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Subcommittee on Transportation, Treasury and
Independent Agencies
U. S. House of Representatives**

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**Cost Control Issues for
the Federal Aviation
Administration's
Operations and
Modernization
Accounts**

**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). It is important to recognize that FAA oversees the largest and safest air transportation system in the world, but FAA urgently needs to do considerably more to bring its costs under control. This will be the focus of our testimony this afternoon.

In 1996, FAA was given two powerful tools—personnel reform and acquisition reform. FAA was also directed to establish a cost accounting system so that it would know, at the facility level, where it was spending money and for what. The expectation was that by relieving the agency from Government rules and establishing a cost accounting system, FAA would operate more like a business—that is, services would be provided to users cost effectively and air traffic control modernization programs would be delivered approximately on time and within budget.

Seven years later, we do not see sufficient progress toward achieving those outcomes. The growth in FAA's budget—from about \$8.2 billion in FY 1996 to \$14 billion in FY 2004 represents an increase of \$5.8 billion, or nearly 70 percent. About 33 percent of this increase was a result of higher authorized airport funding, and about 15 percent was a result of authorized increases in FAA's modernization budget, but the majority of this increase (52 percent) was attributable to FAA's operating budget. During this period, we have seen large increases in workforce costs, as well as cost overruns and schedule slips in major acquisitions.

Personnel reform was a key element in the move to make FAA performance-based. While there has been improved labor/management relations with

controllers (FAA's largest workforce), to date the reality has been increasing workforce costs and higher salaries. Cost growth of the magnitude FAA has experienced over the past 4 to 5 years is no longer sustainable given the financial state of the airline industry, and multibillion-dollar declines in projected Aviation Trust Fund receipts.

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 January 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.

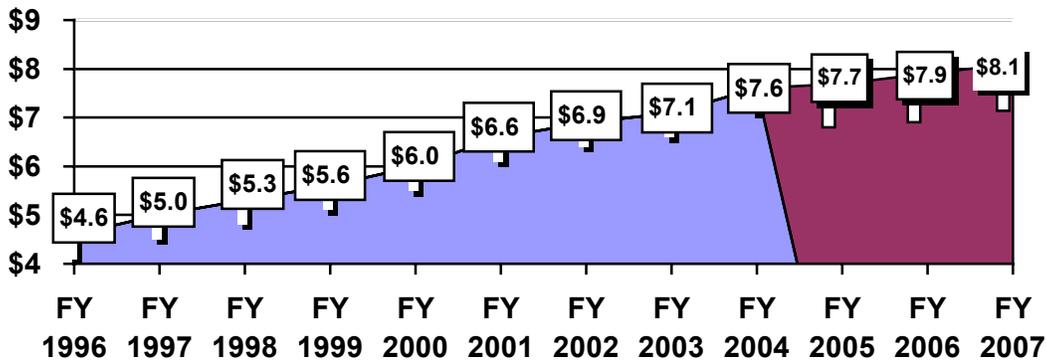
The sharp decline in Trust Fund revenues will have significant implications for FAA's operating budget in terms of the amount of funds that will be needed from the General Fund. AIR-21 gives priority to FAA's airport and modernization accounts by requiring that revenue from the Trust Fund be allocated to those accounts before allocating any revenue to FAA's operating budget. The lower Trust Fund revenues mean that, if Congress adopts similar requirements in FAA's pending Reauthorization, there will be much less Trust Fund revenue to fund FAA's operations than in prior years.

We do not believe the answer to cost growth at FAA lies in increasing taxes, fees, or other charges, which are already substantial. 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. Cost control must become an imperative for FAA, which has not been the case for some time.

The Department's Reauthorization proposal for FAA also underscores the need for cost control within the agency. In the proposal, the Department is requesting \$31 billion over the next 4 years for FAA operations, which is an average increase of 3 percent each year. In comparison, over the past 4 years, FAA's operating costs have increased, on average, about 6 percent each year.

In terms of actual dollars, the Department's proposal represents an average increase of about \$158 million each year for FY 2005 through FY 2007. To put that amount in perspective, FAA's FY 2004 budget request estimates that pay raises alone in FY 2004 will be in excess of \$190 million.

