

**Before the Committee on Appropriations
Subcommittee on Transportation, Treasury and
General Government
United States Senate**

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**The State of the
Aviation Industry and
the Federal Aviation
Administration**

**Statement of
The Honorable Kenneth M. Mead
Inspector General
U.S. Department of Transportation**



Mr. Chairman and Members of the Subcommittee,

We appreciate the opportunity to testify today as the Subcommittee begins deliberations on the fiscal year (FY) 2004 appropriation for the Federal Aviation Administration (FAA).

This hearing is occurring against the backdrop of an industry in financial distress—two airlines representing more than 20 percent of the industry are in bankruptcy, and several others are teetering on the brink. This is due to a confluence of factors that include unsustainable cost and fare structures that clearly predate 9/11 and, with the advent of the war in Iraq, precipitous declines in travel bookings. The airlines also point to increased security-related expenditures for passenger screening, insurance, and Federal security taxes as contributing factors to their financial condition.

Great care must be taken to ensure that any relief package provided by Congress (1) does not provide a cash subsidy that allows a way for airlines to avoid making the hard calls necessary to become sustainable, including lowering labor costs (including management salaries and bonuses) and increasing productivity of capital; (2) require that any airline security-related costs that Congress judges are eligible for reimbursement be supported by documentary evidence that clearly demonstrates that claimed costs were actually incurred; and (3) be of limited duration.

The issue of service to small- and medium-sized communities is related to the financial condition of the airline industry. In an effort to stem losses, airlines have reduced service in the smallest communities by 19 percent in the past 5 years. Funding levels for the Essential Air Service Program (EAS), which is one vehicle for restoring access to air service in small communities, will be an important issue

for the Committee's consideration this year. It should be noted, however, that maintenance of service in small communities will be most successful where restructuring of the cost structures of the network carriers is most successful.

As for FAA, it is important to recognize that the agency oversees the largest and safest air transport system in the world, but FAA urgently needs to do considerably more to bring its costs under control. FAA's budget has increased from \$8.2 billion in 1996 to \$14 billion in FY 2004—an increase of \$5.8 billion, or over 70 percent. Over half of this increase is attributable to sharply rising costs in FAA's operations, which are made up primarily of salaries (about 74 percent of FAA's FY 2004 Operations budget). From 1998 (when FAA began implementing new pay systems), salaries within the agency have increased 41 percent whereas the overall increase for the Federal workforce in Washington, DC, for example, was about 30 percent.

In terms of acquisitions, 5 major acquisitions out of 20 that we track have experienced substantial cost growth totaling more than \$3 billion, which is equivalent to an entire year's budget for FAA's modernization account. These same 5 acquisitions have also experienced schedule slips of 3 to 5 years.

Continued cost growth of this magnitude is unsustainable given the financial state of the airline industry, multibillion-dollar declines in projected Aviation Trust Fund receipts, and greater dependence on the General Fund to pay for FAA's operations. We do not believe the answer to cost growth at FAA lies in an increase in taxes, fees, or other charges, which are already significant. Given the weak demand environment, any further increases are likely to reduce airline revenues and further threaten the financial health of the industry. Just as the airlines have had to rethink the basics of their business, FAA also must re-examine how it does business and redouble its efforts to become performance based in deed

as well as in word. Administrator Blakey is taking steps to move the agency in that direction.

In terms of safety, we feel the imperatives for FAA are: (1) further reducing operational errors (when planes come too close together in the air) and runway incursions (potential collisions on the ground)—in 2002, a commercial aircraft was involved in at least one serious runway incursion or operational error every 10 days; (2) providing adequate oversight of air carrier maintenance in view of shifts in carrier practices from in-house to outsourced (from 1996 to 2001, outsourcing maintenance by major air carriers increased from 37 percent of total maintenance costs to 47 percent); and (3) addressing pending controller retirements.

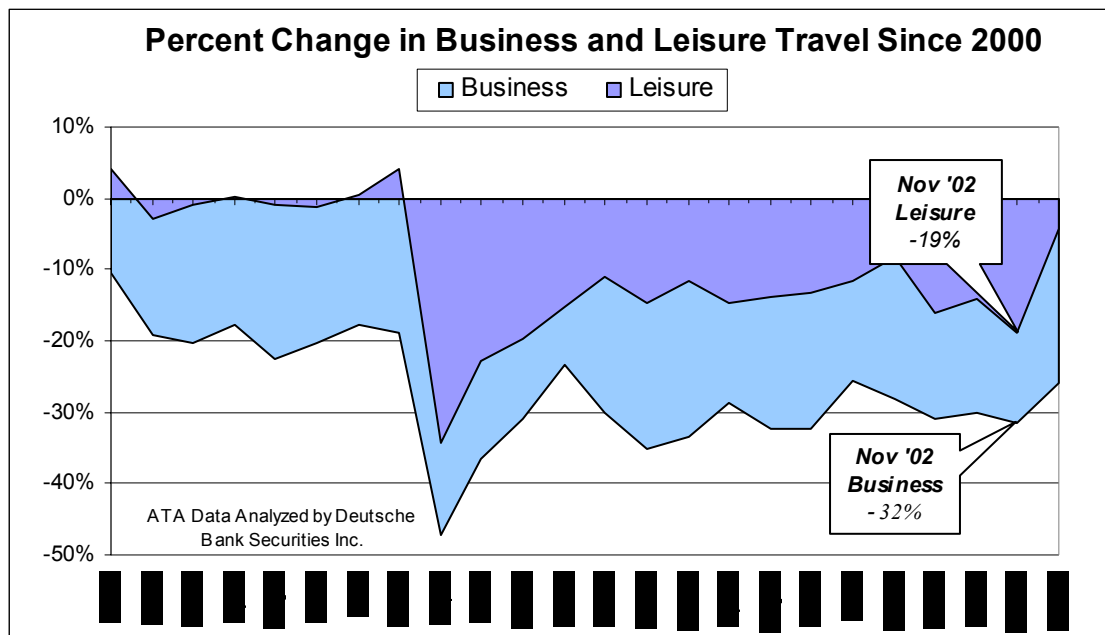
On the security front, an important issue will be resolving who will pay for the next phase of explosives detection systems integration into airport baggage systems. This is a multi-billion dollar item.

