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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR 2002

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

HOUSE OF REPRESENTATIVES

ONE HUNDRED SEVENTH CONGRESS

FIRST SESSION

SUBCOMMITTEE ON THE DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS

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RICHARD E. EFFORD, STEPHANIE K. GUPTA, CHERYLE R. TUCKER, and LINDA J. MUIR, *Subcommittee Staff*

PART 6

	Page
AIRLINE DELAYS AND AVIATION SYSTEM CAPACITY:	
March 15	**1**
May 3	**471**
August 2	**643**
FEDERAL AVIATION ADMINISTRATION MANAGEMENT:	
March 28	**243**
DEPARTMENT OF TRANSPORTATION:	
Federal Aviation Administration	**825**

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DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS FOR 2002

THURSDAY, MARCH 15, 2001.

AIRLINE DELAYS AND AVIATION SYSTEM CAPACITY

MORNING SESSION

WITNESSES

JANE GARVEY, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

KENNETH M. MEAD, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION

EDWARD A. MERLIS, SENIOR VICE-PRESIDENT, LEGISLATIVE AND INTERNATIONAL AFFAIRS, AIR TRANSPORT ASSOCIATION

JOHN CARR, PRESIDENT, NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION

CHARLES BARCLAY, PRESIDENT, AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES

DUANE E. WOERTH, PRESIDENT, AIR LINE PILOTS ASSOCIATION

OPENING REMARKS

Mr. ROGERS. The Committee will be in order.

This morning we will look in depth at the horrible and worsening problem of airline delays and cancellations. These seem to have descended upon the country like a plague over the last few years. Millions of passengers in this country are terribly inconvenienced, as all the Members on this dias can testify to; business meetings canceled, families disrupted, kids that do not get united with their families, to mention just a few of the problems. The personal and commercial disruptions are nothing short of horrendous, and they have to stop. If you cannot do your job, we will find somebody that will. It is as simple as that.

Last year, one out of every four flights in the United States was delayed. The average delay now has increased to over 50 minutes, and the Inspector General (IG) has reported on the growing number of "chronically late" flights, flights which are hardly ever on time. The news show *Dateline* reported a couple of nights ago on NBC a few examples, highlighting certain flights which are late almost all of the time. Cancellations are just as big a part of the problem as delays. The number of canceled flights has increased sevenfold in the last five years. Your chance of having your flight canceled in 1995 was one-half of one percent. In 2000, that has risen to three and a half percent.

With many of these people being funneled through a small number of hub airports for connecting flights, it does not take too many delays or cancellations to disrupt the plans of tens of thousands of people, and because these aircraft are now 70 percent full it is almost impossible to rebook all these passengers on the next available flight if there is one. The delay experience by passengers is far greater than is even being reported in the statistics, and that is why people are so furious about airline travel today.

Instead of dealing with these problems head on, there tends to be a lot of finger pointing. The airlines blame the FAA. FAA blames pilots. Pilots blame the air traffic control system. Somebody blames the weather. I do not think God is a problem in airline delays.

I intend to get beyond the finger pointing today. We have had enough of that. I do not want to hear it. I want to know the answers in a very frank and open discussion, in a very nice atmosphere.

INTRODUCTION OF WITNESSES

We will hear from the FAA administrator, Jane Garvey; the Department of Transportation Inspector General Ken Mead; Chip Barclay, the president of American Association of Airport Executives; Ed Merlis, the senior vice-president of the Air Transport Association; John Carr, president of the National Air Traffic Controllers Association; and Captain Duane Woerth, president of the Air Line Pilots Association. I thank each one of you for being here today.

OPENING STATEMENTS

In the interest of time, we are going to dispense with oral statements from the witnesses and go directly to questions. We will enter your written statements, without objection, in the hearing record for Members to read and peruse.

[The prepared statements and biographies of the witnesses follow:]

STATEMENT OF

THE HONORABLE JANE F. GARVEY

FEDERAL AVIATION ADMINISTRATOR

before the

HOUSE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES

CONCERNING AIR TRAFFIC CONTROL DELAYS AND CAPACITY

MARCH 15, 2001

Chairman Rogers, Congressman Sabo, Members of the Subcommittee:

Thank you for the opportunity to appear before you today to discuss the topic of airline delays and capacity. We welcome this Committee's interest in this serious issue. Throughout the last two years the FAA has been working to improve the efficiency of the air traffic system, while at the same time, maintain the highest standards of safety. That safety is, and should remain, of paramount importance is clearly supported by every member of the aviation community. I am very pleased to share with you today the role we at the FAA are taking to lead the effort to provide a safe and reliable air traffic system.

Airline Delays

Delays have significant financial, scheduling, service, and competition consequences for airlines and result in understandable frustration for their passengers. The issue of delays

is very complex. There are many conditions that can cause delays: bad weather, inoperable runways, airport capacity limitations, aircraft equipment problems, airline maintenance and flight crew problems, and air traffic equipment outages. Because of the various causes for delays we know they will never be eliminated. Nevertheless, it is the job of the FAA, airlines, and airports to strive to minimize delays to the greatest extent possible, without compromising safety.

I want to take a moment to discuss the FAA's role in operating and maintaining a safe and secure National Airspace System (NAS). Every action we take is done with safety as our primary goal. Recent statistics show that the accident rate for commercial air travel has declined steadily for the past two decades. Yet during this time period, passenger enplanements in the United States more than doubled and are expected to reach 1 billion by 2010 – an increase of more than 50 percent above today's level. We have a remarkable safety record, and are constantly working to improve it. Any action we take to address airline delays and capacity issues -- and I cannot stress this enough -- will always be done within our primary mission of increased safety and security for the traveling public. Critics at times may charge that we are too conservative in operating the air traffic control system. I remind them that it is our responsibility to balance safety and efficiency in the NAS and we will always choose safety first. But I also recognize that the FAA has to do a better job getting modern systems in place so that fewer tradeoffs between safety and efficiency have to be made.

Spring and Summer Plan 2000

In light of the flight delays our nation experienced in 1999, we recognized that we needed to establish a collaborative planning process between the FAA and users of the NAS. We created the Spring/Summer 2000 plan for severe weather operations. At the heart of this initiative is a collaborative plan developed by industry, labor, and government. The plan maximizes the use of available airspace, improves communications between FAA and aviation system users, and expands the use of new technology. All of this will improve predictability for the airlines during severe weather operations.

I refer to our Spring/Summer plan as a delay management plan – we can never eliminate delays. However, we can do a better job of collaborative decision-making to better manage the airspace so that the flying public has some expectation of predictability. We know that centralized decision-making, unprecedented collaboration, common weather information -- what we refer to as the playbook -- is absolutely the right approach. While delays did increase in 2000 from the previous year, as well as the numbers of flights and passengers in the NAS, we know our collaborative approach makes a difference. Some airlines have informed me that even with the increase in severe weather days in 2000, our collaborative efforts enabled them to better plan and execute operations as well as inform passengers in advance of severe weather. This is the key to our Spring/Summer plan efforts in 2001.

We have learned some valuable lessons from this past summer and are continuing to develop our plan as we prepare for the turbulent weather season to come. But it is

important to note that collaborative decision-making will only be successful to the extent that all parties fully participate. Not every carrier participates in the same manner. The airlines have different business and economic strategies during periods of severe weather. This is an environment in which our customers are in fierce competition with each other.

