

**TRANSPORTATION AND HOUSING AND URBAN  
DEVELOPMENT, AND RELATED AGENCIES  
APPROPRIATIONS FOR FISCAL YEAR 2012**

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**THURSDAY, MAY 12, 2011**

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

The subcommittee met at 9:34 a.m., in room SD-138, Dirksen Senate Office Building, Hon. Patty Murray (chairman) presiding.  
Present: Senators Murray, Lautenberg, Pryor, and Collins.

DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

**STATEMENT OF HON. J. RANDOLPH BABBITT, ADMINISTRATOR  
ACCOMPANIED BY HON. CALVIN L. SCOVEL III, INSPECTOR GENERAL**

OPENING STATEMENT OF SENATOR PATTY MURRAY

Senator MURRAY. This subcommittee will come to order.

This morning we are going to be holding a hearing on the President's budget request for the Federal Aviation Administration (FAA). We will be hearing testimony from the Administrator of the FAA, Mr. Randy Babbitt, and the Inspector General for the Department of Transportation, Mr. Calvin Scovel.

I want to thank both of you for being here this morning, and I look forward to hearing your testimony.

The United States is a leader in air transportation, and I am very proud of our innovation and our safety record. For 3 out of the past 4 years, there has been less than 1 fatality for every 100 million passengers on board commercial air carriers. As the agency in charge of overseeing the safety of air transportation, the FAA has built a strong record for more than 50 years.

But while we can be proud of the safety record, we can never believe that our work is done or let down our guard, not even for a moment. So I am very troubled by recent news reports that include stories about air traffic controllers falling asleep on duty and a dramatic increase in the number of errors committed by air traffic controllers.

The FAA made a series of announcements as more and more of these incidents came to light. Soon after the first news reports, the FAA promised air traffic controllers will no longer be working alone in the middle of the night, and the FAA would no longer use certain kinds of schedules that are known to worsen fatigue. More re-

cently, the FAA announced a series of initiatives, including a new working group that will make recommendations to improve the qualifications, placement, and training of air traffic controllers. These initiatives may be important work for the FAA, but I am troubled by the fact that they came as a result of unflattering news reports, especially when the inspector general has been sounding the alarm on these issues for years.

Back in 2004, the inspector general recommended the FAA develop a method for placing newly hired controllers at its various facilities based on skill and ability. This recommendation was repeated in 2010. In both cases, the FAA agreed and said the agency was working on a test that would be used in the placement of its new hires. Today, however, the FAA still does not have an objective-reliable test it can use to place newly hired controllers.

The FAA also knew it needed to evaluate how well graduates from the training academy in Oklahoma City were prepared to enter the workforce and begin their on-the-job training. In 2008, the inspector general found the FAA had not yet fulfilled this promise. In 2010, the inspector general found academy training was focused on short-term memorization, and facility managers did not believe new hires were prepared for their on-the-job training.

In short, the FAA has known about troubles with how it trains and places newly hired controllers for a long time, and yet, after a series of news reports, suddenly the FAA announces a new working group to address this issue and we are supposed to believe that in a few short months, this working group will be able to do something the FAA could not accomplish for the past 7 years.

So, we have been down this road before. In fact, it was just 3 years ago that this subcommittee held a hearing with the FAA and heard about how FAA managers allowed Southwest Airlines to violate Federal safety regulations and punished the safety inspector who tried to bring these violations to light. The FAA acknowledged its safety office had an inappropriate relationship with the very airline it was supposed to oversee.

Again, there was a history of reports and recommendations from the inspector general. Importantly, the inspector general found safety inspections were being missed and FAA headquarters needed to take a more a hands-on approach to make sure individual inspection offices were getting the job done.

I know the FAA is dedicated to its safety mission, but we cannot afford to let news stories determine how the FAA does its work. We need the FAA to make the right decision before an issue gets in the news.

The Next Generation Air Transportation System (NextGen) is another area where we need to see more from the FAA. This subcommittee has long understood the importance of NextGen, and until this year, we have met all of the administration's budget requests for its modernization programs. In fact, this subcommittee has provided targeted increases for NextGen, giving additional funds to push for more capabilities out of the Automatic Dependent Surveillance-Broadcast (ADS-B) program and to see more demonstrations of network-enabled operations.

Still, even when there has been a steady stream of funding, we have seen delays and management problems with some of the most

important capital programs. For example, the En Route Automation Modernization (ERAM) program is now years behind the FAA's original target, and we still do not know for sure if this program is working well enough to control traffic at additional sites. Only recently has the FAA started to work hand in hand with the air traffic controllers who will be working with the ERAM software.

This year, however, we find ourselves in a completely new budget environment. For fiscal year 2011, the Committee enacted the largest 1-year cut to discretionary spending in our Nation's history, and debates over the fiscal year 2012 budget continue to focus on spending cuts. In this kind of environment, we cannot afford further delays and mismanagement.

We need to see a realistic strategy for funding NextGen. To date, the FAA has filled its budget request with a laundry list of programs and development activities and a vague promise that somehow the agency will achieve its goals by 2018, but that approach is not enough this year. The FAA must be able to show how each of its programs contribute to NextGen goals, and we need to hear a clear set of priorities from the FAA so we know what the impact of various funding levels will be on modernization.

We are waiting now to get a final spend plan from the FAA on how it will distribute the funding levels provided for 2011, but the FAA also needs to think about the impact of various funding levels in a different way, not a year-by-year basis, but with a long-term strategy in mind.

#### PREPARED STATEMENT

With that, I am going to turn it over to my ranking member, Senator Collins, for her opening statement.

[The statement follows:]

#### PREPARED STATEMENT OF SENATOR PATTY MURRAY

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#### PROFESSIONALISM OF AIR TRAFFIC CONTROLLERS

The United States is a leader in air transportation, and I am proud of our innovation and our safety record. For 3 out of the past 4 years, there has been less than 1 fatality for every 100 million passengers on board commercial air carriers.

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But while we can be proud of this safety record, we cannot believe that our work is done, or let down our guard—not even for a moment.

So, I am troubled by recent news reports that include stories about:

—air traffic controllers falling asleep on duty; and

—a dramatic increase in the number of errors committed by air traffic controllers.

The FAA made a series of announcements as more and more of these incidents came to light. Soon after the first news reports, the FAA promised that air traffic controllers will no longer be working alone in the middle of the night, and that the FAA would no longer use certain kinds of schedules that are known to worsen fatigue.

More recently, the FAA announced a series of initiatives, including a new working group that will make recommendations to improve the qualifications, placement, and training of air traffic controllers.

These initiatives may be important work for the FAA, but I am troubled by the fact that they come as the result of unflattering news reports.

Especially when the inspector general has been sounding the alarm on these issues for years.

For example, in 2004, the inspector general recommended that the FAA develop a method for placing newly hired controllers at its various facilities based on skill and ability. This recommendation was repeated in 2010. In both cases, the FAA agreed, and said that the agency was working on a test that would be used in the placement of its new hires.

Today, however, the FAA still does not have an objective, reliable test that it can use to place newly hired controllers.

The FAA also knew that it needed to evaluate how well graduates from its training academy in Oklahoma City were prepared to enter the workforce and begin their on-the-job training. In 2008, the inspector general found that the FAA had not yet fulfilled this promise. And then in 2010, the inspector general found that academy training was focused on short-term memorization, and that facility managers did not believe that new hires were prepared for their on-the-job training.

In short, the FAA has known about troubles with how it trains and places newly hired controllers for a long time.

And yet, after series of news reports, suddenly the FAA announces a new working group to address this issue. And we're supposed to believe that in a few short months, this working group will be able to do something that the FAA couldn't accomplish for the past 7 years.

We've been down this road before.

In fact, it was just 3 years ago that this subcommittee held a hearing with the FAA and heard about how FAA managers allowed Southwest Airlines to violate Federal safety regulations and punished the safety inspector who tried to bring these violations to light. The FAA acknowledged that its safety office had an inappropriate relationship with the very airline it was supposed to oversee.

Again, there was a history of reports and recommendations from the inspector general. Importantly, the inspector general had found that safety inspections were being missed, and that FAA headquarters needed to take a more hands-on approach to make sure that individual inspection offices were getting the job done.

I know the FAA is dedicated to its safety mission. But we cannot afford to let news stories determine how the FAA does its work. We need the FAA to make the right decision before an issue gets in the news.

#### A STRATEGY FOR FUNDING NEXTGEN

The Next Generation Air Transportation System (NextGen) is another area where we need to see more from the FAA.

This subcommittee has long understood the importance of NextGen, and until this year, we have met all of the administration's budget requests for its modernization programs. In fact, this subcommittee has provided targeted increases for NextGen, giving additional funds to push for more capabilities out of the Automatic Dependent Surveillance-Broadcast program and to see more demonstrations of network-enabled operations.

Still, even when there has been a steady stream of funding, we have seen delays and management problems with some of the most important capital programs.

For example, the En Route Automation Modernization (ERAM) program is now years behind the FAA's original target. And we still don't know for sure if the program is working well enough to control traffic at additional sites. Only recently has the FAA started to working hand-in-hand with the air traffic controllers who will be working with ERAM software.

This year, however, we find ourselves in a completely new budget environment. For 2011, the Committee enacted the largest 1-year cut to discretionary spending in our Nation's history. And debates over the 2012 budget continue to focus on spending cuts.

In this kind of environment, we cannot afford further delays and mismanagement.

We need to see a realistic strategy for funding NextGen. To date, the FAA has filled its budget requests with a laundry list of programs and development activities, and a vague promise that somehow the agency will achieve its goals by 2018.

But that approach is not enough this year.

The FAA must be able to show how each of its programs contribute to NextGen goals. And we need to hear a clear set of priorities from the FAA, so that we know what the impact of various funding levels will be on modernization.

We are waiting to get final spend plans from the FAA on how it will distribute the funding levels provided for 2011. But the FAA also needs to think about the

impact of various funding levels in a different way—not a year-by-year basis, but with a long-term strategy in mind.

With that, I will turn to my ranking member, Senator Collins, for her opening statement.

STATEMENT OF SENATOR SUSAN COLLINS

Senator COLLINS. Thank you very much, Madam Chairman, for holding this hearing on the fiscal year 2012 budget request for the FAA.

I want to welcome our two witnesses this morning, Administrator Babbitt and Inspector General Scovel, to our hearing.

Let me begin my remarks by associating myself with the comments that the chairman made about safety.

It is extremely worrisome to learn of the incidents over the past couple of months regarding air traffic controllers who have behaved unprofessionally. It is unacceptable that Federal employees who are responsible for the safe arrival and departure of our flying public were asleep on the job or inattentive to pilot requests, and of course, in reading these incidents, one cannot help but think that it is the tip of the iceberg—that this problem, as the inspector general perhaps will illuminate today, has been going on for some time, but it has only recently come to the public's attention.

The Administrator of FAA has one of the toughest challenges in overseeing the national airspace system, the most complex airspace in the world. This includes monitoring more than 45,000 flights per day from commercial air, cargo, military, and nearly 240,000 general aviation aircraft that could enter the system at any given moment.

While there are not nearly as many flights going in and out of the State of Maine as I would like to see, it is important that we ensure that sufficient options are available to rural communities, particularly those that support our smaller municipal airports.

In rural States, such as my home State, aviation helps to keep residents connected to the rest of the country and is a key element in economic development. A lot of times, when we are doing business attraction efforts in Maine, the first question that we get is what the air service is like. FAA resources help airports, particularly general aviation or smaller airports with limited resources, to make the necessary infrastructure upgrades to improve air traffic services, availability, and safety.

Recognizing safety as the No. 1 priority, ensuring a safe civil aviation system is also critically important to the overall economy. According to the FAA, aviation adds \$1.3 trillion to our economy and accounts for more than 11 million jobs.

As the chairman has indicated, as we move forward to the fiscal year 2012 budget, we will face even tougher choices than those in the recently passed 2011 budget. It is, therefore, essential that the FAA identifies and prioritizes programs to ensure the least amount of consequences to safety and operations, and I am particularly concerned about any cuts that would delay the implementation of NextGen. The full implementation of NextGen by 2025 will total between \$20 and \$25 billion from FAA resources alone.

The airline industry also needs to be a team player in the decisionmaking process, as it too must make an equal amount of investments in retrofitting their aircraft. With NextGen, however,

and despite the costs, the benefits are enormous. Airlines will see a reduction in fuel consumption. Travelers will see fewer delays, and the environment will benefit from lower carbon emissions.

PREPARED STATEMENT

I look forward to hearing the testimony of our witnesses today as we consider this very important budget request.

Thank you, Madam Chairman.

[The statement follows:]

PREPARED STATEMENT OF SENATOR SUSAN COLLINS

Good morning, and thank you Chairman Murray for holding this hearing on the fiscal year 2012 budget request for the Federal Aviation Administration (FAA). I welcome Administrator Babbitt and Inspector General Scovel and thank you both for being here today.

This subcommittee faced many challenges passing the fiscal year 2011 budget in which important programs had to be reduced or eliminated. I appreciate the leadership of Chairman Murray and am glad we worked in a bipartisan effort.

The soaring debt of more than \$14 trillion and growing poses a grave threat to our Nation's future prosperity. We simply must rein in our spending and get our financial house in order.

It is unacceptable that we came at all close to a government shutdown. It is my hope that the Congress and the administration will take a much more thoughtful and reasoned approach to the difficult task of developing a budget for 2012 and demonstrate to the American people that we are willing to work together to put our country back on a strong fiscal course.

Administrator Babbitt has one of the toughest challenges overseeing the national airspace system, the most complex airspace in the world. This includes monitoring over 45,000 flights per day from commercial, air cargo, military, and nearly 240,000 general aviation aircraft that could enter the system at any given moment.

While there are not as many flights going into and out of Maine as I would like to see, it is important we ensure that sufficient and adequate options are available to rural communities, particularly those that support small or municipal airports.

In rural States, such as my home State of Maine, aviation helps keep residents connected with the rest of the country. FAA resources help airports, particularly general aviation or small airports with limited resources, make the necessary infrastructure upgrades to improve air travel services and safety.

Recognizing safety as the No. 1 priority, ensuring a safe civil aviation system is also critically important to the overall economy. According to FAA, aviation adds \$1.3 trillion to our economy and accounts for more than 11 million jobs.

As this subcommittee moves forward to the fiscal year 2012 budget, we will face even tougher choices than those from the recently passed fiscal year 2011 budget. It is essential that FAA identify and prioritize programs to ensure the least amount of impacts to safety and operations, particularly those that could delay the implementation of the Next Generation Air Transportation System (NextGen).

FAA estimates full implementation of NextGen by 2025 will total between \$20 and \$25 billion from FAA resources alone. The airline industry also needs to be a team player in the decisionmaking process as they too must make an equal amount of investments retrofitting their aircraft while struggling with unstable profits and rising operating costs. FAA must present the benefits early enough in the process of implementing NextGen that outweigh the costs of equipage. With NextGen, airlines will see a reduction in fuel consumption, travelers will see fewer delays, and the environment will benefit from lower carbon emissions.

I also want to highlight the serious concerns as the chairman noted in her statement. It is troubling to hear recent media reports over the past couple of months regarding air traffic controllers who behaved unprofessionally. It is unacceptable that Federal employees who are responsible for the safe arrival and departure of our flying traveling public to be asleep on the job or inattentive to pilot requests.

I appreciate the department for taking action within the Air Traffic Organization. Accountability starts at the top with management and I am hopeful that FAA will be able to quickly address the issues surrounding air traffic controller and pilot fatigue and training to avoid further incidents from occurring.

Chairman Murray, thank you and I look forward to hearing the testimony of Administrator Babbitt and Inspector General Scovel as we consider the fiscal year 2012 budget request of FAA.

Senator MURRAY. Thank you very much.  
 Senator Lautenberg, do you have an opening statement for us?

STATEMENT OF SENATOR FRANK R. LAUTENBERG

Senator LAUTENBERG. Thank you very much, Madam Chairman. I am pleased that we are inspired with some extra funds to do our job here, and we welcome the President's budget for the next year.

We are constantly wrestling with whether or not we have adequate population, based on the outline of what should be the number of fully trained professionals. And we see in the airports in the New York area nowhere near the number that should be there to manage the traffic flow. It is made up for with trainees, but we would not like trainees going into the operating room with us and we should not have an excessive number of trainees doing the job of fully prepared, fully certified controllers.

Madam Chairman, one of the things that I look at here with some degree of—more than annoyance, and that is the extra fees that are put on for baggage. If you want the large pretzels, it is \$1. If you take the small ones, you might have to pay only 50 cents. But these things—you do not get it when you use other means of travel. I consider it an affront to a welcome to travel for the average passenger. One of these days I suspect that you are going to be charged for going to the lavatory, and maybe they will say, okay, you do not have to pay going in, but you have to pay getting out, some kind of scheme that will put you under the gun, as they say.

So we have important things to do. NextGen has been NextGen for years. We have spent billions of dollars trying to get there and have not yet got what we consider an up-to-date plan in place, and we have got to wrestle, as all of you know.

And I thank you both. The system is terrific. It really is when you consider how many passengers are handled each day and each year, and with the shortages and with the problems that we have—despite them, thank goodness, air travel is really safe.

So I encourage us to move the budget along as we have, Madam Chairman. I am glad that you are doing this and that we have Senator Collins here also, people who understand what we have got to do to improve our aviation system. So thank you very much.

Senator MURRAY. Thank you very much, Senator Lautenberg.

With that, we will turn it over to the testimony from our witnesses today and begin with Randy Babbitt.

SUMMARY STATEMENT OF HON. J. RANDOLPH BABBITT

Mr. BABBITT. Good morning, Madam Chairman, Ranking Member Collins, subcommittee members as well. Thank you very much for the opportunity to come in and discuss with you the administration's budget request for the FAA for the fiscal year of 2012.

As you have mentioned, everyone at the FAA is committed to continuing to run the safest and most efficient airspace system in the entire world. I want to take a moment, however, to address some of the issues in the news recently and update you on some of our actions.

Yesterday, we proposed a comprehensive overhaul of pilot and crew training that will require pilots to work together and dem-

onstrate their skills in real-world scenarios during training that will expose them to situations they might actually encounter in the cockpit. This is a major effort to strengthen performance and represents the most significant changes in crew training in more than 20 years. With this proposed training, we want pilots and crews to have more training in the kinds of rare—but they do happen—type of emergency events that test their skills and give them the confidence to appropriately handle the situation.

In addition to this update on crew training, I want you to be aware of the latest steps that we have taken with regard to the incidents involving air traffic controllers who have behaved unprofessionally.

Last month, I traveled all around the country with the National Air Traffic Controllers Association's (NATCA) Paul Rinaldi. We went to air traffic facilities across the Nation in a call-to-action on professionalism. The visits reinforced for me that we have a workforce that is committed to the safety of this system 24 hours a day, 7 days a week, 365 days a year, but the incidents of a few employees falling asleep on position showed us that we have to make changes, and we have.

We have added a second controller on the midnight shifts in some facilities where we only had one.

We made significant changes to long-time scheduling practices that will reduce further the possibility of fatigue, and we will do more.

We have changed management within the FAA in some critical positions to ensure that we have the right people in the right places.