State of the Airline Industry

Most of the major domestic airlines are in a precarious financial condition. Several airlines are in bankruptcy and others are teetering on the brink.¹ As a group, the major carriers reported net losses totaling over \$11 billion in 2002, which followed a year where their combined losses totaled \$7.5 billion. For 2003, even before the United States went to war with Iraq, major carriers were projecting losses of between \$6 billion and \$7 billion. Now that the United States is at war, the airlines have increased their estimated losses to between \$10 billion and \$11 billion, based on a 90-day war. And the end is not yet in sight, as current forecasts now extend the timeframe for recovery from 2004 to 2005 or 2006.

¹ As of April 1, 2003, the two carriers in bankruptcy were United Airlines and Hawaiian Airlines. US Airways emerged from bankruptcy protection on March 31, 2003.

In February 2003, actual flight operations were down 10 percent compared to February 2000. Overall, domestic enplanements were down nearly 8 percent in January 2003 compared to January 2000. Much of the reduced demand represents what had once been the higher fare business travelers. By some estimates, business travelers account for 50 percent of airline revenues although they typically represent only 20 percent of airline travel. As the following figure illustrates, business travel in November 2002 was nearly one-third less than it was in November 2000.



In the third quarter 2002, breakeven load factors² for the industry as a whole were 87 percent, while actual load factors averaged only 74 percent. *One airline in that period experienced breakeven load factors of over 100 percent.* How can an airline fill more than 100 percent of its seats? The answer is it cannot, which is why that carrier is on the brink of bankruptcy.

² The average percentage of paying passengers on all flights needed to cover airline costs.

In response to the economic downturn and increased costs following 9/11, airlines have reduced their workforces, modified schedules, eliminated flights, closed offices and facilities, and retired aircraft. Negotiations are underway to reduce employment expenses throughout the industry by an additional \$10 billion. Several airlines have used the bankruptcy process to restructure their costs, including renegotiating their labor contracts and their debt instruments. Still, financial conditions continue to be weak, exacerbated now by the ongoing war in Iraq.

Based on a scenario of a 90-day war, the airlines project that their losses will be \$4 billion higher in 2003 than the \$6.7 billion they had originally projected. The losses would be driven by decreased passenger demand, higher fuel prices, and lower airfares. The airlines attest that they have already incurred over \$4 billion in additional security costs since 9/11, including passenger screening fees, new security taxes, increased insurance costs, freight restrictions, cockpit door fortification, and the Federal Air Marshall program.

A case could be made for providing some form of financial relief to assist airlines in the short term; such as extending the Federal war risk insurance program and extending the Air Transportation Stabilization Board loan guarantee program. Loan guarantees, if prudently incurred, can help to stabilize the financial condition of the industry. They may also prove a prudent, short-term market intervention if used to finance a realistically restructured airline's exit from bankruptcy.

Other forms of potential relief, including reimbursing the airlines for security improvements, eliminating or reducing the Passenger Security Tax and Air Carrier Security Fee, and drawing down the Strategic Petroleum Reserve, should be considered in the following context.

The airlines are requesting a very large sum of money from the American taxpayers. In that regard, we are concerned, as are American taxpayers, about the appearance of large executive pay packages that are still in place for top executives at some of the airlines with large operating losses. Financial aid is not a substitute for self-help. This must come in the form of restructuring labor costs and management salaries, as well as increasing productivity of capital.

Policy decisions are being made that could affect the competitive balance of the airline industry, and the implications of providing financial assistance for any reason need to be carefully considered. The airline industry is important to the economy of the United States and certainly financial assistance at this juncture would help preserve the industry in the short term. But it should be noted that while all airlines have had to incur the increased financial burden of operating in a post 9/11 environment, not all airlines are suffering equally. In fact, two airlines, Southwest and JetBlue, earned *profits* last year. These airlines were successful because their cost structures represent a more realistic picture of a post-deregulation competitive airline industry. Care should be taken not to penalize carriers who have adapted or revised their cost structures to forms that are sustainable, even during an economic crisis.

Consideration should also be given to how financial assistance to the airline industry will be viewed by our international counterparts. To the extent possible, any relief package should be structured to limit the possibility of being criticized as an unfair airline subsidy.

The airlines are especially vulnerable to the effects of this war and the terrorist attacks that may accompany it. But it should not be forgotten that during wartime, *many* industries suffer financial losses—travel agents, retail outlets, cruise lines,

and hotels—to name a few. Therefore, it is essential that a financial aid package designed to assist just one affected industry—the airlines—include narrowly defined relief terms and be of limited duration.

If the decision is made to provide some sort of assistance to the airlines, the following guidelines should apply.

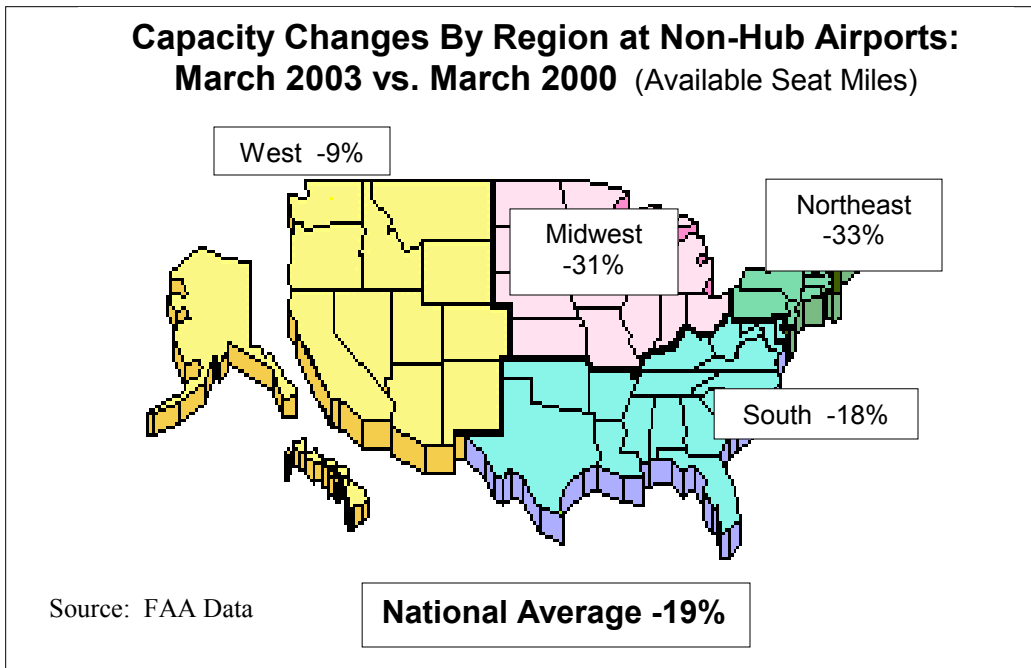
- The effects of 9/11 and the war in Iraq have no doubt affected the airlines' costs and revenues, but the fact is that many airlines had unsustainable cost structures long before these events took place. Any financial assistance that is forthcoming should not result in a bail-out for failures in the competitive marketplace that occurred prior to 9/11. Funding that is not tied specifically *and demonstrably* to direct security-related costs simply postpones the restructuring that will be necessary in order for the major network carriers to remain viable. Most of the current financial woes of the industry should be solved by the marketplace.
- Documentation of which costs are being claimed and in what amount must be provided by the airlines and verified to ensure that funds provided under a security relief package are not subsidizing financial losses unrelated to security. Clarity is needed concerning whether financial assistance will be restricted to future war-related costs or security-related costs already incurred by the industry. Whichever costs are deemed eligible, the airlines must be held absolutely accountable for documenting the costs the aid is applied towards.
- Financial assistance aimed at providing short-term war relief should be just that: short term. Aid, if provided, should be of limited duration and should not come to be expected by the industry on a recurring basis. Given the uncertainty of what could happen over the course of the coming year, an aid