Aviation Infrastructure

We also need to focus on making the air travel experience as pleasant as possible when delays or cancellations do occur. Recently, the Department issued a report, *Best Practices for Improving the Air Travel Experience*, that identifies numerous policies, programs, and services that can be employed to minimize the adverse consequences of flight delays and cancellations. We encourage all parties – airports, airlines, and air travelers – to review these best practices and consider their adoption.

In his confirmation hearing, Secretary Mineta said "a central challenge for the department is to close the gap between the demand for transportation and the capacity of our transportation infrastructure." Aviation infrastructure includes air traffic control and airports. Last year, only five of the nation's 563 certificated airports accounted for 49 percent of all delays. The ripple effects from these airports are felt across the country.

As economists can tell you, when demand and supply are out of balance something has to give. Right now, what is giving is efficiency, resulting in delays. Too many flights are late. Passengers don't get where they need to be when they need to be there. Just-in-time shipments suffer. Businesses and individuals pay the price. How this gap can be closed

is very complex and should not be solved by government alone. But we at the FAA are committed to lead this effort. In order to do so, we need better information that is specific to the root causes of the problem, and how capacity changes at key airports will help.

This is why we are developing capacity benchmarks for 31 key airports. We are working with local FAA facilities, airport authorities, and of course, users. We want to know the departure and arrival rate, by time of day, under good weather conditions as well as bad, that can safely be accommodated at each airport. Then, working with the airport and airlines, we will look at the impact of planned improvements. And we will explore other possible solutions — it could be technology, air traffic procedural changes, a new runway, or other management approaches. We must identify the problem -- then work with the aviation community on the right set of solutions.

As Members of this Committee know, the issue of airport capacity is very politically sensitive. Whether local communities are discussing new runways, new terminals, or new airports, the debate is always heartfelt and emotional. Hard choices will have to be made at all levels of government with communities across the country in addressing the capacity demands. Unfortunately, runway capacity is only one piece of the delay puzzle and therefore expanding capacity will alleviate, but not solve the delay problem. For example, some of the airports at which capacity is most constrained may not be ready or may not be able to construct new runways. Therefore, we should explore ways to best

utilize our existing capacity and plan our new capacity to ensure that we can manage future air travel demand.

LaGuardia Airport

New York's LaGuardia airport provides an illustration of what can happen when demand and supply are out of balance. The controllers have been doing an outstanding job of moving large volumes of traffic safely through all the New York airports. Yet, last fall the demand at LaGuardia exceeded supply at least 12 hours a day. Delays of one to two hours or more were not unusual. Last September, delays were up 41 percent from the previous September and accounted for more than 20 percent of *all* delays nationwide.

Since an aircraft operating at LaGuardia could be scheduled for several other airports in an operating day, we know these delays don't just affect LaGuardia. A recent evaluation by MITRE looked at the amount of traffic that traveled through LaGuardia on one day and the impact on nationwide delays. The study showed that some 376 flights traveling to 73 airports experienced flights delays because their aircraft had passed through LaGuardia at least once that day.

In November, the FAA, with the support of the Port Authority of New York and New Jersey, held a lottery to reduce airline schedules at LaGuardia effective January 31st. Initial results of the reduced schedule show that operations at LaGuardia are running much better, except, of course, on severe winter weather days. The FAA and the Secretary's office are currently developing long-term demand management solutions in

concert with the aviation community. With the Transportation Research Board, the FAA recently held a seminar with representatives from all elements of the aviation community. We discussed both administrative and market-based approaches to demand management.

Airspace Redesign

At the same time, we have a number of tactical and strategic measures underway to improve efficiency of the air traffic control system. In addition to the updated Spring/Summer 2001 plan, we have identified other tactical measures, such as taking steps to alleviate the seven "choke points," or bottlenecks, in the system. We have 21 initiatives underway to make procedural changes to more efficiently use airspace. Eleven are completed. In addition, airlines are using lower altitude routes; we are looking at greater access to military airspace; and we are working with NavCanada about expanded use of Canadian airspace.

More strategically, we are redesigning our nation's airspace. The National Airspace Redesign will be completed for the entire country in 2006, but we are starting in the New York and mid-Atlantic areas where we expect tangible benefits within four years. The most congested and complicated airspace is east of the Mississippi River. Because this airspace poses the most challenges, it is the initial focus of our redesign. Our goal is to establish comprehensive processes and procedures to ensure adaptable and flexible airspace that meet future demands.

The FAA is also working to determine how our operating, capital, and research investments should be best distributed to meet our strategic goals, including those pertaining to system efficiency. A better understanding of how these three resources enable us to achieve goals will in turn help us make more effective decisions for the near and long term.

In conclusion, I would like to say that the entire FAA team recognizes its dual responsibilities of safety and efficiency when it comes to reducing aviation delays. I am fortunate to have a highly dedicated workforce – our controllers, our technicians, and our headquarters staff – and we are all working aggressively and cooperatively with airlines and airports to meet these challenges.

Mr. Chairman, I will be happy to answer any questions.

U.S. Department of Transportation
Federal Aviation Administration

Office of the Administrator

800 Independence Ave., S.W.
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Jane F. Garvey
Administrator
Federal Aviation Administration

Jane F. Garvey, the 14th Administrator of the Federal Aviation Administration was sworn in August 4, 1997. She is the first Administrator confirmed by the Senate to a five-year term. With an outstanding career in public service and extensive administrative experience, Garvey brings to the FAA a strong commitment to ensure the world's safest skies become even safer.

As Administrator, Garvey manages a 49,000-person agency with worldwide impact and presence in promoting aviation safety and security. The FAA regulates and oversees aviation safety and security, conducts cutting edge research and development, and operates the world's largest air traffic control system.

Administrator Garvey initiated *Safer Skies*, the U.S. aviation community's safety agenda, which focuses the agency's resources on taking the actions that safety data and analysis indicate can make the biggest difference in lowering the accident rate. She led the successful transition of the FAA's air traffic control system to January 1, 2000 with no disruptions to service. In addition, the FAA provided world leadership on Y2K transition. Under Administrator Garvey's leadership the FAA is moving forward on its phased plan to modernize the air traffic control system and has, for the first time, achieved government and industry consensus on how to proceed. To bring immediate modernization benefits, she initiated the Free Flight Phase 1 program under which the FAA reached consensus with the aviation community to deploy five specific technologies by the end of 2002.

Prior to being named FAA Administrator, Garvey was Acting Administrator of the Federal Highway Administration (FHWA). She served as Deputy Administrator of FHWA from April 1993 until February 1997. FHWA, also an agency of the U.S. Department of Transportation, has an annual budget of $20 billion and works in partnership with the states to maintain the safety and efficiency of the Nation's roads and bridges. A creative leader at FHWA, Garvey chaired FHWA's Innovative Financing Initiative, which resulted in more than $4 billion in transportation investment in more than 30 states—projects that in many cases would not have been otherwise built.

Before joining FHWA, Garvey served as director of Logan International Airport, one of the Nation's busiest aviation facilities. From 1988 to 1991, she was Commissioner of the Massachusetts Department of Public Works. Before that, Garvey was Associate Commissioner in the Massachusetts Department of Public Works, where she directed construction activities and developed environmental initiatives.

