have undertaken recycling programs on their own. Most programs focus on plastic, paper, and aluminum recycling. However, there are some innovative initiatives underway. For instance, the Philadelphia International Airport is recycling waste cooking oils to a local biodiesel plant.

But airport recycling is not only about plastics, aluminum cans, or cooking oil. FAA has funded multiple stormwater detention facilities that help remove contaminants such as deicing fluids or oils from water that will later be used for drinking water. We also support the recycling of old and deteriorated asphalt and concrete pavements.

FAA's commitment to environmental stewardship transcends end point recycling. We support environmental research in the Airport Cooperative Research Program and expect that the results of that research will help us develop methods that will reduce the overall environmental impact of airports on our world.

Question 3: As you know, some have suggested that an increase in fuel taxes is the most appropriate means of funding a transition to the NextGen system. What would be the impact of some of the proposed fuel tax increases on the cost of flying a general aviation plane? How has the percentage of fuel taxes as a share of fuel costs changed over time?

FAA response: Federal fuel taxes currently average roughly 1.5% of the total operating cost of a GA plane—including the cost of fuel itself, crew costs (or the owner's value of time), maintenance, parking, insurance, etc. Although it varies some depending on the specific aircraft type, this percentage is roughly consistent for both turbine and piston aircraft.

Under the Administration's proposal, the fuel taxes would increase to $0.70 per gallon on jet fuel and aviation gasoline. This would increase total operating costs for GA aircraft by approximately 3%. The increase translates to roughly $4 per hour for a small piston aircraft (which has operating costs of about $120 per hour), and $250 per hour for a large GA jet aircraft (which has operating costs of over $6,000 per hour).

Under the proposal from Senators Rockefeller and Lott, the GA jet fuel tax would increase from $0.218 per gallon to $0.491 per gallon and the aviation gasoline tax would remain unchanged at $0.193 per gallon. This jet fuel tax adjustment would increase operating costs for GA turboprop and jet aircraft by approximately 2%.

Under the proposal from Congressmen Oberstar and Costello, the GA jet fuel tax would increase to $0.307 per gallon and the aviation gasoline tax would increase to $0.241 per gallon. These changes would increase operating costs by less than 1% for GA turboprop and jet aircraft and by less than 0.5% for GA piston aircraft.

The percentage of fuel taxes as a share of fuel costs has generally declined over time. The Department of Energy publishes historical data for refiner prices to end users (excluding taxes) for jet fuel and aviation gasoline. Since refiner prices are generally lower than retail prices, the fuel tax is actually a lower percentage of retail prices than the figures cited below. However, the trends over time should be similar.

When the general aviation fuel taxes were established at their current rates in 1993, the federal jet fuel tax was approximately 38% of the refiner price, and the federal aviation gasoline tax was approximately 19% of the refiner price of aviation gasoline (based on the average fuel prices for the year).

Because the fuel taxes have remained the same since 1993 while jet fuel prices have more than tripled and aviation gasoline prices have nearly tripled, the taxes are now a significantly lower percentage of the fuel costs. Based on the average fuel prices for 2006, the federal jet fuel tax is now approximately 11% of the refiner price, while the federal aviation gasoline tax is about 7% of the refiner price.

Question 4: The Joint Planning and Development Office (JPDO) recently released its 'enterprise architecture,' something of a blueprint for NextGen. After reviewing this document, do you still believe that the cost of NextGen implementation will be in the range of $15-22 billion?

FAA Response: The $15-22 billion estimate only partially represents the costs of NextGen. It includes FAA-related infrastructure costs, based on the recently released Enterprise Architecture. It does not, however, include costs to other NextGen partner agencies, estimates of which are still being developed. It also does not include user equipage costs, currently estimated at $14-20 billion.

The estimates above are the best we have to date, and they are a realistic representation of the magnitude of the program, given the latest version of the architecture. As the architecture is refined, however, and the options for achieving capabilities are analyzed, we will be able to refine the cost estimate. Within each capability area, there are opportunities to consider different technologies, operational paradigms, and business structures, and we intend to analyze the cost implications of each. Over the coming year, the JPDO plans to refine the aggregate NextGen cost estimate, as well as investigate some initial benefit/cost tradeoffs within the architecture.

Questions from Ranking Member Grassley

Question 1: In September 2006, at the request of Senator Coburn and me, the Department of Transportation Office of Inspector General ("DOT IG") issued a report highlighting several deficiencies in the Federal Aviation Administration's procurement program for support services. Specifically, the DOT IG examined the RESULTS National Contracting Service and determined that the program was not properly structured to meet FAA's needs for faster, cheaper, and better acquisition of support services

The DOT IG made several recommendations to your agency to ensure that the procurement process is better managed and more transparent.

In light of the recommendations, I request the following:

1. Outside the scope of the DOT IG's report, what other initiatives, if any, has the FAA taken to improve the procurement process generally?

2. Please provide the Committee a copy of the February 2007 status report of FAA's efforts to replace support services contracts under RESULTS. In addition, please provide all forthcoming status reports as they are made available. Also, please provide a copy of the amended Acquisition Management System guidance as of January, 2007. Please specifically highlight and explain all amended sections pursuant to the DOT IG's recommendations.

FAA response:
1. As a result of our internal review of support services in 2005, we began a series of steps to strengthen internal management, oversight, control, and guidance for support services contracting. We took additional steps based on the IG's audit of RESULTS in 2006. Specific actions and activities include:

- We dissolved the RESULTS contracting program. Existing RESULTS contracts were terminated, allowed to expire, replaced with competitive contracts, or allowed to continue if properly awarded.

- The Deputy Administrator must approve the award of any support services contract over $1 million if it's on a single source basis, or if fewer than three offers were received.

- Before the contracting process for any type of acquisition may begin, the Chief Financial Officer must approve any planned expenditure over $10 million and the proposed financial controls for that acquisition.

- The Chief Information Officer must approve any planned information technology requirement over $250,000.

- Internal processes and controls for other FAA multiple-award contracting programs, such as the Broad Information Technology Services (BITS) program, were strengthened. Specifically, task orders (T.O.) under the BITS II program undergo a thorough review to assure that the BITS II program is an appropriate vehicle for the proposed task and that the personnel proposed by the contractors satisfy the contract's requirements for those labor categories. In addition, each TO is conducted on a competitive basis by doing a detailed comparison among the interested BITS II contractors.

- The FAA's Region and Center Operations line of business expanded its oversight staff, implemented an internal procurement evaluation program, and created checklists, procedures and policies to improve contract management practices.

- A national evaluation program under FAA's Acquisition Executive was established to assess procurement practices of all of FAA's contracting organizations.

- FAA's Acquisition Management System was amended to require the use of a solicitation and contract clause that requires support services contractors to disclose any former FAA personnel who will work under their contract and any relatives of current FAA employees.

- Acquisition Management System (AMS) guidance for support services was revised to require:

    - A good business case for the acquisition, considering need, benefit, cost, and alternatives;
    - Government personnel must conduct market surveys, prepare statements of work and independent Government cost estimates;
    - Statements of work must have clear objectives, deliverables, or outputs;
    - The contract ceiling must correlate to the planned amount of work, and not exceed 110% of the planned funding for work;
    - There must be a well-documented rationale for selecting contractors;
    - FAA must review contractor resumes to verify compliance with contractually-specified qualification requirements;
    - FAA must have sufficient expertise to adequately monitor the contractor's performance.

- Contracting personnel must properly justify and document reasons for using a time and materials or labor hour contract.

- Any new FAA multiple award contracting program must be justified and approved in advance.

- FAA's Joint Resources Council (FAA's highest executive level of review) annually reviews FAA's largest support services contracts and twice a year reviews each of its other investment portfolios.

Mandatory, recurring procurement training was held to reinforce proper contracting processes and ethics. Over 3,300 program officials and contracting personnel attended mandatory procurement training in late 2005 to early 2006. Procurement training for contracting personnel was held again in late 2006, and is scheduled for 2007.

2. Copies of the requested status reports have been provided, and any forthcoming reports will be provided. The entirety of FAA's Acquisition Management System (AMS) may be found on the FAA's website, and is updated on a monthly basis. The amended version of the AMS as of January 2007 can be found at http://fast.faa.gov/archive/v0107. The Procurement Guidance section of that website contains most of the updated guidance related to FAA's support services acquisitions (the contract clauses section contains the solicitation and contract clause referred to above). We have implemented the IG recommendations related to revising AMS. Below are excerpted sections of AMS guidance that were adopted specifically in response to the IG's recommendations.

The IG recommended providing sufficient justification and approval before establishing any new FAA-specific, multiple award procurement programs. Revised AMS guidance for this approval is as follows:

> **"AMS Procurement Guidance**
> **Section T3.13.1, Paragraph A.15. "Approval of Multiple-Award Procurement Programs"**
>
> a. FAA's multiple-award procurement programs expedite contracting processes for recurring needs by establishing more than one competitively awarded task/delivery order contract or agreement, or qualified vendors list, in broad categories of work, such as information technology or engineering services. As FAA organizations identify specific needs, they place orders against an individual contract or agreement or qualified vendors list using procedures established under the particular multiple-award program.
>
> b. Before any FAA organization establishes a new multiple-award procurement program, it must document the program's benefit, administrative cost, span of use, ordering procedures, and internal oversight mechanisms. Written approval, based on potential size, complexity, and scope of aggregate needs, is also required before an FAA organization may begin any activity to establish a multiple award procurement program, as follows:
>
> > (1) Joint Resources Council (JRC) approves any multiple award procurement program that is part of the procurement strategy for an investment program subject to JRC approval. The justification for the

procurement program is described in the Exhibit 300 Attachment 3, Integrated Strategy and Planning, and is approved by the JRC at the final investment decision.

(2) FAA Acquisition Executive (FAE) approves any multiple award procurement program, any qualified vendors list, or any blanket purchase agreement intended to satisfy needs across one or more ATO service organization, ATO service area, non-ATO line of business, or staff office.

(3) Chief of the Contracting Office approves any multiple award procurement program, qualified vendors list, or blanket purchase agreement intended to satisfy needs of one directorate (or equivalent organizational level) within an ATO service organization, ATO service area, non-ATO line of business, or staff office.

c. The FAA organization establishing the multiple award procurement program must send a copy of the approved justification to the Director of Acquisition Policy and Contracting (AJA-4) at headquarters."

In addition, the IG recommended guidance describing how information concerning former FAA employees working for contractors should be used when evaluating contract proposals. AMS guidance for this process is as follows:

"AMS Procurement Guidance
Section T3.8.2, Subparagraph A.4.h "Support Services Contracting"

h. An apparent or actual conflict of interest must be avoided. Support services solicitations and new contracts with a total value of $10,000 or more, and modifications of $1,000,000 or more to existing support services contracts, must include AMS clause 3.1.7-6 "Disclosure of Certain Employee Relationships." The CO must notify legal counsel when the contractor discloses a former FAA employee or relative of a current FAA employee working under the contract, and when the CO has reason to believe the contractor has made an incomplete or improper disclosure. The CO collects facts surrounding each contractor disclosure and, with legal counsel, assesses the information to determine whether an apparent or actual conflict of interest exists. Depending on the assessment, the CO may require the contractor to provide and implement a plan to avoid, neutralize, or mitigate a conflict of interest involving its employee(s). The CO documents this assessment and any actions taken."

Question 2: There's a special rule for the ticket tax deposits in 6302(e) (added by OBRA 1990). With respect to amounts considered collected during any semimonthly period, the deposit is made not later than the 3rd day after the close of the 1st week of the 2nd semimonthly period following the period to which such amounts relate.

Under Treas. Reg. 40.6302-3(b)(1), an airline may opt to compute the amount of tax to be deposited on the basis of amounts considered collected ("the alternative method") instead of on the basis of actual collections of tax. Under Treas. Reg. 40.6302(c)-3(b)(3), the tax included in amounts billed or tickets sold during a semimonthly period is considered collected during the first seven days of the second following semimonthly period. The tax included for tickets sold during the first semimonthly period of a calendar month is considered collected during the period of the 1st day through the 7th day of the following month; the tax for tickets sold during the second semimonthly period of a calendar month is considered collected during the period of the 16th day through the 22nd day of the following month. The regulations give the following example:

The deposit for the semi-monthly period beginning on January 1, 1993 (relating to amounts billed between December 1st and December 15, 1992) is due by January 12, 1993, three banking days after January 7, the seventh day of the semimonthly period.

What were the recommended reasons for the change to allow additional float time for ticket tax collected versus the regular deposit rule enforced on the fuel excise taxes?

FAA Response: Treas. Reg. 40.6302-3(b)(1) was adopted in 1993 as part of a reorganization of the excise tax procedural rules. The rule was included in a new part 40, which consolidated the excise tax procedural regulations previously contained in parts 45, 46, 48, 49, 52, and 154 of the Treasury regulations.

The rule in section 40.6302-3(b)(1), which provides that the tax included in amounts billed or tickets sold is considered collected in the second succeeding semimonthly period, is a restatement of the rule previously contained in part 49 of the Treasury regulations.

That rule was part of the original excise tax deposit rules adopted by Treasury decision 6914 in 1967. At that time, the Federal Register did not require rulemaking documents to include preambles. Accordingly, the Treasury decision did not include an explanation of the reasons for adopting the rule.

Tax collection is not part of the FAA's responsibility. Therefore, the FAA is not familiar with all of the detailed reasons for the various collection and deposit rules.

Question from Senator Bingaman

Question: The FY06 appropriations bill included language asking FAA to work with Santa Fe to improve the radar coverage at the city's airport. As I understand it, there has been a lot concern expressed to my office from pilots and the controllers about the lack of radar coverage. Could you take a look at the situation and let me know if there is something FAA can do in the short term to improve the situation?

FAA response: The FAA continues to work with Santa Fe Airport to identify a cost effective approach to improving surveillance coverage in the vicinity of the airport that can be jointly funded. Any installation of equipment to improve surveillance around the airport would be a multi-year effort. Air traffic control procedures are in place to assure safe arrivals and departures at Santa Fe Airport. The FAA is not aware of any short term measures that could be taken to change the Santa Fe air traffic control environment.

Questions from Senator Smith

Question 1: Should this user-fee proposal move forward, what kind of costs and bureaucracy should we expect to have to be implemented in order to collect the $25 fee? What kind of impact will this pose on the small business community to have to pay and apportion this $25 fee?