program should terminate at the end of a firmly fixed time period with the option to revisit the terms of the program if conditions warrant.

Service to Small and Medium Sized Communities

Financial problems for major airlines may ultimately affect the air service to small- and medium-sized communities. The major network carriers serve these communities through their mainline service and regional affiliates by connecting passengers from these communities to the major airlines' hubs. At the current time, low-cost carriers are not a solution for many small- and medium-sized communities if their service declines. The low-cost carrier business models focus on serving dense markets that make it economical to fly multiple frequencies in large-volume jets. That model would not be sustainable in these small- or medium-sized communities. Maintenance of service in these markets will be most successful where the restructuring of the network carriers is most successful.

In the smallest communities—those served by non-hub airports—service has been declining for the past 5 years. Between March 1998 and March 2003, non-hub airports nationwide lost 19 percent of their commercial air service as measured by available seat miles. Between March 2000 and March 2003, non-hub airports in the Northeast and Midwest lost approximately one-third of their service.

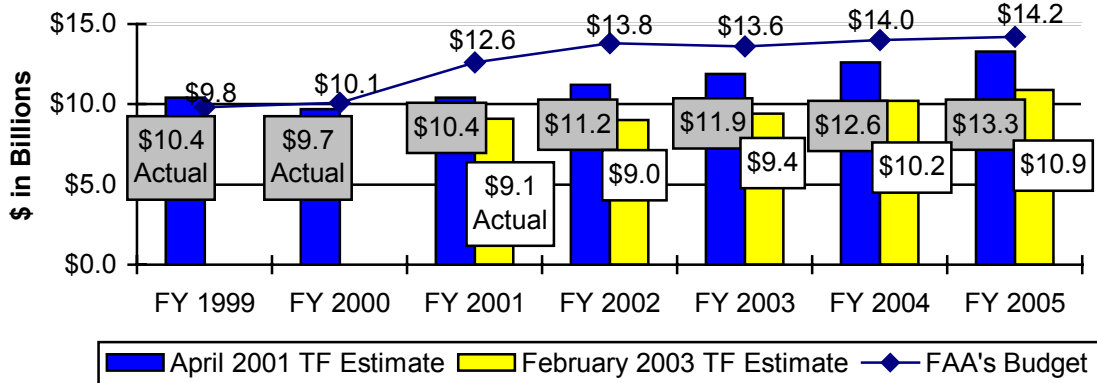


The Essential Air Service Program is a tool that these small communities rely on for attracting air service to their communities. The funding levels for this program will be an important matter for the Committee’s consideration this year.

General State of FAA

As a result of the slow economy and the decline in air travel, there has been a significant decrease in tax revenues coming into the Aviation Trust Fund. Projected tax receipts to the Aviation Trust Fund for FY 2004 have dropped from approximately \$12.6 billion estimated in April 2001 to about \$10.2 billion estimated in February 2003. Over the next 4 years, Aviation Trust Fund tax revenues are expected to be about \$10 billion less than projections made in April 2001. Although Trust Fund projections are down for next year, FAA’s spending request is not; increasing from \$13.6 billion this year to \$14.0 billion next year. If this \$3.8 billion gap between Trust Fund revenues and FAA’s budget (\$10.2 billion to \$14.0 billion) is financed by the General Fund, it would represent a rough doubling of such spending compared to recent years.

FAA: Decline in Estimated Trust Fund Revenues Compared to FAA's Budget



(FY 2002 figures include onetime anti-terrorist supplemental funding.)

While there have been suggestions that this gap could be closed by increasing taxes or fees on airlines and air passengers, we urge extreme caution in this area. Taxes and fees are already high. For example, a non-stop round-trip ticket costing \$200 may consist of nearly \$33 in taxes, fees, and airport passenger facility charges or 16 percent of the fare. On a connecting flight, the taxes on a \$200 ticket could be up to \$51, or nearly 26 percent of the fare. Any further increases are likely to reduce airline revenues, given the weak demand environment and will further threaten the financial health of the industry.

Over the past 5 years, FAA has had some notable accomplishments—successfully managing the Y2K computer problem, obtaining a clean opinion on agency-wide financial statements, bringing new Free Flight controller tools on-line, deploying the Display System Replacement on time and within budget, and expeditiously shutting the system down safely on 9/11. However, a key focus for FAA now must be effective cost control. This, in our opinion, is a primary challenge facing FAA for the next several years.

Operating as a Performance Based Organization. In 1996, Congress acted to make FAA a performance-based organization by giving the agency two powerful tools—personnel reform and acquisition reform. The expectation was that FAA would operate more like a business—that is, services would be provided to users cost effectively and major acquisitions would be delivered on time and within budget. FAA was also directed to establish a cost accounting system so that FAA and others would know where funds were being spent and on what. It is now over 6 years later and we do not see sufficient progress toward FAA’s becoming performance-based or toward achieving the outcomes that Congress envisioned.

- ***Personnel Reform.*** Personnel reform was a key element of the move to make FAA performance-based. But to date, the reality has been increasing workforce costs and significantly higher salaries. From 1998 (when FAA began implementing new pay systems), salaries within the agency have increased 41 percent whereas the overall increase for the Federal workforce in Washington, D.C., for example, was about 30 percent.