Garvey holds degrees from Mount Saint Mary College and Mount Holyoke College. She has participated in the Fellowship Program for Public Leaders at Harvard University.

Before the Committee on Appropriations,
Subcommittee on Transportation and Related Agencies,
United States House of Representatives

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Flight Delays and Cancellations
Federal Aviation Administration

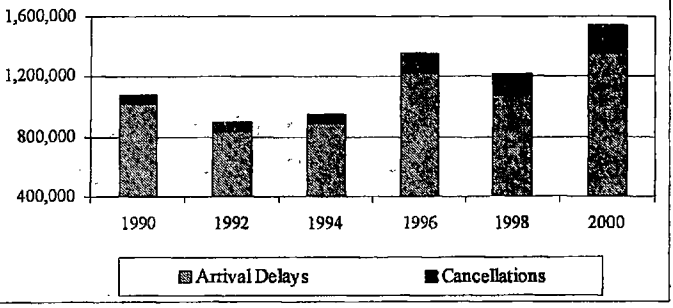
Statement of
The Honorable Kenneth M. Mead
Inspector General
U.S. Department of Transportation

Mr. Chairman and Members of the Committee:

We appreciate the opportunity to discuss flight delays and cancellations and the implications for airline customer service. Today, I would like to address the following issues: (1) the growing severity of delays and cancellations; (2) the factors that will influence future conditions, and (3) the need for both long-term and short-term remedies to address delay problems.

Flight delays and cancellations as well as consumer dissatisfaction with the airlines are at an all-time high in this Nation. Arrival delays alone were up approximately 33 percent (from 1,019,363 to 1,355,176) between 1990 and 2000 (see Figure 1).[1] Cancellations rose at even a higher rate of 257 percent (from 52,458 to 187,317) during this same time period. Since 1990, the number of air travelers also increased nearly 43 percent (from 495 to 706 million), and according to Federal Aviation Administration (FAA) forecasts will exceed 1 billion by 2010.

Figure 1: Growth in Arrival Delays and Cancellations 1990 to 2000 (BTS Data)



The combination of burgeoning demand and limited capacity have resulted in widespread customer dissatisfaction with air travel—which FAA, airlines, and airports all have a role in addressing. In our recently completed audit of Airline Customer Service Commitment (Commitment),[2] we found that the airlines had made significant investment and progress toward meeting the Commitment. We also found, however, that the Commitment does not directly address the root causes of customer dissatisfaction, extensive flight delays, flight cancellations, and

[1] Data for 1992 through 2000 cover 10 major airlines. The 1990 data include two additional airlines that ceased operations in 1991 (Eastern and Pan Am).

[2] Final Report on Airline Customer Service Commitment (AV-2001-020), February 12, 2001.

baggage not showing up with the passenger. The number of consumer complaints received by the Department of Transportation (DOT) about the airlines increased 14 percent (from 20,438 to 23,381) between 1999 and 2000, with 40 percent of those complaints attributable to flight delays and cancellations.

Airline Delays and Cancellations Continue to Become More Severe

- In 2000, more than one in four flights (27.5 percent) were delayed; canceled; or diverted, which affected approximately 163 million passengers. Over 36 percent of these delays related to flights arriving at 10 airports. Figure 2 identifies the 10 airports in 2000 with the most delays and cancellations, as well as changes from the prior year.

Figure 2. Ten Airports with Most Arrival Delays and Cancellations (BTS Data)

Arrival Delays

No.	Airport	2000	1999	% Change
1	O'Hare	87,939	69,876	26%
2	Los Angeles	62,444	43,448	44%
3	Atlanta	55,970	60,673	-8%
4	Phoenix	48,449	38,262	27%
5	San Francisco	45,299	35,773	27%
6	Dallas/Ft. Worth	44,066	40,812	8%
7	Denver	39,080	24,121	62%
8	Las Vegas	38,351	28,353	35%
9	LaGuardia	36,557	25,123	46%
10	St. Louis	33,795	29,557	14%

Cancellations

No.	Airport	2000	1999	% Change
1	O'Hare	19,318	15,985	21%
2	Atlanta	9,278	6,859	35%
3	Dallas/Ft. Worth	8,810	7,153	23%
4	Los Angeles	8,120	5,595	45%
5	Boston	7,690	6,260	23%
6	LaGuardia	7,591	5,474	39%
7	San Francisco	7,177	5,210	38%
8	Philadelphia	6,442	5,683	13%
9	Newark	6,330	5,764	10%
10	Phoenix	5,050	2,651	90%

- Of those flights arriving late in 2000, the average delay exceeded 52 minutes.
- The number of flights chronically delayed and/or canceled[3] increased 340 percent (from 55,179 to 242,803) between 1995 and 2000. Likewise, the number of unique flight numbers associated with these chronic delays and cancellations increased nearly 144 percent (from 4,400 to 10,717) during this same period.

[3] Under our definition, which differs slightly from the Bureau of Transportation Statistics (BTS), chronically delayed and/or canceled flights are those regularly scheduled flights (e.g., Chicago to Miami) that arrived at least 30 minutes later than scheduled and/or were canceled at least 40 percent of the time during a single calendar month.

- Among the top 10 airlines, United and US Airways accounted for over 50 percent (123,145 of 242,803) of the total number of chronically delayed flights in 2000. Figure 3 shows the number of chronically delayed flights by airline and airport for 2000.

Figure 3. Chronically Delayed (30+ Minutes) and Canceled Flights by Airline and Airport (BTS Data)

No.	Airline	Number of Impacted Flights
1	United	90,187
2	US Airways	32,958
3	American	29,996
4	Southwest	26,095
5	Delta	22,271
6	Northwest	10,759
7	America West	10,561
8	Continental	8,897
9	Alaska	6,717
10	Trans World	4,362
	Total	**242,803**

No.	Airport	Number of Impacted Flights
1	O'Hare	30,466
2	LaGuardia	18,154
3	San Francisco	17,184
4	Los Angeles	12,905
5	Boston	9,544
6	Newark	8,905
7	Denver	7,824
8	Philadelphia	7,820
9	Atlanta	6,618
10	Phoenix	6,450
	Total	**125,870**

- Flights experiencing taxi-out times of 1 hour or more increased nearly 13 percent (from 40,789 to 45,993) between 1999 and 2000. Since 1995, the number of flights experiencing taxi-out times greater than 1 hour increased by 165 percent (from 17,331 to 45,993). Flights with taxi-out times of 2, 3, and 4 hours increased at even higher rates of 217, 289, and 341 percent, respectively, during this same period.

- To compensate for longer ground and air times, the 10 major airlines have increased their flight schedules on approximately 83 percent (1,794 of 2,167) of their major domestic routes between 1988 and 2000.

Future Outlook for Delays and Cancellations Contingent on Multiple Factors

As we move into the new year, the question before us is whether the current state of air travel in the U.S. will improve or whether past trends will continue. For the coming summer, the answer depends on several key factors, including weather conditions; mounting labor disputes within the airline industry, how existing capacity is managed at already congested airports—especially during peak periods of demand; and the impact of a softening economy on air traffic demand.