FAA response: We do not expect large overhead costs for billing and collection of the user fees, either for the FAA or aviation users. Large companies all over the world send out and collect bills on a routine basis, and aviation users, including small businesses, already routinely pay bills from numerous service providers (phone companies, electric companies, airports, fuel vendors, maintenance companies, other air traffic service providers, etc.).

We have a good track record of billing and collecting overflight fees and other minor fees. While the overflight fee program was tied up in court for a few years, our billing and collecting has always worked smoothly.

Our research has shown that several companies have expertise in billing and collections with systems already in place that we can leverage. S. 1300 would also allow us to leverage the collection expertise of other government agencies (e.g., the IRS) in addition to using commercially available services.

Based on U.S. and international best practices, we estimated that administrative overhead would be significantly less than 1% of the user fee revenue collected under the Administration's proposal. Our proposal only billed GA flights when they landed at the 30 busiest airports, so fewer than 500 users accounted for 95% of the billable flights.

S. 1300's $25 per turbine flight charge would require more transactions and generate less user fee revenue, so administrative costs may be a higher *percentage* of the revenue than under our proposal. However, we do not expect total billing and collection costs to be excessive.

Question 2: You have said that you need a funding mechanism that links revenues to system use. It seems to me that the fuel taxes do exactly that. You also mention how a user fee system would provide additional flexibility to implement the Next Generation Air Traffic Control system. How does a user fee add flexibility to the system?

FAA response: Fuel taxes can be a reasonable proxy for system use if they are set at the proper rates. That is one reason the Administration's cost-based funding proposal would collect general aviation's share of the system's costs through fuel taxes.

However, user fees provide additional flexibility for several reasons, which is why we proposed that user fees from commercial users fund nearly 75% of air traffic costs.

First, user fees can receive offsetting collections budget treatment, which directly counts the incoming user fees against the spending of those fees in annual appropriations. This would help provide dedicated financing for NextGen and increase our ability to spend the revenue we generate where and when we need it. Without the ability to spend what comes in, we will not be able to support the NextGen transformation.

In addition, fees can change as costs change—both upward as NextGen investment ramps up and downward as the system becomes more efficient. It is more challenging to achieve this adjustability with taxes.

Finally, user fees allow for different charges based on the services a flight uses. The fuel tax is a blunt instrument; an airplane pays the same amount per hour whether it flies in uncongested airspace or uses the busiest airports in the country. User fees would allow costly congested airspace to be priced differently from uncongested airspace.

Questions from Senator Roberts

Question 1: Your testimony states that $450 million in 2009 NextGen investments are at risk if funding reform is not adopted. CBO and GAO testified that if the system stays as is, there will be roughly $22 billion over baseline in the next ten years. If we don't pass a reform bill, or we pass an extension of the current set of taxes, won't the Administration request these funds in their 09 Budget Request regardless of what type of funding mechanism is in place?

FAA response: The Administration is committed to NextGen and we expect to request full funding of the NextGen investments for FY 2009, regardless of what funding mechanism is in place. However, we firmly believe that our best chance to fund NextGen in 2009 and over the long run is through a cost-based structure with dedicated funding.

In the current tax structure, the roughly $450 million in new NextGen investments (above FY 2008 levels) must compete in the appropriations process with Airport Improvement Program grants, operations and maintenance costs, capital costs we need just to keep the current system going, and even non-aviation spending.

CBO, GAO and the DOT Inspector General have all noted the importance of the caveats, assumptions and uncertainties associated with CBO's baseline analysis. These variables that can impact both spending levels and revenue include the level of the general fund

contribution, the future costs of NextGen, the volume of air traffic, the future costs of operating the aviation system, future appropriation levels for AIP, and changes in the aviation industry. As CBO has noted, under the baseline assumptions, spending would not keep pace with economic activity.

Furthermore, even in the baseline, there is minimal room for additional spending until after 2010. This is problematic because, as the planned 2009 spending shows, NextGen investment must begin ramping up now.

Question 2: The testimony from CBO states that congestion and delays increase costs. Your testimony notes that 2007 is expected to be the worst year ever for transportation delays. What factor contributes to the largest number of flight delays?

FAA response: Weather accounts for approximately 70 percent of all delays. Other causes are: air traffic volume (14 percent); runway capacity limitations (7 percent), FAA equipment failures and outages (1 percent); and other factors (8 percent). Examples of the latter category of "other" factors include: aircraft emergencies, radio communications problems, bird strikes, bomb threats, military operations, and fires.

Question 3: At large hub airports, what percentage of the annual operations are attributed to general aviation and what percentage for commercial aviation?

FAA response: At the 30 large hubs (defined as those airports that account for at least 1% of annual commercial passenger boardings) in fiscal year 2006, general aviation accounted for 6.1 percent of the operations. Commercial users (including air carriers, commuters, and air taxis) accounted for 93.5 percent of the operations. Military flights accounted for 0.4 of the operations.

At the 466 other airports with FAA or contract air traffic control towers, general aviation accounted for 68.4 percent of the operations in fiscal year 2006. Commercial users (including air carriers, commuters, and air taxis) accounted for 25.8 percent of the operations. Military flights accounted for 5.8 percent of the operations.

All figures are from the FAA's Air Traffic Activity Data System.

Question 4: In 2004, former Secretary Mineta called for an airline/FAA meeting to discuss over-scheduling and flight delays at O'Hare airport. At the time, FAA stated that "O'Hare delays are likely responsible for a significant portion of delays recorded nationally." Those discussions led to a voluntary limit on incoming flights at O'Hare. Are these voluntary limits successful in addressing some of the delay issues? Furthermore, does the department plan to utilize this strategy with other chronically delayed airports?

FAA response: The FAA met with air carriers serving Chicago O'Hare International Airport in August 2004 to seek schedule adjustments to reduce congestion and delays. By more closely matching demand with capacity, the FAA sought to improve operational reliability at the airport for the airlines, passengers, and other customers. This meeting

followed two similar schedule reductions earlier that year that involved only the two major hub operators, American Airlines and United Airlines. At the August 2004 meeting, the hub operators agreed to further reduce their schedules by November 1, 2004, during the peak afternoon and evening hours. Other carriers made limited schedule adjustments and agreed to cap their flights. The FAA incorporated the terms of the agreement into an Agency order. The caps did serve to limit delays at O'Hare; and, during the first year of the limits, delays decreased by 24 percent compared to the 12 months before the cap took effect. The FAA subsequently adopted a regulation to limit flights and provide additional flexibility not included in the original order. This regulation is set to expire in October 2008, about the time when the first of the new runways at O'Hare is expected to be operational.

The FAA's primary policy is to incentivize increased capacity. However, we do believe market-based approaches are useful to control congestion. Short-term caps are most appropriate to achieve significant congestion relief in the short-term, until additional capacity or market based solutions can offer longer-term relief. Our preferred approach is to continue to focus on ways to safely improve airport capacity and the efficiency of the National Airspace System in such a way that does not require governmental interference in carrier scheduling and market decisions.

Question from Senator Schumer

Question: How many air traffic controllers, excluding managers or supervisors, are there in the tower at Newark airport?

FAA Response: As of July 21, 2007, Newark Liberty International Airport (EWR) had 27 certified professional controllers (CPCs) and 3 certified professional controllers in training (CPCITs). The latter is typically a controller who has been certified previously and is now learning a new area or at a new facility. There are also 4 developmental controllers at Newark, who are controllers who are not yet certified. Therefore, the total number of controllers (including developmental controllers) at Newark is 34.

The staffing ranges in the FAA's Controller Workforce Plan set out minimum and maximum numbers for CPCs/CPCITs for each airport (i.e., developmental controllers are not counted). For Newark, the staffing range is 30 to 36. The sum of the CPCs and CPCITs at Newark now stands at 30, meeting the minimum range.

United States Government Accountability Office

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Testimony
Before the Committee on Finance,
U.S. Senate

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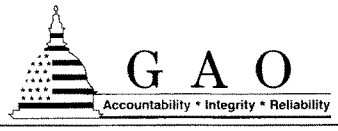
FEDERAL AVIATION ADMINISTRATION

Viability of Current Funding Structure for Aviation Activities and Observations on Funding Provisions of Reauthorization Proposals

Statement of Gerald L. Dillingham, Ph.D.
Director, Physical Infrastructure Issues



GAO-07-1104T

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Highlights

Highlights of GAO-07-1104T, a testimony before the Committee on Finance, U.S. Senate

Why GAO Did This Study

The Federal Aviation Administration (FAA) operates one of the safest air transportation systems in the world, but this system is under growing strain as the demand for air travel increases. Recognizing the need to transform this system, Congress created the Joint Planning and Development Office (JPDO), housed within FAA, to plan and develop the Next Generation Air Transportation System (NextGen). The current authorization for FAA, the Airport and Airway Trust Fund (Trust Fund), and the excise taxes that support the Trust Fund will expire September 30, 2007. Reauthorization bills in the Senate (S. 1300) and the House (H.R. 2881) identify various revenue sources, including flight surcharges and certain fees, to fund FAA, including NextGen. Concerned about the need for stable, sustainable financing for the nation's multibillion-dollar transportation infrastructure investments, including NextGen, GAO has designated transportation financing as high risk.

GAO's statement addresses (1) the extent to which the current funding structure can support FAA's activities, including NextGen, (2) the implications of selected provisions of proposals to fund aviation activities, and (3) issues that could affect the overall cost of NextGen. The statement is based on recent GAO reports and testimonies, updated through interviews with FAA officials and stakeholder representatives.

www.gao.gov/cgi-bin/getrpt?GAO-07-1104T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Gerald L. Dillingham at (202) 512-2834 or dillinghamg@gao.gov.

July 12, 2007

FEDERAL AVIATION ADMINISTRATION

Viability of Current Funding Structure for Aviation Activities and Observations on Funding Provisions of Reauthorization Proposals

What GAO Found

Recent estimates indicate that FAA's current funding structure—consisting primarily of Trust Fund revenues plus a contribution from the General Fund of the U.S. Treasury—can potentially support FAA's activities, including NextGen. The current structure has provided sufficient funding for FAA's activities to date, and both FAA and the Congressional Budget Office (CBO) have estimated that revenues will continue to increase. According to CBO projections through 2017, the current structure, if maintained, could support about $22 billion in additional spending over current spending levels (adjusted for inflation). Congress could also raise more revenue for FAA by raising excise tax rates or by increasing the General Fund contribution. However, contributions from the General Fund may be limited by the federal government's long-term fiscal imbalance, and policy choices, structural changes in the aviation industry, and external events could affect Trust Fund revenues. Furthermore, the current funding structure raises concerns about equity and efficiency because users may pay more or less than the costs of the air traffic control services they receive, and therefore they may lack incentives to use the national airspace system as efficiently as possible.

Selected proposals for funding aviation activities have implications for revenue generation, but could pose unintended consequences. For example, S. 1300 would authorize a surcharge of $25 per flight on many flights to help pay for NextGen capital projects. While a surcharge would create an incentive for efficient use of air traffic services, some stakeholders raise the possibility that such a fee could lead to reduced air service for small communities. S. 1300 would also allow FAA to seek debt financing for capital projects in the private capital market—a proposal designed to create a stable revenue source but costlier than using appropriations or borrowing from the U.S. Treasury. H.R. 2881 would raise airport passenger facility charges, thereby benefiting larger airports more than smaller ones, and it would increase fees for certain FAA certification and registration activities. However, in general, when fees are imposed for aviation activities, care must be taken that they do not contribute to a situation in which safety might be compromised.

Issues that could affect the overall cost of NextGen are primarily related to the content and cost of its infrastructure and research. JPDO is developing and has issued some key planning documents that will provide more insights into some of these issues, but questions remain over which entities will perform activities such as research and development. Other issues include the cost savings that could result from more efficient FAA operations and acquisition processes, which could reduce the need for new NextGen funding, and the extent to which public-private partnerships and leasing can be used to acquire NextGen infrastructure as flexibly and cost-effectively as possible.

Mr. Chairman and Members of the Committee:

We appreciate the opportunity to participate in today's hearing on the future funding of the Federal Aviation Administration (FAA). As you know, FAA operates one of the safest air transportation systems in the world, but this system is under growing strain as the demand for air travel increases. According to FAA, over 740 million passengers flew in fiscal year 2006, and 1 billion passengers per year are expected to fly in 2015. FAA also predicts that 10,000 corporate aircraft, including traditional business jets, turboprops, and very light jets, will be added to the fleet between 2007 and 2017. To accommodate this increased traffic, instrument flight rule operations—the most significant source of demand on the air traffic control system—are projected to rise by 36 percent, from roughly 45,000 per day to 61,000 per day over the same decade. Yet even at today's flight levels, flight arrival delays are approaching the record levels set in 2000, when one in four flights reached its destination late. The consensus is that the current air traffic control system cannot be expanded to meet this expected growth. According to a federal analysis of future demand and system capacity, the estimated cost to the U.S. economy of failing to meet future airspace demands could be $22 billion annually by 2023.

In 2003, recognizing the need for a new and different type of air traffic control system to deal with the expected growth, Congress authorized the creation of the Joint Planning and Development Office (JPDO),[1] housed within FAA, to lead a collaborative effort of federal and nonfederal aviation stakeholders to conceptualize and plan the Next Generation Air Transportation System (NextGen). The transformation to NextGen will involve the acquisition of numerous systems to support precision satellite navigation; digital, networked communications; integrated weather information; and layered, adaptive security. The total estimated expenditures for NextGen—for both capital costs and research and development costs—is $4.3 billion over the next 5 years.

As you know, the current authorization for FAA, the Airport and Airway Trust Fund (Trust Fund), and the excise taxes that provide revenue for the Trust Fund will expire at the end of this fiscal year. Reauthorization proposals have been introduced in both the Senate[2] (S. 1300) and the

[1]JPDO was authorized by the Vision 100—Century of Aviation Reauthorization Act (Pub. L. No. 108-176).

[2]S.1300, 110th Cong., 1st Sess. (May 3, 2007).