We, unfortunately, found it necessary to terminate three controllers who were found sleeping on the job.

We continue to review the 12 recommendations developed by a joint FAA/NATCA task force work group that I believe you referenced, which was undertaken more than 1 year ago in an effort to reduce controller fatigue and do so in a collaborative fashion.

Controllers have a responsibility to report rested and ready to work for their shifts, and as management, we have the responsibility to make sure that they have the opportunity for adequate rest between those shifts. The American public trusts us to perform our jobs and make safety the highest priority each day, year in and year out. We are committed to making whatever difficult changes are necessary to preserve that trust.

The President's 2012 budget is designed to maintain and enhance operational safety, as well as to invest in NextGen infrastructure and technology. We are facing a very pivotal time in aviation history. We are transforming to NextGen. We are moving from ground-based radar to a satellite-based style of navigation. Air travel will, in fact, become more precise and safer. It will leave a smaller carbon footprint, and NextGen will create thousands of good jobs. We need to embrace this opportunity and lead the way.

Our budget contains limited discretionary increases and really emphasizes cost efficiency. We are taking a good hard look at our organizational structure and we are making changes to create a more streamlined, as well as a more efficient, agency.



The infrastructure of the future is going to be a marriage of NextGen procedures with our airports, our runways, our airlines, and the flight crews. This budget supports the airport grant program, which enhances the safety, efficiency, and capacity of the aviation system. This is vital, because delaying infrastructure investments today means the ultimate long-term cost to our Nation, to our passengers, and to our environment will far exceed the cost of going forward today.

This budget also pays for safety inspectors who inspect the latest generation of innovative aircraft that Americans are building. We do not want to be the chokepoint in the assembly line of progress. We want to certify aircraft. We want to certify equipment and new procedures that keep the Nation's aviation economic engine running and running smoothly. So I sincerely ask for your support in helping the men and women of this agency to perform the tasks that they so proudly do day in and day out.

PREPARED STATEMENT

So, thank you very much for this opportunity, and I would be happy to answer any questions, should you have some.

[The statement follows:]

PREPARED STATEMENT OF HON. J. RANDOLPH BABBITT

Good morning, Chairman Murray, Ranking Member Collins, and members of the subcommittee. Thank you for the opportunity to discuss the administration's fiscal year 2012 budget request for the Federal Aviation Administration (FAA).

FISCAL YEAR 2012 BUDGET

The FAA's mission is to provide the safest, most efficient air transportation system in the world. We have proudly delivered on this promise for more than 50 years, providing the world's leading aviation system and setting an unparalleled standard for safety and efficiency that is emulated globally. Since 2001, we have managed more than 600 million airport operations, including more than 93 million successful flights on U.S. commercial aircraft, transporting more than 6.5 billion passengers safely to their destinations. Commercial aviation fatality rates are at historic lows and the number of commercial air carrier accidents has decreased 83 percent since the mid-1990s. In the last 10 years, 16 new runways have opened at large commercial airports. And we've put in place financial systems that have helped us better account for and save taxpayers' money. Despite our many successes, there is still more to be done.

The demand for FAA services has never been more complex or comprehensive. We are heading into a period of unprecedented challenge as we pilot the future of aviation into our skies and into space. We must work to stay ahead of changing technological, economic, social, environmental, and energy needs of both our Nation and our global partners. We are confident that the President's fiscal year 2012 budget request will enable us to take aviation to the next level of safety, while providing the public, U.S. business, and our international partners with secure, convenient, and environmentally sustainable air travel.

Our vehicle for this transformation is the Next Generation Air Transportation System (NextGen), which will enable increased safety, capacity and efficiency while providing for a cleaner environment and bolstering America's continued economic growth. The next 15 years promise to be a pivotal time in the history of air transportation, as the face of aviation is transformed around the world. Parts of NextGen are already on the ground and in cockpits, and are improving air travel for passengers and aviation professionals today. From flight decks to control towers, our system is already changing, delivering access through innovation. As we change, FAA remains deeply committed to providing the safest, most advanced and efficient aviation system in the world, and to ensuring air transportation is safe and efficient wherever U.S. citizens travel.

We must continue to fulfill our mission for the flying public, delivering a safe and efficient system that continues to set the global standard. We are working to pro-

mote an increased sense of professionalism and accountability, while fostering a culture of vigilance and safety. We also aim to support aviation's crucial role in our Nation's economic recovery, building on today's successes to meet tomorrow's growing demands. That means delivering on the promise and benefits of NextGen, offering economic and environmental efficiencies and technologies that support America's ability to shape international aviation standards and development around the world.

#### *Operations*

The fiscal year 2012 request of \$9.8 billion funds the development of the performance-based navigation routes and procedures necessary to support NextGen, increased safety staffing, enhanced Information System Security protection, implementation of environmental and energy technologies, and appropriate staffing to improve safety and hazardous materials compliance. The request also supports annualization costs of new hires, adjustments for inflation, and maintenance and operating costs of National Airspace System (NAS) systems and equipment.

The fiscal year 2012 request maintains our critical aviation safety (AVS) inspector staff changes from recent years, while further increasing overall AVS staffing by 178 positions. The request, recognizing increasing flight operations and complexity, adds 100 new safety inspectors to implement new flight procedures, operation methods, airmen qualifications, and Air Carrier Evaluation Program functions. These inspectors will also oversee the conformity of new designs and the production of new aircraft and aircraft parts. We must be responsive to innovation in our Nation's market place while ensuring that safety always remains our top priority. We must certify new aircraft and new equipment as expeditiously as possible so as not to become a bottleneck in the industry's assembly line. The fiscal year 2012 request enables FAA to perform additional rulemaking, certification, and outreach activities necessary to move NextGen forward.

As the National Aeronautics and Space Administration (NASA) retires the space shuttle, it will begin to utilize commercial space transportation systems to access the International Space Station (ISS). The FAA is solidifying our relationships with the Air Force and with NASA to ensure a seamless transition to a commercial space transportation model that provides access to ISS as we focus on the development of commercial human spaceflight systems.

This change increases the workload of FAA's Office of Commercial Space Transportation. In response, our fiscal year 2012 budget includes \$5 million for the FAA Commercial Spaceflight Technical Center at the Kennedy Space Center in Florida and includes \$1.3 million to begin development and implementation of safety requirements for commercial human space flight. We also request \$5 million to establish a Low-Cost Access to Space Incentive program.

We must protect against persistent and organized threats that beset FAA systems every day, as hackers launch attacks that may compromise service to our users. We must also improve safety standards and compliance for hazardous materials transportation, while meeting an increased requirement for security investigations of new hires and existing staff. The budget request includes the enhancement of FAA's Cyber Security Management Center (CSMC) to increase information system security protection and increased staffing to more effectively support our intelligence activities and oversight of hazardous materials in air commerce.

The fiscal year 2012 Operations request includes \$45 million in new cost savings. In the Air Traffic Organization (ATO), we expect the flight services contract to save FAA \$1.9 billion over its 13-year lifespan and \$8 million in fiscal year 2012. The Aviation Safety Organization expects to achieve \$2.4 million in administrative efficiencies. Finally, our budget request incorporates base transfers that better align our resources with organizational functions.

#### *Facilities and Equipment*

Our fiscal year 2012 budget request of \$3.1 billion allows FAA to meet the challenge of improving the capacity and safety of the current NAS while keeping our comprehensive modernization and transformation efforts on track.

To spur job growth and initiate sound multi-year investments, the President's budget includes a \$50 billion boost more than current law spending for roads, railways and runways. As part of this initiative, our facilities and equipment (F&E) request includes \$250 million in mandatory General Fund appropriations that will be used to advance NextGen and make near-term improvements in FAA's air traffic control infrastructure. Two hundred million dollars will be used to accelerate applied research, advance development, and implement engineering solutions for NextGen technologies, applications, and procedures while \$50 million will be used to upgrade existing capital infrastructure such as power systems and air traffic control centers and towers.

The F&E NextGen portfolio of \$1.14 billion in fiscal year 2012 will continue our ongoing NextGen modernization activities. This includes nation-wide Automatic Dependent Surveillance-Broadcast (ADS-B) deployment, the data link communications services program, NextGen future facilities investment planning, and follow-on En Route Automation Modernization (ERAM) data side-position development for future NextGen capabilities.

The remainder of our investment—representing \$2 billion—will be in legacy areas, including our extensive infrastructure, power systems, information technology, navigational aids, and weather systems. In fiscal year 2012, FAA plans to award four tower construction contracts. Funding is also requested to replace and upgrade aging aerospace medical equipment needed to perform research in pilot certification and performance, aircrew health, atmospheric and radiation risk data, and other medical areas to keep FAA in the forefront of aeromedical research.

#### *Research, Engineering, and Development*

The fiscal year 2012 request of \$190 million supports FAA’s continued work in both NextGen and other research areas such as fire research and safety, propulsion and fuel systems, advanced materials research, aging aircraft, and environment and energy.

The request supports our research to enable the use of “drop in” sustainable jet fuels for commercial aviation, reinforcing American leadership in clean technologies and enhancing energy supply security. It also supports developing alternatives to leaded aviation gasoline to lessen general aviation environmental impacts. Other environment and energy investments (\$35.8 million including NextGen) support a range of research activities, from improved science and modeling capabilities that characterize and quantify aviation’s environmental impacts to maturing certifiable clean and quiet aircraft technologies via the Continuous Lower Energy, Emission and Noise (CLEEN) program and other vehicles.

FAA must meet our Nation’s growing need for unmanned aircraft systems (UAS). Our research, engineering, and development (RE&D) request continues to support this critical area, providing \$3.5 million to develop minimum performance requirements for ground control stations and to revise standards and guidance that address UAS crew resource management and training for both pilots and crewmembers.

#### *Grants in Aid for Airports*

Airports remain the critical foundation of our Nation’s aviation system infrastructure. Our fiscal year 2012 request provides the funding needed to ensure safety, capacity, and efficiency at our Nation’s airports through a combination of continued grant funding and an increase in passenger facility charges (PFCs). Our fiscal year 2012 request totals \$5.5 billion for the Airport Improvement Program (AIP), which includes \$2.4 billion from the Airport and Airway Trust Fund and \$3.1 billion in mandatory General Fund resources. The fiscal year 2012 request will continue our focus on safety-related development projects, including runway safety area improvements, runway incursion reduction, AVS management, and improving infrastructure conditions.

The budget proposes to lower funding for ongoing airport grants to \$2.4 billion by eliminating guaranteed funding for large- and medium-hub airports. The proposal is consistent with the recommendation of the President’s National Commission on Fiscal Responsibility and Reform to eliminate grants to large- and medium-hub airports. Our budget continues to support smaller commercial and general aviation airports that do not have access to additional revenue or other sources of capital. The reduction in AIP funding for larger airports is premised on an increase to PFCs of \$4.50 to \$7 per enplanement, providing these airports greater flexibility to generate their own revenue.

In addition, FAA requests a one-time appropriation of \$3.1 billion in mandatory General Fund resources for the Grants-in-Aid program. While regular AIP eligibility will be suspended for large- and medium-hub airports, eligible airports in all size categories will be able to compete for the \$3.1 billion. Most of this funding will be used for runway construction and other airport improvement projects aimed at increasing overall system efficiency in the future.

Our request also includes \$101 million for Personnel and Related Expenses to support Safety Management Systems (SMS) training in the Office of Airports; improved joint use agreements between the Department of Defense and airports; data trend analysis; engineering support; field operations program/portfolio management/inspectors; and information systems security and privacy.

The budget also provides \$29.3 million for Airport Technology Research to support enhanced safety and pavement research efforts and conduct noise studies. In addition, the budget provides \$15 million for Airport Cooperative Research.

The American Recovery and Reinvestment Act of 2009 (ARRA) provided resources to preserve and enhance safety, capacity and access while maximizing efficiency and operational performance. The FAA obligated 100 percent of the ARRA funds available for airport grants ahead of schedule. Work has been completed on 98 percent of 372 airport grant projects at 334 airport locations nationwide. We have improved runways and taxiways, modernized terminal buildings, and provided aircraft rescue and firefighting improvements at airports that serve millions of passengers every year. Our commitment to successfully implementing ARRA established FAA's place as a recognized leader in the Department of Transportation's (DOT) efforts to bring Americans back to work.

#### *NextGen Implementation*

The fiscal year 2012 budget request reflects FAA's ongoing commitment to the implementation and deployment of innovative NextGen solutions. The application of these critical 21st century technologies represents a pivotal shift that will transform aviation. NextGen is already yielding immediate results for a safer America while working to maximize efficiencies to meet future demands. The investment in NextGen will reduce taxpayer and industry costs while safeguarding our world's precious environment and resources. We are working in cooperation with industry toward a shared vision, leveraging powerful technologies and setting new standards for the future of global aviation.

NextGen is our evolutionary blueprint for modernizing air transportation with revolutionary technologies. NextGen represents a wide-ranging transformation of the entire national air transportation system to meet future demand and support the economic viability of aviation while improving safety and protecting the environment. The application of critical 21st century solutions is already transforming aviation from a ground-based system of air traffic control to a satellite-based system of air traffic management. We continue to work in full partnership with industry, other agencies and departments, and our labor groups to achieve a shared vision, leveraging powerful technologies and setting new standards for the future of global aviation.

Our fiscal year 2012 budget request bolsters FAA's NextGen investment to \$1,237 million, distributed among F&E programs (\$1,135 million), RE&D (\$77 million), and Operations activities (\$25 million).

The FAA continues to support the Radio Technical Commission for Aeronautics (RTCA) NextGen mid-term implementation task force recommendations. Our fiscal year 2012 budget request further emphasizes our commitments in the areas of surface, metroplex, runway access, cruise, as well as some cross-cutting recommendations. As FAA moves forward on NextGen implementation, we will continue to evaluate and adjust our strategies, priorities and deployment timelines in full collaboration with aviation stakeholders.

We have also been working hard at our Nation's airports to reduce delays and improve the environment with NextGen initiatives that help curb fuel burn and emissions by improving surface efficiencies. We move forward with these initiatives knowing we might have to make adjustments due to new information, program interdependencies, realignment of priorities, and other changes that can't always be anticipated as we pursue our mid-term operational vision.

Fiscal year 2012 promises to be every bit as productive as last year. Design and implementation teams will focus on streamlining arrival and departure traffic at clustered metroplex airports. Our work on data communications is setting the stage for the delivery of a NextGen technology that the 2009 RTCA task force identified as a priority. And the report of our ADS-B In rulemaking committee, due in September, will give us an indication of which cockpit-based ADS-B applications may be most important to the aviation community.

Our fiscal year 2012 budget includes \$9 million in the Operations account for 30 new AVS staff to support the certification and oversight of NextGen systems and procedures. They will play a pivotal role in the implementation of several NextGen initiatives including efficient aircraft designs, revolutionary cockpits, data link communications, new interactive instrumentation, SMS, and aviation safety information analysis and sharing (ASIAS). This will enable AVS to review, process, and certify new NextGen-related technology applications from aircraft manufacturers and operators, as well as evaluate the safety aspects of changes in the airspace system proposed by the ATO. We also are striving to streamline our own internal processes to ensure that the NextGen capabilities emerging from our test beds and research centers begin producing operator benefits as quickly and safely as possible. The new policies, standards, and guidance produced by these additional staff will facilitate the transition of maturing NextGen research and development toward implementation.

ADS-B is a proven centerpiece component of NextGen, evolving from a radar-based system to a sophisticated satellite-derived aircraft location data system. Future ADS-B applications will provide surveillance, like radar, but will offer greater precision and additional services, such as weather and traffic information for pilots. In 2010, we successfully integrated ADS-B into all four air traffic control automation platforms at key sites across the country. Our ADS-B technology deployed in the Gulf of Mexico has opened up 250,000 square miles of new, positively controlled airspace in the gulf, in an area where radar cannot reach.

We cleared the way to begin integrating ADS-B into FAA air traffic control facilities nationwide, and to train both our workforce and users. We have issued our ADS-B Out rule requiring aircraft operating in most controlled airspace to be equipped to broadcast their position to the ADS-B network by the start of 2020. This rule allows manufacturers to start mass-producing certified ADS-B avionics, which we believe will drive prices down, addressing a key concern of the operators.

Our budget request includes \$285 million for our continued rollout of ADS-B. This will ensure that our deployment of the ground infrastructure that will support ADS-B surveillance remains on time and on budget. We are installing more than 800 ground transceiver stations nationwide, and 330 ground transceiver stations have been installed to date. Of these, 260 are operationally providing services in the NAS. FAA plans to complete the ADS-B network in 2013.

The budget designates \$200 million from the President's \$50 billion "up-front boost" in support of NextGen research, so we can stay on the forefront of the technology. We have enjoyed success in our early efforts to leverage surface data sharing in support of collaborative surface traffic management at select locations. We must continue developing innovative programs to manage air traffic and provide better weather data to general aviation and commercial carriers alike.

The FAA has already produced a significant number of performance-based navigation (PBN) routes and procedures, exceeding our fiscal year 2010 goal. Our fiscal year 2012 request also includes \$26 million to improve performance-based GPS-based precision approach and departure procedures, better known as area navigation/required navigation performance (RNAV-RNP), at airports across the country. Performance-based navigation offers our airline industry better routes, added capacity, improved on-time performance and lower fuel bills. Our country benefits from reduced airspace congestion, more efficient air travel, reduced emissions, and a reduced dependency on oil.

There is a strong business case for NextGen that many companies have already embraced. They are already seeing fuel savings. Fuel represents about 40 percent of an airline's total expenses, on average, and the cost of jet fuel has increased significantly in the last 6 months. Southwest Airlines started using the precision procedures at a dozen airports this year and estimates it will save \$60 million per year in fuel when it uses NextGen arrival procedures at airports across the country. Helicopters in the Gulf of Mexico have benefited from ADS-B technology, saving up to 10 minutes and 96 pounds of fuel each flight. Airlines flying over the Pacific Ocean are taking advantage of a combination of improved capabilities to save 200 to 300 gallons per flight. This represents a significant return on their investment, while justifying ours.

Alaska Airlines has long been a NextGen pioneer and is the only U.S. carrier to fully equip its entire fleet for high-performance GPS-based procedures. This allows aircraft to navigate precisely through mountainous terrain in low-visibility conditions. The company estimates it would have canceled 729 flights last year into Juneau alone due to bad weather if it were not for the GPS-based approaches. Alaska Airlines saved \$7.5 million last year by making these flights, safely transporting passengers to their respective destinations without diversions or ground holds.

The FAA will maintain an ongoing focus on top priorities for the development and implementation of NextGen. The detailed planning that supports NextGen—including the NAS Enterprise Architecture (EA) and the NextGen Segment Implementation Plans (NSIP)—enable cost-effective decisions for NextGen projects. Cross program dependencies are captured on EA roadmaps, which assist planners in assessing impacts and developing alternative plans. The NSIP documents linkages among programs and promotes coordination and risk management to support cost-effective investments in NextGen.

As we move forward with NextGen, our goal is to reach the next level of safety and prepare our workforce for the future. We will continue to work closely with industry to implement new technologies and procedures that are sustainable. And we want to work with other countries to establish uniform standards around the globe.