Anecdotal information from several airlines showing a reduction in advance bookings over last year could be an early indication that travel volumes may be lower this spring and summer, which would relieve some of the pressure on the system. They could, however, merely reflect consumers' fears that labor actions may cause service disruptions, and consumers are choosing to wait and see where the problems develop before booking reservations.

Barring good weather and/or a significant downturn in air traffic due to a softening economy, we have only a few months left to identify needed solutions and to act on them before the heavy summer travel season begins. One area in particular that may have a significant effect on summer air travel is labor disputes at four major airlines. As many travelers experienced last year, airline labor problems, combined with poor weather and increased airline scheduling, were major factors behind the growth in delays and cancellations.

Short-Term and Long-Term Solutions Are Needed

The solution to the growing problem of delays and resulting consumer concern over air travel will require a combination of long-term, intermediate, and short-term actions. Ultimately, long term solutions are needed in the form of new air traffic control technology (ATC), airspace redesign, and infrastructure improvements including airport expansion. These approaches, however, vary as to the amount of relief that can be gained in the short term (over the next 1 to 2 years), the intermediate term (4 to 5 years), and the long term (8 to 10 years). For the solutions designed to improve capacity, such as new runways; airspace redesign; or ATC technology, we can expect only limited or no bottom line relief over the next few years.

In the more immediate term, however, the airlines can do a great deal to help minimize the impact of flight delays and cancellations on air travelers—especially in the areas of scheduling and operations. Because air travelers in 2000 stood a greater than one in four chance of their flights being delayed or canceled, we believe the airlines should go further and address steps they are taking on matters within their control to reduce delays, the number of chronically late or canceled flights, and the amount of checked baggage that does not show up with the passenger upon arrival.

While longer range solutions are pursued, some immediate actions can and should be taken to alleviate some of the problems in the short term. Spring/summer 2001 is rapidly approaching and if operational factors, including passenger loads and flight scheduling, do not change, the disruptions and inconveniences to the traveling public will be a repeat of last year. The following are options for short-term actions.

- **Establish Uniform System for Tracking Delays, Cancellations, and Their Causes.** DOT's ability to address delays and cancellations is significantly handicapped by the lack of a uniform system for tracking delays, cancellations, and their causes. This has led to misleading and inconsistent data.

  An example of the confusion that can result from the varying methodologies used by BTS and FAA to count delays occurred last week when, on the same day, two different publications simultaneously reported worsening and improving delay records. On March 9, Aviation Daily, using data from the Federal Aviation Administration, reported that there were 1,964 more delays in January 2001 than in January 2000. The Washington Post, using BTS data, reported that the percentage of flights arriving on-time had improved (i.e., reduced delays and cancellations) for the 10 major airlines over the same period. A Secretarial-level task force made recommendations to improve the reporting process; now, follow through is needed and timeframes for implementation must be established.

- **Finalize and Issue Capacity Benchmarks.** An important first step in addressing the delay problem is to develop a set of "capacity benchmarks" for the Nation's top 30 airports. Capacity benchmarks are defined as the maximum number of flights an airport can routinely handle in an hour. Establishing benchmarks is critical to understanding airline scheduling practices and what relief can be expected from technology and new runways. At the very least, benchmarks will provide a common framework for understanding what maximum arrival and departure rates can physically be handled at the busiest airports under good and poor weather conditions, by time of day. To date, FAA has made significant progress in developing the benchmarks and anticipates issuing them later this month.

- **Revise Airline Scheduling.** The airlines should make scheduling changes taking into account the benchmarks established for the top 30 airports, and data related to chronically delayed and canceled flights. If this self-discipline is not successful, the pros and cons of additional steps should be weighed. These steps could include congestion pricing or administrative allocations of capacity such as slot lotteries or scheduling committees under antitrust supervision.

- **Disclose Flight Delay and Cancellation Performance.** Airlines should disclose to customers, at the time of booking and without being asked, the prior month's on-time performance rate for those flights that have been consistently delayed (i.e., 30 minutes or more) and/or canceled 40 percent or more of the time.

- **Explore Accelerating the Development and Implementation of the Local Area Augmentation System (LAAS).** LAAS augments the Department of Defense's Global Positioning System for civil aviation and will provide all-weather approach and landing capability to airports. FAA plans to have LAAS operational by the end of 2002 (for Category I service). FAA should assess technical and programmatic risks to determine whether it is indeed feasible to accelerate LAAS implementation.

- **Focus on Airspace Redesign Efforts and System Choke Points.** Benefits from airspace redesign efforts are expected to be incremental in the near term. FAA has initiated efforts to address seven air traffic control choke points, all of which are east of the Mississippi River. To date, 11 of 21 planned action items have been completed. FAA needs to complete the remaining 10 action items, which include assessing staffing levels for some facilities, examining the need for new ATC sectors, and exploring ways to exchange radar data with Canada to assist in the rerouting of aircraft.

- **Complete Ongoing Airport Expansion Projects.** The largest capacity increases come from building new airports and runways. According to FAA, there are currently 14 new runway projects either planned or under construction at the 30 largest airports that are expected to be completed in the next 7 years. Those airports include: Atlanta, Boston, Charlotte, Cincinnati, Dallas/Ft. Worth, Denver, Detroit, Dulles, Houston, Orlando, Miami, Minneapolis, Seattle, and St. Louis.

  Nevertheless, various parties provided us with different projected completion dates for these new runways. Given the importance of new runways to the NAS, the milestones for these projects need to be clarified and DOT, FAA, and the airports need to do everything they can to ensure these milestones are met and the projects completed on time.

Flight Delays and Cancellations

Flight delays and cancellations are key indicators for measuring the health of the National Aviation System (NAS). These indicators highlight growing problems that require immediate attention.

- In 2000, more than one in four flights (27.5 percent) were delayed, canceled, or diverted, affecting approximately 163 million passengers.

- Bureau of Transportation Statistics (BTS) data show arrival delays increased 30 percent (from 1,039,250 to 1,355,176) between 1995 and 2000.[4] Likewise, the Federal Aviation Administration (FAA) reported that delays increased 90 percent (from 236,802 to 450,289).[5] Flight cancellations grew at an even faster pace during this same period, increasing 104 percent (from 91,905 to 187,317).

- Over the last year, BTS data indicated an increase of nearly 18 percent (from 1,152,725 to 1,355,176) in arrival delays. Likewise, FAA reported an increase of over 20 percent (from 374,116 to 450,289) in delays. Flight cancellations

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[4] Airlines that account for at least 1 percent of domestic scheduled passenger revenues submit monthly reports to BTS, which are used, among other things, to determine the percentage of flights departing and arriving on time by airport. BTS counts a flight as on time if it departed or arrived within 15 minutes of scheduled gate departure (aircraft parking brake released) and arrival (aircraft parking brake set).

[5] FAA collects data on flight delays via the Operations Network (OPSNET). FAA personnel manually record aircraft that were delayed for 15 minutes or more after coming under FAA's control, i.e., the pilot's request to taxi-out.

also increased, rising over 21 percent (from 154,311 to 187,317) between 1999 and 2000.

- Not only are there more delays, but those occurring are longer. Of those flights arriving late, the average delay exceeded 52 minutes in 2000.