House[3] (H.R. 2881), which identify various revenue sources to fund FAA, including NextGen.[4] These sources include the current excise taxes, flight surcharges, and certification and registration fees. As requested, my statement today will address the following questions: (1) To what extent can the current funding structure support FAA's activities, including NextGen? (2) What are the implications of selected provisions of proposals to fund aviation activities? (3) What issues could affect the overall cost of NextGen? My remarks are based on recent GAO reports and testimonies[5] on FAA's current funding structure, funding options that might address those concerns, and NextGen. For these reports and testimonies, we reviewed relevant literature, examined FAA data and forecasts, and interviewed FAA and other government agency officials, aviation industry group representatives, and academic and financial experts. In addition, for this statement, we analyzed provisions of the reauthorization proposals dealing with funding FAA and NextGen and discussed them with FAA officials and aviation industry group representatives. We conducted our work during July 2007 in accordance with generally accepted government auditing standards.

Summary

- Recent estimates indicate that FAA's current funding structure—consisting primarily of Trust Fund revenues plus a contribution from the General Fund of the U.S. Treasury—can potentially support FAA's activities, including NextGen. In aggregate, since the Trust Fund was created in 1970, revenues to the fund have exceeded appropriations from it, resulting in an uncommitted balance, or surplus. This balance has

[3]H.R.2881, 110th Cong., 1st Sess. (June 27, 2007).

[4]In addition, H.R. 2698 would authorize appropriations for FAA's civil aviation research and development projects.

[5]*Airport Finance: Preliminary Analysis Indicates Proposed Changes in the Airport Improvement Program May Not Resolve Funding Needs for Smaller Airports*, GAO-07-617T (Washington, D.C.: Mar. 28, 2007); *Federal Aviation Administration: Observations on Selected Changes to FAA's Funding and Budget Structure in the Administration's Reauthorization Proposal*, GAO-07-625T (Washington, D.C.: Mar. 21, 2007); *Next Generation Air Transportation System: Progress and Challenges Associated with the Transformation of the National Airspace System*, GAO-07-25 (Washington, D.C.: Nov. 13, 2006); *Aviation Finance: Observations on Potential FAA Funding Options*, GAO-06-973 (Washington, D.C.: Sept. 29, 2006); *National Airspace System Modernization: Observations on Potential Funding Options for FAA and the Next Generation Airspace System*, GAO-06-1114T (Washington, D.C.: Sept. 27, 2006); and *Federal Aviation Administration: An Analysis of the Financial Viability of the Airport and Airway Trust Fund*, GAO-06-562T (Washington, D.C.: Mar. 28, 2006).

declined in recent years, from about $7.3 billion at the end of fiscal year 2001 to about $1.8 billion at the end of fiscal year 2006. This decline has occurred because expenditures from the fund are based on projected revenues and FAA has had to draw down funds when actual revenues have fallen short of projections and have not been sufficient to cover expenditures. To help ensure that revenues are sufficient to cover expenditures, H.R. 2881 proposes that Congress base expenditures from the Trust Fund on 95 percent, rather than 100 percent, of estimated Trust Fund revenues. Notwithstanding these recent shortfalls, both FAA and the Congressional Budget Office (CBO) have estimated that FAA's revenues will continue to grow over the next decade under the current structure. For example, CBO has projected that at current tax rates, the current structure could support about $22 billion in additional spending over current spending levels (adjusted for inflation) through 2017. Moreover, should Congress wish to provide additional funding for FAA activities, it could raise additional revenue under the current structure by raising the rates on one or more of the current excise taxes or by increasing the General Fund contribution. This contribution may, however, be limited by the federal government's long-term fiscal imbalance, and policy choices, structural changes in the aviation industry, and external events could affect revenues to the Trust Fund. Furthermore, the current funding structure raises concerns about equity and efficiency because users may pay more or less than the costs of the air traffic control services they receive, and therefore they may lack incentives to use the national airspace system as efficiently as possible.

- Selected provisions of proposals for funding aviation activities have implications for revenue generation, but in some cases could have unintended consequences. For example, S. 1300 would authorize the FAA Administrator to impose a surcharge of $25 per flight on many aircraft owners and operators to help pay for NextGen capital projects. While a surcharge would create an incentive for efficient use of air traffic services, some stakeholders question the equity of charging the same fee for aircraft of all sizes, and raise the possibility that such a fee could lead to reduced air service for small communities. S. 1300 would also allow FAA to seek debt financing for capital projects in the private capital market—a proposal that could possibly create a stable revenue source, but would cost the government more than paying for its investments with appropriations or borrowing from the Treasury. H.R. 2881 would allow

airports to raise their passenger facility charges (PFC).[6] This action would provide additional revenues for aviation infrastructure and likely benefit larger airports more than smaller airports. However, it could also have a limited effect on the demand for air travel. H.R. 2881 would also establish increased fees for certain FAA certification and registration activities, and such fees would provide additional revenues. However, in general, when fees are imposed for aviation activities, care must be taken to prevent them from contributing to a situation in which safety might be compromised.

- While revenue estimates indicate that the current funding structure could adequately support NextGen, a number of issues could affect its overall cost, especially those related to its resource requirements. A major issue is the precise content and associated costs of NextGen infrastructure and research. JPDO is developing and has already released some key planning documents that describe the capabilities needed to transition to NextGen, establish time lines for completing essential tasks, and identify the responsibilities of the JPDO partner agencies for these tasks, together with the required funding. These documents should provide more insight into NextGen's requirements and costs. Additionally, questions remain over which entities will fund and conduct some of the necessary research, development, demonstration projects, and training that will be needed to achieve certain NextGen capabilities. Other issues include the cost savings that could result from improvements in FAA operations and acquisition processes, which could reduce the need for new NextGen funding, and the extent to which FAA uses public-private partnerships and leasing to acquire NextGen infrastructure as flexibly and as cost-effectively as possible.

Background

Although there have been fluctuations in its funding sources, FAA has been supported by the current structure for decades. The agency is primarily funded by the Trust Fund (82 percent)—which receives revenues from a series of excise taxes paid by users of the national airspace system—and by General Fund revenues. These excise taxes are associated with purchases of airline tickets and aviation fuel, as well as the shipment of cargo, and are scheduled to expire September 30, 2007. Trust Fund revenues are available for use subject to appropriation. Including interest

[6]The PFC program allows the collection of PFC fees up to $4.50 for every enplaned passenger at commercial airports controlled by public agencies. Airports use these fees to fund FAA-approved projects that enhance safety, security, or capacity; reduce noise; or increase air carrier competition.

earned on its balances, the Trust Fund received about $11.2 billion in 2006. In addition, about $2.6 billion was appropriated for fiscal year 2006 from the General Fund for FAA operations. Table 1 shows the distribution of Trust Fund revenues for 2005 by source.[7]

Table 1: Sources of Trust Fund Revenue, Fiscal Year 2005

Dollars in millions		
Revenue source	**Amount**	**Percent**
Passenger ticket tax	$5,161	48
Passenger flight segment tax	1,900	18
Cargo tax	461	4
Fuel tax	971	9
International departure and arrival tax	1,922	18
Interest	440	4
Refunds[a]	(101)	(1)
Total	**$10,754**	**100**

Source: GAO analysis of FAA data.

[a]Refunds include: refund of aviation fuel other than gas (noncommercial), refund of aviation gasoline (noncommercial), and other refunds/credits.

The Trust Fund was established by the Airport and Airway Revenue Act of 1970[8] to help fund the development of a nationwide airport and airway system and to fund investments in air traffic control facilities. It provides all of the funding for three of FAA's four accounts, including (1) the Facilities and Equipment (F&E) account, which funds technological improvements to the air traffic control system; (2) the Research, Engineering, and Development (RE&D) account, which funds research on issues related to aviation safety, mobility, and the environment as well as most of FAA's contribution to JPDO;[9] and (3) the Airport Improvement Program (AIP), which provides grants for construction and safety projects at airports. In addition, at various times during its history, the Trust Fund

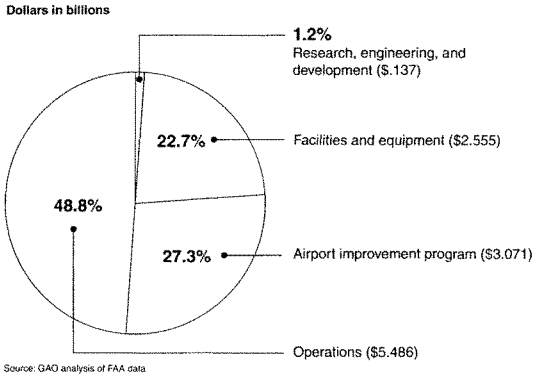
[7]As recommended by FAA, we are using 2005 data to show the breakdown of Trust Fund revenue by source because of uncertainty in the available 2006 data regarding the distribution of fuel tax revenues between commercial and general aviation.

[8]Pub. L. No. 91-258.

[9]For the past few years, FAA and NASA have been the primary supporters of JPDO activities. The administration's proposed budget for fiscal year 2008 for FAA includes $17.8 million to support JPDO activities. NASA is planning to contribute about $18 million to JPDO in fiscal year 2008.

has provided all or some portion of the funding for FAA's Operations account. In 2006, expenditures from the Trust Fund totaling $11.2 billion were made among the four accounts as shown in figure 1.

Figure 1: Trust Fund Expenditures for Fiscal Year 2006



Source: GAO analysis of FAA data

Estimates Indicate That Current Funding Structure Can Support FAA Activities, Including NextGen, but Structure Raises Concerns about Equity and Efficiency

The current funding structure—excise taxes plus a General Fund contribution—has funded FAA for many years, and estimates indicate that this structure can potentially provide sufficient funds for the next several years to support the transition to NextGen. As the number of air travelers has grown, so have excise tax revenues. Even though revenues fell with the decline in air travel following the terrorist attacks of September 11, 2001, they began to rise again in fiscal year 2004, and FAA estimates that if the current taxes remain in effect at their current rates, revenues will continue to increase.

While retaining the basic structure for funding FAA, Congress has at times changed the mix of excise taxes and some of the tax rates and has appropriated different amounts from the General Fund to offset Trust Fund fluctuations. For example, when the taxes were most recently reauthorized in 1997, Congress added the passenger segment tax while reducing the passenger ticket tax rate from 10 percent to 7.5 percent.

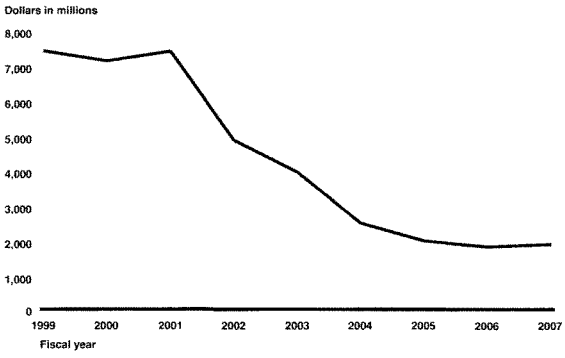
Congress has also appropriated varying amounts of General Fund revenues for FAA during the past 25 years, ranging from 0 to 59 percent of FAA's budget and averaging around 20 percent since fiscal year 1997. The amount of the General Fund contribution fluctuates because the contribution is based on the incoming Trust Fund revenues that are available to fund the Operations account after revenues have been allocated to fund the F&E, AIP, and RE&D accounts. Therefore, fluctuations in Trust Fund revenues and FAA expenditures require different levels of General Fund contributions.

Since the Trust Fund's creation in 1970, revenues have in aggregate exceeded spending commitments, resulting in an uncommitted balance, or surplus.[10] As of the end of fiscal year 2006, the Trust Fund's uncommitted balance was about $1.8 billion. The Trust Fund's uncommitted balance depends on the revenues flowing into the fund and the appropriations made available from the fund for various spending accounts. Policy choices, structural changes in the aviation industry, and external events have affected revenues flowing into and out of the fund. For the last 6 years, for example, the uncommitted balance has been declining because expenditures from the fund are based on projected revenues and actual revenues have been less than FAA forecasted.[11]

[10]The Trust Fund's uncommitted balance represents money against which there is no outstanding budget commitment or budget authority to spend.

[11]In recent years, the difference between forecasted and actual Trust Fund revenues has been smaller than it was earlier in the decade, in part because the external demand shocks have been smaller and in part because of efforts by FAA to improve its forecasting models. However, the actual balance at the end of fiscal year 2007 will likely be lower than forecasted, according to FAA.

Figure 2: Airport and Airway Trust Fund End-of-Year Uncommitted Balance, Fiscal Years 1999-2007



Source: FAA.

Note: Amount for end of fiscal year 2007 is estimated.

In prior work, we ran scenarios in which Trust Fund revenues continued to fall short of forecasted levels and the Trust Fund balance continued to decline, eventually falling to zero. We believe these scenarios raise concerns because in the past the Trust Fund's uncommitted balance has been used to offset lower-than-expected Trust Fund revenues and decreased General Fund contributions. The zero-balance scenario would most likely have implications for Congress in funding FAA programs, including NextGen. To address this concern, H.R. 2881 proposes to base expenditures from the Trust Fund on 95 percent, rather than 100 percent, of estimated Trust Fund revenues, which would reduce the likelihood of running the Trust Fund balance to zero.

According to projections prepared by the Congressional Budget Office (CBO),[12] the existing funding structure, if maintained, will generate

[12]CBO, *Financing Investment in the Air Traffic Control System* (Washington, D.C.: Sept. 27, 2006).

substantially increasing revenues over the next decade. Assuming that the General Fund provides about 19 percent of FAA's budget, CBO estimates that through 2017 the Trust Fund can support about $22 billion in additional spending over the baseline FAA spending levels CBO has calculated for FAA (the 2006 funding level, growing with inflation) provided that most of that spending occurs after 2010.[13] According to FAA, the majority of the funding for NextGen will take place after 2010.

Moreover, if the desired level of spending exceeded what was likely to be available from the Trust Fund at current tax rates, Congress could make changes within the current structure that would provide FAA with additional revenue. For example, Congress could raise more revenue from airspace system users for modernization or for other purposes by raising the rates on one or more of the current excise taxes. Congress could also provide more General Fund revenues for FAA, although the nation's fiscal imbalance may make a larger contribution from this source difficult.