**FAA's Operations Budget - FY 1996 to FY 2007 (proposed)
\$ in Billions**

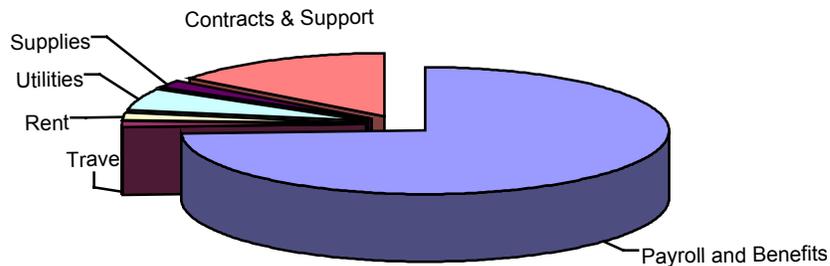


Operating within the Department's proposed funding levels will be a formidable challenge for FAA, especially considering the pending wave of controller retirements. In May 2001, FAA estimated that almost 7,200 controllers could be eligible to leave the agency by the end of FY 2010, with the largest spike in eligible retirements occurring around 2007.

In general, the training process to become a certified professional controller can take up to 5 years. Hiring and training a significant number of new controllers within the Department's proposed funding levels will require stringent financial management on FAA's part. An important issue will be determining the number of controllers that will actually retire when they become eligible, and when and where new controllers will be needed. For FY 2004, FAA has proposed adding 300 new controller positions in anticipation of expected retirements (this is in addition to hiring to backfill for current attrition).

A key issue for FAA will be to accomplish this task without "crowding out" other critical functions. For example, FAA will need operating funds to train maintenance technicians on new software to remain abreast of emerging technologies and new systems. FAA will also need operating funds to hire and train safety inspectors to oversee a rapidly changing airline industry. To meet current financial challenges, airlines are reducing and standardizing aircraft fleets and closing or relocating maintenance facilities. FAA will need to ensure it has ample inspectors, with the right skills, in the right locations, to monitor these changes and ensure that safety is maintained.

Controlling Operating Costs. Although Congress envisioned that personnel reform would result in more cost-effective operations, to date this has not happened. Since 1996, FAA's operating costs have increased substantially. FAA's operations budget has increased from \$4.6 billion in FY 1996 to \$7.6 billion in FY 2004, an increase of 65 percent. Payroll accounts for the largest portion of FAA's operating costs. As shown in the chart below, for FY 2004, approximately \$5.6 billion, or 74 percent, of FAA's operating costs are made up of payroll costs; the remainder is primarily for expenses such as rent, communications, and utilities.



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. was about 30 percent. However, the increases within FAA vary by workforce (from around 28 percent to around 47 percent).

There is no question that many controllers have tough jobs and are responsible for the safe movement of aircraft and passengers. The controller pay system, agreed to in 1998, recognized this in the form of increased compensation, among other factors. But the financial reality of 2003–5 years later—is that continued salary cost growth on the scale of that experienced over the last several years is simply not sustainable given the multibillion dollar declines in revenue both to the Trust Fund and the General Fund.

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 annual base salary of \$72,000, and compares to an average salary increase of about 32 percent for all other FAA employees during the same period.

In total, FAA estimated that through 2003 the controller pay system will cost the agency about \$1 billion in additional payroll costs. Although portions of those costs were to be offset by productivity gains (such as having controllers assume collateral duties in staff areas such as training or quality assurance, when not controlling traffic), neither FAA nor we have been able to substantiate those gains. In February 2003, FAA reported that only 13 percent of air traffic controllers available to perform collateral duties actually performed them. According to FAA, constraints to controllers performing additional duties may be related to staffing needs and training requirements.

Additionally, FAA, in conjunction with the controllers' union, was to issue a report each year after implementation of the 1998 collective bargaining agreement. The objective of the report was to identify savings related to the agreement. In the fall of 2000, FAA issued its first report, but was unable to quantify savings associated with increased productivity with the exception of supervisory attrition as a result of expanding the Controller-In-Charge Program.¹ Subsequent reports were never issued.