- Most delays occur on the ground. Based on FAA data, approximately 84 percent of total delay time during 2000 occurred during gate departure (50 percent), taxi-out (26 percent), and taxi-in (8 percent). These numbers are comparable to FAA's findings in 1999.[6]

- Based on BTS data for the 30 largest U.S. airports, the number of flights experiencing taxi-out times of 1 hour or more increased 165 percent (from 17,331 to 45,993) between 1995 and 2000. Flights with taxi-out times of 2, 3, and 4 hours increased at even higher rates of 217, 289, and 341 percent, respectively, during this same period.

Number of Flights with Taxi-Out Times of 1 to 5+ Hours, 1995-2000 (BTS Data)

Time Period	1995	2000	% Change
1-2 Hrs.	15,220	39,019	156%
2-3 Hrs.	1,697	5,376	217%
3-4 Hrs.	313	1,219	289%
4-5 Hrs.	68	300	341%
5 or > Hrs.	33	79	139%
Total:	17,331	45,993	165%

- Flights experiencing taxi-out times of 1 hour or more increased nearly 13 percent (from 40,789 to 45,993) between 1999 and 2000. Of those flights

[6] Based on data obtained from FAA's Consolidated Operations and Delay Analysis System for 55 major U.S. airports.

with taxi-out times of 2, 3, 4, and 5 hours or greater, the largest percentage increase occurred in the 5+ hour category, which more than doubled (from 30 to 79).

- To compensate for longer ground and air times, the 10 major airlines have increased their flight schedules on approximately 83 percent (1,794 of 2,167) of their major domestic routes between 1988 and 2000, ranging from 1 to 26 minutes.

Chronically Delayed or Canceled Flights

A frustrating experience for air travelers occurs when flights arrive late and/or are canceled month after month. According to BTS, chronically delayed and/or canceled flights are those *regularly scheduled flights* that, at least 80 percent of the time, arrived at least 15 minutes later than scheduled and/or were canceled during *a single calendar month.* Our analysis of BTS data found that travelers, last year, experienced far more of these chronically delayed and/or canceled flights than any of the prior 3 years we examined. The number of flights delayed and/or canceled at least 80 percent of the time increased from 8,348 to 40,868 (390 percent) between 1999 and 2000.[7]

[7] Our intent is not to attribute the cause of the delays or cancellations associated with these flights to the airlines, but to highlight the extent to which such flights are occurring.

In an effort to better demonstrate the impact of chronically delayed and/or canceled flights on air travelers during 2000, we increased the amount of the arrival delay to 30 minutes or more, from the BTS standard of 15 minutes. We also applied a 40-percent threshold instead of the 80 percent used by BTS. Using BTS data, we identified all scheduled flights that, when grouped by individual flight number, were delayed and/or canceled at least 40 percent of the time during a single calendar month. Using our criteria, we identified:

- Over 240,000 scheduled flights (representing 10,717 individual flight numbers affecting approximately 25 million passengers) that were consistently delayed and/or canceled 40 percent of the time.

- Over 2,300 of the 10,717 individual flight numbers[8] were regularly delayed and/or canceled at least 40 percent of the time for periods of 3 months or more in 2000. In comparison, only 229 of 4,400 individual flight numbers were so affected in 1995.

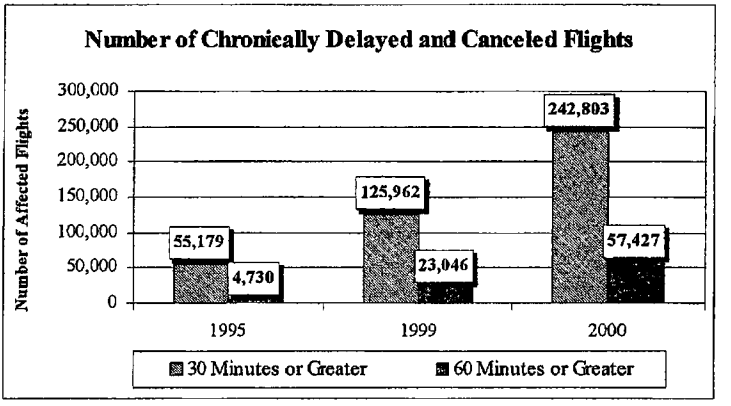
Individual Flight Numbers Associated with Chronically Delayed and Canceled Flights (30+ Minutes)

Number of Months	1995	2000	# Change
9 to 12 Months	0	63	+63
6 to 8 Months	10	368	+358
3 to 5 Months	219	1,887	+1,668
1 to 2 Months	4,171	8,399	+4,228
Total:	4,400	10,717	+6,317

[8] For example, one airline's flight with daily non-stop service between Washington, D.C., and Tampa, Florida, was delayed and/or canceled at least 40 percent of the time each month for 7 months in 2000. During July 2000, the flight was delayed and/or canceled 80 percent of the time (i.e., 25 of 31 scheduled flights).

- When the arrival delay was expanded to 1 hour, we identified more than 57,000 scheduled flights (representing 3,837 individual flight numbers affecting approximately 6 million passengers) that were consistently delayed and/or canceled at least 40 percent of the time in 2000.

The following figure illustrates the rapid growth in the number of chronically delayed and canceled flights between 1995 and 2000.



We also found that nearly 83 percent of those flights chronically delayed for 1 hour or more occurred at the 30 largest airports, with O'Hare—at 9,900—experiencing by far the highest number of any airport in 2000. Other airports with high numbers of chronically delayed (1 hour or more) and canceled flights included: LaGuardia (6,135), San Francisco (4,911), Newark (2,817), Boston (2,781), Los Angeles (2,723), and Philadelphia (2,522).

While the cause of these delays and cancellations is unclear due to the lack of a common reporting system, the repetitive nature of these delays needs to be addressed. Especially for those flights that are delayed or canceled 3 or more consecutive months, the airlines need to consider various remedial actions, including adjusting published flight schedules to more accurately reflect experienced arrival times. Moreover, as we recommended in our Final Report on Airline Customer Service Commitment, both DOT and the airlines need to provide consumers with information on chronically delayed and canceled flights through existing web sites and on-line publications, or at the time of booking without being asked.

Future Outlook for Delays and Cancellations Contingent on Multiple Factors

As we approach the busy summer travel season, the question before us is whether the current state of air travel in the United States will improve or whether past trends will continue. The answer depends a lot on several key factors, including weather conditions, mounting labor disputes within the airline industry, the impact of a softening economy on air traffic demand, and how existing capacity is managed at already congested airports.

Barring good weather and/or a significant downturn in air traffic due to a softening economy, one area that may have a significant affect on summer air travel is labor disputes at four major airlines. The airlines and associated labor groups include:

American (flight attendants), Delta (pilots), Northwest (mechanics), and United (flight attendants and mechanics). Such labor problems have resulted in significant numbers of delays and cancellations in past years. For example, in 1998, Northwest canceled over 29,000 flights due to labor problems, representing over 20 percent of all cancellations reported by the 10 major airlines that year.