While the current funding structure can produce enough revenue to fund FAA, including NextGen, this structure presents equity and efficiency concerns. FAA and others have stated that the current approach to collecting funds from users through excise taxes creates inequities because the revenue contributions of different flights are not directly linked to the costs of the services that these flights receive from FAA. Some stakeholders have also raised concerns that the current funding system does not provide aircraft operators with incentives to use FAA services in the most efficient manner. For users to make efficient decisions about their use of the national airspace system, their price for using the system (the taxes or charges they pay) should accurately reflect the costs their use imposes on the system.[14] These prices, along with other factors influencing supply and demand, will influence users' decisions

[13]This estimate takes into account expected increases in air travel in estimating revenues, but, by law, it does not take into account any possible increases in expenditures for FAA's Operations account due to these increases in air travel because increases in expenditures are based on a baseline figure adjusted for inflation.

[14]Assessing both the equity and the efficiency of a funding structure requires knowledge of how costs are divided among users. FAA recently completed a cost allocation study that assigns air traffic control costs to user groups based on aircraft type. However, we determined that FAA's methodology lacked certain analyses and documentation that would be important in determining whether costs as assigned reasonably reflect the services received by various users.

about the type, size, and number of aircraft to operate, and when and where to operate them.[15]

Selected Provisions of Proposals for Funding Aviation Activities Have Implications for Revenue Generation and Could Have Unintended Consequences

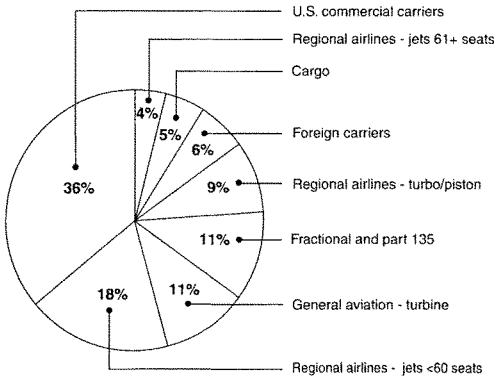
Provisions of the Senate and House reauthorization bills propose different types of revenue sources to fund FAA and NextGen. These provisions have implications for revenue generation, but could also have unintended consequences.

S. 1300 includes a provision requiring the FAA Administrator to impose a surcharge of $25 per flight to be available to pay the costs of NextGen capital projects. All owners or operators of aircraft in the national airspace system would be required to pay this surcharge except those that fall into certain exempt categories.[16] FAA estimates that this fee could yield $400 million a year by 2011. We estimate, on the basis of 2006 operations, that commercial airlines would contribute 36 percent of the fees; regional airlines would contribute 31 percent, though carrying far fewer passengers; and general aviation would contribute 11 percent (see fig. 3).

[15]Supply factors that influence users' decisions include other costs of operating aircraft, such as labor, fuel, and capital costs. Demand factors include the state of the economy and the price and convenience of flying compared with using other modes of transportation. Given the importance of some of these other factors to users' decisions about using the national airspace system, the influence on these decisions of the prices charged for FAA services may be comparatively small for some users.

[16]These exempt categories include military and public aircraft, piston engine aircraft, and turboprop aircraft operating outside of controlled airspace, among others.

Figure 3: Distribution of Surcharge by User, Based on 2006 Operations



Source: GAO analysis of FAA data.

One potential advantage of this type of charge is that it would establish a more direct relationship between revenue and costs compared with the current excise taxes. Advocates of this approach say that funding FAA in part through such a charge would do more than the current structure to ensure that revenues are adequate to cover costs over time and to create incentives for efficient use of the national airspace system by directly connecting charges with the costs imposed by users. On the other hand, although this connection would appear to exist for FAA's costs of providing terminal control services—the more flights, the more charges an operator pays—there is no obvious connection with the costs of en route services because the charge would be the same for short and long flights. In addition, concerns have been raised about the equity of a charge that would apply equally to all jet aircraft regardless of size. Another concern has been raised that the fee might lead to reduced air service by turboprop operators providing regular service to small communities as well as reduced service provided through the Essential Air Service program to small communities because of the increased expense that the fee would represent.

Another S. 1300 provision would grant FAA the authority to seek debt financing by issuing bonds directly to the private capital market.

Supporters of this bonding proposal for FAA claim a number of advantages to this financing approach. One claim is that debt financing could provide FAA with a stable and predictable revenue source for funding capital development. FAA officials state that the uncertainty associated with the appropriation process makes planning for a large, complex, and expensive air traffic control system like NextGen difficult. Over the years, federal agencies have used a variety of financing approaches to acquire capital assets. However, from a governmentwide perspective, some approaches, such as bonding, raise serious concerns because they ultimately will result in higher overall costs. Moreover, if FAA were granted borrowing authority, the associated costs would be higher by borrowing directly from the private capital market instead of through the Treasury. According to Treasury officials and representatives of investment firms, this occurs because the Treasury is charged a lower interest rate to borrow money. The costs of borrowing may also be higher if the revenue option—such as taxes or user charges—used to pay back the bond is subject to appropriations because there would most likely be a risk premium added to the credit rating to compensate for the risk that appropriations may not be provided. We have reported that given the federal government's long-term structural fiscal imbalance, any action that may increase the government's costs requires sound justification and careful consideration before it is adopted.[17]

A provision of H.R. 2881 would allow airports to increase PFCs to a maximum of $7, while an S. 1300 provision would retain the cap at $4.50. Increasing the cap on PFCs would generate more revenue, especially for larger airports. A $7 PFC could generate nearly $2 billion in additional revenues for airports assuming all airports imposed the maximum PFC (see table 2).

[17]GAO-06-1114T.

Table 2: Projected Maximum PFC Collections for 2007 with a $7 PFC

Dollars in millions			
Airport size	**2007 PFC collections[a]**	**2007 PFC collections if only airports currently at $4.50 increased to $7**	**2007 PFC collections if all airports had a $7 PFC**
Large hub	$1,869	$2,831	$3,152
Medium hub	487	706	914
Subtotal	**$2,356**	**$3,537**	**$4,066**
Small hub	184	262	354
Nonhub	71	108	144
Nonprimary Commercial Service	1	1	5
Subtotal	**$256**	**$371**	**$503**
Total[b]	**$2,612**	**$3,907**	**$4,569**

Source: GAO analysis of FAA data.

[a]There are currently 517 commercial service airports eligible to apply for a PFC. These are airports with more than 2,500 annual enplanements.

[b]May not total due to rounding.

However, not all airports are expected to move to the maximum ceiling right away because many airports have a lesser or no PFC in place currently. If only those airports with a PFC at the current maximum of $4.50 increased their PFC to $7.00 and the others made no change, the proposed fee increase would yield approximately $1.3 billion per year in additional revenues. This calculation assumes that the increased PFC would not affect passenger demand for air travel. We have previously calculated that a PFC increase could reduce passenger demand, which would reduce the PFC revenue collected at the higher rate. Nevertheless, our previous work suggests the revenue reduction due to demand effects would likely be small.[18] Smaller airports (small and nonhub) would not benefit directly as much from this ability to increase PFCs because smaller airports have fewer passengers from whom to collect PFCs.[19] However, smaller airports, which rely primarily on AIP grants for capital funding, may benefit indirectly from an increased cap on PFCs. AIP's Small Airport

[18]GAO, *Passenger Facility Charges: Program Implementation and the Potential Effects of Proposed Changes*, GAO/RCED-99-138 (Washington, D.C.: May 19, 1999).

[19]General aviation airports are excluded since they do not have passengers that would pay a PFC.

Fund, which totaled $428 million in 2006, is funded by the turnback of up to 75 percent of large and medium hub airports' entitlements.[20] H.R. 2881 would increase the turnback to 100 percent of entitlements for large and medium hub airports that impose a PFC above $4.50. While S. 1300 does not include an increase in PFCs, it does include a pilot program for up to six airports to impose unlimited PFCs if the airports collect the fee directly from passengers.

H.R. 2881 includes increased user fees to pay for the costs of certain certification and registration activities of FAA. Such fees would provide additional revenue and more directly link revenue contributions to the cost of the services. These fees cover services and activities for issuing certain certificates, registering aircraft and airmen, issuing airmen medical certificates, and providing a legal opinion pertaining to aircraft registration or recordation. In some cases, such as the registration of aircraft, FAA already charges a modest fee ($5), which has not been raised since 1964. We have reported that this fee does not cover the cost of reviewing and processing a registration application and have recommended that FAA increase the fee.[21] The proposal would raise the fee to $130 and allow FAA to periodically adjust this and other fees based on the cost of providing the service. However, in general, when fees are imposed for aviation activities, care must be taken that they do not contribute to a situation in which safety might be compromised.

Resource Requirements for NextGen and Other Issues Could Affect Its Overall Cost

While revenue estimates indicate that the current funding structure can potentially fund NextGen, a number of issues could affect NextGen's overall cost, especially its resource requirements, which have not yet been fully determined. The precise content and associated costs of NextGen infrastructure and research are not fully known, nor are the resources that will be contributed by other federal agencies. Other issues include the cost savings that could result from more efficient FAA operations and acquisition processes, which could reduce the need for new NextGen funding, and the extent to which FAA uses public-private partnerships or leasing arrangements to acquire NextGen infrastructure as flexibly and as cost-effectively as possible.

[20]Entitlements are AIP funds apportioned to airport sponsors and states for eligible projects based on formulas.

[21]GAO, *Aviation Safety: Unresolved Issues Involving U.S.-Registered Aircraft*, GAO/RCED-93-135 (Washington, D.C.: June 18, 1993).

JPDO recently estimated that the total federal cost for NextGen infrastructure through 2025 will range between $15 billion and $22 billion. JPDO also reported that a preliminary estimate of the corresponding cost to system users, who will have to equip with the advanced avionics that are necessary to realize the full benefits of some NextGen technologies, ranges between $14 billion and $20 billion.[22] Thus, according to JPDO, the total costs for NextGen could be anywhere between $29 billion and $42 billion. We consider $13 billion to be a significantly wide range and believe there is a need to better define the costs of NextGen.

According to JPDO officials, more precise cost estimates will depend on information contained in several key planning documents, some of which have been released and some of which are still being developed. Last month, JPDO released both the latest version of the NextGen Concept of Operations[23] and the first version of the NextGen Enterprise Architecture.[24] JPDO is developing an Integrated Work Plan that will describe the capabilities needed to transition to NextGen from the current system and provide the research, policy and regulation, and acquisition time lines necessary to achieve NextGen by 2025. The Integrated Work Plan, scheduled for release at the end of this month, is akin to a project plan and will be critical for planning the partner agencies' fiscal year 2009 budgets and programs. JPDO is also developing an Office of Management and Budget (OMB) Exhibit 300 for NextGen that will be used as input to funding decisions for NextGen research and acquisitions across JPDO's

[22]JPDO noted that this range for avionics costs reflects uncertainty about equipage costs for individual aircraft, the number of very light jets that will operate in high-performance airspace, and the amount of out-of-service time required for installation.

[23]The NextGen Concept of Operations provides written descriptions of how the NextGen system is envisioned to operate in 2025 and beyond, including highlighting key research and policy issues that will need to be addressed. Following an introductory section, the Concept of Operations has eight sections covering air traffic management operations, airport operations and infrastructure services, net-centric infrastructure services, shared situational awareness services, security services, an environmental management framework, safety management services, and performance management services.

[24]The NextGen Enterprise Architecture is a technical description of the NextGen system, akin to a blueprint for a building. The Enterprise Architecture is meant to provide a common tool for planning and understanding the complex, interrelated systems that will make up NextGen.

partner agencies.[25] This Exhibit 300 will be due to OMB in September 2007 and will inform decisions about the partner agencies' 2009 budget submissions. It will be important that these various documents be used in the near term to develop more refined cost estimates for NextGen.

While JPDO has released estimates for NextGen, questions remain over how much it will cost and which entities will fund and conduct some of the necessary research, development, demonstration projects, and training that will be key to achieving certain NextGen capabilities. In the past, the National Aeronautics and Space Administration (NASA) has performed a significant portion of federal aeronautics research and development, including intermediate technology development. However, NASA's aeronautics research budget and proposed funding show a 30-percent decline, in constant 2005 dollars, from fiscal year 2005 through fiscal year 2011. To its credit, NASA plans to focus its research on the needs of NextGen. However, NASA is also moving toward an emphasis on fundamental research and away from developmental work and demonstration projects, which could negatively affect NextGen if other agencies do not assume these efforts. According to FAA and JPDO officials, they are currently studying these issues and trying to assess how much research and development work FAA can assume. FAA has proposed increasing its research and development funding by $280 million over the next 5 years. However, a draft report by an advisory committee to FAA stated that FAA would need at least $100 million annually in increased funding to assume NASA's research and development work, and establishing the necessary infrastructure within FAA could delay the implementation of NextGen by 5 years.

The overall cost of NextGen could be reduced to the extent that FAA realizes cost savings from improved operations and acquisition processes. We have reported that, over the past few years, FAA has made significant progress in moving to more businesslike and cost-effective operations, which should better position the agency for the complex implementation

[25]Section 300 of OMB Circular No. A-11, Preparation, Submission, and Execution of the Budget (Nov. 2, 2005), sets forth requirements for federal agencies for planning, budgeting, acquiring, and managing information technology capital assets. Exhibit 300 is designed to ensure that the business case for an investment is tied to an agency's mission statement, long-term goals and objectives, and annual performance plans. It is submitted with an agency's budget submission to OMB.

of NextGen.[26] Cost savings could come about in a number of ways. For example, the transformation to NextGen may present new opportunities for consolidating facilities or outsourcing services, both of which could bring long-term savings to FAA. In addition, FAA has reported improvements in its management of major system acquisitions. To the extent that FAA can keep NextGen systems on schedule, FAA may be able to avoid the escalation in acquisition costs that plagued its past modernization efforts. Keeping acquisitions on schedule will also mean realizing more quickly the increased efficiencies or safety benefits of new systems and technologies, as well as avoiding the costs and inefficiencies of maintaining existing systems.

Finally, the extent to which FAA employs public-private partnerships or leasing arrangements as part of its acquisition strategy for NextGen could affect the system's overall cost. FAA is currently exploring these types of options for its future nationwide rollout of Automatic Dependent Surveillance-Broadcast, a surveillance system that FAA considers a cornerstone technology of NextGen. We believe that these types of arrangements could produce significant cost savings and lessen some risks for FAA. However, such arrangements must be carefully structured to protect the interests of the public and the federal government, and to ensure proper governmental oversight.