Under requirements of FAA's 1996 Reauthorization, the agency must negotiate compensation with each of its unions. Following the agreement with the controllers' union, other FAA workforces organized into collective bargaining units as well. Today, FAA has 48 collective bargaining units as compared to 19 collective bargaining units in 1996. According to a September 2002 study conducted by Deloitte and Touche,² a major obstacle for FAA management has been the complexity of dealing with so many bargaining units, and the ability of

¹ FAA planned to expand the number of Controller-In-Charge positions and have them assume additional supervisory duties, in order to reduce the number of first line supervisors.

² "Five-Year Review of Personnel Reform and Strategies for the Future," prepared by Deloitte Touche, September 5, 2002.

the unions under the legislation to negotiate compensation and other elements of reform that would not normally be negotiable in the Federal service.

As of March 2003, FAA remains in negotiations with seven unions. According to FAA, negotiations are complete for all issues *except compensation*. As a result, FAA has multiple compensation systems, with about 23 percent of its workforce still under the Federal General Schedule.

Although linking pay and performance is a key tenet of personnel reform, as a result of the way the various pay systems were negotiated and established, only about 36 percent of all FAA employees receive pay increases based on performance. For example,

- The agreement between the Professional Airways Systems Specialists' union (PASS) and Airways Facilities includes pay for individual performance that links part of an employee's pay increase to meeting certain performance goals, which was a result of the collective bargaining process. These goals include performing additional duties beyond their normal workload, providing customer service to both internal and external parties, and seeking innovative ways to improve the agency. Employees who meet these goals are provided an additional pay increase at the beginning of each calendar year.

Other agreements contain provisions for largely automatic pay increases, similar to the increases under the Federal General Schedule. For example,

- This year under terms of the National Air Traffic Controllers Association's (NATCA) collective bargaining agreement, *all* controllers received an automatic pay increase of 4.9 percent, regardless of their individual

performance. FAA provided a similar increase to all Air Traffic field managers and supervisors.

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, such as providing incentives to controllers for reducing operational errors. 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. For example,

- One MOU for a new free flight tool controller software system (URET) gave each controller a \$500 cash award and a 24-hour time-off award for meeting certain training milestones on the new system. At 6 facilities alone, this resulted in FAA incurring approximately \$1.3 million in individual cash awards and 62,500 hours in time off. FAA and NATCA are now negotiating for further implementation at the next 14 locations.

- At Philadelphia, there was a verbal agreement that gave each employee \$1,000 in cash and 3 days off in connection with deployment of the new Standard Terminal Automation Replacement System (STARS). Currently, STARS is scheduled to be deployed to more than 170 terminal facilities, and it is unclear if FAA will enter into similar agreements at other locations.

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 correspondence with NATCA to reopen several agreements. FAA is also drafting new procedures for MOUs, which includes limiting approval authority and requiring that both the Human Resources and Budget divisions review proposed MOUs before they are signed by management. These are clearly steps in the right direction.

Improving Management of Major Acquisitions. FAA has made progress with some acquisitions, such as Free Flight Phase 1. Progress with Free Flight Phase 1 builds on the deployment of the Display System Replacement, which provided new controllers displays and related equipment at facilities that control high altitude traffic. However, cost overruns and schedule slips are all too common with major acquisitions.

We see three areas that need attention: controlling cost growth and schedule slips, effectively managing and controlling costs with modernization projects that are just getting started, and putting in place the basic elements of contract oversight. FAA is now beginning to take steps at the direction of the Administrator and Deputy Administrator to strengthen contract oversight. In addition, FAA needs to, like any business, develop metrics to assess progress with its major acquisitions.

Five major acquisitions out of 20 that we track have experienced substantial cost growth totaling more than \$3 billion (from \$2.8 billion to \$5.9 billion), which is equivalent to an entire year's budget for FAA's modernization account. Also, these same five acquisitions have 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 (data link communications, oceanic modernization, and instrument landing systems) to pay for cost increases associated with STARS. As a result, FAA is not getting as much as it can for its acquisition dollar.

FAA can no longer afford multibillion dollar cost growth with its major acquisitions. It should be recognized that only 60 percent of FAA's FY 2004 request for Facilities and Equipment is expected to be spent specifically on new air traffic control systems, whereas the remaining funds are requested for FAA facilities, mission support (i.e., support contracts), and personnel expenses.