Solutions to the Delay Problem Rests on a Multifaceted Approach

The solution to the growing problem of delays and resulting consumer concern over air travel will require a combination of long-term, intermediate, and short-term actions. Ultimately, long-term solutions are needed in the form of new air traffic control technology (ATC); airspace redesign; and infrastructure improvements, including airport expansion. These approaches, however, vary as to the amount of relief that can be gained in the short-term (over the next 1 to 2 years), the intermediate term (4 to 5 years), and the long-term (8 to 10 years). For the solutions designed to improve capacity, such as new runways; airspace redesign; or ATC technology, we can expect only limited or no bottom line relief over the next few years.

Air Traffic Control Modernization and Anticipated Benefits

Under the framework of AIR-21 (Public Law 106-181, April 5, 2000), FAA will invest about $8.6 billion on various modernization initiatives between 2001 and

2003. Yet, a large portion of FAA's ongoing modernization effort is geared toward improving safety and reliability—not toward enhancing capacity. Key efforts to enhance the overall *reliability* of the NAS include the Standard Terminal Automation Replacement System, the Display System Replacement, and the Host Replacement, which account for $3 billion. There have been some successes with these efforts, and much of the hardware at the Nation's 20 domestic en route centers is new.

To enhance capacity, FAA is funding several initiatives, principally Free Flight Phase 1 and new satellite-based communications, navigation, and surveillance systems. While most agree that the benefits from these technologies will be substantial, the nature of the benefits from these new systems—individually or collectively—have not been conclusively quantified. As we noted last year,[9] it is important for FAA to clarify the impact of its investments in new technologies on enhancing capacity, given the anticipated growth in air travel in the years ahead. (See attachment for anticipated benefits of selected FAA technology initiatives.)

FAA's Free Flight Phase 1 initiative, with an estimated cost of over $700 million, is composed of new information exchange systems (that link FAA and airline facilities) and new automated controller tools. While Free Flight Phase 1 will provide incremental improvements in capacity at selected locations, it should not

[9] Inspector General's Statement before the Committee on Commerce, Science, and Transportation, U.S. Senate, "Flight Delays and Cancellations," September 14, 2000

be viewed as a magic bullet. FAA anticipates the effort will enhance capacity by 5 to 10 percent. For example, pFAST[10] (which helps sequence aircraft for arrival) is helping controllers to land about 1 to 2 additional aircraft during each 30-minute peak rush period at Dallas-Fort Worth when it is in use.[11] FAA reports that that *total throughput* (arrivals and departures) at Dallas-Fort Worth increased between 3 to 6 flights during these peak periods.

It is important to note that the benefits accrued from pFAST at Dallas-Fort Worth in increasing airport capacity might not be replicated in a similar fashion at other airports. Specifically, Dallas-Fort Worth Airport has certain characteristics—seven runways, four of which are parallel—that play to pFAST's strengths for sequencing aircraft. Airports with different characteristics (e.g., airspace complexity, traffic volume and mix, and number and configuration of runways) may not realize the same level of benefits from pFAST.[12]

Moreover, FAA's recent experience with Free Flight Phase 1 technologies in the airspace surrounding the Dallas/Fort Worth airport has shown that when incremental improvements are made, demand quickly fills the additional capacity.

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[10] The National Aeronautics and Space Administration pioneered pFAST for transitioning aircraft from en route to terminal airspace. It provides controllers with suggested sequences for landing aircraft and runway assignments.

[11] It should be noted that the prototype could not be used during periods of severe weather.

[12] For example, the impact of pFAST on increasing capacity at LaGuardia or National is likely to be lower than at Dallas-Fort Worth, because both airports have fewer runways than Dallas-Fort Worth, and neither has parallel runways.

These small improvements in capacity when coupled with unconstrained demand could actually lead to additional delays.

Long-term solutions, including new communication, navigation, and surveillance technologies, offer the potential for more flexible routes and closer spacing of aircraft. These efforts include transitioning to satellite navigation (i.e., Wide Area Augmentation System and Local Area Augmentation System) and Controller-Pilot Data Link Communications. FAA is pursuing data link communications, which is analogous to electronic mail for controllers and pilots, to ease (among other things) radio frequency congestion.[13] The implications to enhancing capacity of radio frequency congestion—and potential solutions—is a complex issue that warrants much closer attention.

Airport Infrastructure

While new technology has potential, the largest increase in capacity will come from building new ground infrastructure—new airports and runways. For example, according to FAA, Phoenix's recent addition of a third runway resulted in a 36-percent increase in capacity (during good weather conditions). With new ATC technology (satellite-based systems and new cockpit displays) and procedural improvements, FAA anticipates increasing this airport's capacity by

[13] Audit Report No. AV-1999-057, FAA's Progress and Plans for Implementing Data Link for Controllers and Pilots, February 24, 1999.

another 4 percent. Again, we note that benefits of new technology is dependent on many site-specific factors, such as the number and configuration of runways as well as the makeup of the surrounding airspace.

Funding for airport infrastructure is not the problem. AIR-21 will provide FAA with almost $10 billion for airport projects from fiscal year 2001 through 2003 and it authorized increases in Passenger Facility Charges. Nevertheless, concerns abound about the time and processes required to secure environmental and noise clearances for airport infrastructure projects.[14] According to FAA, 14 of the 30 largest airports are in various stages of adding new runways, with most of these not being completed for another 3 to 7 years. Overall, only 6 new runways were built at the 30 airports over the last decade. As we noted earlier this year, the Department has an opportunity here to provide leadership on how to move major infrastructure projects forward more expeditiously, while respecting the letter and intent of environmental law.

Airline Scheduling and Operations

In the more immediate term, however, the airlines can do a great deal to help minimize the impact of flight delays and cancellations on air travelers—especially

[14] AIR-21 requires DOT to conduct a study of Federal environmental requirements related to the planning and approval of airport improvement projects. The study will assess: (1) the current level of coordination among Federal and state organizations, (2) the role of public involvement, (3) staffing and resources associated with conducting environmental reviews, and (4) the time line for conducting reviews. This report is expected in the next month or so.

in the areas of scheduling and operations. In our recently completed audit, we found the airlines were making progress toward meeting their Customer Service Commitment and that the Commitment has been a plus for air travelers on a number of important fronts. The voluntary Commitment to customer service and the circumstances under which it was entered into are noteworthy because, based on our observations, it prompted the airlines to take the matter of improving customer service more seriously.

However, the airlines' progress over the past year is often obscured when the traveling public experiences widespread delays and cancellations. We found the customer service areas most in need of improvement are for those provisions that trigger when there are delays and cancellations. One such provision is to keep customers informed of delays and cancellations, another promises to meet customers' "essential" needs during "extended" on-aircraft delays, and another commits to making reasonable efforts to return delayed or mishandled checked baggage within 24 hours.

The evidence shows significant investment and progress by the airlines toward meeting these commitments, and improvement is evident since our Interim Report.[15] Still, there are persistent problems. We frequently found, among other

[15] Audit Report No. AV-2000-102 (dated June 27, 2000).

matters, untimely, incomplete, or unreliable reports to passengers about flight status, delays, and cancellations as follows.

- In 21 percent of our observations of nearly 550 flight delays nationwide, the flight information display system showed the flight as on time when, in fact, the flight had been delayed for more than 20 minutes. Timely announcements about the status of the delays were made in the gate areas 66 percent of the time. When status announcements were made, the information provided about the delay or cancellation was adequate about 57 percent of the time. Performance varied by airline, with Hubs generally performing better than non-Hub locations.