*The Airport and Airway Trust Fund*

The Airport and Airway Trust Fund provides all of the funding for FAA's airport improvement, facilities and equipment, and research and development activities, as well as a share of FAA's operations. As of the end of last fiscal year, the Trust Fund had a cash balance of approximately \$9.4 billion, of which \$770 million remains uncommitted. The AIR-21 formula for calculating Trust Fund appropriations safeguards the future solvency of the Trust Fund by ensuring that expenditures will not exceed projected revenue. If revenue forecasts are accurate, the uncommitted balance will remain relatively stable for fiscal year 2012.

*Reauthorization*

We are grateful for the considerable efforts the Congress has made to prepare an FAA reauthorization bill. As you already know, the current and 18th extension expires on May 31. The budgetary and operational uncertainties of repeated extensions make running the FAA much more difficult, which makes the passage of a multi-year bill vital. Most notably, delaying a multi-year reauthorization has produced several hurdles for managing and funding AIP.

While the administration supports the enactment of a multiyear reauthorization bill, the funding levels in the House-passed bill for FAA operations and air traffic modernization represent significant reductions from levels proposed by the administration. While we will never reduce our commitment to safety, if funding were appropriated at the levels proposed in the bill, the safe and efficient movement of air traffic in the air and on the ground would be degraded—today and in the future. In addition, the administrative funding levels for AIP in the House bill, if enacted, will seriously undermine the administration's ability to execute congressionally mandated airport programs.

The administration looks forward to working with the Congress to craft final legislation that will provide adequate funding authorization for infrastructure investment, enhance the efficiency and safety of the national airspace, accelerate and streamline implementation of NextGen, and advance research and sustainable technologies to improve efficiencies and reduce environmental impacts.

SAFETY

Safety is FAA's primary mission and our 2012 budget request reflects this most important of strategic objectives. We have identified and mitigated many of the major risks in the system and we will continue to act on the remaining safety challenges and keep air travelers safe. Approximately 49 percent of our fiscal year 2012 budget will be required to maintain and improve the agency's safety programs. Our day-to-day operations in the four key programs of air traffic, AVS, airports, and commercial space transportation contribute toward a reduction in air transportation-related injuries and fatalities.

The FAA continues to address concerns over capacity and safety with increased vigilance and professionalism. The flying public must have the highest confidence that the airplanes they board are properly designed, produced, operated, and maintained. They must know that their pilots and air traffic controllers are qualified, trained for their mission, and fit for duty. This year we continue to take AVS to a new level, making aggressive effort to take advantage of the latest research on fatigue to create a rule on pilot flight, duty and rest. Our landmark proposal combats fatigue among commercial pilots by setting new flight time, duty and rest requirements based on fatigue science. Additional rulemaking proposals will be put forward this year, such as redefining requirements for pilot certification and qualifications, flight crewmember training, leadership and professional development.

The FAA's implementation of an SMS is a critical component of our overall approach to safety. SMS is a systematic and continuous management process based on proactive identification of hazards and analyses of their risk. SMS gives us the wherewithal to gather information that takes safety to the next level. Our ASIAs team gathers crucial safety information from various data sources and uses sophisticated analysis tools to detect trends, identify precursors, and assess risks. We are pushing the science of advanced data analysis, developing cutting edge tools to find emerging threats, as well as identifying previously undiscovered risks that are buried in terabytes of safety information.

AVS inspectors, engineers, and other staff increases are key to leveraging standardized SMS processes to implement an integrated, risk-based method of oversight while supporting FAA's efforts in rulemaking, certification, and outreach activities that will move NextGen forward.

The FAA will continue to work on focus areas for reducing aviation related injuries and fatalities, such as the air tour industry and in helicopter emergency med-

ical services (HEMS). The HEMS weather tool will be enhanced in 2012 to provide additional altitude and location specific data to increase safety. The FAA will collaborate with NASA to develop measurement technology and forecast capability of the high ice water content conditions that represent a critical safety hazard.

The FAA places a high priority on initiatives to reduce runway incursions and excursions. We continue to implement ambitious training programs for pilots, controllers, and airport operators. We will implement solutions through technologies and advanced programs such as runway status lights, airport surface detection equipment, engineered materials arresting systems, improved runway safety areas, and others. The Runway Incursion Reduction Program remains a catalyst for acquisition of promising safety technologies that have reached a level of maturity appropriate for transition and implementation into the NAS.

The FAA's mandate for AVS includes leading the world safely into an exciting new era where international spaceports, commercial space transportation and orbital tourism are already becoming a reality. Last year, there were four licensed launches, bringing the overall total to more than 200, without any fatalities, serious injuries or property damage to the public. Our fiscal year 2012 budget request allows us to maintain a spotless industry record for safety in the rapidly developing industry of commercial human space flight. The FAA will develop safety requirements, policies, processes and procedures to address and safeguard this burgeoning industry.

The FAA's 2012 budget supports continued AVS research, focusing on critical areas such as UAS, fire and structural safety, human factors, and airworthiness. It further supports enhanced safety and pavement airport technology research. Weather systems research continues in naturally occurring atmospheric hazards including turbulence, severe convective activity, aircraft icing, and restricted visibility.

#### STATE OF GOOD REPAIR

As good stewards of our aviation system, we apply asset management principles proactively to maintain and modernize our airport runways. We recognize the safety benefits of ensuring that pavement, marking and lighting at airports identified in the National Plan of Integrated Airport Systems (NPIAS) meet current safety and design standards.

Airport infrastructures, particularly airfield facilities, are exposed to constant heavy use and harsh environmental conditions. Runways, taxiways, and aprons are designed to withstand the heavy equipment that operates on them, but even so these facilities require frequent maintenance and rehabilitation in order to remain in good working condition. Runways and taxiways must be kept clear of snow, ice, and ponding water that can jeopardize aircraft directional control or braking action. Chemicals and plowing, as well as freeze-thaw cycles, all take a toll on runways, taxiways, and other paved areas. The smallest bit of broken asphalt or concrete can represent a major safety hazard to aircraft.

We have had a target to ensure that 93 percent of runways are in good condition for the past several years, and we have exceeded that goal, most recently reaching 97.2 percent. AIP grants and PFC funding will continue to support this goal by funding airport pavement and lighting system rehabilitation projects, treatments to minimize hydroplaning in wet conditions, obstruction removal in runway approach zones, perimeter fencing to prevent wildlife entry, and aircraft firefighting equipment. By continuing to surpass this target, we are not only achieving the goal of a state of good repair, but we are also contributing to our overall primary goal of safety.

#### ECONOMIC COMPETITIVENESS

NextGen remains our most critical investment to ensure our economic competitiveness on the global market. NextGen involves the total overhaul of our NAS to make air travel more convenient and dependable while ensuring our stakeholders have the safest and most secure flights possible. Technological advancement and integration of new systems, new procedures, aircraft performance capabilities, engines, airframes, renewable fuel technologies, new supporting infrastructure, and new ways to do business as the Air Transportation System will keep the United States globally competitive. We have partnered with industry in our CLEEN technology program to develop new technologies to reduce aircraft noise, emissions, and fuel burn, and to advance sustainable alternative aviation fuels.

The NextGen portfolio of investments focuses on the implementation and integration of key NextGen transformational technologies. The capabilities these technologies provide begin a shift of information flow from the ground to the cockpit. These include:

- Automatic Dependent Surveillance-Broadcast (ADS-B);
- System-Wide Information Management (SWIM);
- Data Communications;
- NextGen Network-Enabled Weather (NNEW);
- Collaborative Air Traffic Management Technologies (CATMT);
- Time-Based Flow Management (TBFM); and
- NAS Voice Switch (NVS).

Our NextGen efforts further include supporting performance-based navigation (RNP/RNAV) between select metropolitan areas. Deployed over a 3- to 4-year period, these high-altitude performance-based routes will provide increased efficiency and flexibility to the aircraft using them, as well as significant savings in fuel costs and usage.

We have already seen the benefits of implementing ADS-B in the Gulf of Mexico. For one major helicopter operator in the gulf, only 14 percent of their flight hours in 2009 were flown by instrument flight rules (IFR). But in 2010, the first full year ADS-B was available, the percentage went up to nearly 21 percent. And just in the first 2 months of this year, 36 percent of flight hours were IFR. This means that this very important airspace is more accessible, more of the time thanks to NextGen innovation.

NextGen will also provide numerous benefits for the general aviation community by facilitating better access to airports, and providing more complete weather and traffic information. In addition, even those aircraft that are not fully equipped will benefit from the improved traffic flow that NextGen will achieve.

Implementation of NextGen technologies and capabilities, with the resulting benefits to economic growth in large and small communities around the Nation, is essential if the United States is to maintain its global aviation leadership. Timely and effective progress on NextGen helps the U.S. aviation sector sustain this position.

#### ENVIRONMENTAL SUSTAINABILITY

Environmental protection and addressing the energy challenge are vital elements to sustaining the future of United States air transportation viability and global leadership. We are continuing efforts to reduce greenhouse gas emissions, improve water use efficiency, prevent pollution, and improve building energy consumption.

Environmental pressures on the national and international aviation system will continue to increase as growth in aviation activity returns. FAA supports DOT's environmental sustainability outcomes to reduce carbon emissions, improve energy efficiency, and reduce dependence on oil. We are reducing transportation-related pollution and impacts on the ecosystems while increasing the use of environmentally sustainable practices in the transportation sector.

We are committed to managing aviation's growth while reducing the negative impacts of aviation noise and air emissions. Through increased efforts on the CLEEN initiative, FAA will develop and mature clean and quiet technologies and advance alternative fuels. The Commercial Aviation Alternative Fuel Initiative is moving forward to qualify and approve new aviation alternative fuels for operational use. And by the end of this year we should have approval for a renewable biofuel for commercial aircraft made from plants, algae or other sustainable sources. These alternative jet fuels are "drop-in fuels." There's no need to change the engines or equipment. The source would be renewable and would reduce greenhouse gases.

Sustainable alternative jet fuels offer benefits for both our environment and our economy. They can help stabilize supply and the cost volatility in the jet fuel market. In 2010, U.S. airlines spent \$36 billion on jet fuel. This represents \$21 billion more than in 2000 even though the airlines consumed 3 billion gallons less.

The budget request supports identifying and exploring advances in communication, navigation and surveillance technology to advance aircraft arrival and departure, surface movements, and en route/oceanic procedures for reduced noise, fuel burn, and engine emissions. It also supports updating and enhancing the Voluntary Airport Low Emissions Program so that airports located in nonattainment or maintenance areas for National Ambient Air Quality Standards will have continued opportunities to reduce air emissions.

In addition, we are working to mitigate noise impacts for thousands of people exposed to a day/night sound level (the energy-averaged sound level metric used by the aviation industry to determine the impact of noise) equal to or greater than 65 decibels through ongoing noise compatibility efforts. These efforts include the purchase and relocation of residences and businesses, the soundproofing of residences and buildings used for educational or medical purposes, the purchase and installation of noise barriers or monitors, recommended land use planning, and public outreach.



## ORGANIZATIONAL EXCELLENCE

The fiscal year 2012 budget request provides for a motivated, well-trained, and dynamic workforce that possesses the vital resources and reliable data necessary to support the continued success of FAA's mission for safety and efficiency. It further includes enhanced cost-control measures to ensure savings that can be effectively managed to fund mission-critical initiatives.

One of the key challenges we face is building the workforce of the future to meet the transition to NextGen. Effecting this transition will involve a systematic approach to getting the right number of people with the right skills, experience, and competencies in the right jobs at the right time.

We will continue to ensure adequate numbers of safety staff. Workforce planning for mission-critical and key occupations will benefit our managers as they make staffing decisions to achieve program goals based on a rigorous analysis of their organization's activities, workforce and expected technological advances. The flying public will benefit from a better prepared and well trained workforce.

The FAA is delivering programs that build leadership capabilities, support professional development and promote continuous learning at executive, manager, and employee levels. The development of our executive corps is grounded in creating a culture of accountability and professionalism. Building stronger leadership within the agency helps us to achieve strategic goals and manage people and resources effectively while driving continuous improvement.

Part of our organizational excellence goal is to protect agency IT assets from cyber-attacks, to ensure alignment between IT investment and agency business needs, and provide certain enterprise-wide shared services. The FAA's CSMC is a core component of our overall Information Security Services. CSMC is tasked with protecting our information infrastructure using advanced cyber defense strategies. The CSMC works to enhance our architecture to include cybersecurity, to harden individual systems and networking elements, improve recover rate times, and enhance boundary protection by completing remediation of vulnerabilities, improved information sharing, and systemic monitoring of systems.

The budget request supports activities to remediate moderate vulnerabilities identified for our information systems that support human resources, finance, security/safety, and air traffic services. In the last few years, we have focused on high-risk vulnerabilities. Now the focus is on remediating the moderate vulnerabilities. The request will cover contracts that will conduct information system assessments, certifications, recertifications, and risk mitigation activities. The funding will allow FAA to handle risks to its information systems sooner, which will save out-year dollars and prevent higher and more costly system vulnerabilities and remediations.

The fiscal year 2012 budget request supports continued efforts to manage our acquisitions responsibly so we deliver programs on time and on budget. In addition, we are implementing a Real Property Asset Management Plan to ensure timely disposition of assets are measured by the number of days to process inactive assets. Since 2000, FAA has removed more than \$341 million in real property assets from our portfolio.

## CONCLUSION

Despite a challenging economic environment, 713 million passengers flew on U.S. airlines in 2010. We anticipate stronger growth this year, with a projected increase of 3.5 percent. Economic indicators project that we are rapidly approaching a historic milestone of carrying 1 billion passengers on U.S. airlines annually within the next decade. To offer additional perspective, that increase represents an additional 300 million passengers per year, roughly equal to the entire population of the United States.

In this age of global competition, we have a clear opportunity to invest now in America's future even as we prepare our world class aviation system to meet the demands of that future. NextGen technologies offer our Nation a worthy opportunity for investment in safety and innovation. Delaying infrastructure investment means the long-term cost to our system, passengers, and environment will far exceed the cost of a timely deployment today. NextGen technologies are an investment in aviation's continued viability, and will produce economic benefits for decades—far beyond their cost. Our Nation and airline industry will yield immediate and measurable financial returns that will bolster America's future economic stability and continued growth, as we continue to meet the challenge of giving the world new ways to fly.

Our Nation's continued economic recovery demands a cautious and well-considered fiscal policy. We have to invest carefully in America's future where we can be certain of reliable returns.

Aviation is a growth industry worthy of that investment, representing a key element of our country's economy. The FAA is already delivering on the promise of tomorrow, and we are grateful that the Congress continues to recognize our ongoing mission of safety and modernization as a national priority.

Senator MURRAY. Thank you very much.  
Mr. Scovel.

STATEMENT OF HON. CALVIN L. SCOVEL III

Mr. SCOVEL. Madam Chairman, Ranking Member Collins, members of the subcommittee, thank you for inviting me here today to testify on FAA's proposed fiscal year 2012 budget.

Like other Federal agencies, FAA faces the formidable challenge of achieving its goals in a constrained fiscal environment. For FAA, this means ensuring safe operations while implementing NextGen, a multi-billion-dollar investment for increasing national airspace capacity.

Our past and ongoing work has shown that a lack of comprehensive analyses and rigorous oversight have created significant challenges for FAA in meeting its safety, modernization, and financial goals. My testimony will outline our ongoing concerns related to FAA's efforts to improve safety and accommodate aviation growth.

Maintaining a safe national air transportation system has been an ongoing challenge for FAA. Between fiscal years 2009 and 2010, operational errors by air traffic controllers increased 53 percent. FAA primarily attributes this increase to the introduction of voluntary, nonpunitive safety reporting. However, other factors may contribute to the increase, such as the introduction of an automated tool to detect operational errors in terminal radar approach controls (TRACONs) and the large influx of new controllers in training. Some critical facilities have 40 percent of their workforce in training.

FAA faces a similar challenge with its inspector workforce. The agency is requesting almost an additional \$12 million to support a potential increase of more than 100 inspectors. However, we have concerns about FAA's methodology for assigning inspectors to high-risk areas and the training they receive on how to assess risk. Oversight of aircraft repair stations also remains a concern, despite FAA's implementation of a risk-based system in 2007.

Reducing pilot error and fatigue also remains a key safety challenge, especially given industry opposition to proposed rules on pilot training and rest requirements. FAA's proposed requirements for more realistic flight scenarios and special hazard training could significantly enhance pilot training. However, FAA still lacks adequate systems for tracking poorly performing pilots and overseeing pilot training programs. FAA's proposed rule for new pilot rest requirements is an important, much needed step but may also lack all the elements needed to mitigate pilot fatigue.

As FAA works to address these safety concerns, it must also address key challenges with NextGen's advancement. FAA needs to make decisions about NextGen's overall design—decisions that will impact the program's long-term benefits and costs and overcome problems in NextGen systems.

In particular, FAA needs to resolve technical issues with ERAM, a \$2.1 billion system for processing en route flight data. System

testing revealed more than 200 software-related problems, pushing estimated completion dates out several years and potentially increasing costs by as much as \$500 million. Cost escalations of this magnitude will affect FAA's capital budget and could crowd out other projects.

At the same time, FAA must tackle known vulnerabilities in key programs for delivering critical NextGen capabilities. FAA plans to spend more than \$2 billion on these programs over the next 5 years, but has yet to establish consistent requirements, clear lines of accountability, or an integrated plan that will address the complex linkages between programs. Without clearly defined requirements and program priorities, problems with cost and schedule estimates will continue.

To realize the full benefits of NextGen, FAA must maximize capacity at our Nation's airports. Over the past decade, more than 20 runways have been built, reconfigured, or extended. However, funding, environmental, and legal concerns could impede this progress. As runway projects move forward, FAA must maintain vigilant oversight to ensure that they are completed on time and within budget.

Rigorous oversight of DOT's \$1.1 billion American Recovery and Reinvestment Act of 2009 (ARRA)-funded airport grants is critical to ensuring funds are available to meet needed improvements. Last September, FAA consultants determined that 14 of 24 airports did not have adequate support to justify their ARRA payment requests, a finding consistent with those we reported in December. Specifically, we identified \$6 million in improper payments made to non-ARRA-funded Airport Improvement Program (AIP) grantees due in part to weaknesses in FAA's financial oversight strategies.

Continued schedule delays and program weaknesses in FAA's safety, NextGen, and airport infrastructure programs will have a significant impact on its current and future budgets. FAA needs sound strategies for identifying impediments to meeting its goals that will allow the agency to prioritize its oversight and maximize its investments.

#### PREPARED STATEMENT

Madam Chairman, this concludes my statement. I would be happy to answer any questions you or members of the subcommittee may have.

[The statement follows:]

#### PREPARED STATEMENT OF HON. CALVIN L. SCOVEL III

Madam Chairman and members of the subcommittee: Thank you for inviting me to testify today on the Federal Aviation Administration's (FAA) fiscal year 2012 budget request. As you know, FAA faces significant challenges to control costs in a tight budget environment while ensuring a safe and modern National Airspace System (NAS). This past year, FAA has taken actions to address many significant safety issues, most notably with its recent airworthiness directive to inspect aging Boeing 737s in response to a recent in-flight hull breach. However, much work remains to meet other key goals, including improving pilot and air traffic controller training, effectively managing its multibillion-dollar capital investments for the Next Generation Air Transportation System (NextGen), and overseeing Federal airport grants.