Cost control is critical because there are billion dollar projects just getting started that have potential for cost growth. For example, the *En Route Automation Modernization* program, with an estimated cost of \$1.9 billion, is critical because it will replace aging Host computer hardware and software (the central nervous system) for facilities that manage high altitude air traffic. Given FAA's track record with large scale acquisitions, this is a high-risk effort because of its size, complexity, and the fact that it involves over 1 million lines of software code. We will start a review of this effort shortly.

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.

In our May 2002 report on the oversight of cost-reimbursable contracts, we found cost-reimbursable contracts totaling about \$2 billion that did not have required incurred cost audits. To protect the Government's interests, FAA not only needs to hold managers accountable and adhere to the basic principles of contract oversight and administration, but the agency needs to make more effective use of the Defense Contract Audit Agency. FAA has stated that it will take actions to address these concerns—the key now is follow through.

Tools for Controlling Costs. To effectively control costs, FAA needs accurate cost accounting and labor distribution systems. 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, which, according to FAA, represents 80 percent of the agency's costs, it still does not report actual 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 cannot credibly

claim to be a performance-based organization, nor can it function as one, until it has a cost accounting system.

FAA also needs an accurate labor distribution system to track the costs and productivity of its workforces. For example, there has been much discussion as to what extent overtime costs have been driven by staffing levels, but those questions cannot be credibly answered until FAA has an accurate labor distribution system.

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 determining 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.

Controlling Operating Costs

Although Congress envisioned that personnel reform would result in more cost-effective operations, to date this has not happened. Since 1996, FAA's operating costs have increased substantially—from \$4.6 billion in FY 1996 to \$7.6 billion in FY 2004, an increase of 65 percent. Operating costs represent the largest portion (54 percent) of FAA's total budget. Approximately, \$5.6 billion or 74 percent of FAA's \$7.6 billion FY 2004 operations request is for payroll costs. As shown in the following table, Air Traffic represents about half of FAA's operating costs.

FAA OPERATING COSTS
(\$ in millions)

	2004	%
Air Traffic	\$3,794	49.9%
Airway Facilities	\$2,302	30.3%
Regulation and Certification	\$873.4	11.5%
Commercial Space	\$12.6	0.2%
Research and Acquisitions	\$218.5	2.9%
Regions and Centers	\$84.7	1.1%
Human Resources Management	\$82.0	1.1%
Financial Services	\$49.8	0.7%
Information Services	\$29.7	0.4%
Staff Offices	\$143.2	1.9%
Total	\$7,589.9	100%

Although FAA's total operating costs have increased by 65 percent between FY 1996 and FY 2004, Air Traffic's Operations Budget has experienced a 74 percent increase for the same period.

Increased Salaries. 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 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. Controllers at the smallest facilities now have an average base salary of \$65,000, while controllers at the busiest facilities now have an average base salary of \$121,000. Controllers' maximum base salary is capped legislatively at \$154,700.

- In comparison, during the same period, the average salary for all other FAA employees during the same period increased about 32 percent, and the average salary for all Government employees in the Washington, D.C. area increased about 30 percent.

When premium pays (such as overtime and Sunday pay) are added, total salaries can be substantially higher. For example,

- In 2002, over 1,000 controllers had gross salaries in excess of \$150,000, (approximately 7 percent of the controller workforce). That number compares to only 65 controllers that earned over \$150,000 in 2000 (approximately 0.4 percent of the controller workforce).

There has been much discussion as to what extent overtime costs have been driven by staffing levels. Those questions cannot be credibly answered until FAA has an accurate cost accounting system. However, it is important to note that while overtime is a factor for higher salary figures at some locations, as shown in the following table, of the \$219 million earned in premium pay last year, only 24 percent was attributable to overtime. The balance was for other types of premium pay, such as, holiday, Sunday, and night differentials.

FY 2002 Bargaining Unit Controller Premium Pay

<u>Premium Pay</u>	<u>\$ Amount (in millions)</u>	<u>% of Total</u>
Overtime	\$53.0	24.2%
Holiday Differential	\$45.0	20.5%
Sunday Differential	\$40.0	18.2%
Night Differential	\$34.7	15.8%
Controller Incentive Pay	\$26.7	12.2%
Controller-in-Charge Pay	\$9.2	4.2%
Alaska/Hawaii Pay	\$7.7	3.5 %
On-the-Job Training Pay	\$2.4	1.1%
Missed Meal Pay	\$.3	0.1%
Other	\$.2	0.1%
TOTAL	\$219.4	100%

In 2002, over 60 percent of fully certified controllers had an average gross salary (base salary plus premium pay) of \$130,000. Only 4 percent of that amount was attributable to overtime.