The new pay system for controllers (FAA’s largest workforce) was a significant cost driver. The average base salary for fully certified controllers is now over \$106,000, which is exclusive of premium pay and overtime. That figure represents a 47 percent increase over the 1998 average of \$72,000, and compares to an average salary increase of about 32 percent for all other FAA employees during the same period. Although linking pay and performance was a key tenet of personnel reform, only about 36 percent of FAA employees receive pay increases based on individual performance. The remaining FAA employees receive largely automatic pay increases.

In our work, we also found there are between 1,000 and 1,500 side bar agreements or Memorandums of Understanding (MOUs) that are outside the

national collective bargaining agreement with controllers. Many serve very legitimate purposes, but some can add millions to personnel costs. For example, one MOU we reviewed allows controllers transferring to larger consolidated facilities to begin earning the higher salaries associated with their new positions substantially in advance of their transfer or taking on new duties. At one location, controllers received their full salary increases 1 year in advance of their transfer (in some cases going from an annual salary of around \$54,000 to over \$99,000). During that time, they remained in their old location, controlling the same air space, and performing the same duties.

We found that controls over MOUs are inadequate. FAA management does not know the exact number or nature of these agreements, there are no established procedures for approving MOUs, and their cost impact on the budget has not been analyzed. It is important for FAA to get a handle on this process because many MOUs involve issues pertaining to deploying new equipment. We briefed Administrator Blakey on our concerns regarding MOUs; FAA is now in the process of identifying those MOUs that are problematic or costly and has begun a dialogue with the controller's union to address them.

- ***Acquisition Reform.*** FAA has learned from past mistakes and its “build a little, test a little” approach has clearly avoided failures on the scale of the multibillion-dollar Advanced Automation System acquisition. But the bottom line is that significant schedule slips and substantial cost growth for major air traffic control acquisitions are all too common. The following chart provides cost and schedule information on 5 of 20 projects we track that were largely managed since FAA was granted acquisition reform.

Program	Estimated Program Costs (Dollars in Millions)		Percent Cost Growth	Implementation Schedule	
	Original	Current		Original	Current
Wide Area Augmentation System	\$892.4	\$2,922.4*	227 %	1998-2001	2003-To Be Determined**
Standard Terminal Automation Replacement System	\$940.2	\$1,690.2**	80 %	1998-2005	2002- To Be Determined**
Airport Surveillance Radar-11	\$752.9	\$916.2	22 %	2000-2005	2003-2008
Weather and Radar Processor	\$126.4	\$152.7	21 %	1999-2000	2002-2003
Operational and Supportability Implementation System	\$174.7	\$251.0	44 %	1998-2001	2002-2005

* This includes the cost to acquire geostationary satellites and costs are under review.

**Costs and schedules are under review by FAA.

These five acquisitions have experienced substantial cost growth totaling more than \$3 billion, which is equivalent to an entire year's budget for FAA's modernization account (Facilities and Equipment). These same five acquisitions have also experienced schedule slips of 3 to 5 years. Problems with cost growth, schedule slips, and performance shortfalls have serious consequences. They result in costly interim systems, a reduction in units procured, postponed benefits (in terms of safety and efficiency), or "crowding out" other projects. For example, in FY 2002 alone, FAA reprogrammed over \$40 million from other modernization efforts to pay for cost increases in the Standard Terminal Automation Replacement System (new controller displays for FAA's terminal facilities).

FAA needs to set priorities and link the Operational Evolution Plan (OEP) (FAA's blue-print for enhancing capacity), with the agency's budget and address uncertainties with how quickly airspace users will equip with new

technologies in the Plan (estimated at \$11 billion). FAA is retooling the OEP, and both FAA and industry officials told us that considerable benefits may be obtained through airspace changes, new procedures, and taking advantage of systems currently onboard aircraft—all of which do not require major investments by airlines. According to senior FAA officials, hard decisions about funding OEP initiatives and related major acquisitions will need to be made. In addition, FAA needs to develop metrics to assess progress with major acquisitions.

- ***Cost Accounting System.*** To effectively operate as a performance-based organization, FAA needs an accurate cost accounting system to track agency costs and provide managers with needed cost data by location. Without a reliable cost accounting system, FAA cannot credibly claim to be, nor can it function as, a performance-based organization.

At the direction of Congress, FAA began developing its cost accounting system in 1996, which was estimated at that time to cost about \$12 million and be completed in October 1998. Now, after nearly 7 years of development and over \$38 million, FAA still does not have an adequate cost accounting system, and it expects to spend at least another \$7 million to deploy the cost accounting system throughout FAA. Although FAA's cost accounting system is producing cost data for two of its lines of business, it still does not report costs for each facility location. For example, for the Terminal Service in FY 2001, about \$1.3 billion of \$2.4 billion was reported in lump-sum totals and not by individual facility locations.

FAA also needs an accurate labor distribution system to track the costs and productivity of its workforces. Cru-X is the labor distribution system FAA chose to track hours worked by air traffic employees. As designed, Cru-X

could have provided credible workforce data for addressing controller concerns about staffing shortages, related overtime expenditures, and to help determine how many controllers are needed and where. That information in turn is especially important given projections of pending controller retirements. Unfortunately, Cru-X has not been implemented as designed. We hope it will be in the coming year.

Aviation Safety. After several years of continuous increases in operational errors and runway incursions, FAA has made progress in reducing these incidents. In FY 2002, operational errors decreased 11 percent to 1,061 and runway incursions decreased 17 percent to 339 from FY 2001 levels. Despite FAA's progress, the number of these incidents is still too high considering the potential catastrophic results of a midair collision or a runway accident. On average, in FY 2002, at least one commercial aircraft was involved in a serious runway incursion or operational error (in which a collision was barely avoided) every 10 days. We will be issuing our report on operational error and runway incursions shortly.

FAA also needs to pay close attention to the level of oversight it provides for repair stations. Since 1996, there has been a significant increase in air carriers' use of these facilities. In 1996, major air carriers spent \$1.6 billion for outsourced maintenance (37 percent of total maintenance costs), whereas in 2001, the major air carriers outsourced \$2.9 billion (47 percent of total maintenance costs). As of September 2002, four major carriers were outsourcing between 64 and 77 percent of their maintenance.

In spite of this increase in the use of repair stations, FAA's surveillance continues to target more resources on air carriers' in-house maintenance facilities than repair stations. In fact, repair stations are required to be inspected by FAA only once annually. In addition, some FAA-certified foreign repair stations are not inspected

by FAA inspectors at all because foreign civil aviation authorities review repair stations on FAA's behalf.