My testimony today focuses on three major challenges FAA faces:

- addressing ongoing safety concerns;
- managing NextGen advancement while controlling costs; and

—maximizing airport infrastructure funding to accommodate aviation growth.

In summary, FAA faces the formidable challenge of safely operating and maintaining an increasingly strained NAS system while developing the next generation of air traffic control—all within a severe budgetary environment. FAA will require resources to address safety issues related to pilot, controller, and inspector workforces and to make critical, long-delayed decisions about NextGen’s overall design—decisions that will impact the program’s long-term costs and benefits. At the same time, FAA requires better controls to instill accountability and better manage airport infrastructure contracts and grants. FAA’s fiscal year 2012 budget request reflects the agency’s plans to improve its NextGen efforts, but it also reveals the difficulties FAA has had in controlling its costs and schedules. Effectively balancing agency priorities now is essential to deliver a future system to travelers and airspace users that provides a return on taxpayers’ investment, functions safely and efficiently, and adapts to growing capacity needs and industry changes for many years to come.

## BACKGROUND

FAA’s budget funds four accounts:

- Operations;
  - Operations funds most of FAA’s day-to-day activities, including the agency’s safety oversight and air traffic control functions.
- Facilities and equipment (F&E);
  - F&E funds the agency’s NextGen initiatives and other modernization activities such as improving aging infrastructure, power systems, navigational aids, and weather systems.
- The Airport Improvement Program (AIP); and
  - AIP funds grants to airports to pay for runway construction and other related projects.
- Research, engineering, and development (RE&D).
  - RE&D funds NextGen and other research areas such as fire research and safety, aging aircraft, and other activities.

FAA’s total fiscal year 2012 budget request of \$18.7 billion represents a 17-percent increase more than this year’s appropriated amount and includes significant funding increases for infrastructure and modernization projects over its fiscal years 2010 and 2011 budgets (see table 1).

TABLE 1.—FAA BUDGET FISCAL YEAR 2010 THROUGH FISCAL YEAR 2012

[Dollars in millions]

Account	2010 Actual	2011 Enacted	2012 Request	Increase from 2011 to 2012 (percent)
Operations .....	\$9,351	\$9,514	\$9,823	3
F&E .....	2,928	2,731	3,120	14
AIP .....	3,121	3,515	5,524	57
RE&D .....	191	170	190	12
Total .....	15,591	<sup>1</sup> 15,929	18,657	17

SOURCE: FAA’s Office of Budget.

<sup>1</sup> Figures may not add up due to rounding.

FAA proposes to shift the focus of its AIP account—which represents the largest requested increase—to smaller commercial and general aviation airports and eliminate guaranteed AIP funding for large- and medium-hub airports. The proposal would also increase the passenger facility charge (PFC) limit from \$4.50 to \$7 per enplanement for all eligible airports, giving large- and medium-hub airports greater flexibility to generate their own revenue.

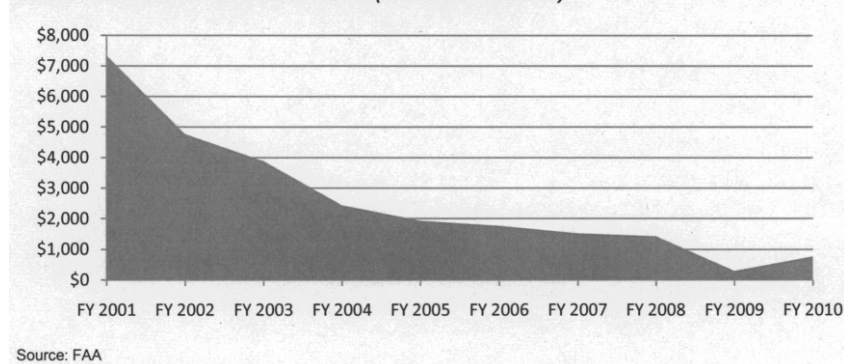
Almost 37 percent of FAA’s F&E account request, which represents the second largest increase, is allocated for NextGen activities. Most of the increase in FAA’s Operations budget is to fund inflation adjustments and the National Air Traffic Controllers Association (NATCA) contract. Nearly 71 percent of the total requested amount for Operations is used to pay for the salaries and benefits of most FAA employees, including safety inspectors and air traffic controllers.

FAA is currently financed by two mechanisms:

- excise taxes deposited into the Airport and Airway Trust Fund; and
- a General Fund contribution.

While the General Fund has paid for about one-third of FAA's total budget the past 2 years, in fiscal year 2012 the General Fund is expected to contribute \$8.2 billion, or 44 percent, toward the total budget. In addition, past differences between FAA's budget, Trust Fund revenues, and General Fund contribution were bridged by drawing down the Trust Fund's uncommitted balance. These draw downs have caused a 90-percent decline in the uncommitted balance, from \$7.3 billion at the end of fiscal year 2001 to \$770 million at the end of fiscal year 2010 (see Figure 1).

**Figure 1. Airport and Airway Trust Fund Uncommitted Balance  
Fiscal Year 2001 to Fiscal Year 2010 (Dollars in Millions)**



#### ADDRESSING ONGOING SAFETY CONCERNS

The United States has the world's safest air transportation system; however, our current audit work and recent events, such as the near mid-air collision between an American Airlines flight and two Air Force planes near New York City, underscore the need for FAA to take additional actions to improve its safety oversight functions. Key safety issues that FAA needs to address include a significant increase in operational errors, controller staffing and training at air traffic control critical facilities, oversight of air carrier and repair stations, and pilot training and fatigue.

#### *Causes of Increases in Air Traffic Controllers' Operational Errors Are Not Fully Known*

The number of operational errors by air traffic controllers increased by 53 percent between fiscal years 2009 and 2010—from 1,234 to 1,887. According to FAA, the rise in errors is primarily due to the introduction of voluntary, nonpunitive safety reporting programs, such as its new Air Traffic Safety Action Program (ATSAP). ATSAP encourages controllers to voluntarily report operational errors in an effort to better capture the actual number of errors and identify and address their root causes. However, other factors may also contribute to the recent increases, including the large influx of new controllers in training and the implementation of the Traffic Analysis and Review Program (TARP), an automated system to identify when operational errors (or other losses of separation between aircraft) occur at terminal facilities.

The National Transportation Safety Board (NTSB) has raised concerns about the reliability of FAA's process for assessing and reporting incidents involving losses of separation and is currently reviewing reports of Traffic Collision and Avoidance Systems (TCAS) advisories.<sup>1</sup> Since NTSB issued its final rule requiring aircraft operators to report certain TCAS advisories in January 2010, the Board has received nearly 950 reports of these collision advisories and has initiated investigations into nine of the more severe incidents.<sup>2</sup> These mid-air incidents raise further concerns about controller performance and how FAA classifies, reports, and mitigates losses of aircraft separation within these new reporting systems. At the request of mem-

<sup>1</sup>An onboard TCAS issues advisories for pilots to take evasive actions when the system detects a potential collision with other aircraft.

<sup>2</sup>After review by NTSB, many of these reports were considered "nuisance alerts" (i.e., situations in which there was no collision risk, but TCAS generated a resolution advisory). However, about 260 reports required additional data in order for NTSB to understand and evaluate the circumstances that caused the apparent conflict and to determine whether further action was warranted.

bers of the Senate Committee on Commerce, Science, and Transportation, as well as the ranking member of the House Transportation and Infrastructure Subcommittee on Aviation, we will begin two audits to assess FAA's implementation and oversight of ATSAP and evaluate FAA's process for tracking and reporting near mid-air collisions and mitigating those risks.

*Critical Facilities May Need More Certified Professional Controllers To Effectively Train New Controllers*

FAA is taking action to hire and train nearly 11,000 new controllers through fiscal year 2020 to replace large numbers of retiring controllers hired after the 1981 strike. However, FAA must focus on staffing and controller skill levels at those facilities that are most critical to NAS operations. As of March 2011, 25 percent of FAA's controller workforce was in training—compared to 15 percent in 2004—meaning fewer certified controllers in the workforce to control air traffic and provide on-the-job training for new controllers. In addition, due to the attrition surge, FAA has had to assign newly hired controllers to complex air traffic control locations, such as southern California, Atlanta, Chicago, and New York. Normally, new hires would start their on-the-job training at less complex facilities and eventually transfer to a higher-level facility.

While FAA has ongoing actions or plans to improve controller training and placement, some of the most critical facilities now have a significant percentage of their workforce in training. For example, Denver Terminal Radar Approach Control has 43 percent of its workforce in training, and LaGuardia Air Traffic Control Tower has 39 percent. We are reviewing FAA's plans to provide its critical facilities with appropriate controller staffing, training resources, and other support necessary to ensure continuity of facility operations. We expect to report on our results later this year.

*FAA Has Not Addressed Inspector Training and Staffing Issues That Would Enhance Its Risk-Based Oversight*

Since 2003, FAA has enhanced the Air Transportation Oversight System (ATOS), its risk-based oversight system for air carriers, by improving inspector guidance and completing key processes for analyzing inspection results. However, in December 2010, we identified additional improvements FAA needed to make to strengthen ATOS, such as requiring that inspectors' risk assessments include analyses of all available data sources—such as voluntary self-disclosure data—and changes that occurred in the airline industry, such as mergers and acquisitions. We also reported that ATOS implementation at smaller air carriers was hindered due to inspectors' frustrations with adapting ATOS principles to their operations, staffing limitations, and insufficient data to support ATOS's data-driven approach. A contributing factor may be that inspectors experienced gaps of 3 years or longer between when they received systems safety training and when they actually used the system. FAA is currently addressing our recommendations to ensure inspectors receive timely training and use all available data sources for more accurate and relevant air carrier risk assessments.

Another concern has been FAA's inadequate oversight of aircraft repair stations, a weakness we reported on in 2003. While FAA strengthened its procedures for monitoring inspections of foreign repair stations that are conducted by aviation authorities on its behalf and implemented a risk-based system in 2007 to target repair stations with increased risk, concerns remain. As a result, the Congress directed us to assess FAA's oversight system for foreign and domestic repair stations. We began our review in January of this year.

FAA must also ensure it targets limited resources to areas of greatest risk by placing its approximately 4,300 inspectors where they are most needed to effectively oversee a dynamic aviation industry. In a 2006 study directed by the Congress, the National Research Council concluded that FAA's methodology for allocating inspector resources was not effective and recommended that FAA develop a new approach. In response, FAA completed a new staffing model in October 2009. After completing the model, FAA tested it using actual staffing data to determine whether it was ready for full deployment. FAA used the model to assist in developing its fiscal year 2012 budget request for an additional \$11.9 million to support an increase of up to 106 inspectors. However, FAA is still refining the model to make it more reliable. As directed by the Congress, we are evaluating FAA inspector staffing and the new staffing model.

*FAA and Industry Have Not Fully Addressed Pilot Training and Fatigue*

Pilot training and fatigue continue to present challenges to FAA. The February 2009 fatal crash of Colgan Air flight 3407 underscores the importance of addressing these long-standing safety concerns. In January 2009, FAA issued a Notice of Pro-

posed Rulemaking (NPRM) to revise crew training requirements by requiring more realistic training scenarios with a complete flight crew, using flight simulator devices, and working with new special hazard practices for pilots and crew members. Because of the extensive industry comments on this proposed rule, FAA plans to submit a Supplemental Notice of Proposed Rulemaking (SNPRM) to address the concerns. However, as of April 2011, the SNPRM had not been issued. While the proposed rule could significantly enhance pilot training programs, FAA still faces challenges tracking pilots with poor performance and training deficiencies and overseeing air carrier programs aimed at improving pilot skills.

FAA has also taken steps to address pilot fatigue issues, as required by the Airline Safety and FAA Extension Act of 2010.<sup>3</sup> In September 2010, FAA published an NPRM to institute new flight, duty, and rest requirements for pilots based on factors such as time of day flown and sleep consideration rather than type of flight operation. Issuing the NPRM was an important step toward changing outdated regulations. However, FAA has already received more than 2,500 comments from industry, most of which oppose the NPRM. Given industry's historical opposition to revamping rest rules, it will be a substantial challenge for FAA to finalize the rule by the congressionally mandated deadline of August 2011. Further, the NPRM would not require carriers to track pilots with lengthy commutes, a factor that can contribute to pilot fatigue. FAA officials stated that enforcing this requirement would be difficult and not necessarily result in responsible commuting. FAA instead issued draft advisory guidance on pilots' and carriers' responsibility to ensure proper rest before flying. However, without FAA and industry efforts to collect and analyze data on pilot commuting, the current proposed actions to mitigate fatigue in aviation may not fully address this critical safety issue.

#### MANAGING NEXTGEN'S ADVANCEMENT WHILE CONTROLLING COSTS

FAA is developing NextGen, a satellite-based air traffic control system intended to replace the current ground-based system, to better manage air traffic and meet future air travel demands. However, FAA faces several management challenges in implementing key NextGen programs in an efficient and cost-effective manner. These include mitigating ongoing cost increases and schedule delays with FAA's ERAM program that will impact several NextGen programs and capabilities, better managing contracts and its acquisition workforce to protect the taxpayers' interest, and keeping its operating costs from crowding out capital investments in NextGen.

#### *Uncertain Design Decisions Put NextGen's Cost and Schedule Targets at Risk*

FAA is making progress on near and mid-term NextGen efforts in response to recommendations from a government-industry task force but must address long-term cost, schedule, and performance issues.<sup>4</sup> In response to one of the task force's most critical recommendations, FAA launched its "metroplex initiative"—a 7-year effort aimed at improving airspace efficiency to reduce delays at 21 congested airports in major metropolitan areas. While FAA has completed studies at two prototype sites and plans to study five more sites this year, many unresolved issues could delay the effort and ultimately increase costs. For example, FAA has not established detailed milestones to complete initiatives at high-activity locations or a mechanism for integrating its metroplex initiative with other related task force recommendations, such as better managing airport surface operations. Further, FAA needs to resolve concerns that airline and air traffic facility officials have expressed about FAA's execution thus far, such as the slow pace of the effort and a lack of clearly defined benefits to airspace users.

Realizing these benefits, however, depends on the timely deployment of new flight procedures. As we noted in our December 2010 report,<sup>5</sup> FAA's flight procedures are mostly overlays of existing routes, which do not provide shorter flight paths to alleviate congestion. Because FAA has mainly focused on developing a targeted number of procedures each year—not on measuring user benefits—airlines have not widely used the new procedures. At the same time, FAA faces several organizational, policy, logistical, and training challenges that could impede NextGen implementation in the midterm, including working across diverse agency lines of business.

FAA's most recent NextGen Implementation Plan provides a framework for what NextGen will resemble in the 2015 to 2018 timeframe and broadly outlines the link-

<sup>3</sup> Airline Safety and Federal Aviation Administration Extension Act of 2010 Public Law 111-216, section 212 (August 2010).

<sup>4</sup> NextGen Mid-Term Implementation Task Force Report, September 9, 2009.

<sup>5</sup> OIG report number AV-2011-025, "FAA Needs To Implement More Efficient Performance-Based Navigation Procedures and Clarify the Role of Third Parties", December 10, 2010.

ages between FAA and stakeholder investments. While the plan is responsive to the task force, it does not outline NextGen capabilities, timing, and costs, which FAA committed to in previous plans and budget requests to the Congress. For example, the plan does not discuss how delays in critical design decisions will affect NextGen performance. Delayed decisions include:

- division of responsibility delegated to pilots in the cockpit and to controllers and FAA ground systems for tracking aircraft;
- level of automation needed to support division of responsibility, ranging from today's largely manual flight management to a primarily automated system with little controller involvement; and
- the number and locations of air traffic facilities needed to support NextGen.

*Unresolved Technical Problems With ERAM Have Resulted in Delays and Cost Increases*

Numerous technical problems with ERAM—the primary tool that will process en route flight data—have pushed schedules well beyond original completion dates and increased cost estimates by hundreds of millions of dollars. FAA planned to complete deployment of ERAM to 20 en route facilities by the end of 2010 at a cost of \$2.1 billion. However, ERAM testing at initial operating sites revealed more than 200 software-related problems, such as radar processing failures, errors that tag flight data to the wrong aircraft, and hand-off problems between controllers. As a result of these problems at the initial sites, FAA postponed its plans to continue deployment of ERAM at additional sites—originally scheduled for December 2009.

FAA is requesting \$120 million for ERAM in its fiscal year 2012 budget request and now plans to complete ERAM in 2014—a schedule slip of 4 years. However, FAA and its contractor plan to add new capabilities while attempting to resolve problems identified in earlier software versions, which could cause further schedule delays. New software releases have already exhibited problems, including a significant software failure that caused one site to revert back to using the legacy operating system for several weeks.

While FAA estimates that delays with ERAM will translate into an additional \$330 million to complete deployment, our work and a recent MITRE analysis suggest the total cost growth could be as much as \$500 million.<sup>6</sup> Cost escalations of this magnitude will affect FAA's F&E budget and crowd other projects. Further, FAA will incur additional costs to sustain aging equipment longer than planned and retrain controllers on both the legacy and ERAM systems. The MITRE analysis cautions that implementing ERAM at more complex sites, like Chicago and New York, may require additional time and resources. Continued problems with ERAM will also affect both the cost and pace of FAA's other key NextGen efforts—some of which have already been allocated more than \$500 million to integrate and align with ERAM. ERAM delays will also affect FAA's ability to develop trajectory-based operations<sup>7</sup> and transition to a common automation platform for terminal and en route operations.

*FAA Lacks an Integrated Master Schedule To Mitigate Risks in NextGen's Transformational Programs*

FAA has not approved total program cost, schedule, or performance baselines for any of NextGen's transformational programs<sup>8</sup> and faces significant risks and challenges to successfully implementing them. FAA's fiscal year 2012 budget request includes \$590 million for the six programs, and the agency plans to spend more than \$2 billion on them between 2012 and 2016. Three transformational programs that are critical to achieving streamlined and more efficient data sharing for airspace users face uncertainty with respect to what they will ultimately cost, when they will be completed, and what they will deliver.

*Automatic Dependent Surveillance-Broadcast (ADS-B)*

ADS-B (\$285 million requested for fiscal year 2012) is a satellite-based surveillance technology that combines the use of aircraft avionics and ground-based systems. FAA is planning to implement ADS-B in four segments but has only approved \$1.7 billion for the initial two segments to deploy the system's ground infrastruc-

<sup>6</sup>MITRE Corporation and Massachusetts Institute of Technology/Lincoln Laboratory Report, Independent Assessment of the ERAM Program, October 15, 2010.

<sup>7</sup>Trajectory-based operations focus on more precisely managing aircraft from departure to arrival with the benefits of reduced fuel consumption, lower operating costs, and reduced emissions.