There is no question that many controllers have tough jobs and are responsible for the safe movement of aircraft and passengers. The controller pay system, agreed to in 1998, recognized this in the form of increased compensation, among other

factors. But the financial reality of 2003–5 years later—is that continued salary cost growth on the scale of that experienced over the last several years is simply not sustainable given the multibillion dollar declines in revenue both to the Trust Fund and the General Fund.

In total, FAA estimates that the agreement with NATCA will have cost the agency about \$1 billion over its 5-year life. There have been claims that a significant portion of those costs were absorbed by productivity gains (such as having controllers assume collateral duties in staff areas, such as, training or quality assurance, when not controlling traffic). However, FAA has been unable to produce credible data that substantiate those claims other than attrition of supervisors as a result of expanding the Controller-In-Charge Program.³ This lack of data underscores the need for a labor distribution system that could document changes in workforce productivity.

Additionally, FAA, in conjunction with NATCA, was to issue a report each year after implementation of the 1998 collective bargaining agreement. The objective of the report was to identify savings related to the agreement. In the fall of 2000, FAA issued its first report utilizing data from 1999, but was unable to quantify savings associated with productivity gains. Subsequent reports were never issued.

The report also listed about \$240 million as offsetting savings that were actually “cost avoidances” associated with a staffing ceiling of 15,000 controllers. That is, future expenses of hiring more controllers were avoided because of the agreement. However, those “avoidances” were not actual savings that would offset the \$1 billion cost of the new pay system.

Pay for Performance. Following the agreement with NATCA, 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. Under requirements of FAA’s 1996 Reauthorization Act, the agency must negotiate compensation with each of these unions. According to a September 2002 study conducted by Deloitte and Touche, a major obstacle for FAA management has been the complexity of dealing with so many bargaining units and the ability of the unions, under the legislation, to negotiate compensation and other elements of reform that would not normally be negotiable in the Federal service.

As of March 2003, FAA remains in negotiations with seven unions. According to FAA, negotiations are complete for all issues except compensation. As a result,

³ FAA planned to expand the number of Controller-In-Charge positions and have them assume additional supervisory duties, in order to reduce the number of first line supervisors.

FAA has multiple compensation systems with about 23 percent of its workforce still under the Federal General Schedule.

Although linking pay and performance is a key tenet of personnel reform, as a result of the way these multiple pay systems were negotiated and implemented, only about 36 percent of all FAA employees receive pay increases based on performance. For example,

- The agreement between PASS and Airways Facilities includes pay for performance that links part of an employee's pay increase to meeting certain performance goals, which was a result of the collective bargaining process. These goals include performing additional duties beyond their normal workload, providing customer service to both internal and external parties, and seeking innovative ways to improve the agency. Employees who meet these goals are provided an additional pay increase at the beginning of each calendar year.

The remainder of FAA employees receives largely automatic pay increases, similar to the increases under the Federal General Schedule. For example,

- This year under terms of the NATCA collective bargaining agreement, *all* controllers received an automatic pay increase of 4.9 percent, regardless of their individual performance. FAA provided a similar increase to all Air Traffic field managers and supervisors.

Side Bar Agreements. 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. Many MOUs serve very legitimate purposes, such as incentives for improving work performance. For example,

- We found one regional MOU, the Phraseology Improvement Incentive Plan, provided a means to reward exceptional efforts to improve controllers' use of standard air traffic control phraseology.

However, 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.

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.