This trend in outsourcing maintenance is likely to continue, and FAA needs to consider the shift in maintenance practices when planning its safety surveillance work. We will be issuing our report on FAA's oversight of repair stations shortly.

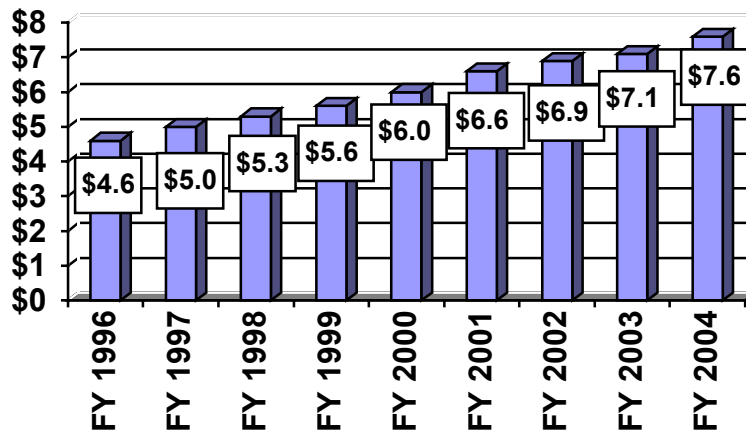
Another significant issue is the pending wave of controller retirements. In May 2001, FAA estimated almost 7,200 controllers could leave the agency by the end of FY 2010. In general, the training process to become a certified professional controller can take up to 5 years. Given that time lag, FAA needs to take actions now to address when and where new controllers will be needed. The pending retirements underscore the need for an accurate labor distribution system. We will be starting an audit of controller training in the next several weeks.

Mr. Chairman, let me conclude by discussing a major issue for airports—funding the next phase of explosives detection systems (EDS) integration. Thus far, nearly all EDS equipment has been lobby-installed. The planned next step (integrating the EDS equipment into airport baggage systems) is by far the most costly aspect of full implementation. We have seen estimates that put the costs of those efforts between \$3 and \$5 billion. A key question is who will pay for those costs as well as other costs still to be determined, such as improving access controls and acquiring new screening technologies.

Making FAA a Performance-Based Organization Through Controlling Costs in Operations and Major Acquisitions

Controlling Operating Cost Increases. Although Congress envisioned that personnel reform would result in more cost-effective operations, this has not occurred. Since 1996, FAA's operating costs have increased substantially. As shown in the following graph, FAA's operations budget has increased from \$4.6 billion in FY 1996 to \$7.6 billion in FY 2004. Given the decline in Aviation Trust Fund revenues and the financial situation of the airlines, a continuation of this growth can no longer be sustained.

FAA's Operations Budget - FY 1996 to FY 2004
\$ in Billions



FY 2002 figures exclude onetime anti-terrorist supplemental funding.

Much of the increase in operations costs has been a result of salary increases from collective bargaining agreements negotiated under FAA's personnel reform authority. The 1998 collective bargaining agreement with the National Air Traffic Controllers Association (NATCA), which created a new pay system for controllers, was a significant cost driver. Under the agreement, most controllers' salaries increased substantially. For example,

- The *average* base salary for fully certified controllers has now risen to over \$106,000—a 47 percent increase over the 1998 average of about \$72,000 (as shown in the table below). This compares to an average salary increase for all other FAA employees during the same period of about 32 percent, and for all Government employees in the Washington, D.C. area of about 30 percent.

Average Base Salaries for FAA Employees

Average Base Salary (Including Locality)	Fully Certified Air Traffic Controllers	Non-Controller FAA Employees
2003	\$106,580*	\$78,080
1998	\$72,580	\$59,200
Percentage Increase From 1998 to 2003	46.8	31.9

*After 4.9 percent increase.

Following the NATCA agreement, other FAA workforces began organizing into collective bargaining units as well. Today, FAA has 48 collective bargaining units as compared to 19 collective bargaining units in 1996.

The increase in bargaining units has complicated FAA’s plans for fielding its agency-wide compensation system (created in April 2000), because FAA’s 1996 reauthorization requires that FAA negotiate compensation with each of its unions. This has also complicated FAA’s plans to create a link between pay and performance. Although linking pay and performance was a key tenet of personnel reform, only about 36 percent of FAA employees receive pay increases based on individual performance. The remaining FAA employees receive largely automatic pay increases.

We also found, that outside the national collective bargaining agreement with NATCA, FAA and the union have entered into hundreds of side bar agreements or MOUs. These agreements can cover a wide range of issues such as implementing new technology, changes in working conditions and, as a result of personnel reform bonuses and awards, all of which are in addition to base pay. We found that FAA’s controls over MOUs are inadequate. For example, there is:

- no standard guidance for negotiating, implementing, or signing MOUs;
- broad authority among managers to negotiate MOUs and commit the agency;
- no requirement for including labor relations specialists in negotiations; and
- no requirement for estimating potential cost impacts prior to signing the agreement.

In addition, FAA has no system for tracking MOUs, but estimates there may be between 1,000 and 1,500 MOUs agency-wide. While most MOUs serve very legitimate purposes, we reviewed a number of MOUs that had substantial cost implications. For example,

- As part of the controller pay system, FAA and NATCA entered into a national MOU providing controllers with an additional cost of living adjustment. As a result, at 111 locations, controllers receive between 1 and 10 percent in “Controller Incentive Pay,” which is in addition to Government-wide locality pay. In FY 2002, the total cost for this additional pay was about \$27 million.
- One MOU we reviewed allows controllers transferring to larger consolidated facilities to begin earning the higher salaries associated with their new positions substantially in advance of their transfer or taking on new duties. At one location, controllers received their full salary increases 1 year in advance of their transfer (in some cases going from an annual salary of around \$54,000 to over \$99,000). During that time, they remained in their old location, controlling the same air space, and performing the same duties.

Administrator Blakey is aware of our concerns regarding MOUs and has begun a dialogue with NATCA to address this issue.