<sup>8</sup>FAA's transformational programs, defined as programs directly related to the delivery of NextGen capabilities, will fundamentally change NAS by enhancing communications, improving the tracking of aircraft, and revamping overall air traffic management.



ture. FAA has deployed 275 of the planned 800 radio ground stations and also published a final rule mandating that airspace users equip ADS-B avionics by 2020. As we noted in our October report,<sup>9</sup> realizing the full range of ADS-B benefits will depend on:

- finalizing requirements for capabilities to display traffic information in the cockpit;
- modifying the systems controllers rely on to manage traffic;
- addressing broadcast frequency congestion concerns;
- implementing procedures for separating aircraft; and
- assessing security vulnerabilities.

These risks, if not successfully mitigated, could lead to cost, schedule, and performance shortfalls.

#### *System-Wide Information Management (SWIM)*

SWIM (\$66 million requested for fiscal year 2012) is expected to form the basis for a secure network that manages and shares information more efficiently among all air traffic systems that will comprise NextGen. Key benefits expected from SWIM are streamlined data communications and real-time information that will improve air traffic management, enhance airspace capacity, reduce flight delays, and decrease costs for FAA and aviation users. FAA is planning to implement SWIM in three segments but has only approved funding for the first segment at an estimated cost of \$284 million. FAA has already increased costs for the first segment by more than \$100 million and delayed its completion by at least 2 years. Further, FAA has not established clear lines of accountability for overseeing how SWIM is developed and managed. Without a consistent vision of SWIM's requirements and clearly defined program priorities, the true cost and timeline to deploy SWIM and the realization of expected benefits are unknown. We have transmitted recommendations to FAA for improving SWIM and expect to issue our final report this spring.

#### *Data Communications (DataComm)*

DataComm (\$150 million requested for fiscal year 2012) will provide two-way data communication between controllers and pilots that is analogous to wireless email. FAA plans to implement DataComm in at least two segments, and a final investment decision is not expected until fiscal year 2012. Total program costs are uncertain but estimated to be almost \$3 billion. Developing and implementing DataComm is a complex, high-risk effort, and industry officials have expressed skepticism about FAA's ability to deliver on such a program because the agency abandoned a data link effort in the past due to cost concerns. The successful implementation of DataComm faces the challenges of integrating with FAA automation systems and overcoming users' reluctance to equip.

FAA's approach of baselining smaller segments of larger programs may reduce some risks in the short-term, but as requirements continue to evolve, programs are left with no clear end-state and decisionmakers lack sufficient information to assess progress. Moreover, delays with one program can significantly slow another, since the programs have complex interdependencies and integration issues with FAA's existing automation and communications systems. While FAA recognizes the need for an integrated master schedule to manage the implementation of these NextGen capabilities, it has yet to develop one. Without a master schedule, FAA will continue to be challenged to fully address operational, technical, and programmatic risks and prioritize and make informed trade-offs among the programs.

#### *Contract Oversight and Administration Problems Contribute to Cost Overruns With FAA Acquisitions*

Our work on large FAA acquisition programs and high-risk procurements has repeatedly identified weaknesses in the agency's contract administration. For example, FAA awarded an \$859 million contract for training air traffic controllers<sup>10</sup> without correctly assessing how many controllers needed training or addressing the risk that the contractor's proposed instructor hours were too low. These weaknesses contributed to a \$46 million cost overrun for the first 2 years of the contract.

Our ongoing work has similarly found weaknesses in FAA's cost and price analysis processes for noncompetitive contracts. In fiscal year 2009, FAA obligated more than \$541 million for more than 16,500 noncompetitive contract actions. These contracts have a high risk of overpayment because the contractor is assured to receive

<sup>9</sup> OIG report number AV-2011-002, "FAA Faces Significant Risks in Implementing Automatic Dependent Surveillance-Broadcast Program and Realizing Benefits", October 12, 2010.

<sup>10</sup> OIG report number AV-2010-126, "FAA's Air Traffic Controller Optimum Training Solution Contract: Sound Contract Management Practices are Needed to Achieve Program Outcomes", September 30, 2010.

the award. However, for 8 of the 25 contracts we reviewed, FAA did not perform effective cost and price analyses and was unable to demonstrate that prices paid were reasonable. We expect to issue our final report later this month.

Another ongoing audit has identified concerns with FAA's Systems Engineering 2020 (SE-2020) contracts to augment FAA staff and support NextGen implementation. The contracts have a cumulative maximum value greater than \$7 billion—the largest award in FAA history. To date, our assessment of FAA's contract award processes, oversight mechanisms, and performance-based methods found that they may not be adequate to achieve intended outcomes. We plan to issue our report later this year.

At the same time, FAA faces challenges in maintaining an acquisition workforce with the skills needed to oversee its NextGen contracts. Currently, 20 percent of FAA's experienced acquisition workforce is eligible to retire, with a cumulative retirement eligibility of 40 percent by fiscal year 2015. FAA's Acquisition Workforce Plan outlines the acquisition competencies needed, establishes hiring strategies, and describes new certification and training programs.<sup>11</sup> However, the plan excludes Federal and contractor acquisition employees working on FAA's support services contracts and technical officer representatives responsible for overseeing contracts vital to NextGen, such as ERAM. Further, FAA fell short of its planned hiring targets and hired less than 40 percent of the engineers needed to support acquisition programs. FAA's primary staffing needs are for engineers, which are critical to implementing NextGen programs. However, FAA could not accurately determine whether it hired enough engineers or program managers for NextGen because FAA's hiring data were either inaccurate or missing. FAA's tracking systems are also ineffective in monitoring the training and certification of its acquisition workforce. We expect to issue our final report on FAA's acquisition workforce this summer.

#### *Increasing Operating Costs Risk Crowding Out NextGen Capital Investments*

FAA estimates that the 2009 collective bargaining agreement with NATCA will cost the agency \$669 million more than it would have cost to extend the work rules established in 2006 for 3 more years. In the past, our audit work found that uncontained increases in operating costs have crowded capital investments.

Several factors in the agreement may further increase FAA's costs:

- Most estimated costs are for increased salaries and benefits for controllers, but these will depend on the rate at which veteran controllers retire and are replaced by new controllers with lower salaries and benefits.
- Negotiated memorandums of understanding (MOU) may incur additional costs. FAA has had problems with managing its MOUs in the past. For example, in 2003 we identified negotiated MOUs that resulted in millions of dollars in cost overruns.<sup>12</sup> As a result of our review, FAA established controls that it believes will prevent additional costs with MOUs in the agreement. However, some local air traffic managers and regional managers are not strictly complying with these controls. FAA must consider these issues as well as its budgetary constraints when negotiating its next collective bargaining agreement.

#### MAXIMIZING AIRPORT INFRASTRUCTURE FUNDING TO ACCOMMODATE AVIATION GROWTH

FAA projects that passenger traffic will grow by 3.7 percent annually each of the next 5 years, and that by 2021 there will be 1 billion passengers. Ensuring enough capacity at the Nation's airports is essential to meeting this demand, reducing delays, and realizing the full benefits of NextGen. This includes keeping key runways that are planned or under construction on schedule and improving oversight of airport grant programs to ensure funds are appropriately spent.

#### *Funding, Legal, and Other Concerns Could Undermine Efforts To Keep Runway Projects on Track*

FAA has made progress in overseeing opening and improving runways at our Nation's airports; however, with capacity-enhancing airspace changes being developed, FAA must ensure that current runway projects remain on schedule. Since the start of fiscal year 2000, 17 new runways have been built,<sup>13</sup> 4 runways were reconfigured, 2 runways were extended, and 3 taxiways have opened.

<sup>11</sup> FAA issued its workforce plan in 2009 and updated the plan in 2010, projecting its acquisition workforce needs through fiscal year 2014.

<sup>12</sup> OIG report number AV-2003-059, "FAA's Management of and Control Over Memorandums of Understanding", September 12, 2003. OIG reports are available on our Web site: [www.oig.dot.gov](http://www.oig.dot.gov).

<sup>13</sup> These projects included new runways at Boston, Chicago O'Hare, Atlanta, and Washington Dulles airports.

FAA is pursuing several airspace redesign projects nationwide—including major efforts to revamp airspace in the Atlanta, New York-New Jersey-Philadelphia, and Chicago areas—that require a sufficient amount of runways to accommodate additional traffic. Several runway projects either under construction or planned at key airports will accommodate future air traffic growth and coincide with airspace redesign efforts (see table 2). However, FAA and local airport authorities face challenges that could impede the progress of these projects, including funding issues, extensive environmental reviews, coordination among numerous stakeholders, and legal issues. As these projects move forward, FAA should continue its efforts to ensure that these projects are completed on time and within budget.

TABLE 2.—STATUS OF MAJOR NEW RUNWAY PROJECTS  
[Dollars in millions]

Airport	Phase	Estimated completion date	Total cost estimate
Atlanta (Runway 9L/27R) .....	Site prep .....	2012 .....	\$46
Chicago O'Hare (Runway 1 0C/28C) .....	Construction .....	December 2013 .....	\$1,265
Chicago O'Hare (Runway 9R/27L) <sup>1</sup> .....	On hold <sup>2</sup> .....	October 2015 .....	\$357
Chicago O'Hare (Runway 9C/27C) .....	On hold <sup>2</sup> .....	October 2015 .....	\$1,470
Chicago O'Hare (Runway 10R/28L) .....	Site prep .....	January 2015 .....	\$578
Fort Lauderdale (Runway 9R/27L) <sup>1</sup> .....	Design .....	June 2014 .....	\$720
Philadelphia (Runway 9R/27L, 8/26, <sup>1</sup> 9R/27L) <sup>1</sup> .....	Record of decision, December 2010.	To be determined ..	\$5,200

SOURCE: OIG analysis of FAA's quarterly report "Runway Projects at Core Airports Under Construction" for October–December 2010 (published February 1, 2011).

<sup>1</sup> Extension of existing runway.

<sup>2</sup> Due to lack of funding, completion dates for these projects could be extended up to 5 years.

#### *FAA's AIP Program Is Vulnerable to Improper Payments*

Our continuing work on FAA's \$1.1 billion ARRA-funded airport grants indicates that FAA has primarily focused its oversight on the construction status of projects, not on ensuring grantees comply with FAA and Office of Management and Budget financial oversight requirements. While FAA commissioned a review of ARRA payments, its consultants determined in September 2010 that 14 of 24 airports did not have adequate support to justify their ARRA payment requests. This is consistent with findings we reported in December 2010 on FAA's oversight of non-ARRA-funded AIP grants.<sup>14</sup>

In our December report, we identified \$13 million in improper payments made to AIP grantees; \$7 million of that amount was due to documentation problems, and \$6 million could have been recovered by FAA. The \$6 million of recoverable funds included grantees receiving payments for ineligible services or paying ineligible recipients and FAA making incorrect and duplicate payments. For example, during fiscal years 2007 and 2008, the county of Sacramento billed FAA and was reimbursed a total of \$675,000—the full amount of construction invoices received—but FAA reimbursed the county before the county had actually paid its construction contractor. Subsequently, FAA agreed that these AIP payments were improper.

Both our prior and ongoing AIP and ARRA work have identified several potential weaknesses in FAA's financial oversight that make its grant funds vulnerable to improper payments. First, FAA relies on grantees to self-certify that they adhere to their grant agreements and to maintain documentation validating payment requests. Second, FAA does not review grantee payment requests beyond summary documentation, which does not include actual contractor invoices. Third, grantees approve change orders for contract work without required cost or price analyses—and without FAA approval. Finally, FAA employees often cited staff and resource limitations as impediments to more rigorous oversight.

#### CONCLUSION

FAA's fiscal year 2012 budget proposal comes at a time when FAA must prepare for the increasingly complex demands of the air system of the future—while continuing to improve safety for the public today. Whether the particular issue at hand is operational errors by air traffic controllers, technical problems affecting NextGen's advancement, or grant oversight of airport infrastructure projects, FAA needs sound strategies for identifying trends that may be impeding its safety, mod-

<sup>14</sup> OIG report number FI–2011–023, "Improper Payments Identified in FAA's Airport Improvement Program", December 1, 2010.

ernization, and financial goals. Effective data, analyses, and oversight will prove critical for FAA to ensure taxpayer dollars are used wisely to maintain a safe, modern, and efficient American airspace.

Madam Chairman, this concludes my statement. I would be happy to address any questions that you or other members of the subcommittee may have.

#### CONTROLLER FATIGUE—OPERATIONAL ERRORS

Senator MURRAY. Thank you very much. I appreciate both of your testimonies today.

Let me start with the issue about the air traffic controllers falling asleep on duty. I know the FAA has announced several new reforms and initiatives.

Mr. Babbitt, you quickly began to work with NATCA to visit some of the FAA facilities and talk about the importance of professionalism, and in the most recent announcement, the FAA started to look more carefully at its own management team. The agency said it would revisit how managers are selected and how their performance is evaluated. And I know that the FAA is going to send out some review teams to look into the management practices of some of the facilities.

But the agency, as I said earlier, already had questions about how well its facility managers follow FAA policies. In fact, in 2007, the FAA learned that managers at certain facilities had been covering up a number of errors committed by their air traffic controllers.

So I wanted to ask you today why the FAA did not take a closer look at the management of its facilities before we saw these stories in the press.

Mr. BABBITT. Madam Chairman, of course, I did not arrive at the FAA until 2009, in the summer.

Senator MURRAY. Correct. I should state that, but yes.

Mr. BABBITT. A number of the things that you have mentioned to us are absolutely points of focus for us. And we have undertaken some very serious attempts to reform. These do not happen quickly. There are 49,000 employees. We have facilities all over the country. But we have been working for more than 1 year. For example, the fatigue study was undertaken by a joint agreement with NATCA.

The management changes that we have taken—first, we have made some changes in the upper management structure, followed by a broader review, as we work our way down, and making certain that all of our facilities do, in fact, stay consistent with the policies that we want and the procedures that we expect them to follow. We made it very clear there is no tolerance in the FAA for this type of “looking the other way.”

We have a very dedicated workforce, and unfortunately, what came to light are the sins of a few, not the good deeds of many. And so we are working very, very hard to maintain the morale—as a matter of fact, to increase it, and at the same time, making certain that everyone follows the same guidelines and principles. That is a difficult transition for us to make.

We have streamlined our internal workings. As of 6 months ago, internally, we had more than 30 different governing committees that were structured inside the FAA. Next month, we will have five. We are far more efficient. We have realigned a number of our businesses and streamlined the way we do things to give ourselves

better program oversight. I would invite—it is probably unheard of for the administrator to invite the inspector general to come over, but I would be delighted to have them look at some of the changes that we have done in program management and program oversight that we have done in the last 6 to 12 months. So, I think we are going to be a much more efficient agency going forward, and we have taken to heart some of the very constructive criticisms that people have brought to us.

Senator MURRAY. When you announced your review teams, you only identified a couple of facilities that would be visited by those review teams. One of them is Cleveland, where the air traffic controller was found watching a movie, I believe, on duty. Can you tell us why review teams are not going out more aggressively to a larger number of facilities?

Mr. BABBITT. We have a finite number of people that can conduct the review teams, and so we took a few right off the top of the bat. We took a look at the facilities that we thought would most benefit from the immediate review. But the plan is to review everyone, all facilities, over time.

Senator MURRAY. Over what kind of time period?

Mr. BABBITT. I would actually be giving you a wag here, but I would hope within the next 6 months.

#### CONTROLLER TRAINING—PLACEMENT

Senator MURRAY. In following a lot of these news reports, the FAA announced it was pulling together this working group that will make recommendations about how new air traffic controllers are trained and placed into FAA facilities.

But as I said in my opening statement, the inspector general has actually been talking about this for many years. Mr. Scovel, both in 2004 and again in 2010, your office recommended the FAA develop an objective, reliable method for placing new air traffic controllers at FAA facilities based on skills, and the FAA actually agreed they needed that. But to date we still don't have or see a way that FAA is placing these air traffic controllers based on an objective test.

Can you tell us why an objective, reliable way of placing air traffic controllers is so important?

Mr. SCOVEL. Thank you, Madam Chairman.

Yes, it is important. In the course of conducting our 2010 audit of FAA's practices for assigning new air traffic controllers, we found that new air traffic controllers were promised duty assignments before they had even started training. It appears to us to have been a part of the recruitment and hiring process. There was little attention, if any, paid at that time to an objective, reasonable method based on the new air traffic controllers' capabilities and performance at the Air Traffic Control Academy in Oklahoma City to determine where these people might best be placed. And in fact, we have found that new air traffic controllers in increasing numbers are being assigned to the most complex facilities: the New York TRACON, for instance; the Cleveland facility that you mentioned; areas that govern complex airspace, have high traffic volumes, and require intense on-the-job training by the certified professional controllers assigned to those stations.

We can only urge in the strongest terms that FAA quickly adopt a reasonable method, whether it is by test, by interview, or whether it is by performance at the training academy in determining where new air traffic controllers should be assigned.

Senator MURRAY. After their training, I assume, not pre-, when they are—

Mr. SCOVEL. Exactly. We assume that this will be an item of intense interest to applicants for air traffic controller spots, but it must be made clear to them that while certain duty options and stations might be available, final assignment will remain with the discretion of the agency.

Senator MURRAY. So, Mr. Babbitt, where are we on putting in place a reliable test?

Mr. BABBITT. One of the key changes that has been made might not appear to have anything to do with controller placement, but it has everything to do with it, and that had to do with the collective bargaining agreement. We have a new agreement with our controllers. It was reached shortly after I took the Administrator position.

During the last agreement, there was absolutely no incentive to bid controllers into higher paying positions. So if we had a vacancy in the most complex facility in our system, there was absolutely no incentive for a controller to bid over there. And so we were forced to assign people out of the academy. There was no other way to fill the vacancies. That is not a good practice. I will tell you now, it is not a good practice, and we have eliminated it.

So now we have the ability to incentivize seasoned controllers who can take that opportunity. And in fact, when they go to a more complex facility, they are going to work harder. It is a more difficult task, and they are going to be compensated accordingly. That gives us the opportunity to put new hire controllers into facilities that are more suited to their skill set.

Senator MURRAY. Is there an objective test developed to give to air traffic controllers on assignment yet?

Mr. BABBITT. We test all the air traffic controllers, and while I realize everyone would like to appreciate that we would have a range, we like to think that all of the controllers are qualified. When they are qualified, they are qualified to do anything. We would never want to be in the position of saying, well, we sent the good ones here, but the not-so-good ones went here.

Senator MURRAY. I have additional questions about that, but I have gone over my time. So I am going to turn it over to Senator Collins.

Senator COLLINS. Thank you, Senator Murray.

I actually am going to pick up exactly on the point that Senator Murray was raising with you because I have read the March 30 report of the inspector general, which points out that the FAA will need to hire and train nearly 11,000 new air traffic controllers through fiscal year 2019, because there are going to be a large number of retiring controllers.

And the inspector general's report finds that the FAA's reported training failure rate was not accurate and is critical of the metrics. In the report, it explains that when there are student controllers who are unable to pass the training process, they are either trans-

ferred within their assigned facility to a new area of operation, or transferred to a less complex facility, or terminated. It bothers me if individuals who could not pass the training are being placed in any position. So is that still happening?