With the excise taxes that fund most of FAA's budget scheduled to expire at the end of September 2007, Congress will need to act to avoid a lapse in revenue to the Trust Fund. If the taxes are not reauthorized by that time, the only revenues credited to the Trust Fund will be the interest earned on the fund's cash balance. FAA estimates that two previous lapses in 1996 and 1997 resulted in the Trust Fund not receiving about $5 billion in taxes and fees that were never recovered.

FAA estimates that the uncommitted balance in the Trust Fund at the end of fiscal year 2007 will be about $1.8 billion dollars. At current monthly spending levels, a 2- to 3-month lapse in fiscal year 2008 could reduce the revenue in the Trust Fund enough to cause the uncommitted balance to fall to zero. If the Trust Fund balance falls to zero, the continuation of

[26]GAO, *Federal Aviation Administration: Key Issues in Ensuring the Efficient Development and Safe Operation of the Next Generation Air Transportation System*, GAO-07-636T (Washington, D.C.: Mar. 22, 2007).

FAA's programs—including the development of NextGen and grants to airports—would depend on providing additional revenues from the General Fund.

Thank you, Mr. Chairman, that concludes my statement. I will be pleased to answer any questions that you or other Members of the Committee might have.

Contacts and Acknowledgments

For further information about this testimony, please contact Gerald L. Dillingham at (202) 512-2834. Other key contributors to this testimony include Paul Aussendorf, Jay Cherlow, Bess Eisenstadt, Carol Henn, Maureen Luna-Long, Faye Morrison, Richard Scott, and Teresa Spisak.

Responses to Post-Hearing Questions for the Record
"Airport and Airway Trust Fund: The Future of Aviation Financing"
Committee on Finance
United States Senate
Hearing held on July 12, 2007

Questions for Dr. Gerald L. Dillingham, Director
Physical Infrastructure Issues
U.S. Government Accountability Office

Question from Chairman Baucus

1. **Dr. Dillingham, your testimony states that there is a technology gap between NextGen research at NASA and implementation of NextGen by FAA. How should this gap be addressed in the context of the debate over reauthorization?**

The Next Generation Air Transportation System (NextGen) research is critical to implementing NextGen systems on schedule and assuring the safety of NextGen technologies and procedures. The National Aeronautics and Space Administration (NASA) formerly conducted the type of intermediate research and development (R&D) that will be needed for NextGen, but the funding for these efforts was discontinued when NASA's aeronautical research portfolio was restructured to focus more on fundamental research. Thus, at present, questions exist concerning which entities will fund and conduct some of the necessary research, development, demonstration projects, and training that will be key to achieving certain NextGen capabilities.

The Federal Aviation Administration (FAA) recognizes that this is a critical issue and has taken some steps to address it. For example, FAA's 2007 National Aviation Research Plan (NARP) shows significant changes from the agency's 2006 NARP in terms of budgeting for the agency's Research, Engineering and Development (RE&D) account. FAA's 2006 NARP showed a decline in planned RE&D funding, from actual funding of more than $136 million in 2006 to only $125 million proposed in 2011. FAA's 2007 NARP, however, shows a jump to more than $140 million in the proposed 2008 RE&D funding, increasing to just over $196 million planned for 2012. Additionally, FAA has undertaken a study of the nature and extent of "the gap." FAA expects to have the results of that study within the next several weeks.

According to an FAA official, the increased 2007 NARP planned RE&D budget reflects significant increases in FAA's planned research on environmental and human factors issues, as well as planned research into weather and aircraft wake. According to FAA, this increased R&D is in direct support of NextGen and reflects a recognized

need for FAA to engage at an earlier technology readiness level in order to gain early insight into applications and meet NextGen goals in a timely manner.

In the context of the debate over reauthorization, Congress will need to address what it determines to be the proper funding levels of FAA with regard to the agency's R&D activities. The current FAA reauthorization legislation being considered in the Senate aligns very closely with the numbers in FAA's 2007 NARP, as the Senate proposes authorizing $140 million for FAA R&D in 2008, $191 million in both 2009 and 2010, and $194 million in 2011.[1] The reauthorization bill for FAA R&D introduced in the House proposes even higher R&D amounts for FAA and also proposes increasing R&D authorizations through 2011.[2] Even with increased R&D funding, however, concerns remain that FAA does not have the infrastructure in place to readily assume increased R&D work and that establishing the necessary infrastructure could delay the implementation of NextGen by 5 years.

Congress will also need to consider the responsibilities and funding of other federal agencies with regard to necessary NextGen research, development, demonstration projects, and training. Several other agencies are involved in the planning and implementation of NextGen as coordinated by the Joint Planning and Development Office (JPDO). In addition to FAA and the Department of Transportation, the timely deployment of NextGen will depend on the R&D efforts of NASA and the Departments of Commerce, Defense, and Homeland Security. For example, FAA, the Department of Defense, and the Department of Homeland Security are each providing $5 million toward a demonstration project involving information sharing across networks. These types of undertakings by the JPDO partner agencies will be important in moving toward the safe implementation of a variety of NextGen systems and procedures.

Question from Senator Roberts

1. **Based on your agency's review of FAA's cost allocation study, does it follow the International Civil Aviation Organization's guidelines? Additionally, does it follow generally accepted auditing standards?**

As part of our review of the Federal Aviation Administration's (FAA) cost allocation study,[3] we compared FAA's cost allocation practices and cost recovery proposal to the International Civil Aviation Organization's (ICAO) guidelines. FAA's study appears to be generally consistent with these guidelines. We did not assess whether the study followed generally accepted auditing standards, because FAA did not conduct an audit of their

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[1]S.1300, 110th Cong., 1st Sess. § 103 (2007). Legislation has been reported out of the Senate Appropriations Committee that would appropriate $148.8 million for FAA's RE&D account for fiscal year 2008 (S.1789, 110th Cong., 1st Sess. (2007)).

[2]H.R.2698, 110th Cong., 1st Sess. (2007). Legislation has been passed in the House of Representatives that would appropriate $140 million for FAA's RE&D account for fiscal year 2008 (H.R.3074, 110th Cong., 1st Sess. (2007)).

[3]GAO, *Federal Aviation Administration: Cost Allocation Practices and Cost Recovery Proposal Compared with Selected International Practices,* GAO-07-773R (Washington, D.C.: June 8, 2007).

costing system and, hence, auditing standards do not apply. However, cost accounting standards are applicable.

Although ICAO has established guidance for allocating and recovering costs attributed to air traffic-related services, member states are not legally bound to follow its principles and may apply the guidance differently depending on the circumstances. ICAO's policies allow for different methods of allocating costs attributed to en route, terminal, and oceanic services and recovering these costs from users. In its cost allocation study, FAA allocated about 51 percent of its air traffic control costs to terminal services, about 46 percent to en route services, and about 3 percent to oceanic services. FAA further assigned the costs of providing air traffic control services to two user groups—high performance aircraft, which include all fixed wing turbine-engine aircraft, and piston aircraft, which include fixed-wing piston-engine aircraft and helicopters—because different aircraft types affect costs differently.

ICAO guidance recognizes that it is essential that all costs be determined in accordance with generally accepted accounting principles and appropriate costing principles so that costs can be analyzed and users are not burdened with costs not properly allocable to them. Federal cost accounting standards[4] are appropriate for this purpose and for complying with the federal policy for determining the basis upon which user fees are set, as reflected in OMB Circular A-25, *User Charges*.

As designed, FAA's cost methodology appears consistent with various principles and methods set forth in federal cost accounting standards. Federal cost accounting standards establish a flexible principle for assigning costs, not a specific methodology that agency management must strictly follow in all circumstances. The standards recognize that agency management should select costing methods that best meet their needs, taking into consideration the costs and benefits of reasonable alternatives, and once selected, follow those methods consistently.

We found that the design of FAA's cost methodology utilizes methods that are permissible under federal accounting standards. However, we identified matters related to the application of certain assumptions and cost assignment methods underlying FAA's methodology that need further evaluation and justification in order to demonstrate that the resulting cost assignments to users are reasonable.

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[4]Statement of Federal Financial Accounting Standards No. 4, *Managerial Cost Accounting Standards and Concepts*.

Statement of
Mark M Hansen
Professor of Civil and Environmental Engineering
Institute of Transportation Studies
University of California, Berkeley
before the
Senate Committee on Finance

Introduction

Thank you for the opportunity to speak with you about the aviation trust fund re-authorization and the role of the trust fund, and the taxes that feed into it, in creating a fair, efficient, and modern air transportation system. As a Professor of Transportation Engineering at the University of California, Berkeley, Chair of the Transportation Research Board Committee of Aviation and Airspace Capacity and Delay, co-Director for the National Center of Excellence in Aviation Operations Research, and an active researcher in the field for some 20 years, I have had the opportunity to analyze and study many different facets of the US Aviation System. Based on my experience and research, I would like to share my own perspective on the invaluable opportunity Congress has to change the trust fund so that it promotes the kind of air transport system that the United States needs and deserves.

In my view such a system must (1) evolve in response to the ever-changing needs and growing demands of its direct users and their customers; (2) identify those needs through a process that stresses accountability to users and allows user representatives to simultaneously and forcefully advise on the enhancements to be undertaken and how they will be paid for; and (3) when necessary allocate services in a manner that gives priority to those who have paid for the existing system. In the next few minutes, I will elaborate upon these points and their implications for how the trust fund should be financed and managed.

1. Evolving Usage

With its strong domestic market and long-standing technological leadership, the US has always led the world in finding new ways to both supply and use civil air transportation. This week's All-Star Game took place in San Francisco, to which the Giants could move in the late 1950s because improved air transport had made the west coast readily accessible to the rest of the nation. When I was a graduate student, the US was innovating economic deregulation of commercial air transportation, a policy that has now been adopted in most of the economically developed and developing world. Incumbent airlines adapted to deregulation by creating hub-and-spoke networks that exploited the economies of consolidating traffic between many origin-and-destination markets onto a relatively small number of flight segments. Deregulation also engendered a whole new class of air carrier in the US—the so-called low-cost carrier or LCC—which are now sprouting up around the globe.

While deregulation made airline travel affordable to the masses, it made commercial air travel less palatable to high-end business users. This led to strong growth in the market for business jets, deliveries of which were more than three times greater in 2006 than in the early 1990s. These jets allow those with means to fly non-stop between thousands of US airports—as compared to the 500 or so that receive some form of scheduled airline service—and to do so on their own schedule and without the hassles and indignities of TSA screening. A wide range of methods for providing on-demand air transportation, from in-house airlines, to fractional ownership, to web-enabled chartering, have allowed a diverse set of customers to participate in this market, while growing income inequality has increased the number of Americans able to pay for this luxury.

Innovation in on-demand air transport continues. A new generation of 2-6 seat, very light jets (VLJs) is entering the market. These single-pilot aircraft will make it economic to provide short-haul on-demand air transport to smaller travel parties. While it is expected that many VLJs will support service methods already in place for traditional business jets, they will also enable fundamentally new service concepts. For example, Day Jet is pioneering the use of VLJs as shared taxis providing next-day service to individual customers. Customer service requests will be combined and assigned to aircraft using a sophisticated real-time routing and scheduling algorithm.

As yet another example with which I am personally familiar, a company called MVP air is poised to enter the intercollegiate athletic travel market. Using 30-seat jet aircraft, MVP plans to transport college teams on routes which are not well served by commercial air carriers. Given the ex-urban locations of many large Universities, such routes are not hard to find. Consider, for example, a Big Sky game in which Montana visits Northern Arizona. A charter would take just 3-4 hours campus-to-campus, while, according to Travelocity, the best commercial airline option would require, each way, 2 stops, 10 hours, 200 miles of airport access travel, and a round-trip fare of over $600. Driving this 1000-mile trip would take only 5 hours more!

The economics of on-demand air travel rests primarily on individuals' and companies' willingness to pay more for air transport per se in exchange for time savings, reduced nights away from home, meal expenses, and ground access costs. Some of these tradeoffs are easily quantifiable but others are not. For the Big Sky, we calculated that a dedicated athletic charter would reduce travel cost if collegiate athletes' time was valued at more than $3.70 per hour, about half the new minimum wage. While the athletes would no doubt agree that their time is worth much more than this, we will see what the colleges think. This typifies the kind of decision that will determine the ultimate market potential for on-demand air transport.

2. Accommodating Growth and Change in Demand

While we acclaim the private-sector innovators that develop the aircraft and service concepts described above, the efforts made by infrastructure and air traffic service

providers to accommodate these changes are often taken for granted. Airports have adapted to hub-and-spoke operations by providing airfields that can handle multiple streams of aircraft even in adverse weather, and terminals designs that make passenger connections quick and easy. As on-demand service providers have joined traditional airlines on higher altitude jet routes, minimum vertical separations have been reduced, sectors redesigned, and controller decision-support tools introduced to make more room. Innovative traffic flow management mechanisms developed in partnership by FAA and users allow the system to respond to adverse weather in a completely safe and reasonably efficient way, while making full use of available capacity when the weather is good.

Faced with the possible proliferation of on-demand, small jet services, however, many in the aviation community propose a transformation, rather than a mere adaptation, of the current system. The transformed system, whose current name is NextGen, is envisioned to increase en route and terminal capacity by as much as three-fold over the next 20 years. Recognizing uncertainty about just how far the on-demand phenomenon will go, the NextGen proponents seek a system in which this is determined by the market, without regard to infrastructure limitations. The broad outlines of how such a transformed system would operate are becoming clear, and the details are the subject of an active, multi-agency research and development program overseen by the Joint Program and Development Office (JPDO).

The prospects of success for JPDO and NextGen depend on the criteria for success that one adopts. If the criterion is that established roadmaps are followed on time and on budget leading to the desired end-state system, the odds against success are extremely high. Experiences with ambitious, large-scale, aviation infrastructure modernization programs in the US and Europe, as well with infrastructure megaprojects in many other sectors, make this conclusion inescapable. Project advocates face strong, often irrestistable, pressures to overestimate the benefits, underestimate the costs, and downplay the risks of such projects as they sell them to decision makers. A data base of such projects assembled by Danish planner Bent Flyvberg yields overwhelming evidence of the universality of this phenomenon.