Improving Management of Major Acquisitions. FAA spends almost \$3 billion annually on a wide range of new radars, satellite-based navigation systems, and communication networks. Historically, FAA’s modernization initiatives have experienced cost increases, schedule slips, and shortfalls in performance. While progress has been made with Free Flight Phase 1, problems persist with other major acquisitions. In 1996, Congress exempted FAA from Federal procurement rules that the agency said hindered its ability to modernize the air traffic control system. Now, after nearly 7 years, FAA has made progress in reducing the time it takes to award contracts, but acquisition reform has had little measurable impact on bottom line results—bringing large-scale projects in on time and within budget. The following chart provides cost and schedule information on 5 of 20 projects we track that have been managed since FAA was granted acquisition reform.

Program	Estimated Program Costs (Dollars in Millions)		Percent Cost Growth	Implementation Schedule	
	Original	Current		Original	Current
WAAS	\$892.4	\$2,922.4*	227 %	1998-2001	2003-TBD**
STARS	\$940.2	\$1,690.2**	80 %	1998-2005	2002-TBD**
ASR-11	\$752.9	\$916.2	22 %	2000-2005	2003-2008
WARP	\$126.4	\$152.7	21 %	1999-2000	2002-2003
OASIS	\$174.7	\$251.0	44 %	1998-2001	2002-2005

*This includes the cost to acquire geostationary satellites and costs are under review.

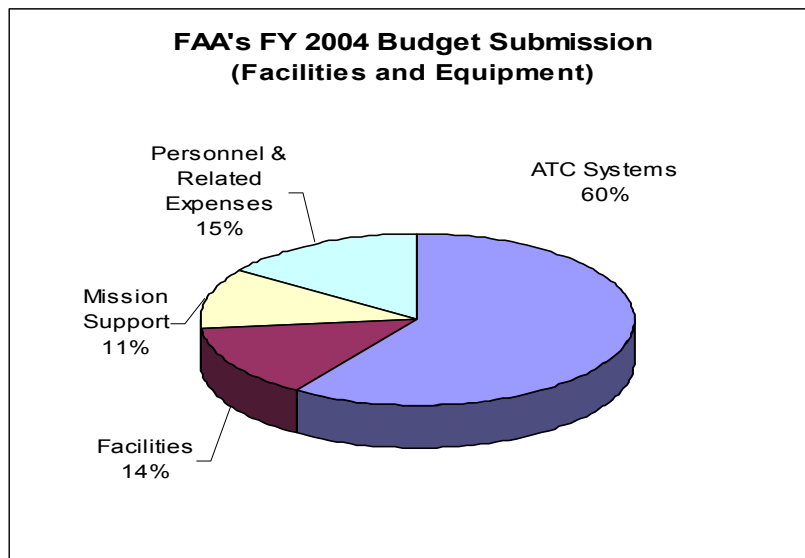
**Costs and schedules are under review.

These five acquisitions have experienced cost growth of over \$3 billion and schedule slips of 3 to 5 years. Problems with cost growth, schedule slips, and performance shortfalls have serious consequences—they result in costly interim systems, a reduction in units procured, postponed benefits (in terms of safety and efficiency), or “crowding out” other projects.

For example, STARS, which commenced operations at Philadelphia this past year, has cost FAA more than \$1 billion since 1996. Most of these funds were spent on developing STARS, not delivering systems. When the STARS development schedule began slipping, FAA procured an interim system, the Common Automated Radar Terminal System (Common ARTS) for about \$200 million. FAA is now operating Common ARTS (software and processors) at approximately 140 locations.

Moreover, in FY 2002 alone, FAA reprogrammed over \$40 million from other modernization efforts (data link communications, oceanic modernization, and instrument landing systems) to pay for cost increases with STARS. As a result of these cost and schedule problems, in March 2002, FAA officials proposed scaling back the program from 182 systems for \$1.69 billion to a revised estimate of 73 systems for \$1.33 billion. No final decision has been made, and FAA is currently reevaluating how many STARS systems it can afford.

Cost growth of this magnitude must be avoided because only 60 percent of FAA’s FY 2004 request for Facilities and Equipment is expected to be spent on new air traffic control systems, whereas the remaining funds are requested for FAA facilities, mission support (i.e., support contracts), and personnel expenses.



There are large-scale acquisitions—both old and new—whose cost or schedule baselines need to be revised because the programs have changed considerably or benefits have shifted. For example, the Integrated Terminal Weather System (ITWS) provides air traffic managers with enhanced weather information. FAA planned to complete deployment of the new weather system in 2004 at a cost of \$286 million. However, unit production costs have skyrocketed from \$360,000 to over \$1 million; FAA cannot execute the program as scheduled and may extend the deployment by 4 years.

In addition, FAA intended to have the Local Area Augmentation System (Category I)—a new precision approach and landing system—in operation in 2004. It is now clear that this milestone cannot be met because of additional development work, evolving requirements, and unresolved issues regarding how the system will be certified as safe for pilots to use. Moreover, the more demanding Category II/III services (planned for 2005) are now a research and development effort with an uncertain end state. This means that benefits associated with the new precision approach and landing system will be postponed.

Our work has also found that FAA has not followed sound business practices for administering contracts. We have consistently found a lack of basic contract administration at every stage of contract management from contract award to contract closeout.

For example, we found that Government cost estimates were:

- prepared by FAA engineers, then ignored;
- prepared using unreliable resource and cost data;
- prepared by the contractor (a direct conflict of interest); or
- not prepared at all.

FAA has stated that it will take actions to address these concerns—the key now is follow through.

In addition to strengthening contract oversight, FAA needs to develop metrics to assess progress with major acquisitions, make greater use of Defense Contract Audit Agency audits, and institute cost control mechanisms for software-intensive contracts. FAA needs to obtain these audits from the Defense Contract Audit Agency for contract costs billed by private companies for research and development, production, and all costs related to system development. FAA should get these audits to ensure that the amounts billed are reasonable and that the government's interest is properly protected. By ensuring that only acceptable costs are paid to contractors, FAA will be able to stretch its procurement dollars further.

With schedule slips and cost overruns in major acquisitions, it should be noted that FAA is not getting as much for its \$3 billion annual investment as it originally expected.

Tracking Costs. An effective cost accounting system is fundamental to measuring the cost of FAA activities and provides the basis for setting benchmarks and measuring performance. Without a reliable cost accounting system, FAA cannot credibly claim to be, nor function as, a performance-based organization. It represents the underpinning for FAA's operation as a performance-based organization through the development of good cost information for effective decision-making. At the direction of Congress, FAA began developing its cost accounting system in 1996, which was estimated at that time to cost about \$12 million and be completed in October 1998. Now, after nearly 7 years of development and spending over \$38 million, FAA still does not have an adequate cost accounting system, and expects to spend at least another \$7 million to deploy the cost accounting system throughout FAA.