- During our testing, baggage that did not show up with the passenger was delivered within 24 hours 58 to 91 percent of the time. Again, performance among the airlines varied.

- All airlines have taken steps to accommodate passengers' "essential" needs during "extended" on-aircraft delays. However, we found that the airlines differ in what qualifies as an "extended" delay. The trigger thresholds for this provision vary from 45 minutes to 3 hours. We think it is unlikely that a passenger's definition of an "extended" on-aircraft delay will vary depending upon which air carrier they are flying.

Since air travelers in 2000 stood a greater than one in four chance of their flight being delayed, canceled, or diverted, we believe the airlines should go further and address steps they are taking on matters within their control to reduce delays, the number of chronically delayed and/or canceled flights, and the amount of checked baggage that does not show up with the passenger upon arrival. In particular, the airlines should make scheduling changes, taking into account the benchmarks established for the top 30 airports and data related to chronically delayed and canceled flights. If this self-discipline is not successful, the pros and cons of additional steps should be weighed.

In particular, the Department is reviewing a number of market-based and administrative options for managing demand at some of the most congested airports. Some of the questions being debated include whether airline scheduling discussions for specific airports should be permitted under antitrust supervision, whether peak-hour pricing (if legal) will provide meaningful relief, and whether implementing a lottery for airport usage (such as New York's LaGuardia) will work. For those airports in which adding a new runway is not an option, demand management may become more and more of a reality in the coming years.

Status of Departmental Efforts to Address Delays

Over the past year, the Office of Inspector General made three recommendations to the Secretary of Transportation and the Federal Aviation Administration that

were directed at the delay; cancellation; and capacity problems, which are key drivers of customer dissatisfaction with airlines. The recommendations are stated below.

- **Establish and implement a uniform system for tracking delays, cancellations, and their causes.** In our July 25, 2000 audit report on flight delays and cancellations, we found that FAA and BTS use very different methodologies for determining flight delays.[16] These differences can lead to somewhat confusing results. For example, FAA collects data on flight delays via the Operations Network (OPSNET). OPSNET data come from FAA personnel who manually record aircraft that were delayed by 15 minutes or more after coming under FAA's control, i.e., the pilot's request to taxi-out. As such, an aircraft could wait an hour or more at the gate or ramp area before requesting clearance to taxi. So long as the flight, once under FAA's control, took off within 15 minutes of the airport's standard taxi-out time, the flight would be considered an on-time departure.

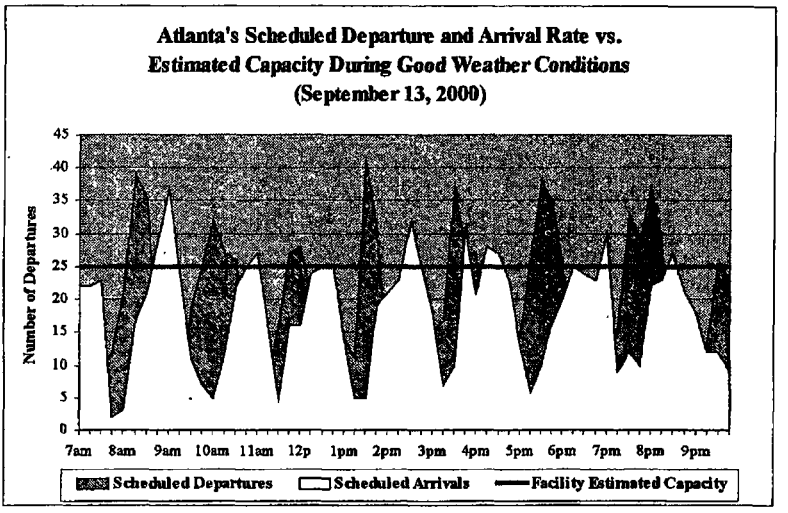
  Conversely, the major airlines submit monthly flight data to BTS. According to BTS, a flight is counted as "on time" if it departed or arrived within 15 minutes of scheduled gate departure or arrival times shown in the airline's

[16] A key reason for differing data maintained by FAA and BTS is in how each uses the information it collects. For FAA, delay information serves to measure system-wide ATC performance as well as to identify areas for improvement. For BTS, measuring delays (and subsequent ranking of the major airlines by on-time arrival performance) serves as a source of air travel information to consumers and helps to ensure more accurate reporting of flight schedules by the airlines.

reservation system. Using this definition, an aircraft could wait an hour or more on the airport taxiway for takeoff and be reported by BTS as having departed on time if it left the gate within 15 minutes of its scheduled departure. In the final months of the prior Administration, a Task Force appointed by the prior Secretary made recommendations aimed at establishing a uniform system for tracking delays, cancellations, and their causes. The Department, however, does not anticipate completing the Task Force's recommendations—which will require rulemaking—until sometime in 2002. Yet, without consistent data, examination of the causes of delays and cancellations and identifying effective solutions will remain problematic.

- **Develop capacity benchmarks for the Nation's top 30 airports. This will provide a common framework for understanding what maximum arrival and departure rate can physically be accommodated by airport, by time of day under optimum conditions.** A set of capacity benchmarks is essential in understanding the impact of air carrier scheduling practices and what relief can realistically be provided by new technology, revised air traffic control procedures, new runways, and related airport infrastructure. Over the last few months, FAA has made substantial progress in developing the benchmarks and anticipates issuing them later this month.

One of the airports for which FAA has established benchmarks is Atlanta. As the figure below demonstrates, Atlanta's scheduled departures and arrivals on



September 13, 2000 frequently exceeded the airport's estimated capacity, especially during peak periods of airport operation.[17] Moreover, although a good weather day, the major airlines reported 83 departure delays and 86 arrival delays at Atlanta on September 13, 2000. FAA also reported nine delays, all of which were attributed to excess volume.

As part of our follow on audit of flight delays and cancellations, we will be examining FAA's benchmarks to see what they tell us about the aviation system with respect to airport capacity and airline scheduling practices.

[17] FAA's estimated capacity benchmarks for Atlanta during good weather conditions is 25 departures and arrivals per 15-minute increment. This rate drops to 19.5 departures and arrivals every 15 minutes during poor weather conditions.

- **Develop a strategic plan for addressing capacity shortfalls in the immediate, intermediate, and long term.** These three points in time are important because the new runways or airports or air traffic control technology that may be in place 2, 5, or 10 years from now hold promise for the future, but offer limited or no bottom-line relief in the immediate term. Actions that are necessary in the short term may become unnecessary in the longer term with the addition of, for example, new runways. An immediate issue is scheduling, flights, at peak travel times, beyond the established physical capacity of the airport and air traffic control system under optimum conditions. The dilemma an individual airline faces is if it takes action and reduces flights, is that its competitors may add additional flights, thereby providing no relief at all.

One on-going effort being undertaken by FAA involves the development of the NAS Operational Evolution Plan (OEP). The goals of this effort are to: (1) describe the operational evolution of the NAS as it related to increasing capacity while maintaining safety, (2) devise a set of credible initiatives that focus the aviation community on solutions for the 2000-2010 timeframe, and (3) link these initiatives to a timetable and specific activities. On January 23, 2001, FAA held an industry day to present and explain the plan. Over the next 2 months, FAA will continue to refine the plan based on input from the aviation community. We will closely monitor FAA efforts on the OEP and other efforts aimed at improving capacity.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions you might have.