A special feature of NextGen that increases its risk relative to most megaprojects is its dependence on aircraft equipage. Planned NextGen improvements in both the mid-term and far-term will require, as a condition for access in some cases and benefit realization in others, aircraft to have digital communications, augmented satellite navigation, synthetic vision, satellite-based surveillance capabilities, and cockpit traffic displays. An analysis by MITRE suggests that the percentage of aircraft with the required traffic displays could range from 15-90% 10 years from now and 30-90% in 2025, the targeted year for full NextGen implementation. On the one hand, equipage requirements force a lengthy process of standard setting and rulemaking necessary to assure that only properly equipped aircraft can access restricted airspace or perform special procedures; on the other they further cloud benefits assessments, since benefits often grow more than proportionally to the number of capable aircraft.

If, however, we moderate our expectations and think of NextGen as a means of developing and delivering targeted improvements in specific regions that users desire and are willing to pay for, then much good can come from it. The key to capturing that value is accountability, and the only way to have true accountability is for users—all users—pay for NextGen deployments and in a manner that links what they pay to what they get, while continually providing input on both sides of this equation. In this regard, I strongly support the proposal for an advisory board composed or representatives from full spectrum of users that, quoting FAA, "would make recommendations on fee-setting, major capital projects and the FAA's strategic plan" and whose recommendations could be overruled only through with approval of the Secretary of Transportation (or perhaps even Congress). I can think of nothing that would be more effective in unlocking and unveiling the potential benefits of system modernization in an effective, cost efficient, manner than to have a single entity, whose members answer directly to those writing the checks for NextGen, simultaneously pass judgment on how big those checks will be and what services will be provided in return.

The approach of targeted improvements overseen by an advisory board can also mitigate the equipage risk. Given its structure, the advisory board will surely take into consideration equipage requirements and costs in assessing any given improvement proposal. Given its wide fee-setting authority, it may even choose to structure fees in a manner that gives credit to aircraft that have the necessary avionics.

For such an arrangement to be effective, it must represent all types of users, and representatives must accept as a guiding principle the link between what they contribute and the services they receive. This does not entail any specific tax structure but does suggest that it be primarily linked to the flight activity rather than the size and nature of the payload that the flights carry. Nor does it, in my view, necessitate a major reallocation of costs *for the current system* from one class of user to another. While it would be much fairer and somewhat more efficient to shift more of the current system cost burden to non-commercial high performance aircraft operators, the key issue is not how the baseline system is funded but how its transformation is. If capacities of certain parts of the system are to be tripled so that more affluent individuals can fly them in small private planes then the operators of those aircraft must agree to make a commensurate contribution to the tab. If they are unwilling, then priority of access must be given to the airline customers who paid for the existing capacity, a point I will further elaborate below.

For this arrangement to be effective, it must clearly distinguish between funds for maintaining and operating today's system and those for enhancing it. Using FAA's terminology the board's greatest authority will be over the F&E account, to which the fees it authorizes will be paid and from which the enhancements it approves will be financed. Inevitably, however, the realization of benefits from these investments will depend on how effectively FAA manages its ongoing costs of operation, and it will thus be incumbent on the board to monitor these as well. This monitoring function could itself be beneficial. In Europe, the establishment of a Eurocontrol Performance Review Commission, external to various national air traffic service providers and with no

managerial authority, appears to have engendered a marked downturn in unit costs in just a few years. Moreover, such monitoring will regularly document inequities in the cost burden born by different user classes.

3. Allocating Scarce Capacity

This brings me to my final point, which is that when users are unwilling to pay for expanding capacity in congested parts of the system, it is highly desirable to allocate scarce capacity in some systematic manner that favors those who paid for it. Fortunately, those who paid by far the most happen to be customers of large jet commercial airlines who can also use the capacity most productively. This is true both because of the trust fund and the fact that airport landing fees are proportional to aircraft weight. One can favor such users in a variety of ways, from grandfather rights, to administrative rules, to congestion pricing on a per flight basis, to auctions of landing and take-off slots. Economists who claim privileged expertise on how to allocate resources view some of these alternatives with horror and others with glee, but in this context their similarities are more important than their differences. Each will tend to favor large jet operators and the silent, trust-fund contributor majority of air travelers who patronize them over a far smaller group of the elite who have heretofore paid very little. I reiterate that this favoritism is only justified when small jet operators are unwilling to pay their fair share of what is necessary to enhance the system to accommodate everyone.

Summary

In summary, the growth of convenient, and relatively expensive, on-demand air travel in small jets represents the flip side of airline deregulation that also brought us historically low fares and a more austere commercial airline product. The on-demand market may continue to grow and capture market share from commercial airlines, but the infrastructure to support this growth should be provided when and where users, including small jet operators, are willing to contribute to its cost in a substantial way. An organization akin to FAA's recommended Advisory Board is ideally suited to implement this principle. When this Board determines additional capacity ought not be provided, priority access should be given to those classes of users who have historically contributed the most to the existing system. Congress should act to create and empower the advisory board, restructure the trust fund in a manner than clearly distinguishes between funds for maintaining the existing system and transforming it into NextGen, and, finally, give FAA the necessary authority to allocate capacity when required.

This concludes my testimony. Thanks again for the opportunity to give it. I look forward to your questions.

Senator Trent Lott
Finance Committee Hearing on
The Airport and Airways Trust Fund:
the Future of Aviation Funding
July 12, 2007

Mr. Chairman, I am pleased that the Committee is having this hearing today to look at the future of aviation funding.

As Ranking Member of the Commerce Committee's Aviation Subcommittee, I have worked with Senator Rockefeller to develop the Aviation Investment and Modernization Act of 2007, which the Commerce Committee reported out favorably on May 16. Now it is time for the Finance Committee to act on the financing title of this bill. The financing title will determine how the Federal Aviation Administration will be funded for the next several years.

First of all, I would like to thank FAA Administrator Blakey for all her hard work over the last five years as Administrator – this may well be her last appearance at a Congressional hearing as her term expires in September. She should be commended for highlighting the importance of modernizing our air traffic control system and the need for a proper financing system to pay for it. She could easily have sent up a plain vanilla reauthorization bill to Congress and served out her last few months in relative quite. Instead she sent up a proposal that was quite radical, that challenged many sacred cows, and has sparked a very healthy debate here in Congress on how we are going to pay for the Nation's future aviation system. I want to thank her for her service in a very difficult job, probably the most difficult job in the Department of Transportation, and a job where you get a lot of blame, lots of second guessing, and not many thanks. But I think she should be judged on the results, the truth is that she has presided over the safest five years for aviation in the history of the our country.

I've enjoyed working in aviation for most of my career. In 2000, I worked on the FAA Reauthorization with Bud Shuster. In 2004, I had the pleasure of working with Senators McCain, Hollings, and Rockefeller. Even back then, Congress recognized the looming crisis and created the Joint Planning and Development Office (JPDO) to coordinate the modernization effort. I hope this bill helps us take the quantum leap this time, way beyond what we've been willing to do before.

In this year's bill we have the unique opportunity to accelerate the modernization of our air traffic control system. Aviation is far too critical to American passengers and businesses for us to be satisfied with an inefficient and aging national system. We have tremendous demand for more capacity, and modernization is essential for future economic growth.

The problem is we have been talking about modernization and there has been lots of planning and frankly there hasn't been enough action. The most recent forecasts show that unless we take some very aggressive actions soon, we may face serious gridlock in the sky by 2015. Just like we shouldn't wait for a road to become fully congested before adding more lanes, we can't wait for chaos in the air before taking action.

The case of air traffic control is complicated by the fact that the experts tell us that meeting future capacity isn't as simple as just adding another lane. The current system

isn't scalable – we need a totally new system to replace the existing one. We don't just need another highway lane – we need a whole new highway or perhaps the better analogy is that we need to create an Interstate Highway program for aviation. The Interstate Highway program created a national interstate system that replaced the old U.S. route system that primarily consisted of two lane roads that where dangerous and inefficient. It is often referred to as the largest public works project undertaken in the United States, well its time to do the same for aviation.

The problem, of course, is that we don't have much time. That is why we are moving out aggressively on the legislative schedule to make sure we get this done before current law expires.

A further problem is that we need to find the money to modernize the system. We do this in the Commerce bill by creating a $25 dollar per flight surcharge on commercial aviation and "high end" general aviation. This surcharge will generate about $400 million per year and would be exclusively dedicated to the modernizing the air traffic control system over the next 4 years.

Mr. Chairman, I look forward to continuing my work on this important piece of legislation and hope we can finish it by the end of September when the current financing for the FAA expires.

CBO TESTIMONY

Statement of
Peter R. Orszag
Director

The Status of the Airport and Airway Trust Fund

before the
Committee on Finance
United States Senate

July 12, 2007

This document is embargoed until it is delivered at 10:00 a.m. (EDT) on Thursday, July 12, 2007. The contents may not be published, transmitted, or otherwise communicated by any print, broadcast, or electronic media before that time.

CONGRESSIONAL BUDGET OFFICE
SECOND AND D STREETS, S.W.
WASHINGTON, D.C. 20515

Mr. Chairman, Senator Grassley, and Members of the Committee, I am pleased to appear before you today to discuss issues related to the Airport and Airway Trust Fund, as well as ways to expand the capacity of the air traffic control system to meet future demands.

My testimony today makes the following main points:

- By the end of fiscal year 2007, the Airport and Airway Trust Fund is expected to have an uncommitted balance—that is, sums that the Federal Aviation Administration (FAA) is not yet authorized to obligate—of $1.6 billion. The size of future balances in the fund will depend on future spending decisions and the amount of revenues generated by various taxes and fees. Under current law, the number of passengers and average airfares largely determine the revenue inflows to the fund.

- Under assumptions, included in the Congressional Budget Office's (CBO's) baseline projections, that current law remains in place and that appropriations grow at the rate of inflation, total annual spending by the FAA would increase from $15 billion in 2007 to $19 billion in 2017. Trust fund receipts (including interest earnings) would grow from about $12 billion in 2007 to nearly $20 billion in 2017, CBO estimates. If the Congress continued to provide about one-fifth of the FAA's funding from the general fund of the Treasury, the uncommitted balance in the fund would grow to nearly $22 billion by the end of 2017.

- Congestion has increased and delays have reached record levels, as the number of passengers has grown in recent years and as airlines have chosen to meet consumer demand by flying smaller aircraft more frequently on some routes. Those trends result in part from how the air traffic system is financed: Although congestion and delays typically depend on the number of flights, the system of financing air traffic control services is linked more closely to the number of passengers.

- The FAA's proposal for substantial investments in a new air traffic control system to meet the rising demand for air travel has two important components. First, the agency proposes to develop and build substantial new facilities and equipment that it estimates could cost between $15 billion and $22 billion by 2025. Second, the FAA proposes to finance new investments in air traffic control by replacing the current system of taxes and fees largely based on passenger volume and fares with fees based on aircraft operations and taxes on fuel and international departures.

- The Congress currently faces decisions about how best to link the mechanisms for financing air traffic control services to the cost of providing those services, including the cost of congestion and delays incurred by airlines and their passengers. A related issue is how to allocate costs among taxpayers and various

types of users. How those issues are addressed will have important consequences for how efficiently the national airspace is used. For example, the financing system could help to reduce congestion and delays by creating a meaningful link between the number of aircraft operations and the resultant costs in terms of congestion and delays.

Funding for Activities of the Federal Aviation Administration

The Vision 100–Century of Aviation Reauthorization Act or "Vision 100" is the most recent authorization law governing spending for aviation programs.[1] Through September 30, 2007, Vision 100 provides contract authority (a mandatory form of budget authority) for grants-in-aid to airports and authorizes the appropriation of specific amounts from the Airport and Airway Trust Fund for air transportation research and for the FAA's facilities and equipment—primarily infrastructure and systems for communication, navigation, and radar surveillance related to air travel. The law specifies that amounts in the trust fund should be used first to fully fund those activities; it authorizes appropriation of the remaining funds to support the FAA's operations. The law also authorizes additional appropriations from the general fund of the U.S. Treasury for the balance of the FAA's operating costs.

The FAA receives funding for most activities, including those related to air traffic control, in annual appropriation acts. For 2007, the agency received about $14.5 billion in discretionary resources, including appropriated budget authority and limitations on obligations of contract authority (see Table 1).[2] That amount included $2.5 billion for air traffic control facilities and equipment, $8.3 billion for the FAA's operations (used primarily to operate the air traffic control system), and $3.7 billion for the agency's other major programs.

Appropriations for the FAA's facilities and equipment have declined in recent years. From 2002 through 2004, they averaged about $2.9 billion annually. Between 2005 and 2007, annual appropriations averaged about $2.5 billion.

The Airport and Airway Trust Fund

About 81 percent of the FAA's funding for 2007 was provided from the Airport and Airway Trust Fund (see Figure 1); the remaining 19 percent was appropriated from the general fund. The trust fund is an accounting mechanism in the federal budget that records specific cash inflows from revenues related to air transportation—primarily excise taxes on commercial airline tickets—and cash outflows for

1. Public Law 108-176, 117 Stat. 2490 (2003).

2. Obligations for grants-in-aid for airports are governed by limitations set in appropriation acts. The outlays are therefore considered discretionary. (The budget authority, in the form of contract authority, was established in Vision 100.)

Table 1.

Discretionary Budgetary Resources for the FAA and Cash Flows and Balances of the Airport and Airway Trust Fund

(Billions of dollars)

	Actual					Baseline Projections[a]			
	2002	2003	2004	2005	2006	Est. 2007	2008	Total, 2008-2012	Total, 2008-2017
Discretionary Budgetary Resources for the FAA[b]									
Appropriations from the General Fund for FAA Operations	1.1	3.2	3.0	2.8	2.6	2.7	2.8	15.0	32.7
Discretionary Budgetary Resources from the Airport and Airway Trust Fund									
FAA operations (Share from the trust fund)	6.0	3.8	4.5	4.9	5.5	5.6	5.8	31.2	68.0
Grants-in-aid for airports	3.5	3.4	3.4	3.5	3.5	3.5	3.6	18.6	38.9
Facilities and equipment	3.0	2.9	2.9	2.5	2.6	2.5	2.6	13.4	28.3
Research, engineering, development, and other	0.3	0.2	0.2	0.2	0.2	0.2	0.2	1.0	2.1
Subtotal	12.8	10.3	10.9	11.1	11.8	11.8	12.2	64.2	137.5
Total	**13.9**	**13.5**	**13.9**	**13.9**	**14.4**	**14.5**	**15.0**	**79.2**	**170.1**
Cash Flows and Balances of the Airport and Airway Trust Fund									
Trust Fund Deposits (Revenues and interest earnings)	9.9	9.3	9.7	10.7	10.4	11.7	12.4	68.8	157.8
Trust Fund Outlays	11.7	9.5	10.3	11.1	12.1	12.3	12.1	63.2	134.7
End-of-Year Uncommitted Balances[c]	4.6	3.9	2.5	1.9	1.8	1.6	1.8	6.2[d]	22.0[e]

Source: Congressional Budget Office based on data from the Office of Management and Budget.