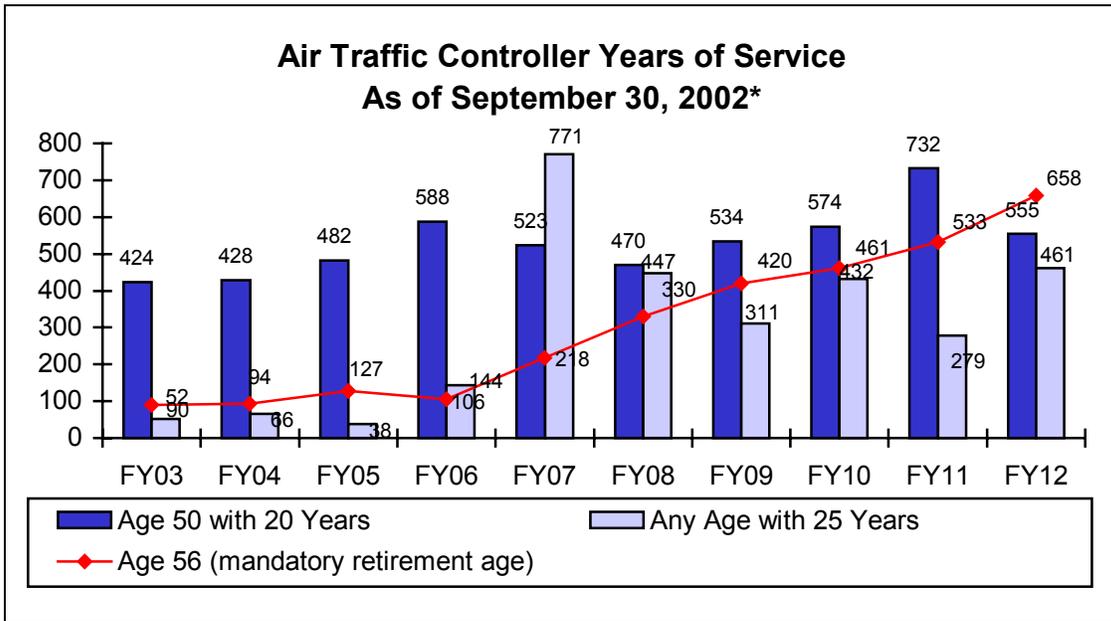
In addition, FAA has no system for tracking MOUs, but estimates there may be between 1,000 and 1,500 MOUs agency-wide. It is important for FAA to get a handle on this process because many MOUs involve issues pertaining to deploying new equipment. For example,

- One MOU for a new free flight tool controller software system (URET) gave each controller an incentive of \$500 cash award and a 24 hour time off award for meeting certain training milestones on the new system during initial deployment. At 6 facilities alone, this resulted in FAA incurring approximately \$1.3 million in individual cash awards and 62,500 hours in time off. FAA and NATCA are now negotiating for further implementation at the next 14 locations.
- At Philadelphia, there was a verbal agreement that gave each employee \$1,000 in cash and 3 days off in connection with deployment of the new STARS system. Currently, STARS is scheduled to be deployed to more than 170 terminal facilities, and it is unclear if FAA will enter into similar agreements at other locations.

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 correspondence with NATCA to reopen several agreements.⁴ FAA is also drafting new procedures for MOUs, which includes limiting approval authority and requiring that both the Human Resources and Budget divisions review proposed MOUs before they are signed by management. These are clearly steps in the right direction.

Future Cost Drivers. A significant issue that could drive future costs is the pending wave of controller retirements. In May 2001, FAA estimated a total of about 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. As shown in the following chart, an important issue will be determining the percentage of controllers that will actually retire when they become eligible, and when and where new controllers will be needed. For FY 2004, FAA has proposed adding 300 new controller positions in anticipation of expected retirements.



*Controllers are subject to special retirement provisions that allow them to retire at age 50 with 20 years of service controlling live air traffic (good time) or at any age with 25 years of good time. In addition, most air traffic controllers are subject to mandatory separation from controlling live air traffic at age 56 but may work at other FAA positions.

A key issue for FAA will be to accomplish this task without “crowding out” other critical functions. For example, FAA will need operating funds to train maintenance technicians on new software to remain abreast of emerging technologies and new systems. FAA will also need operating funds to hire and train safety inspectors to oversee a rapidly changing airline industry. To meet current financial challenges, airlines are reducing and standardizing aircraft fleets

⁴ FAA is not requesting to reopen the MOU on controller incentive pay because FAA believes that CIP is a major, integral component of the 1998 collective bargaining agreement

and closing or relocating maintenance facilities. FAA will need to ensure it has ample inspectors, with the right skills, in the right locations, to monitor these changes and ensure that safety is maintained.

Improving Management of Major Acquisitions.