Although FAA's cost accounting system is producing cost data for two of its lines of business, it still does not report costs for each facility location. For example, for the Terminal Service in FY 2001, about \$1.3 billion of \$2.4 billion was reported in lump-sum totals and not by individual facility locations.

FAA also needs an accurate labor distribution system to track the costs and productivity of its workforces. Cru-X is the labor distribution system FAA chose to track hours worked by air traffic employees. As designed, Cru-X could have provided credible workforce data for addressing controller concerns about staffing shortages, related overtime expenditures, and to help determine how many controllers are needed and where. That information in turn is especially important given projections of pending controller retirements. Unfortunately, Cru-X as designed has not been implemented. We hope it will be in the coming year.

Building Aviation System Capacity and More Efficient Use of Airspace to Prevent a Repeat of the Summer of 2000

FAA needs to be strategically positioned for when demand returns through a combination of new runways, better air traffic management technology, airspace redesign, and greater use of non-hub airports. It would be shortsighted to do otherwise. FAA estimates that domestic passenger numbers are expected to return to 2000 levels by 2005, although the recovery in passenger traffic will lag by a year for major carriers. FAA also reports large increases in the use of regional jets (from 496 in 2000 to over 900 in 2002)—this bears careful watching because of their impact on FAA operations and modernization efforts.

FAA's OEP is the general blueprint for increasing capacity. As currently structured, the plan includes over 100 different initiatives (including airspace redesign initiatives, new procedures, and new technology) and is expected to cost in the \$11.5 to \$13 billion range, excluding the costs to build new runways, but the true cost of implementing the plan is unknown. FAA estimates the plan will provide a 30 percent increase in capacity over the next 10 years assuming all systems are delivered on time, planned new runways are completed, and airspace users equip with a wide range of new technologies.

While airspace changes and new automated controller tools will enhance the flow of air traffic, it is generally accepted that building new runways provides the largest increases in capacity. The OEP now tracks 12 runways scheduled for completion in the next 10 years. Four of the runway projects are expected to be completed in 2003 at Denver, Houston, Miami, and Orlando airports. However, construction on several other airports has been delayed from 3 months to 2 years. There are other new runway projects not in the plan but important for increasing capacity, such as Chicago O'Hare. These runway projects are not in the plan because airport sponsors have not finalized plans or developed firm completion dates. FAA needs to continue to closely monitor all new runway projects.

Progress has been made with OEP initiatives, but much uncertainty exists about how to move forward with systems that require airlines to make investment in new technologies. FAA and the Mitre Corporation estimate the OEP would cost airspace users \$11 billion to equip with new technologies. For example, FAA and Mitre estimate the cost to equip a single aircraft with Automatic Dependent Surveillance-Broadcast ranges from \$165,000 to almost \$500,000, and the cost for Controller-Pilot Data Link Communications ranges from \$30,000 to \$100,000 excluding the cost to take the aircraft out of revenue service.

FAA is working to retool the OEP. With the slow down in the demand for air travel, FAA has an opportunity to synchronize the OEP with FAA's budget and set priorities, and address uncertainties with respect to how quickly airspace users will equip with new technologies in the plan. Senior FAA officials noted that hard decisions will need to be made. Further, some large-scale, billion-dollar acquisitions are not in the Plan but critical for its success. For example, the Enroute Automation Replacement Modernization project (new software and hardware for facilities that manage high altitude traffic with an estimate cost of \$1.9 billion) is not an OEP initiative but needs to be fully integrated with the Plan and considered when setting priorities.

It is a good time to rethink what reasonably can be accomplished over the next 3 to 5 years, and what will be needed by FAA and industry given the decline in Trust Fund revenue and the financial condition of the airlines. According to the

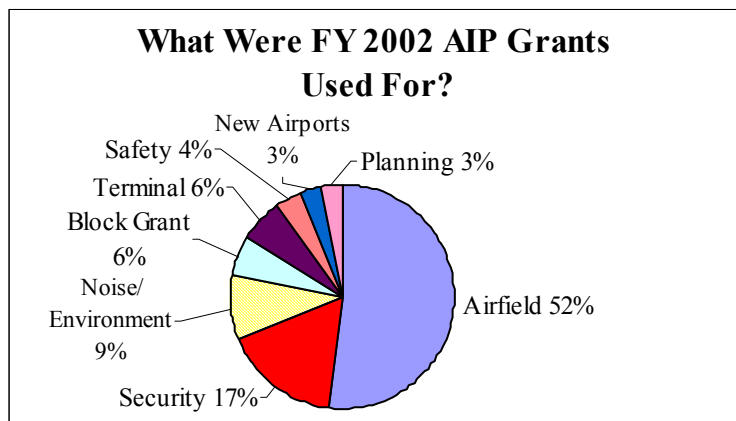
Associate Administrator for Research and Acquisition, it is likely that the OEP will shift from a plan that relied heavily on airspace users to equip their aircraft to one that places greater emphasis on airspace changes and procedural changes that take advantage of equipment already onboard aircraft.

Striking a Balance Between How Airport Funds Will Pay for Capacity and Security Initiatives

A major issue for airports is funding the next phase of EDS integration. Thus far, nearly all EDS equipment has been lobby-installed. TSA's planned next step (integrating the EDS equipment into airport baggage systems) is by far the most costly aspect of full implementation. The task will not be to simply move the machines from lobbies to baggage handling facilities but will require major facility modifications. We have seen estimates that put the costs of those efforts at over \$5 billion, and this is an almost immediate issue facing the airports.

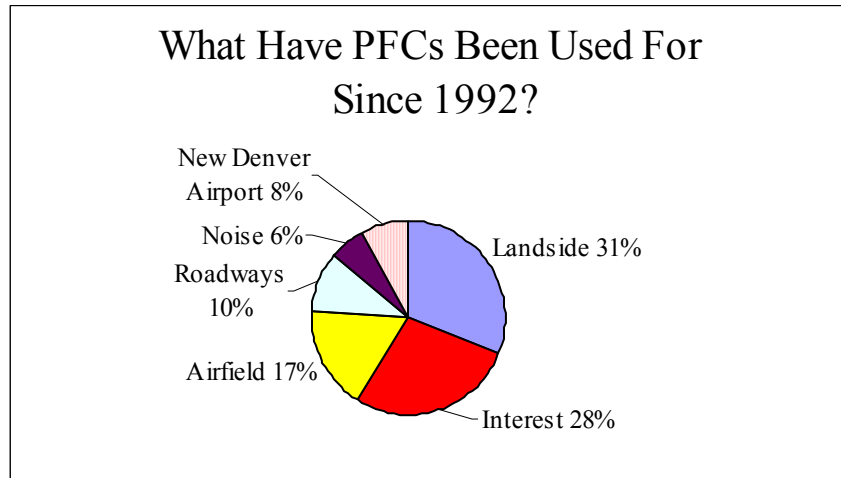
A key question is who will pay for those costs and how. While the current Airport Improvement Plan (AIP) has provided some funding in the past for aviation security, we urge caution in tapping this program until we have a firm handle on airport safety and capacity requirements.