Mr. BABBITT. I believe that the training that you are talking about—we have a variety of controllers. We have tower controllers. We have en route center controllers, and we also have controllers in the very complex areas. If someone has, for example, been a very effective tower controller working for a number of years fully trained and wished to upgrade to another level and simply did not master that training, we would let them go back to their previous area where they had exhibited a success rate.

Senator COLLINS. That makes sense, but that is not what this report seems to be saying is going on. Are you familiar with this March 30 report from the inspector general?

Mr. BABBITT. Yes, ma'am.

Senator COLLINS. And do you agree with the findings?

Mr. BABBITT. I believe that we have incorporated—and I believe that the inspector general has concurred with the suggestions that we made going forward. One of the points of that report I think we partially concurred with, and I think one area of the report was simply a data measurement point in terms of failure rate. I believe the inspector general's team was looking at a certain period, and we were looking at a longer period of time. I think if you go to the end, the failure rates come back into alignment. In other words, we would say we had someone who was still in school at the end of a year and we failed them at 18 months. We were counting that person as having passed at the 1-year point, and I think the inspector general said, well, they ultimately failed. You should reflect it that way. And we understand the difference in the accounting of that.

#### OPERATIONAL ERRORS

Senator COLLINS. Let me ask you both a basic question. It seems that in the last year, there has been an alarming increase in close calls in the air and on the ground, collisions that were narrowly averted. In addition, we have seen these reports about the air traffic controllers falling asleep or being inattentive.

What are your views on the increase in operational errors, and also in these incidents with the air traffic controllers? Are we seeing a true increase, or has this problem been going on all the time and there has just not been public awareness of it? There is just better coverage of it now?

I am going to start with the inspector general and then hear the Administrator.

Mr. SCOVEL. Thank you, Senator Collins.

As I mentioned in my opening statement, operational errors by controllers increased between 2009 and 2010 by 53 percent, from 1,234 operational errors to 1,887 operational errors. At this point, we do not have a good handle on what the true cause may be, and I suspect that we will not find a single true cause. We have examined National Transportation Safety Board (NTSB) investigations as well, where operational errors have been discussed, and found

that they too have not found any kind of silver bullet. But there have been a number of reasons, perhaps, advanced to explain it.

One that the agency points to frequently—in recent weeks, in the last month or so, since all of this has arisen in the news, is what Mr. Babbitt likes to call the enhanced safety culture and safety awareness in the agency. That is due, in large part, the agency believes, to the Air Traffic Safety Action Program (ATSAP), the voluntary, nonpunitive disclosure program that was recently put in place for air traffic controllers. The theory is that controllers, now, without fearing punishment, will be more willing to report operational errors. And that may be a cause.

Another cause might be the automated tool that was recently put in place at TRACON facilities, which up until recent times did not have any kind of automated tool to capture operational errors committed by controllers in those facilities. This is the TARP program, the Traffic Analysis and Review Program. That certainly has flushed out more operational errors, I would speculate.

A final cause might be—and some point to the fact that we have all been talking about this just this morning—the increase in newly hired controllers at air traffic control facilities, and the question of if they might not be committing more operational errors.

At this point, we do not know and neither does FAA, neither does NTSB.

I commend Mr. Babbitt for naming an independent team—that panel that he has charged with investigating the seeming rise in operational errors that is due to report in the early fall.

This week, too, my office has announced audits to get to the root cause of all these operational errors. We are going to be looking at ATSAP, the voluntary disclosure program that I mentioned. We are also going to be looking at the agency's loss index, their loss of standard separation index, which attempts to capture all the different types of proximity events. We want to look at all of that and see if we can identify the range of causes. And I suspect that, like NTSB, we will not find a single one or even a couple, but it could be attributed to a number of them.

Senator COLLINS. Thank you.

Mr. Babbitt, what are your initial impressions on the cause of the increase in operational errors?

Mr. BABBITT. I believe that the inspector general highlighted a number that we concur with. Certainly it is a concern whenever the rate goes up, but we have made such important strides in so many areas. Runway incursions, for example, have been reducing at a rate of 50 percent per year for the last 3 years. We had a grand total of six serious runway incursions last year, and that is out of 50 million operations. Had we maintained the same rate we had in 2005, there would have been more than 100. So dramatic reductions have been made, and that is attributed to a lot of things: the professional controller workforce, the attentiveness, new electronic gear, Airport Surface Detection Equipment, Model X (ASDE-X) radar on the ground. All of these are leading to that.

By the same token, we may be somewhat being penalized by the fact that we do have better electronic ways of reporting. As the inspector general mentioned, this electronic reporting, this TARP program, allows us to flag things electronically that if no one had



seen, we would not have noticed. And so we are taking the position that it is not necessarily the amount of operational errors that is increasing, but that we are capturing them. And that is a good thing. We want to capture what is happening. The next question is, then what is causing them? What do we need to change? Are we asking controllers to put airplanes too close together? Are we not being clear with our navigational instructions? We want to get to the bottom so that we can train to reduce these.

But I use the example: I had an office over in Arlington for years, and at the intersection, there were two or three traffic light violations being given a week. They put in a camera and there were suddenly 40 being given a week. There were not more people running the light. There were more people getting caught running the light. In a sense, that is what we have done with this electronic capture, is our ability to find them. But again, that is a good thing. It is not a bad thing.

Senator COLLINS. And it still begs the question of the cause, as you indicated.

Thank you, Madam Chairman. As you know, I need to leave to go to the White House, and I would ask unanimous consent to put questions in the record. Thank you.

Senator MURRAY. Absolutely. And I appreciate that. Your questions will be submitted for the record, and we will get a response. Thank you very much.

Senator Lautenberg.

#### FUNDING CONSTRAINTS AND CONTROLLER ATTRITION

Senator LAUTENBERG. Thanks again for your being here and for the excellent support that you have brought to the system—being constantly on guard to rid ourselves of those occasional slips. Mr. Babbitt, you know that no matter how many flights it is compared to, the fact is that we will look simply at the number of incursions or other close calls. Those are the ones. It could be millions of airplanes flying or in the air, but we want to make sure that we catch all of the problems.

In terms of what we see happening, the House Republicans have threatened to cut back FAA funds to fiscal year 2008 levels. Yet, a large number of trainees are entering the air traffic controller system, particularly—with a large wave, not unexpected, of controller retirements expected soon. Now, would that impair the system's ability to maintain the safety levels or that can be improved in the future?

Mr. BABBITT. Let me answer. I read that as sort of a two-part question. We have a training program that will accommodate what we anticipate for retirements. In the hiring program, we did have, from about 2005 through about 2009, an exceedingly high number of retirements, far above what was anticipated, which put a huge demand on our training. That has abated. We now are down to what we believe is a steady state rate of replacing our controller workforce as they age, and I am very comfortable that the profile that we have now—we are also seeing the ratios of fully trained certified professional controllers to train these—

Senator LAUTENBERG. Can we do better with less?

Mr. BABBITT. No, sir, I would fear that we could not. We have four fundamental areas that we have to address, and if you said we are going to do with less, then we would have to certainly take priorities into consideration and something would have to give.

Senator LAUTENBERG. So this would not help protect the public more than they are protected now.

Mr. BABBITT. The priorities—we would certainly share with the subcommittee here what our new priorities would be and——

Senator LAUTENBERG. You are the boss, Mr. Babbitt. You have got the orchestra in front of you and you are the conductor. Will the sounds be the same? Will the system be the same if we have less to work with? Is it fair to assume that the answer would be no?

Mr. BABBITT. You are correct. The answer would be no.

Senator LAUTENBERG. Thank you.

#### PASSENGER BAGGAGE FEES

The airlines are tacking on fees that account for an additional 20 percent of the ticket costs, and we have seen what happened when one airline imposes a new fee. Others quickly follow suit. These fees are on everything, as I said earlier, from checking your bags to pretzels. I would like to have the airlines required to publish what fees they are going to charge above the basic airline ticket so that a prospective passenger can make a comparison. Maybe I can get a bite to eat and not have to pay for it. And everybody who flies is not a millionaire.

So, Madam Chairman, I would like to propose that we try to put a system like that into play. And I do not know whether this is an appropriate moment or hearing to move this along, but I would like that to be in the works.

#### JFK AIR FRANCE INCIDENT

Last month, a large Air France plane struck a much smaller Delta plane at JFK. Luckily nobody was seriously injured, but it gave everyone pause to think about how something like that can happen. What went wrong that permitted that incident to take place?

Mr. BABBITT. Yes, sir. That was an instance where an aircraft was on a taxiway that was being controlled by air traffic ground control at Kennedy Airport. The aircraft in front of it, a smaller airplane, was exited onto a private ramp.

Now, I should mention this is under investigation by the NTSB, and we are party to that investigation. There has not been a conclusion reached, but I would say that the airplane went to a traffic area that is managed by their local ramp no longer in our control. Clearance needs to be provided——

Senator LAUTENBERG. We would like to hear the conclusion there——

Mr. BABBITT. Yes, sir.

Senator LAUTENBERG [continuing]. Because it seems almost impossible that that is the situation.

Mr. BABBITT. We will certainly get back to you when the NTSB concludes.

[The information follows:]

The National Transportation Safety Board (NTSB) has not yet completed its investigation into the April 11, 2011, incident at John F. Kennedy International Airport (New York, New York) where the wing of an Airbus A380 (Air France Flight 7 bound for Paris, France) clipped the tail of a Bombardier CRJ 700 regional jet (Comair Flight 293 in-bound from Boston) that was waiting to park at an arrival gate.

The agency will provide the subcommittee with a copy of the NTSB's finding once the investigation report is made available.

Senator LAUTENBERG. Madam Chairman, if my colleague, Senator Pryor, would indulge, just one last thing here.

Is there anything on the drawing board that either of you, or you particularly, Mr. Babbitt, are aware of that might suggest that further noise reductions could take place? Because that affects our air-space usage and design enormously.

Mr. BABBITT. Yes, sir. I know a lot of times we are sort of charged with, so, where is NextGen and how is it progressing. We are actually very well along, and we are operating at a number of airports around the country utilizing very complex and robust procedures that utilize NextGen technologies. In Seattle, for example, we use these continuous descent arrivals that save 60 to 80 gallons of fuel and produce much less noise in the communities by using required navigational performance (RNP), and satellite-based navigation. Aircraft arriving into Seattle use curved approaches and avoid flying over populous areas and therefore produce much less noise with a much smaller carbon footprint. We are doing those procedures in Atlanta, Los Angeles, Seattle, and Philadelphia. We have a lot of opportunities where this is actually being deployed today. So, yes, sir, there is a huge benefit available.

Senator LAUTENBERG. Yes. Bring it up to New Jersey, please, Mr. Babbitt.

Thank you.

Senator MURRAY. Senator Pryor.

#### AIRPORT IMPROVEMENT PROGRAM

Senator PRYOR. Thank you, Madam Chair. And I want to thank our witnesses for being here today. We appreciate your service.

Mr. Babbitt, let me start with you. I would like to ask about AIP, and I would like to focus on one particular case that I hope you will look at and see if we can get some help with.

There is a city in Arkansas about 30 miles outside of Little Rock called Conway, Arkansas. It is a great community. They have great people there, and it is growing. It is a robust, very energetic community.

For the last 17 years, they have been trying to move their airport, and they have taxed themselves in order to do so. They have done everything they need to do. They have a location. They have a plan. They have all this. They want to do it over a 3-year period. FAA says they need to do it over a 5-year period. I am not sure why the FAA wants to go slower.

But there is a compelling reason why I think we need to move the airport as quickly as possible, and that is the current airport is very old. On one end of the runway is Interstate 40. On the other end is a neighborhood. And I know they have had at least two, maybe more incidents, where planes are landing or taking off and

actually crash into homes and kill people. So it really needs to be moved to a safer location.

Again, this community is totally behind this. They have taxed themselves. They have a great plan. I wish you would look at that. I know that they are in line to get some grant money this year too, and I know because of the budget issues we have been going through recently, you guys have not done that allocation yet. But I hope you will look at that as well. Conway, Arkansas. We will get you more information on that.

Why would the FAA want to go slower than a community? Do you know the answer to that?

Mr. BABBITT. I can give you one of several potential answers. Oftentimes we are limited. We might suggest that we could do that in 3 years and—I will just make up a number—that it might cost \$20 million. However, between authorizations and appropriations, they might say, well, you can have \$15 million and you can get the next \$5 million later on. And so we are compelled to say to the airport we simply cannot get the money that fast for you, and of course, you are in competition with a lot of other airports. And it is based on a very thoughtful formula of what that airport expansion and change will do to improve the overall effectiveness of the national airspace system. But usually those are limited simply by the amount of funds that we have to flow at the rate of change, and it is always slower than both of us would like to be, and limited by the amount of money available.

Senator PRYOR. I just hope you will look at the Conway issue.

Mr. BABBITT. Yes, sir. I have jotted that down.

[The information follows:]

The Federal Aviation Administration (FAA) supports the city's efforts to relocate Conway Municipal Airport (KCWS).

The agency has invested more than \$5.4 million in seven separate Airport Improvement Program (AIP) grants to support the airport relocation efforts. These grants were used for planning, land acquisition, and the first stage of construction.

The Office of the Secretary of Transportation announced on June 20, 2011, an AIP grant award in the amount of \$2.3 million for the second stage of construction at KCWS. The FAA Southwest Regional Office will continue to work closely with the city on the administration of this grant.

Additionally, the FAA Southwest Regional Office carefully assessed opportunities to speed up the project and accelerate the construction schedule, taking into consideration other critical needs across the Arkansas system. After examining various options, a strategy was developed to complete the project over a 4-year period, enabling KCWS to be funded 1 year earlier than previously reported to city officials.

Senator PRYOR. Thank you very much.

And the other thing is I know that we are all—and I know Senator Murray has been a leader in this as well—trying to look for ways to be more efficient and to trim our spending. We are trying to do it in a way that does not harm the public and that would be considered a smart way to trim our spending.

Last year I added a provision in the FAA bill as it came through the legislative process. It would require a study on a proposed Air Traffic Control Modernization Board to look at whether there should be consolidation of air traffic control towers. We had problems a few years ago with some strong indicators that they were going to consolidate a tower—in fact, it was the Little Rock tower—and take it offline and just use the Memphis tower. But we could never get real clarification on that from FAA.

So my question for you is: Are there any plans to consolidate any air towers that we need to know about?

Mr. BABBITT. Yes, sir. We have looked at a number of consolidations. I think for clarity, we would be talking about consolidating the radar functions and the TRACON functions. For example, in the State of California, we have two very large northern and southern California TRACONs where the people in those facilities control the air traffic at literally dozens of airports.

Senator PRYOR. Right.

Mr. BABBITT. NextGen technology will allow us to really capitalize on those kinds of efficiencies. Let me give you an example. If we had 10 facilities in an area, every one of those facilities would have a radar room, and in that radar room, we would have all the necessary hardware, software, backup generators and backup IT capability. All of that would be duplicated times 10. We, on the other hand, could consolidate that, and with the digital technology we have today, the controllers do not need to sit underneath the air traffic they are controlling. They can do it very efficiently. You have a lot easier staffing. You have a lot of efficiencies that come from that. So we are weighing those things with our colleagues in the House and the Senate, as well as the people we work with, the air traffic controllers. We want to look at this thoughtfully. Does this make sense? Is this good use of our technology? And are we truly more efficient, or is there any harm done? So we have working groups that are looking at this, and in the interest of being efficient with our tax dollars, it is something we have to look at.

Senator PRYOR. I am all for efficiency, but you also need some redundancy in the system in case one location goes down. In our region, we have had a situation I know a couple of times in the last 3 or 4 years where the Memphis airport, for one reason or other, storms or whatever, has lost power. And they have had to go down, and the Little Rock TRACON takes up the slack on the Memphis area. So do you not want some redundancy in the system?

Mr. BABBITT. Absolutely, yes, sir.

And one of the things when we talk about—it is very germane to your question there. When we transition completely to ERAM, the ERAM system and aircraft equipped with ADS-B, we have the same fidelity as terminal approach radar so that if a TRACON, for example, were to have some catastrophic power failure, the center controllers would have the same update rates that TRACON enjoys today. That is not the case today with the host system and, essentially, the analog type radar we use.

Senator PRYOR. Thank you.

Madam Chair, I have other questions I will just submit for the record. Thank you very much.

Senator MURRAY. Thank you very much.

#### EN ROUTE AUTOMATION MODERNIZATION

I did want to ask about the ERAM program. It is a fundamental part of the FAA's NextGen effort, and under ERAM, the FAA is completely replacing a key part of the agency's air traffic control system. Unfortunately, that means that when there are problems with ERAM, there are problems in other parts of NextGen.

Now, this subcommittee has provided a steady stream of funding for ERAM, but the program fell years behind on its schedule, and those delays are now affecting other important programs, like the data communications program, that need the new features that ERAM is supposed to be offering.

According to the inspector general, the ERAM program is facing additional cost increases between \$330 and \$500 million, and because of those delays and cost overruns, the FAA is going to be establishing a new budget and schedule for ERAM this summer.

If more funds are needed for ERAM, will you be identifying which programs will be cut in order to make room for the cost increases on those?

Mr. BABBITT. I am going to start with the positive approach that I am very optimistic that we will not need sufficient new funds. ERAM was a program that was started more than 9 years ago. It was a quite ambitious program, and I think, candidly, it was more ambitious than people gave it credit for and more complex than people appreciated that it might be. We have run into some serious complications in integrating this type of technology into the national airspace system.

With that said, it was clear to me within 1 year of my arrival that this program was not on track. We literally stopped the program and brought it to a halt and said, let us analyze it top to bottom. We invited MITRE to come in. We invited outside—certainly the inspector general has looked at it and the results. We have revamped it. We have revamped some of the cost allocations.

And yes, those numbers were re-baselined, but they were done with a lot of transparency, a lot of openness. And the cascade of implementation, or waterfall, if you would, that we set forth is a very achievable process and program.

Second, we changed completely our program management oversight. We have completely revamped how we do that. I think it is more state of the art. I think it is something that we probably should have done some time ago. But the bottom line is here today. We also are carefully monitoring each of the stages.

I think one of the most important things that we have done is we have now incorporated our air traffic controllers. They were not really involved in the implementation schedules. They have been a great benefit. These are people who have wonderful practical experience in how this program should work. They have been very helpful in working with us, and we have identified a lot of the open items. I just read a report in the last 2 or 3 days; there was something like 150 open items as of 6 months ago with one of the operating systems. Today we are down to about seven or eight. Granted, that is seven or eight too many, but it is a dramatic improvement over where we were. We now have ERAM operating in two different areas, Seattle and Salt Lake. Once we have our initial service decision in place, we will move on with implementation in other areas, and I believe we are on track.

Senator MURRAY. Mr. Scovel, you have disagreed with the FAA on this cost estimate. They have said that the cost increase will not exceed \$330 million. You said it could be as high as \$500 million. Why do you see the cost increase being so high?

Mr. SCOVEL. Madam Chairman, the cost increase is a difficult figure to pin down. The agency has specified, as you pointed out, \$330 million, and extended the initial timeline for ERAM by about 4 years. The work of our office and that of MITRE as well has suggested that \$330 million might only be the start.