FAA is requesting \$2.9 billion for its Facilities and Equipment account for FY 2004. FAA has made progress with some acquisitions, such as Free Flight Phase 1 which embraced a “build a little, test a little” approach. However, cost overruns and schedule slips with major acquisitions are all too common. We see three areas that need attention; controlling cost growth and schedule slips, effectively managing and controlling costs with modernization projects that are just getting started, and putting in place the basic elements of contract oversight.

FAA is now beginning to take steps at the direction of the Administrator and Deputy Administrator to strengthen contract oversight. In addition, FAA—like any business—must develop metrics to assess progress with 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.

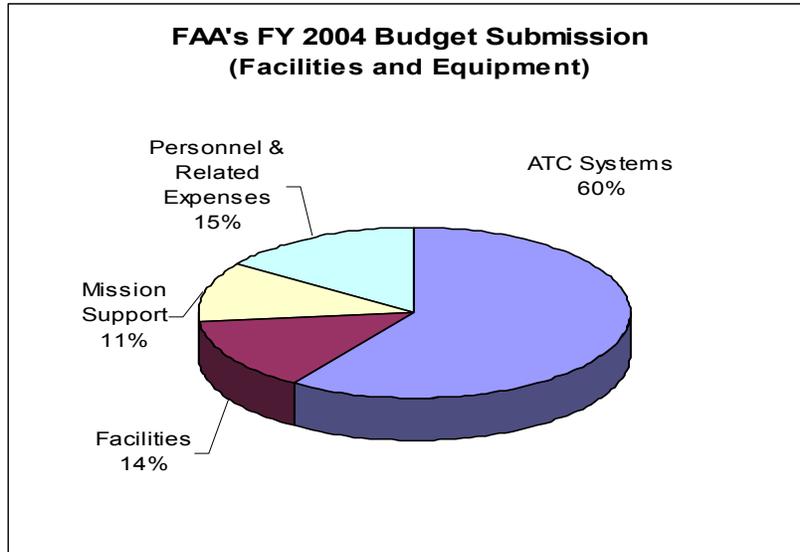
These five acquisitions have experienced cost growth of over \$3 billion—the equivalent to an entire year’s budget for the modernization account (facilities and equipment). These five acquisitions have also experienced and schedule slips of 3 to 5 years.

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. FAA is not getting as much as it can for each acquisition dollar.

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.

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.

FAA can no longer afford multibillion dollar cost growth with its major acquisitions. It should be recognized that only 60 percent of FAA's FY 2004 request for Facilities and Equipment is expected to be spent specifically on new air traffic control systems, whereas the remaining funds are requested for FAA facilities, mission support (i.e., support contracts), and personnel expenses.



Moreover, FAA's projected budget for Facilities and Equipment as outlined in the Administration's reauthorization proposal is expected to increase, on average, by only 1 percent annually over the next 4 years. In comparison, over the past 4 years, FAA's Facilities and Equipment budget increased, on average, by about 9 percent annually.

Rebaselining Major Acquisitions. 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.

Projects Early in the Acquisition Phase That Need Attention. A key focus for FAA must be effective cost controls on programs that are just getting started but have potential for cost growth. For example, the *En Route Automation*

Modernization program (ERAM), with an estimated cost of \$1.9 billion, is critical because it will replace aging Host computer hardware and software (the central nervous system) for facilities that manage high altitude air traffic. In December 2002, FAA awarded a contract for the development and implementation of ERAM. Given FAA's past record, this is a high-risk effort because of its size and complexity, and the fact that it involves over 1 million lines of software code. We intend to initiate a review of ERAM later this year.

Another acquisition that warrants attention is the *Advanced Technologies and Oceanic Procedures* (ATOP) program which will modernize equipment at facilities that manage air traffic principally over the Atlantic and Pacific Oceans. Since 1995, FAA has spent over \$300 million to modernize its oceanic facilities but past efforts met with little success due to, among other things, funding limitations and poor contractor performance.

In June 2001, FAA awarded a \$217 million fixed price contract to provide oceanic systems in Anchorage, New York, and Oakland. The contractor planned to provide the first operational system to Oakland in April 2003. However, since the contract was awarded, the contractor has experienced delays primarily due to problems completing software development and testing. FAA and the contractor planned to extensively rely on non-developmental software but additional software development was needed to meet agency requirements. The contractor is currently up to 9 months behind schedule and FAA is reassessing when the first site will be operational in Oakland. To date, schedule delays have not resulted in significant cost growth because this is a fixed price contract. To control costs with this acquisition, FAA needs to keep requirements stable.