In FY 2002, airports used over \$561 million of AIP funds for security-related projects. In contrast, only about \$56 million in AIP funds were used for security in FY 2001. Continuing to use a significant portion of AIP funds on security projects will have an impact on airports' abilities to fund capacity projects. The following chart shows how AIP funds were used and for what type of project in FY 2002.



AIP funds as well as passenger facility charges (PFCs) are eligible sources for funding this work. However, according to FAA, PFCs are generally committed for many outlying years and it would be difficult, requiring considerable

coordination among stakeholders (i.e. airports and airlines), to make adjustments for security modifications at this point. The following chart shows how PFC funds have been used since 1992.



Source: FAA

There have also been proposals to raise the cap on PFCs; however, we urge caution before adding additional fees or taxes for air travel. Consumers already pay a significant amount in aviation taxes and fees. For example, a non-stop round-trip ticket costing \$200 may consist of nearly \$33 in taxes and fees, or 16 percent of the fare. On a connecting flight, the taxes on this ticket could be up to \$51, or nearly 26 percent of the fare. Any further increases are likely to reduce airline revenues, given the weak demand environment and will further threaten the financial health of the industry.

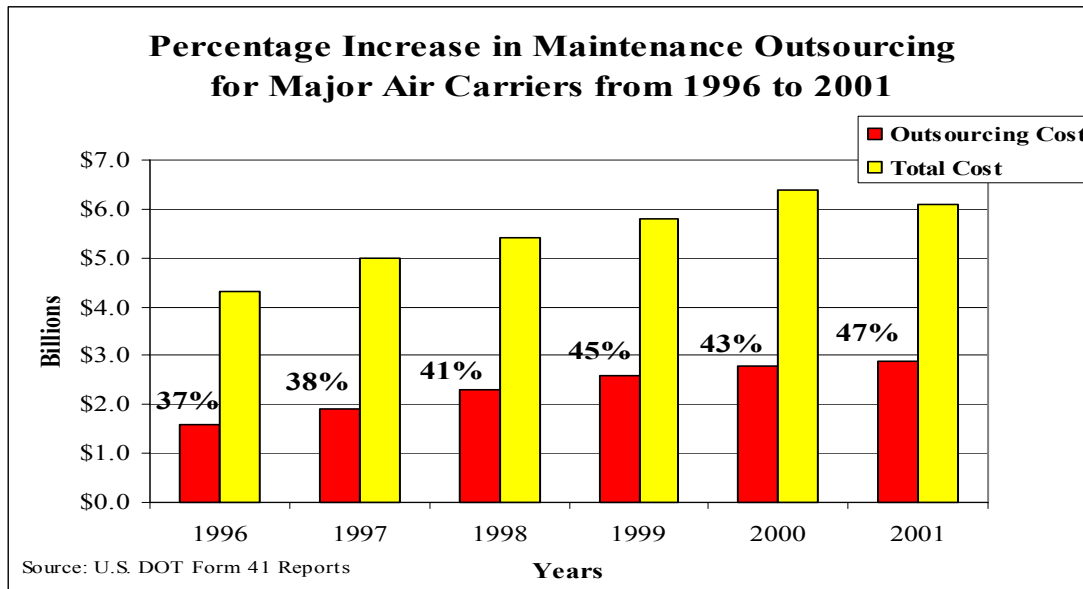
Aviation Safety

The U.S. air transport system is the safest in the world and safety remains the number one priority for FAA. Until the recent Air Midwest crash in Charlotte, there had not been a fatal commercial aviation accident in the United States in 14 months.

Progress has been made this past year in reducing the risk of aviation accidents due to operational errors and runway incursions. Operational errors (when planes come too close together in the air) and runway incursions (potential collisions on the ground) decreased by 11 percent and 17 percent, respectively, in FY 2002. Notwithstanding these improvements, operational errors and runway incursions should remain an area of emphasis for FAA because at least three serious operational errors and one serious runway incursion (in which collisions were narrowly averted) occur, on average, every 10 days.

In the current financially-strapped aviation environment, FAA must remain vigilant in its oversight to sustain a high level of aviation safety. FAA has recognized this need and has taken steps to heighten surveillance during times when airlines are in financial distress. For example, FAA has increased the number of inspections planned for distressed air carriers' internal aircraft maintenance operations. We are beginning an audit of this issue in the next several weeks.

FAA also needs to pay close attention to the level of oversight it provides for repair stations. In the past 5 years, there has been a significant increase in air carriers' use of these facilities. In 1996, major air carriers spent \$1.6 billion for outsourced maintenance (37 percent of total maintenance costs), whereas in 2001, the major air carriers outsourced \$2.9 billion (47 percent of total maintenance costs).



Even as air carriers currently outsource close to half of their maintenance work, FAA has continued to focus its surveillance on air carriers' in-house maintenance operations with no comparable shift toward increased oversight of repair stations. For example, FAA assigns a team of as many as 27 inspectors to continuously monitor air carriers' internal maintenance operations, while typically, only one to two inspectors that have other collateral duties are assigned to monitor work performed at aircraft repair stations. Because use of repair stations represents a less costly way of getting maintenance work completed, the trend in outsourcing maintenance is likely to continue. FAA needs to consider this shift in maintenance practices when planning its safety surveillance work.

Another significant issue is the pending wave of controller retirements. In May 2001, FAA estimated a total of 7,195 controllers could leave the agency by the end of FY 2010. In general, the training process to become a certified professional controller can take up to 5 years. Given that time lag, FAA needs to take actions now to address when and where new controllers will be needed. The pending retirements underscore the need for an accurate labor distribution system. We will be starting an audit of controller training in the next several weeks.

That concludes my statement, Mr. Chairman. I would be pleased to address any questions you or other members of the Subcommittee might have.