Mr. Babbitt has spoken to the extreme technical difficulties and unpredictable nature of putting ERAM in place first at the initial operating sites, much less at other places around the country. We can anticipate that those difficulties, in fact, will continue. The Salt Lake City and Seattle sites were selected as test beds precisely because they are less complex than some of the other locations where ERAM will need to be installed, like New York, Chicago, and Cleveland. When ERAM is put in place in those areas, we can anticipate new problems cropping up, especially more software problems. More time and more effort will be needed in order to bring those to closure, and that, of course, translates into more expense. We and MITRE have predicted perhaps an upper range of \$500 million in order to accomplish all of those fixes.

Mr. Babbitt is absolutely correct. ERAM is critical to NextGen. There is a logjam right now in NextGen, and ERAM is the key log. The agency is working night and day to work on fixes. They appreciate the seriousness of the situation.

At times, however, in our opinion, the agency has been over-eager, a bit too quick to declare temporary victory in the face of some of the limited accomplishments that it has achieved. For instance, the in-service decision actually was announced at the end of March but then quickly suspended in the face of protests from the NATCA representatives that Mr. Babbitt has mentioned, and also from an independent operating assessment team that the agency had commissioned to review ERAM fixes to date.

That is the kind of over-eagerness that can sometimes lead to skepticism on the part of decisionmakers like you, and by users in the industry, and by oversight authorities like my office. We would strongly encourage the agency to adopt a very sober and rational approach in deciding what needs to be accomplished with ERAM, and then putting it in place and testing it thoroughly before taking the next step.

Senator MURRAY. And so, Mr. Babbitt, you answered my question on what you would cut in order to make room for the cost increase, with the positive attitude that you will not have to do that. But having been around here for a while watching this, I would come back to you and say that we do need to know from you what programs you will cut in order to deal with that cost increase because that will be what this subcommittee will have to deal with here in the coming months. So I would ask you to go back and look at that, and for the record, if you could give that answer back to me, I would appreciate it.

Mr. BABBITT. Absolutely. I mean, we clearly would have to re-evaluate our priorities, but the savings that come from implementation of NextGen are so powerful and so far outweigh the incremental costs. For example, for every month we delay the implementation—we do appreciate staying on schedule, because every month that we delay the implementation of a fully robust ERAM

system, we continue to support an old legacy system that costs us \$10 million a month.

Senator MURRAY. I do not disagree with the long-term projections at all. I totally am where you are. I am dealing with the immediacy of a budget that does not appear to be growing. So we need to make some tough decisions here, and we will need your input as we do that.

Mr. BABBITT. We will do that.

[The information follows:]



Budget line item	Program name	Summary of impact	Fiscal year 2011 projected @ \$2.75 billion	Fiscal year 2012 request @ \$3.12 billion	Fiscal year 2012 priority @ \$250 million	Fiscal year 2012 priority @ \$2.87 billion	ERAM funding adjustment	Fiscal year 2012 revised \$2.87 billion—\$28.5 million
2B07 2D03	ATCT/TRACON Improve WAAS	Will delay the execution of backlogged and new projects ... Funding for the deployment of a 5th GEO Satellite was reduced.	\$45,508.80 94,810.00	\$61,900.00 125,500.00	\$5,000.00	\$56,900.00 125,500.00	\$16,900.00 (12,200.00)	\$50,000.00 113,300.00
2B17	ASR-8 SLEPY Relocation	ASR-8 Relocation—Bismark, North Dakota. This was to complete a congressionally directed item in the fiscal year 2008 budget. The airport secured an earmark to relocate the ASR-8 to make room for an industrial park. Will reduce the planned level of 263 MITRE technical staff years that will support communications modernization, performance-based NAS, enroute evolution, terminal operations and evolution, airspace design and analysis, NAS System operations, aviation safety, and security—13-percent reduction.	2,594.80	2,700.00		2,700.00	(2,700.00)	
4A08	CAASD	Will reduce the planned level of 263 MITRE technical staff years that will support communications modernization, performance-based NAS, enroute evolution, terminal operations and evolution, airspace design and analysis, NAS System operations, aviation safety, and security—13-percent reduction.	73,755.20	80,800.00		80,800.00	(6,700.00)	74,100.00
2A01	ERAM	Accelerated funding for ERAM into fiscal year 2012 from fiscal year 2014 in order to meet the programs fiscal year 2014 schedule goal. Revised fiscal year 2012 funding does not increase the overall program baseline cost which remains at \$330 million.	181,935.40	120,000.00		120,000.00	28,500.00	148,500.00

<sup>1</sup>The total reduction of ERAM funding adjustment is \$0.

## SYSTEM-WIDE INFORMATION MANAGEMENT

Senator MURRAY. I wanted to ask about the System-Wide Information Management (SWIM) program. It is an essential part of FAA's NextGen effort as well. And under SWIM, the FAA will be able to have a network of different computer systems and programs. It is about sharing data and working more efficiently, a good long-term goal, and we support that.

But, Mr. Scovel, in your written testimony, you talk about the fact that the SWIM program has already seen a cost increase of about \$100 million. Now, I understand the FAA has been setting a very cautious baseline for SWIM, committing to only 2 years of funding at a time, and the FAA has stayed within the budget set by those baselines. But the overall cost of this program is increasing, and I wanted to ask you today to explain what these 2-year baselines mean for a program and how a program can stay within its short-term baselines and still experience long-term cost growth.

Mr. SCOVEL. Madam Chairman, SWIM is a key transformational program for NextGen. It is a program, however, that is now in trouble. It started off at \$179 million for the first segment estimated cost. Now it is \$104 million or so above that and extended by about another 2 years on this first segment. We do not have the cost estimates, in fact, for the next couple of segments—not that my office has seen, at any rate.

If I could drop a footnote at this point, I would say that had FAA published a detailed NextGen implementation plan or an integrated master schedule that would be of benefit to decisionmakers like you, we might know. We might have some visibility over the longer term of how SWIM would fit in, along with other programs, in terms of cost, benefits, timing, and sequence. The agency has not yet given us that.

In the meantime, we see a program like SWIM that appears to be in trouble. When we commissioned our audit, the initial report, which we have submitted to the agency for their comments back—we think that we have identified a root cause of the problem, and that is the diffused and decentralized nature of the development and management structure of the program. Rather than a strong central program office, SWIM, in fact, has devolved or delegated key implementation decisions to the seven subordinate programs or peer programs that will draw on SWIM's capabilities—programs like ERAM. And we just discussed that and how the requirements and fixes for ERAM are very much in flux.

We have suggested to the agency, and we have recently learned that they have, in fact, put in place a way to clarify accountability and authority over SWIM. It will be the deputy administrator who will adjudicate disputes between the SWIM program office and other program offices as to what SWIM should include, and what requirements should be, and fixes to be put in place.

## LIFE-CYCLE PROGRAM COST MANAGEMENT

Senator MURRAY. Mr. Babbitt, can you tell me how the agency manages the cost of a program over its entire lifetime, and does not just look at the short-term baselines?

Mr. BABBITT. It is a complicated answer that I have to give you. We do, in fact, have a NextGen implementation plan, but that is simply the mechanics and the actual layout and rollout of the various functions. To attach a budget to that is more complex.

Oftentimes we would ask for—and I think it explains, or I hope to explain the question to you with a suitable answer. We might say, for example: We would like to be funded. We would like to put this program in place that would cost \$50 million and take us 2 years. What we may get back instead is, well, you can only have \$30 million. So now it makes it a 3-year program which will be, in fact, more expensive. And so then we will re-baseline and we will reprogram the funding for that. So those things change for us subject to how we are allocated funds. It does make it difficult.

Of course, we are on our 18th extension. It does make it very difficult to give you a budget forecast with all these very short-term extensions. It makes it a little more complicated for us. And sometimes it would appear that, well, you did not do a very good job of your forecast when, in fact, it was necessary to change the timeline.

Senator MURRAY. It is my understanding that SWIM has gotten all of its funding that they requested.

Mr. BABBITT. As the inspector general has noted, it is a complex program, and we have run into some technical difficulties.

Two things that I think are very important: We have changed the reporting structure and the accountability to very much more centralize this to overcome the very things that were pointed out. We had a very diverse and not very transparent process, and we were not leveraging the technology that we had, or the skills inside the agency. I think we have made great steps toward that.

Our program management oversight has been changed. A number of the changes that I mentioned to you that have been undertaken are now being implemented. I truly hope that we will produce a far better and more realistic result to your subcommittee and others.

#### NEXTGEN FUNDING PRIORITIES

Senator MURRAY. As we face these continuing budget cuts, we have to know that. This subcommittee is watching it very closely. So we will stay in touch with you on that.

You mentioned the managing of NextGen, and I know FAA has come under a lot of criticism for its management. Good questions have been asked about whether the FAA can manage a wide variety of programs as a single portfolio and whether the FAA has set appropriate goals and metrics to measure the success of NextGen. But I think recent pressure to make drastic cuts to the budget raises new kinds of issues about NextGen.

When there is only a limited amount of funding available, we need to know what FAA's priorities are and what benefits we are going to get for the money that we spend. I know that right now you are working on a new spend plan for 2011. But I am just not convinced that the FAA has a strategy for identifying its highest priorities for the long term, and not just on a year-by-year basis. So I wanted to ask you if you could tell me which NextGen capa-

bilities have the highest priority for funding if there is not enough money to pay for all of it.

Mr. BABBITT. That is a very complicated question. Let me see if I can tackle it for you. Some of this is going to be dependent—remember, there are two components, or actually three components internal to the FAA. But there is the fourth component of equipage on aircraft outside the FAA.

Now, we have taken great lengths to determine the prioritization of what we would want to do, and we took it to an outside group, RTCA. We showed them our draft program for the NextGen implementation, and we asked them to review it. Now, these were 300 people from around the industry. These were manufacturers, pilot groups, mechanics, air traffic controllers, all the people directly affected by NextGen. And we asked them to look over what we had done.

And they have given us a new set of priorities, which are now the steps we are following. We revised our NextGen implementation plan to align ourselves with what the industry said would be most effective. In other words, the industry said—for example, we were going to build something for data communication. They said that does not do us any good until we get something else. You should do the something else first. So we have realigned our priorities to that extent.

So if showing you the new NextGen implementation plan and then putting dollars with it—that would probably do about as good a job of laying out for you the priorities that we have accepted, driven by the industry, driven by the consumers, and that would be the steps we would follow.

Now, having said that, I am very concerned that you cannot just take one brick out of a building and say, well, this is the brick we will save. That may be a very foundational brick and we would want to be very cautious in thinking about—even though it might not be the highest priority, it might be very necessary to support the rest of the program. So we would have to go back and look.

And this has been complicated by an uncertainty of funding. Given a finite amount of money, we can tell you what we are going to do. Given sort of an unknown quantity, it is different.

One of the things that does concern me—I just recently read an independent study that shows the benefits of NextGen if it were to be fully implemented by 2025 and if we spent every—even on the high-side dollars, it would cost, in round numbers, \$22 billion to fully implement. But the benefit to the global economy of the world is \$897 billion. This has an enormous return on its investment. So we would want to be very careful about saying we can save a billion here if it delays the program implementation. But this independent report says, if you delay the implementation 5 years, it reduces the \$148 billion.

So we would want to be very thoughtful and we certainly would want to have your understanding and concurrence before we said, well, we are going to cut back here. We are going to save \$4 billion over the next 2 years, but it is going to cost us \$80 billion in the long run. So I think we need to be—

Senator MURRAY. Those are issues we are dealing with in every program here, and we are trying to be sober about what we can realistically do. So we will work with you.

Mr. Scovel, do you have any ideas on how the FAA can prioritize this as we face these continuing challenges here with budget cuts?

Mr. SCOVEL. We would commend the agency for their efforts in the short-term implementation for NextGen to have worked with the RTCA so-called Task Force 5. And by the short term, we are talking about from the present up to the 2015–2017 timeframe. FAA, we think, has very wisely chosen to focus its short-term efforts on the Metroplex initiative, and working with users in the industry to determine those benefits that can be most quickly and most tangibly achieved at those key locations throughout the country. And FAA has been working on airspace and procedural changes in order to accomplish that.

Looking out over the longer term, we would cite a couple of programs. And I am certain the Administrator would likely agree. ERAM, as we have talked about, needs to be fixed, and as quickly as possible. ADS-B is absolutely critical. One that has not been mentioned yet today, apart from our written statements, is terminal modernization. In order for the benefits of NextGen to be achieved, and specifically for the ADS-B benefits to be put in place, not only ERAM at the en route centers, but also the modernization platforms at the TRACONs need to be in place. The users have been clamoring for some certainty and identification as to when, and how, and where those initiatives will take place, and we would certainly second that.

#### AIR FRANCE FLIGHT 447—LOSS OF SEPARATION

Senator MURRAY. I appreciate both of your testimony on all those complex budget issues.

Mr. Babbitt, while I have you, I just want to ask you one question. It was almost 2 years ago when Air France flight 447 disappeared into the Atlantic Ocean, and the New York Times published a lengthy story on that this week which was very interesting. I know that was not under FAA's watch, but I wanted to ask you, while you are here, what procedures are followed when U.S. aircraft controllers lose contact with the aircraft.

Mr. BABBITT. I guess that changes depending on other circumstances. But if an aircraft were to lose contact, we would certainly institute a set of procedures to try and regain radio communications. If that is not possible after about 10 minutes, we go into—

Senator MURRAY. That soon.

Mr. BABBITT. Yes. We start notifying other agencies. We escalate it. Now, that is just radio communication.

If we lose radio and radar communication—in other words, we lose sight of the target—we immediately assume that some catastrophic loss has occurred. If we cannot even get a primary target, meaning there is no radar return whatsoever, we would assume that the airplane is down and we would go to another level. We would notify the NTSB. We would notify other agencies. We would begin search and rescue.

Senator MURRAY. How soon? Because I think it was a day before they began search and rescue. How soon would we be looking at search and rescue?

Mr. BABBITT. We would have notified people within 30 minutes. So, we would have been reacting very, very quickly. Of course, this was an airplane that was not a U.S.-registered aircraft and it was not in U.S. control.

Senator MURRAY. Yes. My question was more, what do we have in place that is dissimilar to that. It seemed like it just took them—from reading the article—I do not know if you read it, but it just seemed like it took them forever to do anything.

Mr. BABBITT. Right. Yes. No, we would have responded more quickly. That one was complicated in consideration of the circumstances. That airplane could not have been further from anything than it was. It was in a very remote area across the ocean, which really complicated the authorities' ability to move there. But I do not know the exact timeline of when they implemented. But things would be well underway in this country in 30 minutes.

Senator MURRAY. That is good to know.

#### ADDITIONAL COMMITTEE QUESTIONS

[The following questions were not asked at the hearing, but were submitted to the Department for response subsequent to the hearing:]

#### QUESTION SUBMITTED BY SENATOR PATTY MURRAY

##### PERFORMANCE AND RETENTION BONUSES

*Question.* Please explain what changes the Federal Aviation Administration (FAA) has made to its procedures in the past year to ensure it is using its retention bonus authority appropriately. Please compare how FAA's retention bonus policy differs from that of other department modes.

*Answer.* To ensure appropriate and responsible use its Retention Incentive Program, in October 2010, FAA raised the approval level for all retention incentives to the FAA Administrator. In addition, FAA is in the process of strengthening its policy that will:

- require increased analysis and written justification based on specific factors;
- require a period of employment with FAA of at least 1 year prior to being authorized any retention incentive; and
- add an annual review to determine continued business need for the retention incentive.

Other than the approval level, these added requirements mirror the Department of Transportation's incentive policy. Pursuant to 49 U.S.C. 40122, the FAA Administrator holds the final approval authority for pay decisions.

#### QUESTIONS SUBMITTED BY SENATOR RICHARD J. DURBIN

##### FAA AIRPORT PRIVATIZATION PILOT PROGRAM

*Question.* Since the Federal Aviation Administration (FAA) Airport Privatization Pilot Program began in 1997, how many airports have applied to participate in the program?

*Answer.* Since the program's inception in 1997, 10 airports have submitted applications for participation in the Pilot Program:

- Stewart International Airport, Newburgh, New York;
- San Diego Brown Field, San Diego, California;
- Rafael Hernandez Airport, Aguidilla, Puerto Rico;
- Niagara Falls International Airport, Niagara Falls, New York;
- New Orleans Lakefront Airport, New Orleans, Louisiana;
- Chicago Midway International Airport, Chicago, Illinois;
- Louis Armstrong International Airport, New Orleans, Louisiana;

- Luis Muñoz Marín International Airport, San Juan, Puerto Rico;
- Gwinnett County-Briscoe Field, Lawrenceville, Georgia; and
- Hendry County Airglades Airport, Clewiston, Florida.

*Question.* How many airports have applied to be sold or privatized under the pilot program? How many airports have successfully been privatized under the program?

*Answer.* Ten airports have submitted applications for participation in the pilot program. Title 49 U.S.C. 47134 requires that commercial service airports can only be leased while general aviation (GA) airports can be leased or sold. Nine airports have applied for leases; Hendry County Airglades Airport, a GA airport, is the only GA airport considering a sale.

To date, Stewart International Airport (SWF) in Newburgh, New York, is the only airport to receive final agency approval. National Express Group, a private company from the United Kingdom, operated SWF from March 2000 until October 2007, when the Port Authority of New York and New Jersey purchased the National Express Group's Airport Lease. SWF is no longer privatized.

*Question.* How many applications are currently pending in the privatization program? What airports are currently participating in the program?

*Answer.* Of the five slots available in the pilot program, FAA has four slots reserved:

- Chicago Midway International Airport, Chicago, Illinois;
- Luis Muñoz Marín International Airport, San Juan, Puerto Rico;
- Gwinnett County-Briscoe Field, Lawrenceville, Georgia; and
- Hendry County Airglades Airport, Clewiston, Florida.

*Question.* The privatization pilot program allows FAA to exempt the public airport sponsor from the obligation to repay Federal grants and return property acquired with Federal assistance upon the lease or sale of the airport. Is this authority discretionary or is FAA required to exempt airport sponsors from repaying Federal grants?

*Answer.* Title 49 U.S.C. 47134(b)(2) gives the Secretary discretionary authority to grant an exemption to an airport sponsor necessary to waive an obligation to repay Federal grants.

*Question.* The privatization pilot program allows FAA to exempt the public airport sponsor from the obligation to repay Federal grants and return property acquired with Federal assistance upon the lease or sale of the airport. Has the FAA ever used this discretionary authority?

*Answer.* In the case of SWF, FAA granted an exemption to the New York State Department of Transportation from its obligations to repay Airport Improvement Program grants. Title 49 U.S.C. 47134(b)(1) requires that the exemption permitting revenue to be used for nonairport purposes must be approved by at least 65 percent of the air carriers serving the airport; and by air carriers whose aircraft landing at the airport had a total landed weight of at least 65 percent of the total landed weight of all aircraft landing at the airport. The air carriers declined to approve New York State's request to use airport revenue for nonairport purposes.

Consequently lease proceeds remained airport revenue. The State of New York could only receive reimbursement for capital contributions incurred within the past 6 years as permitted by existing statute. An exemption was issued waiving the obligation to return Federal surplus property.