Setting Priorities and Linking Modernization and Capacity Initiatives. FAA needs to set priorities with its modernization initiatives and link the *Operational Evolution Plan* (OEP)—the agency's blueprint for enhancing capacity—with the agency's budget. FAA needs to address uncertainties of how quickly airspace users will equip with new technologies in the Plan (estimated at \$11 billion). It is a good time to rethink what reasonably can be accomplished over the next 3-5 years and what is affordable (from both FAA and industry perspectives) given the decline in Trust Fund revenue and the financial condition of the airlines.

We recognize that FAA is retooling the OEP. FAA and industry officials told us that considerable benefits may be obtained through airspace changes, new procedures, and taking advantage of system 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. This is because some large-scale, billion-dollar acquisitions are not in the Plan but are critical for its success. For example,

ERAM is not an OEP initiative but needs to be fully integrated with the Plan and considered when setting priorities.

Strengthening Contract Oversight. 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.

For example, in our report on the Technical Support Services Contract (with a potential cost of \$875 million), we found that FAA did not control costs by developing reliable cost estimates for proposed projects. We found that in the majority of cases, FAA used the contractor's project cost estimate to set the project's budget. We also found that FAA did not evaluate contractor work performance, and nearly 10 percent of the contract personnel reviewed did not meet contract standards for education and experience.

In our May 2002 report on the oversight of cost-reimbursable contracts, we found cost-reimbursable contracts totaling about \$2 billion did not have required incurred cost audits. To protect the Government interests, FAA needs to hold managers accountable and adhere to the basic principles of contract oversight and administration.

Moreover, we found that contract oversight of the National Airspace System Implementation Contract (NISC) was seriously inadequate. We concluded that of the 46 active task orders having obligated funds totaling \$97 million, approximately \$10 million (10 percent) were in excess of the required amount to fully fund the task order deliverables. As a result, FAA reprogrammed \$5 million from NISC to meet other agency priorities, and re-baselined NISC task orders to make better use of the remaining funds. FAA has stated that it will take actions to address these concerns—the key now is follow through.

In addition to strengthening contract oversight, make greater use of Defense Contract Audit Agency audits and institute cost control mechanisms for software-intensive contracts. FAA needs to obtain 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 use 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.

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, representing 80 percent of the agency, 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 determining 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.

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

The following tables are screen reader friendly versions of the tables found on pages 3 and 18 of this document. This page was not included with the original document, and may be discarded if the reader wishes to retain an exact copy of the original document.

FAA's Operations Budget – FY 1996 to FY 2007 (Proposed)		
FAA's Operations Budget	Actual	Proposed
FY 1996	\$4.6 billion	N/A
FY 1997	\$5.0 billion	N/A
FY 1998	\$5.3 billion	N/A
FY 1999	\$5.6 billion	N/A
FY 2000	\$6.0 billion	N/A
FY 2001	\$6.6 billion	N/A
FY 2002	\$6.9 billion	N/A
FY 2003	\$7.1 billion	N/A
FY 2004	N/A	\$7.6 billion
FY 2005	N/A	\$7.7 billion
FY 2006	N/A	\$7.9 billion
FY 2007	N/A	\$8.1 billion

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Air Traffic Controller Years of Service As of September 30, 2002*			
Air Traffic Controllers	Age 50, 20 Years	Any Age, 25 Years	Age 56 (Mandatory Retirement Age)
FY 2003	424	90	52
FY 2004	428	66	94
FY 2005	482	38	127
FY 2006	588	144	106
FY 2007	523	771	218
FY 2008	470	447	330
FY 2009	534	311	420
FY 2010	574	432	461
FY 2011	732	279	533
FY 2012	555	461	658

*Controllers are subject to special retirement provisions that allow them to retire at age 50 with 20 years of service controlling live air traffic (good time) or at any age with 25 years of good time. In addition, most air traffic controllers are subject to mandatory separation from controlling live air traffic at age 56 but may work at other FAA positions.

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