Notes: Numbers in the table may not add up to totals because of rounding.

FAA = Federal Aviation Administration.

a. Projections for 2008 to 2017 reflect CBO's March 2007 baseline and incorporate the assumption that discretionary resources from the trust fund will total $11.8 billion in 2007 and then grow at the anticipated rate of inflation.

b. Annual appropriation acts provide budget authority for the FAA's activities as well as limitations on the obligations of contract authority for grants-in-aid for airports.

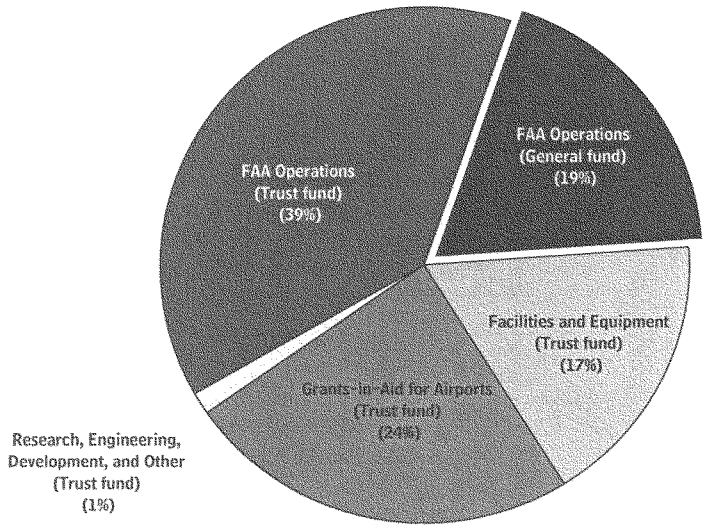
c. Uncommitted balances represent amounts in the trust fund that are not yet authorized for obligation.

d. Balance at the end of 2012.

e. Balance at the end of 2017.

Figure 1.

Discretionary Budgetary Resources Provided to the Federal Aviation Administration for 2007



Source: Congressional Budget Office based on data from the Office of Management and Budget.

programs that receive resources from the fund. Annual spending from the fund is not automatically triggered by the collection of tax revenues but is controlled by budget authority and obligation limitations established in annual appropriation acts.

Trust Fund Balances

The status of the trust fund is generally assessed by projecting its uncommitted balances—which represent the amounts credited to the fund that the FAA is not yet authorized to obligate. CBO has estimated the trust fund's future uncommitted balances under certain assumptions, projecting budgetary resources, revenues, and outlays through 2017. Outlays and revenues are estimated separately because they have different bases: Outlays depend on the amount of budgetary resources provided in appropriation acts, and revenues depend on the collection of various excise taxes.

CBO's baseline assumptions, which are consistent with the provisions of the Balanced Budget and Emergency Deficit Control Act of 1985, provide one basis for projecting the trust fund's balances. CBO calculates the baseline for discretionary spending by inflating enacted levels of discretionary budgetary resources for future years and estimating the outlays that would result. It projects revenues

under the assumption that current law remains in place but that expiring excise taxes dedicated to trust funds will be extended at current rates. Thus, in its baseline projections, CBO assumes that the Airport and Airway Trust Fund taxes that are now scheduled to expire after September 30, 2007, will be extended through 2017.

Under CBO's March 2007 baseline assumptions, over the 2008–2017 period, the Airport and Airway Trust Fund would have a total of $158 billion (including interest) credited to it, and outlays from it would total $135 billion. Spending related to the infrastructure of the air traffic control system would account for about one-fifth of that amount under an assumption that funding for facilities and equipment totals $2.5 billion in 2007 and grows to $3.1 billion in 2017 to keep pace with anticipated inflation. In contrast, CBO estimates, revenues would grow more quickly—roughly with the rate of growth of gross domestic product (GDP).

As a result, in CBO's baseline projections, uncommitted balances in the trust fund increase modestly at first, but annual additions to those balances total nearly $1 billion in 2010 and increase to about $4 billion by 2017. Assuming that the general fund continues to provide about 19 percent of total funding for the FAA's operations, CBO estimates that during the next 10 years, the trust fund can support about $22 billion in additional spending over the baseline level (the 2007 funding level growing with inflation), provided that most of that spending occurs after 2010.

It is important to note that those estimates are based on a set of specified baseline assumptions and may not reflect what will actually happen in the future. Whether significant balances materialize in the Airport and Airway Trust Fund will depend in part on future Congressional actions—particularly about the FAA's funding. For example, if future appropriation acts closely follow provisions of authorizing law specifying that the full amount of budgetary resources deposited to the trust fund be provided to the FAA, balances will not grow beyond current levels. Future balances will also depend on the future course of trust fund revenues.

Revenue History

The Airport and Airways Trust Fund receives revenues from taxes levied on the transportation of persons and cargo by air and on jet fuel and gasoline used in both commercial and general aviation. Since 1998, tax revenues to the trust fund have grown at an average annual rate of about 3.5 percent, compared with a comparable growth rate of almost 2 percent for total excise tax revenues and of 5.3 percent for nominal GDP over the same time period. Receipts have been growing steadily except in 2001 and 2002, when they fell as a result of economic weakness and the September 11 terrorist strikes. Since 2003, receipts have grown at an average rate of about 7 percent annually, slightly above the 6.5 percent average annual gain in GDP over the same period.

Receipts to the trust fund have been growing at rates similar to that for nominal GDP largely because passenger air travel, the primary source of the revenue

stream, tends to increase in line with overall economic activity. Furthermore, receipts to the fund have outpaced overall receipts from excise taxes because the bulk of the trust fund's revenues accrue from taxes levied as a percentage of a transaction's value, or ad valorem—whereas most excise taxes are levied as unit taxes, that is, per unit. Although unit tax receipts increase only as the number of items sold (gallons of gas, packs of cigarettes, and so forth) increases, ad valorem tax receipts also increase along with the price of the taxed items. Therefore, ad valorem taxes are linked to nominal sales levels, which tend to track general economic activity. Other major taxes providing revenues for the trust fund are levied as unit taxes but are set at rates that are indexed to inflation, which maintains a connection to both prices and economic activity.

Some of the taxes that finance the trust fund have been in place since at least 1970 when the trust fund was first established. A 1988 CBO report noted that, at that time, aviation excise taxes included an annual aircraft registration tax of $25 plus 2 cents per pound for each pound over 2,500 for piston-powered aircraft and 3.5 cents per pound for turbine-powered aircraft; a tax of 10 cents per pound on inner tubes, and a tax of 5 cents per pound on tires.[3] New taxes—on commercial fuel use and on passengers per flight segment—were added later.

CBO forecasts that revenues for the Airport and Airways Trust Fund will continue to grow at rates similar to that for nominal GDP. According to the agency's projections, those revenues will grow by an average of 5.0 percent annually from 2008 to 2017, slightly faster than nominal GDP, which is forecast to grow at a 4.5 percent average annual rate.

Congestion and Delays

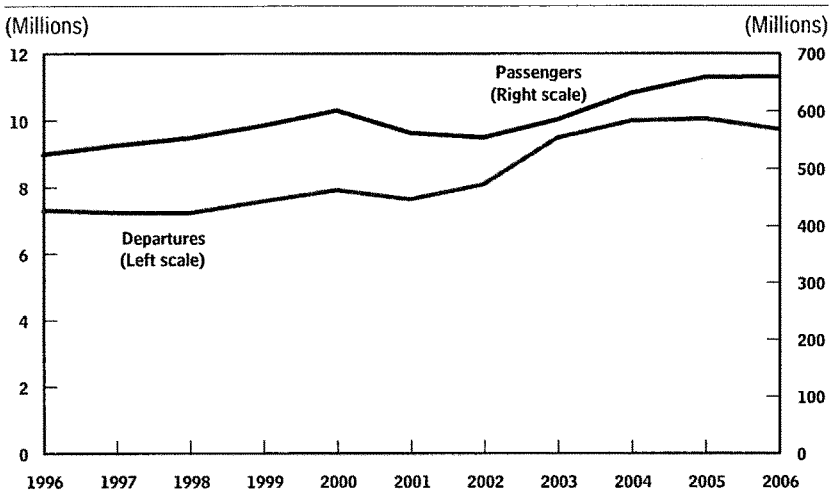
Congestion and delays in air travel have been steadily increasing and are surpassing the record levels experienced before the slowdown in such travel that started with the economic downturn of 2001 and was exacerbated by the terrorism of September 11, 2001. Increases in passenger traffic, changes in the types of aircraft in airlines' fleets, and more-frequent flights have combined to increase demand for air traffic control services, for space at airports, and for use of the national airspace. The resulting congestion and delays impose real economic costs in terms of lost time, decreased productivity, and increased operating costs for airlines and others.

In 2006, more than 658 million passengers boarded domestic flights in the United States. The numbers exceed their highs from before September 2001, with growth continuing into the first quarter of 2007 (see Figure 2). The number of aircraft departures (that is, flights) has increased even more rapidly—up 29 percent

3. Congressional Budget Office, *The Status of the Airport and Airway Trust Fund* (December 1988).

Figure 2.

Domestic Scheduled Air Carrier Departures and Passenger Traffic



Source: Congressional Budget Office based on Department of Transportation, Bureau of Transportation Statistics, *U.S. Air Carrier Traffic Statistics* (various years).

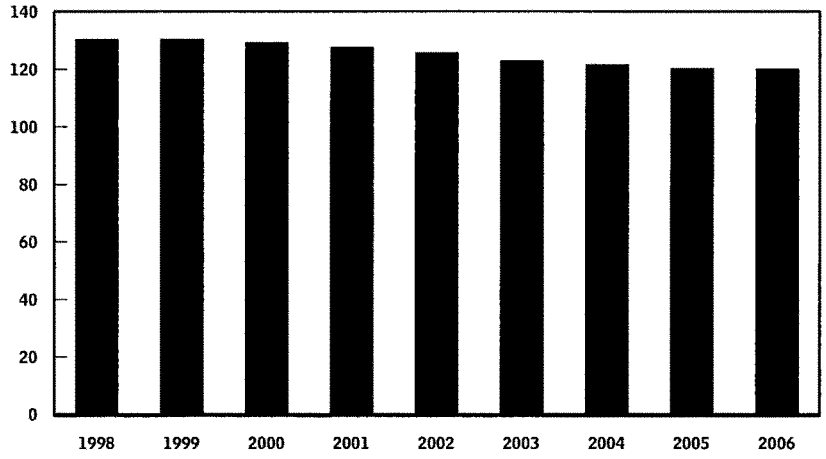
between the first quarters of 2002 and 2007, compared with a 25 percent increase in the number of passengers.

The increasing stress on the air traffic control system resulting from rising demand for air travel has been exacerbated by a decline in the average size of aircraft. Airline carriers, which do not face the full cost of additional delays that result from additional flights in congested areas, have generally switched to more-frequent service with smaller aircraft in order to meet the demand by high-revenue business travelers. The average domestic passenger aircraft had 10 fewer seats in 2006 than in 1998 (see Figure 3). A similar trend is occurring in aircraft used for international flights, though those aircraft are larger to accommodate the larger distances they travel.

The growth of demand by passengers and the corresponding demand by air carriers for air traffic control services and airport capacity have not been matched by increases in capacity. Delays are the result. They have been increasing since 2003 and have now reached or exceeded the levels that existed before September 2001. In the most recent data, for the first five months of 2007, more than 25 percent of flights arrived more than 15 minutes late, and of those flights, 65 percent were more than 30 minutes late. Passengers bear a large portion of the resulting economic costs, in the time lost to those delays—nearly 81 million hours in 2006

Figure 3.

Average Seats per Aircraft in the U.S. Commercial Domestic Fleet



Source: Congressional Budget Office based on Department of Transportation, Federal Aviation Administration, *FAA Aerospace Forecasts, Fiscal Years 2004–2015* (March 2004) and *FAA Aerospace Forecasts, Fiscal Years 2007–2020* (March 2007).

(see Figure 4). And that estimate is probably low because the data do not capture the total increase in travel time for passengers whose flights are cancelled or who miss a connecting flight following a delay on an earlier leg of their trip.

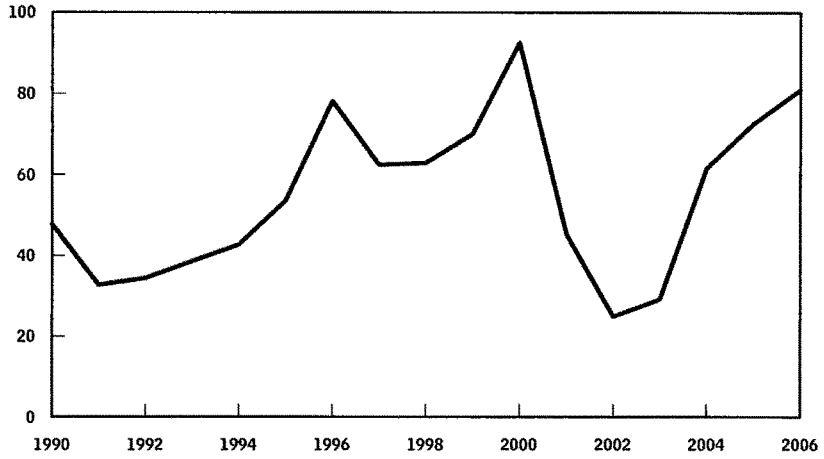
Reauthorization and the Current Debate

In response to the growing demands on the United States' management of its air traffic—both from increasing air travel and the need for greater security—the Congress established an office to develop and implement a plan for improving the capacity, safety, and security of the nation's air travel. Vision 100 created the Joint Planning Development Office (JPDO), managed by the FAA and the National Aeronautics and Space Administration (NASA). Its main task is to manage the transition to the Next Generation Air Transportation System (NGATS).

Figure 4.

Delays in Arrivals

(Millions of passenger hours)



Source: Congressional Budget Office based on Department of Transportation, Bureau of Transportation Stastics, Airline On-Time Performance Data and Air Carrier Statistics (Form 41 Traffic)—U.S. Carriers (various years).