*Question.* The privatization pilot program allows FAA to exempt the public airport sponsor from the obligation to repay Federal grants and return property acquired with Federal assistance upon the lease or sale of the airport. If so, when and how much funding were airport sponsors exempted from repaying?

*Answer.* In 2000, New York State Department of Transportation was exempted by FAA from repaying \$59,118,796 in AIP funds and repaying an Economic Development Administration grant for the construction of an air cargo terminal. The Federal obligations were transferred to the private operator. Since the air carriers declined to approve New York State's request to use the lease proceeds for nonairport purposes, the lease proceeds remained airport revenue, and therefore the exemption was not used.

*Question.* The privatization pilot program allows FAA to exempt the public airport sponsor from the obligation to repay Federal grants and return property acquired with Federal assistance upon the lease or sale of the airport. If FAA did not require repayment at any airport involved in the privatization program, how much total Federal funding would each airport sponsor in the privatization program be exempted from repaying?

*Answer.* If FAA did not require repayment by any of the four active applicants in the privatization pilot program, the exemptions issued would equal approximately \$215,931,838 in total Federal funding. The amounts due the Federal Government would include:

- Chicago Midway, \$145,340,713;
- Luis Muñoz Marin, \$42,736,309;
- Gwinnett County Briscoe Field, \$24,408,257; and
- Hendry County Airglades Airport, \$3,446,559.

These amounts include the remaining useful life of grant-funded pavement, buildings, and equipment. Grant amounts are amortized over the 20-year useful life of the physical asset. The FAA would not require repayment for federally acquired land as long as the airport remained an airport. These amounts do not include improvements older than 20 years or intangible investments like studies and planning that are not depreciable assets.

*Question.* The privatization pilot program allows FAA to exempt the public airport sponsor from the obligation to repay Federal grants and return property acquired with Federal assistance upon the lease or sale of the airport. Have any of the public airport sponsors interested in privatization received Federal funding for land acquisition to build their airport? How would these types of grants be considered in the requirement to repay Federal grants?

*Answer.* Yes, some of the public airport sponsors interested in privatization have received Federal funding for land acquisition to build their airport. Since the useful life of land does not end or depreciate, the obligations associated with the Federal purchase of land do not expire. Federal surplus property deeds conveying land for airport purposes also do not expire. FAA would not require repayment associated with land acquisition because sponsors would want those obligations released. FAA would not normally seek reimbursement for the land, in order to ensure that these airports remain federally obligated.

*Question.* Midway Airport in Chicago is currently the only large-hub airport in the privatization program. How much total Federal funding has gone to build and maintain Midway Airport?

*Answer.* The FAA has obligated \$376,480,477 in AIP grant funds for Midway Airport in the last 20 years.

*Question.* Midway Airport in Chicago is currently the only large-hub airport in the privatization program. How much Federal funding would the city of Chicago need to repay if it were successfully privatized under the program and FAA did not use their authority to exempt repayment of previously received Federal grants?

*Answer.* The FAA could require repayment associated with the remaining useful life of the Federal investment without repayment for the cost of land. The city of Chicago and its private operator would have to repay \$145,340,713. This would include the depreciated value of pavement, buildings, and equipment. This sum would not include improvements older than 20 years or intangible investments like studies and planning.

*Question.* Midway Airport in Chicago is currently the only large-hub airport in the privatization program. What other large-hub airports have expressed interest in the privatization program?

*Answer.* It is unclear what other large-hub airports are interested. The FAA has not received applications from other large-hub airports because Midway currently holds the only slot for large hubs.

*Question.* Under the current privatization pilot program, what disclosure requirements does the private entity wishing to buy or lease the airport have?

*Answer.* The disclosure requirements are identified in the FAA's Airport Privatization Pilot Program: Application Procedures, 62 Federal Register 48693, September 16, 1997. Such disclosures include the following:

- qualifications of private airport operator, including the identity, experience and responsibility of key personnel;
- financial resources, including copies of 10K annual reports filed with the Securities and Exchange Commission, if not filed, balance sheet and income statement prepared in accordance with generally accepted accounting principles, with all footnotes applicable to the financial statements;
- description of the private operator's capability of complying with the public sponsor's existing grant assurances;
- affiliations with air carriers or other persons engaged in aeronautical business activity at an airport (other than airport management); and
- description of all charges of unfair or deceptive practices or unfair methods of competition brought against the private operator, private operator's key personnel and in the case of a private operator that is a joint venture, partnership or other consortium, the separate members of the entity in the past 10 years.

The description should include the disposition or current status of each such proceeding. If application is approved, the private operator is subject to financial reporting requirements provided for in 49 U.S.C. 47107(a)(15) and (19) and as implemented in Grant Assurance Nos. 13 and No. 26. Additionally, if the application is



approved, the private operator would be subject to periodic audits of the financial records and operations of an airport receiving an exemption under the pilot program and the applicant indicates their express assent to this provision. Private operators may file a request for confidentiality of documents or information submitted to protect the disclosure of confidential business information.

*Question.* Do private airport sponsors need to disclose any conflict of interests they may have with parties involved in a sale or lease agreement?

*Answer.* According to the application procedures, private operators must disclose affiliations with air carriers or other persons engaged in aeronautical activity at an airport (other than airport management). Private operators must also disclose all charges of unfair or deceptive practices or unfair methods of competition brought against the private operator and or key personnel within the past 10 years. The private applicant would also be subject to applicable State law conflict of interest requirements when submitting a response to a request for proposal and/or bid.

*Question.* Do private airport sponsors need to disclose an estimated amount of tax benefits over the life of a long-term lease or sale of a privatized airport?

*Answer.* Neither the statute nor the application procedures require the private operator to disclose estimated tax benefits over the life of a long-term lease or sale of a privatized airport.

*Question.* Do private airport sponsors need to disclose savings they may receive from changes in workforce, wages, benefits, or rules? Are the private entities required to disclose any tax or financing benefits they receive from entering into a long-term lease of an asset like an airport?

*Answer.* Neither the statute nor the application procedures require the private operator to disclose savings or estimated tax benefits over the life of a long-term lease or sale of a privatized airport. The statute does require that any collective bargaining agreement that covers airport employees and is in effect on the date of the sale or lease of the airport not be abrogated by the sale or lease. Additionally, if the application is approved, the private operator would be required to comply with all applicable Internal Revenue Service (IRS) rules and regulations.

*Question.* Under the current privatization pilot program, what disclosure requirements does the airport sponsor have before they sell or lease their airport?

*Answer.* The disclosure requirements are identified in the FAA's Airport Privatization Pilot Program: Application Procedures, 62 Federal Register 48693, September 16, 1997. Public Sponsors interested in applying must file a preliminary application to reserve a slot, followed by a final application for the exemption. The application procedures require the sponsor to submit a statement of the public sponsor's authority to sell or lease the airport, with a citation to legal authorities. The sponsor is required to file a distribution ready copy of the request for proposals (RFP) for the management and operation of the airport which should contain references to the nine statutory objectives listed in 49 U.S.C. 47134. In the RFP, the sponsor will need to disclose whether it is proposing to sell or lease a GA airport, or to lease any other type of airport. The applications are filed on [www.regulations.gov](http://www.regulations.gov) and available for public review and comment. The FAA conducts a public hearing in the local community and holds a 60-day public comment period before making a decision. Public Sponsors must disclose the amount of airport revenue that will be used for non airport purposes and the amount of airport revenue that will be paid to the private operator. The FAA encourages airport sponsor to augment FAA's efforts with their local means of communicating with the general public. The FAA requires a description of any local public outreach efforts by the applicant.

*Question.* Does the public airport sponsor need to conduct an assessment of whether a sale or lease with a private entity would represent a better public and financial benefit than keeping the airport under public ownership and control?

*Answer.* No, not formally through the privatization application process. The FAA views the type of management structure an airport owner chooses to manage its airport as a local decision. However, as a matter of prudence, FAA would expect an airport sponsor to perform appropriate due diligence in considering whether to privatize its public use airport. Most airport owners have conducted some form of assessment and made a decision to seek private investment and operation prior to submitting an application for the privatization pilot program.

As stated in the application procedures, it was the intent of Congress in enacting the airport privatization pilot program to determine if new investment and capital from the private sector can be attracted through innovative financial arrangements. The FAA and the public have a reasonable expectation that a private operator will provide new capital and create new investment opportunities at the airport.

Furthermore, the airport sponsor is required to describe how the private operator, the public sponsor, or both will address operation, maintenance, and development

of the airport after the proposed transfer, and the continued operation of the airport in the event of bankruptcy or other financial or legal impairment of the private operator. One approach would be through reversion of the airport back to the public sponsor.

*Question.* Does the public airport sponsor need to disclose how much revenue they will lose from selling or leasing an airport?

*Answer.* The application procedures require the public airport sponsor to disclose the lease or sale proceeds from the transaction that will be used for nonairport purposes. As with all Federal obligated airports, FAA can require airport owners and operators to submit financial information. The FAA did caution the sponsor and the private applicant for Niagara Falls International Airport about its concern about the level of investment in a proposed privatization process. This application was ultimately closed out in January 2002 for failure to proceed.

*Question.* Does the public sponsor need to disclose their plan for spending any upfront payments received in a sale or lease of an airport?

*Answer.* Yes, typically this occurs when the sponsor responds to the preliminary application question related to a summary narrative of the objectives of the privatization initiative—what the public sponsor wants to accomplish by the solicitation. The application procedures require the sponsor to disclose the amounts and timing of payments, and the amounts of payments to sponsor to be used, respectively, for airport purposes (including recoupment of public sponsor investments not previously recovered) and other purposes.

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#### QUESTIONS SUBMITTED BY SENATOR MARK PRYOR

*Question.* How do small communities benefit from the Essential Air Service (EAS) program?

*Answer.* The Department of Transportation's (DOT) EAS program was established in the 1978 Airline Deregulation Act (ADA) as a safety net for smaller and more isolated communities to have access to the national air transportation system. Under the program, small communities are assured a basic level of air service, linking them to the national air transportation system—generally with two departures per day, 6 days per week.

As of July 1, 2011, EAS-subsidized service was provided at 153 communities across the country—44 in Alaska and 109 in the rest of the country and Puerto Rico. Funding is now provided via an annual \$50 million payment from the Federal Aviation Administration (FAA), which derives the funds from air traffic control fees for international overflights, and an additional amount through annual appropriations. Program budget amounts have increased from \$22.6 million in fiscal year 1992 to \$200 million in fiscal year 2010.

The EAS program has largely retained its basic eligibility criteria since the ADA was enacted; it specified that those communities then receiving scheduled airline service were ensured of receiving at least a basic level of service thereafter, with subsidy if necessary. The guarantee was originally scheduled to expire after 10 years, but it has been extended indefinitely. The most notable change in eligibility dates from 1990, when Federal statute excluded from subsidy eligibility those communities in the 48 contiguous States that were located fewer than 70 highway miles from the nearest large- or medium-hub airport, or that require a rate of subsidy per passenger in excess of \$200, unless the point is more than 210 miles from the nearest large- or medium-hub airport. Public Law 106-69, title III, section 332. DOT is precluded by statute from making any determinations that would exclude communities from subsidy eligibility on any other basis. 49 U.S.C. 41731(b).

*Question.* What effect will the EAS provisions that have been added to the Senate version of the FAA bill with regard to the 100-mile rule have on small communities? How many airports will be affected by the 100-mile rule?

*Answer.* Senator Coburn's 100-mile amendment was subsequently modified, such that what was adopted by the Senate would define an eligible place for EAS as a place in the United States (but excluding Alaska) that "is located not less than 90 miles from the nearest medium or large hub." *See* S. 223, section 420, as passed the Senate on February 17, 2011. A 90-mile limitation, by DOT calculation, would affect 10 communities and produce an annual savings potential of approximately \$12.5 million. (Increasing the limitation to 100 miles would affect three additional communities, at a potential additional savings of \$4.2 million.)

#### FEDERAL CONTRACT TOWERS

*Question.* Contract tower cost share programs are important to my State as well as several others. An amendment I introduced to FAA bill would set a local cost

share cap on the cost-share airports participating in the contract tower program and provide relief for airports recovering from the recession. What steps are you taking to assist cost share contract tower communities currently struggling due to the economic downturn?

Answer. The FAA is keenly aware of the challenges faced by airports that are recovering from the economic downturn and has taken steps to lessen the financial impact of the cost share program on local communities. Historically, FAA updated its benefit cost (B/C) ratios on a biennial cycle; however, given the drastic decline in general aviation (GA) traffic in the past few years, FAA had delayed its B/C update until recently to avoid unnecessarily penalizing communities. However, the agency now believes the lower growth rate in GA traffic is going to persist for the foreseeable future and is in the process of revising its B/C ratios. We are taking steps to make sure the methodology and data involved in updating our B/C results as well as how that information is communicated and potentially appealed by communities is open and transparent.

While the hourly wages of the air traffic controllers are determined by the Department of Labor, FAA continuously evaluates and verifies the staffing for each facility. This is done to ensure the facilities are adequately staffed to provide safe, efficient operations and not overstaffed, to keep the price of each facility as low as possible. This successful program provides highly trained, experienced controllers at a reduced cost to the taxpayers.

Capping the local cost share for airports will have budget impacts on the FAA and opportunity costs for other programs as it will lead to a need to increase the funds made available to the current and future Cost Share program. It will also limit FAA's ability to allow new towers and communities into the program. There may also be lower-cost alternatives over time with the capacity of Next Generation Air Transportation System (NextGen) to deploy "virtual towers" with automatic dependent surveillance-broadcast capability.

#### AIR TRAFFIC CONTROL MODERNIZATION

*Question.* The budget request includes an estimated \$1.2 billion to support the ongoing NextGen program that will modernize the Air Traffic Control system. This is about a \$350 million increase more than the fiscal year 2010 enacted level. What is the rationale for the increase?

Answer. The fiscal year 2012 President's budget request for NextGen totals \$1.237 billion, an increase of \$369 million, or 43 percent more than the fiscal year 2010 enacted level of \$868 million. While this is a significant funding increase, it:

- includes a one-time \$200 million mandatory spending request in support of the President's \$50 billion infrastructure initiative;
- is consistent with the FAA's Capital Investment Plan and NextGen Implementation Plan; and
- underscores the declaration by this administration that NextGen is a top national transportation and infrastructure priority.

The NextGen Implementation Plan lays out FAA's plan for delivering significant benefits by the 2018 timeframe. Specifically, our most recent estimates show that by 2018, NextGen air traffic management improvements will reduce total delays (in flight and on the ground) by about 35 percent compared with what would happen if we did nothing. This delay reduction will provide \$23 billion in cumulative benefits from 2010 through 2018 to the traveling public, aircraft operators, and the FAA. We will save about 1.4 billion gallons of aviation fuel during this period, and cut carbon dioxide emissions by 14 million tons.

Aviation is critical to our Nation's economy. As recently as 2009, civil aviation contributed to \$1.3 trillion annually to the national economy, and constituted 5.2 percent of the gross domestic product. It generated more than 10 million jobs, with earnings of \$397 billion.

*Question.* One of my goals is to ensure that all taxpayer dollars are spent wisely and effectively, particularly given the fiscal situation we are in right now. Can you give me some specific examples of how taxpayers will benefit from this spending (i.e., what is the return on investment for taxpayers)?

Answer. The advantages of NextGen will benefit almost all taxpayers, whether they are frequent flyers or never fly at all. Those who do fly will enjoy fewer delays, the highest level of safety, and more predictable trips. Those living in neighborhoods near airports will experience less aircraft noise and fewer emissions. Communities will make better use of their airports and strengthen their local economy, as well as our national economy.

Specifically, our most recent estimates show that by 2018, NextGen air traffic management improvements will reduce total delays (in flight and on the ground) by

about 35 percent compared with what would happen if we did nothing. This delay reduction will provide \$23 billion in cumulative benefits from 2010 through 2018 to the traveling public, aircraft operators, and the FAA. We will save about 1.4 billion gallons of aviation fuel during this period, and cut carbon dioxide emissions by 14 million tons.

NextGen mid-term improvements made during this time will continue to accrue benefits beyond 2018. Total cumulative benefits through 2030 are estimated to be worth \$123 billion, including a total savings of 6.7 billion gallons of fuel and 64 million tons of carbon dioxide. This represents a net present value to the taxpayers of \$33 billion.<sup>1</sup>

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QUESTION SUBMITTED BY SENATOR DANIEL COATS

AIRPORT SLOT ALLOCATIONS AT REAGAN NATIONAL AIRPORT

*Question.* I am concerned about the fairness of the criteria used for counting slots at Washington, DC's Ronald Reagan Washington National Airport (DCA). It appears the current regulation has led the agency to double-count the number of "holds" an airline possesses for purposes of qualifying as a "limited incumbent" (See 14 CFR 93.213). For example, Republic Airways Holdings, an Indiana-based company, maintains control over fewer than 20 slots at DCA. But the company cannot qualify as a limited incumbent due to its minority interests in and financial transactions with other airlines. Under the current method of counting, these investment interests result in Republic holding more than 100 slots at DCA. But airlines other than Republic retain complete control over the use of those slots—and the slots count against the controlling airlines as well as against Republic. Thus, numerous slots are being double-counted for purposes of qualifying as a limited incumbent. Why has the agency adopted a policy that results in such dramatic double-counting of slots? Is there a way to end double-counting and promote accuracy and fairness when counting slots for purposes of qualifying as a limited incumbent at DCA?

*Answer.* Pursuant to 14 CFR 93.213, a "limited incumbent" at high-density airports is defined as a carrier that "holds or operates" fewer than 20 slots, including slot exemptions. The limit was increased from 12 to 20 in the AIR-21 legislation, Public Law 106-181, an action we interpret as indicating congressional recognition and support for the "hold or operate" approach.

In this case, Republic Airways Holdings, Inc. clearly holds 113 slots at DCA, Republic Airlines (a subsidiary of Republic Airways Holdings), holds 16 slots and Frontier Airlines, another subsidiary of Republic Airways Holdings, holds 6 slots. We understand Republic Airways Holdings' claims that under their agreement US Airways effectively has control over use of the slots, but there appears to be no dispute either that Republic Airways Holdings is in fact the holder of the 113 slots or that it derives financial benefit as a result of such holdings.

Notwithstanding this point, in the latest "slot counting" issue at DCA—in which Delta Air Lines is proposing to swap certain slots at DCA for slots held by US Airways at LaGuardia Airport—the Department has demonstrated some flexibility in its approach by proposing to allow Frontier Airlines to be eligible to compete for certain slots to be divested, despite the fact that it is wholly owned by Republic Airways Holdings. While the issue remains open for comment, the Department of Transportation tentatively found that Frontier Airlines maintained a discretely different low-cost carrier business plan than its parent and that Frontier Airline's presence as an eligible bidder would help to stimulate and maintain competition at these airports.

SUBCOMMITTEE RECESS

Senator MURRAY. I appreciate both of your testimonies today and look forward to working with you.

With that, this hearing is recessed.

[Whereupon, at 10:52 a.m., Thursday, May 12, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

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<sup>1</sup>Net present value equals discounted benefits, minus discounted costs.