New Facilities and Equipment

According to the most recent planning materials from the JPDO, the new system is designed to accommodate up to three times the volume of current air traffic by making more efficient use of both the national airspace and airport facilities.[4] The new air traffic control system would be more decentralized than the one currently in place in the United States. Guidance systems on planes would work in conjunction with satellites of the Global Positioning System (GPS) to supplement direct supervision by ground-based controllers and radar stations. As a result, each plane would depend less on instructions from an air traffic controller and more on its own resources for maintaining a safe flight pattern and would be better able to adjust to the particular air traffic conditions in its vicinity.

The NGATS would be based on more-precise guidance techniques. If they worked as intended, the distance required between aircraft for safe flight would be smaller. Underlying the system generally would be more effective use of information about the air traffic in a particular plane's vicinity, the prevailing or impending weather

4. See Federal Aviation Administration, Joint Planning and Development Office, "Concept of Operations for the Next Generation Air Transportation System" (draft version 0.2, July 24, 2006), pp. 1–7, available at http://techhangar.jpdo.aero/index.php?option=com_content&task=view&id =39&Itemid=112.

conditions affecting the plane's flight, and the constraints at airports. The FAA envisions that the information available to each plane will also be available to other aircraft and to ground control units. As a result, the new system should allow ground-based air traffic controllers to establish and maintain contact with planes nationwide, regardless of where a particular aircraft or air traffic control facility is located. In addition, the new system could allow airspace to be used less rigidly than it is today; aircraft might be able to fly more-direct routes because of the system's capacity to manage the airspace more efficiently. All of those changes would enable more flights to be airborne safely—and could also mean that greater capacity would be required at airports.

Implementation of the NGATS is likely to require substantial capital investments by both the federal government and private-sector entities. For example, outfitting aircraft with the Automatic Dependent Surveillance–Broadcast (ADS–B) system (which enables a plane to determine its location through GPS satellites and automatically broadcast its position to other aircraft) would be expensive. Allowing seamless connections between individual planes and ground-based air traffic control units nationwide, which the FAA plans to carry out through its systemwide information management technology, would require substantial expenditures for communications hardware and software.

Projections of costs for the new system are still very preliminary. The ultimate costs will depend on a number of factors, including advances in key technologies and the ability of a number of government agencies—such as NASA and the National Oceanic and Atmospheric Administration—to coordinate their efforts. In March 2007, the FAA reported that key investments in NGATS would require an estimated $4.6 billion through 2012; the agency's total spending on the system was expected to range from $8 billion to $10 billion over the first 10 years and from $15 billion to $22 billion through 2025.[5]

Alternative Financing Mechanisms

The FAA's proposal also includes a substantial change to the funding of air traffic control services. In an effort to make each user's tax burden correspond more closely with the costs imposed on the air traffic control system, the FAA proposes to extend some taxes at new rates and replace other taxes with a system of user fees collected from commercial airlines.

The tax on international departures would be approximately half its current value. Commercial and general aviation fuels would be taxed at around three times their current rate.

5. See Federal Aviation Administration, "Next Generation Air Transportation System 2006 Progress Report" (fact sheet, March 14, 2007), available at http://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=8336

The remainder of the revenues, currently accruing from taxes on domestic passenger and cargo transportation, would be from user fees levied on commercial air passenger and cargo carriers. Those taxes accounted for about 90 percent of the revenues to the trust fund in 2006. Under the proposal, user fees would be set by a 13-member advisory board (including the FAA administrator, airline industry and general aviation representatives, and various other parties) and would be based on the FAA's costs to provide air traffic control services and various factors affecting airport congestion.

Under the FAA's proposal, the current excise-tax funding system would last until the end of fiscal year 2008 and then give way to the new tax rates and user fees.

Paying for Air Traffic Control Services

Broadly speaking, either taxpayers or users of air traffic control services will pay for the air traffic control system. Users include providers that carry passengers or cargo, their customers, general aviation users (business and recreational), and the government.

Although some benefits of air traffic control services accrue to the economy as a whole, most accrue to users of aviation services. Therefore, a strong case can be made that users of air traffic control services should pay a substantial portion of those costs. In 2007, CBO estimates, fees or taxes paid by users will cover about 70 percent of the FAA's operating costs. Such collections will provide about $5.6 billion of the agency's overall operating budget of about $8.3 billion, the bulk of which is used to manage the air traffic control system.[6]

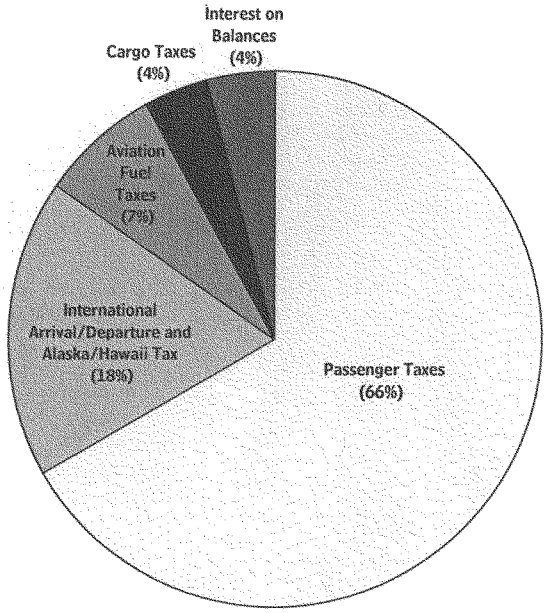
In general, efficient use of a system is most likely if users of a service pay for it so that the choices they make will take into account the costs of providing the service. Allocating costs efficiently and fairly among different types of users, however, presents challenges—especially for systems that are capital intensive, like the air traffic control system.

Aligning revenues and costs would have two significant implications in the context of the air traffic control system. First, users of the system rather than taxpayers as a whole would bear most of the costs of providing air traffic control services. Second, because costs are generated in large part by moving aircraft through the system, taxes and fees would generally be more aligned with that activity than with enplanements or airfares.

6. Other operating costs include those for air safety programs and the activities of various management and administrative offices. Operations of the FAA that are not funded by the Airport and Airway Trust Fund are paid for out of the general fund. In addition to covering some of the FAA's operating costs, the trust fund's income is also currently sufficient to pay for capital investments in air traffic control, projects to improve infrastructure at airports, and research programs, such as the program carried out by the JPDO.

Figure 5.

Sources of Receipts Credited to the Airport and Airway Trust Fund in 2006



Source: Congressional Budget Office based on Federal Aviation Administration, *Airport and Airway Trust Fund Receipts* (February 8, 2007).

Notes: The total amount credited in 2006 was $11.1 billion.

Shares do not add up to 100 percent because of rounding.

By contrast, most of the current taxes are based on the number of passengers and the fares they pay. About two-thirds of the trust fund's collections come from taxes imposed on all passengers of commercial airlines (see Figure 5). The remaining one-third comes from taxes on specific types of travel, such as international arrivals and departures; cargo shipment taxes; and fuel taxes. During 2006, nearly 85 percent of the $11 billion in revenues that accrued to the trust fund came from taxes levied on individual passengers: the ticket tax, the flight segment tax, and the international arrival and departure tax.

That approach to financing based largely on the number passengers is not closely linked to the costs imposed on the air traffic control system. For example, two smaller regional jets impose roughly double the cost of a single larger jet, but the revenue collected is roughly the same if the number of passengers carried is. Similarly, larger business jets impose costs on the system that are similar to those for

commercial aircraft, but they generally pay lower taxes and fees. The FAA's cost allocation model suggests that costs are much more closely linked to the movement of an aircraft through the system, regardless of the number of passengers on the aircraft or the fares that those passengers paid. Although CBO has no basis to judge whether the FAA's model correctly allocates costs between types of operations—those of commercial air carriers and general aviation—there is sound economic justification for imposing costs on aircraft operations rather than passenger enplanements.

Forecasts of rapid growth in commercial and general aviation from their already congested levels reinforce the importance of an efficiently and fairly priced air traffic control system in the future. The proliferation of smaller jets also puts more pressure on the air traffic control system and adds to congestion at busy airports and in heavily traveled airspace. That trend may continue, according to the FAA. In addition, the introduction of relatively inexpensive very light jets may expand the demand for air traffic control services further. Pricing the air traffic control system so as to provide the appropriate economic incentives to the various sectors of the aviation industry may enable the system to better accommodate the growing demand for air travel.

CONGRESSIONAL BUDGET OFFICE
U.S. Congress
Washington, DC 20515

Peter R. Orszag, Director

August 14, 2007

Honorable Max Baucus
Chairman
Committee on Finance
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Please find attached my answers to questions submitted for the record arising from the committee's July 12, 2007, hearing on options to reauthorize the Airport and Airway Trust Fund. As you requested, I have also emailed the questions and my answers to the committee staff.

Should you have any questions, please feel free to contact me at 202-226-2700. CBO staff contacts are Joseph Kile and Sheila Campbell, both of whom may be contacted at 202-226-2940.

Sincerely,

Peter R. Orszag

Attachment

cc: Honorable Chuck Grassley
Ranking Member

Questions for the Record
Airport Airways Trust Fund: The Future of Aviation Financing
July 12, 2007
Chairman Max Baucus

Questions from Senator Roberts

S. 1300 proposes a $25 user fee on all flights utilizing Instrument Flight Rules. How much is the user fee proposed in S. 1300 expected to contribute to the Airport and Airway Trust Fund receipts if it became law?

If that measure were to be adopted, CBO expects that FAA would begin collecting the $25 fee in 2009 and would collect $410 million that year with the amount gradually rising to $490 million by 2017. That amount would be used for air traffic control modernization, but would not necessarily be deposited to the Airport and Airway Trust Fund. Rather, it would be credited as discretionary offsetting collections to reduce net appropriations for facilities and equipment unless FAA were to receive and use borrowing authority as proposed under S. 1300. If that were to happen, the surcharge would be used to repay borrowing and would be credited as mandatory offsetting receipts.

Additionally, it is understood that some who advocate for the new $25 user fee in S. 1300 also support eliminating the 4.3 cent per gallon fuel tax on commercial aviation. How much would this tax elimination cost the Airport and Airway Trust Fund?

Revenue estimates from changes to excise taxes are estimated by the Joint Committee on Taxation (JCT). As discussed with Andy Eck of your staff, this question will be submitted by your staff directly to JCT rather than having CBO serve as a conduit for that information.

Statement of Hon. Gordon H. Smith
Finance Committee Hearing
July 12, 2007

I appreciate Chairman Baucus and Ranking Member Grassley scheduling this important hearing. Anyone who has flown over the past six months is well aware of the problems with our Air Traffic Control system. There is greater congestion, more flights, and increasingly crowded airports. This all leads to a smaller margin of error. If there is bad weather at O'Hare, Hartsfield, Kennedy, or any of our other major airports, the impact is felt across the entire U.S. commercial aviation system and throughout the world.

Things are only going to get worse. In fiscal year 2006, 740 million passengers flew and 1 billion passengers are expected to fly in 2015.

Our nation's system is the safest in the world, and I commend the airlines, FAA, air traffic control personnel, and other aviation groups for their impressive safety record. But we all know something must be done to improve the efficiency of the U.S. aviation system. The Air Traffic Control system is teetering on the brink of collapse, and, if we don't act soon, flying in the U.S. will become a dreadful experience.

A replacement for the current Air Traffic Control system, which uses 1950s technology, is needed. What we must determine is the best funding method for this system. The proposal that was approved by the Senate Commerce Committee includes the implementation of user fees, something I do not support. I do not understand the need for a new bureaucratic funding structure.

There is a need for greater equity in the system, and whatever solution Congress develops must bring about greater equality among the system's users.

Statement of Senator Olympia J. Snowe
Senate Finance Committee Hearing on Funding the FAA's Reauthorization and Modernizing the Air Traffic System

July 12, 2007

Thank you, Mr. Chairman, for calling this hearing on these aviation matters which are so vital to the daily life and commerce of our nation.

Today, as we continue our efforts to reauthorize the Federal Aviation Administration (FAA), our primary aim must be to advance the evolution of the next generation of our air traffic control system. The fact is we are facing historic growth in the number of planes and passengers that would have been unthinkable just a few short years ago, making more paramount than ever the development of a modern system which would allow the airspace to be used more efficiently and safely and, at the same time, enable our aircraft to conserve fuel and reduce congestion.

The necessity of a change is indisputable as lengthy delays are more commonplace at our nation's largest airports and occurring with greater frequency, as our modernization efforts – especially those regarding the Next Generation air traffic control system – have languished behind schedule while our current system nears a tipping point in terms of handling current traffic, and as our ground-based technology increasingly becomes obsolete at a time when our able air traffic controllers are retiring at an unprecedented rate.

And yet, some claim we can finance the ambitious NEXT GEN air traffic system and preserve our existing system without tampering with the status quo. Given that – as Jack Kemp once said – the "status quo" is Latin for "the mess we're in," the idea of doing nothing is unacceptable at best and irresponsible at worst. Merely turning a blind eye to the problem is not a solution! We must, under the current funding regimen, make a choice – either neglect our system or shortchange the research, development, and deployment of NEXT GEN.

Consider this daunting picture looming over the horizon . . . a projected increase in passengers, more regional and very light jets in the air, and fewer controllers watching our skies and directing traffic with outdated equipment. But worse than crippling gridlock in our skies is the untenable prospect of an accident of catastrophic proportion.

The real question before this committee – what must be resolved – is how we pay for this new system to avert this nightmare scenario. That's easier said than done when you consider that we must not only create and deploy the cutting edge technology that is slowly coming on line, but we must simultaneously remain focused on maintaining and operating the technology we are using and the workforce that safeguards our skies.

My colleagues, Senators Rockefeller and Lott, have made a good-faith effort to develop a means by which to raise these revenues. While I certainly admire their diligence, in my view, these funding concerns can best be considered in the Finance Committee by adjusting the fuel tax mechanisms in place.

America has always been at the vanguard of aviation, the measuring stick by which other nations evaluate their own systems. The Next Generation system is our fundamental gateway to maintaining our position of primacy, but we must not neglect the virtues of the system we have in place while we develop this 21st Century Air Traffic Control System. I look forward to the testimony of our esteemed panel today.

Thank you, Mr. Chairman.