Attachment

Anticipated Benefits of Selected FAA Technology Initiatives

Program	Schedule & Cost	Anticipated Benefits
Local Area Augmentation System (LAAS): Relies on GPS to provide all weather approach, landing, and surface navigation capabilities	LAAS is being developed through two Government/Industry partnerships and is expected to be operational by the end of 2002. ($720 million)	LAAS will augment GPS to provide all weather precision approach capability (Category I, II, and III services) to airports. It can also provide the airport surface navigation signals needed for precise taxing in low-visibility conditions. *Airspace users must equip with new avionics to obtain benefits.*
Automatic Dependent Surveillance – Broadcast (ADS-B): Relies on GPS to broadcast the position of an aircraft to other properly equipped aircraft.	ADS-B is being developed under FAA's Safe Flight 21 Initiative. ($200 million for prototype efforts—*costs to implement ADS-B NAS-wide is substantial but uncertain.*)	ADS-B is useful for areas where radar coverage is limited or non-existent. ADS-B, when coupled with moving map displays, has potential for preventing accidents on runways. It also has potential for enhancing operations in poor weather and for reducing separation between aircraft (assuming all aircraft are equipped). *Airspace users must equip with new avionics to obtain benefit.*
Free Flight Phase 1 (FFP1): Composed of new information exchange systems and automated controller tools (Center TRACON Automation System and Conflict Probe).	Limited Deployment is planned for completion by the end of 2002. ($722 million for limited deployment—*costs for NAS-wide deployment is substantial but uncertain.*)	New controller tools will provide incremental capacity enhancements—extent and nature of benefits will vary by location. FAA will not have a firm handle on benefits until 2002, when systems are deployed. FAA estimates that new automated controller tools can provide 5-10 percent increase in capacity.
Controller-Pilot Data Link Communications (CPDLC): A new way for pilots and controllers to communicate that is analogous to EMAIL.	Limited deployment is planned for 2002. Current cost estimate of $166 million is for initial steps—*cost to implement additional data link capabilities is uncertain.*	Data link is an *enabling technology* for Free Flight and will enhance communication between controllers and pilots. It will allow controllers to communicate with more aircraft, which, in turn, could allow them to handle more aircraft. *Airspace users must equip with new avionics to obtain benefits from data link communications.*
Integrated Terminal Weather System (ITWS): provides detection and short-term weather predictions of airport conditions.	Initial site implementation is planned for 2002. ($276.1 million for 37 sites.)	ITWS has important capacity benefits because it improves the timing of runway openings and closings due to severe weather. This is very valuable for large hub airports—*benefits are substantial but will vary by site.*

Kenneth M. Mead
Inspector General
Department of Transportation

Mr. Mead has served as the Department of Transportation (DOT) Inspector General since being confirmed by the U. S. Senate in May 1997. His office is responsible for conducting audits and evaluations to improve the effectiveness and efficiency of DOT programs and operations. The Inspector General also has authority to conduct investigations into fraud, waste, and abuse associated with DOT activities.

Hallmarks of Mr. Mead's tenure include audits on aviation delays and cancellations, airline customer service, air traffic control modernization and system capacity, and aviation safety issues such as runway incursions and operational errors. Other important audits have covered: motor carrier safety, mega construction projects (such as the Boston Central Artery/Ted Williams Tunnel project and the Woodrow Wilson Bridge), Amtrak's efforts to become financially self-sustaining; and Departmental computer security. Mr. Mead's office also performs the annual audit of the DOT financial statements. Working with DOT, Mr. Mead's office supported improvements in DOT's financial management, resulting in the first ever clean opinion on the Department's consolidated financial statements. Recently, Mr. Mead's office issued an audit on the DOT rulemaking process, which audit found that despite agency efforts to improve the timeliness of its rulemakings, the Department is actually falling further behind in meeting Congressional due dates for important safety regulations.

Under Mr. Mead's leadership, the Office of Inspector General investigative team has increased emphasis on the prosecution of cases involving illegal transport and mishandling of hazardous materials, trafficking in unapproved aircraft parts, falsification of truck drivers' duty logs, and contractor fraud in Federally-funded construction and modernization projects.

Prior to becoming Inspector General, Mr. Mead served with the U.S. General Accounting Office for 22 years. He rose to be Deputy Assistant Comptroller General for Policy after serving several years as Director of Transportation and Telecommunications Issues. Mr. Mead received GAO's Distinguished Service Award and the rank of Meritorious Executive in the Senior Executive Service.

Mr. Mead received his baccalaureate degree from Southern Connecticut University and his Juris Doctor degree from the University of South Carolina. A veteran, Mr. Mead served in the U.S. Naval Submarine Service.

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House Appropriations Subcommittee on
Transportation and Related Agencies

Hearing on Airline Delays and Aviation Capacity
March 15, 2001

Statement of Charles Barclay
President, American Association of Airport Executives
On Behalf of the American Association of Airport Executives
And
Airports Council International – North America
House Appropriations Subcommittee on Transportation and Related Agencies
Hearing on Airline Delays and Aviation Capacity
March 15, 2001

Chairman Rogers, Members of the Subcommittee, on behalf of the thousands of men and women across the country who manage and operate America's airports, I appreciate the invitation to testify today on airline delays and aviation capacity. Although all of you as frequent travelers are well aware of the seriousness of delays and capacity constraints, the Department of Transportation Inspector General recently reported that 1 in 4 flights last year were either delayed, cancelled or diverted, affecting 163 million passengers. That represents a 20 percent increase over 1999, which was a record year in terms of delays.

Unfortunately, the frustration and inconvenience that travelers face today in dealing with an overcrowded and overburdened aviation system will only grow worse. This spring and summer promise to be as miserable as the last several as more and more flights are crowded into the system. Passenger traffic within the next decade is expected to explode from today's 680 million to one billion annually. Continued grown in the cargo and general aviation segments will cause additional strain.

Despite the huge growth in air travel over the past decade, the construction of new runways and other critical capacity enhancing projects hasn't kept pace with increased demand. Since 1991, only six runways were added at the largest airports where delays are concentrated. These runways were opened in Las Vegas in 1991, Detroit in 1993, Salt Lake City in 1995, Dallas/Fort Worth in 1996, Philadelphia in 1999, and Phoenix in 2000. Although a number of additional runway projects are now planned, the process for reviewing and approving these projects threatens to delay their construction.

50 Miles of Runway Required to Meet Future Demands

As a result, many of the nation's busiest airports don't have the capacity to accommodate today's traffic let alone the crush of activity projected for the immediate future. In its 1998 Aviation Capacity Enhancement Plan, the Federal Aviation Administration cited 27 airports that are seriously congested, experiencing more than 20,000 hours of delay annually. FAA forecasts that unless airport capacity investments are made, the number of seriously congested airports will grow to 31 by 2007.

Much of that delay is due to the lack of runway space. According to preliminary discussions with the FAA, that fact will be verified in its soon-to-be released capacity benchmarking study, which is focused on determining the capacity situation at major airports. Runway space, the study will likely suggest, is the single greatest solution to adding capacity and reducing delays.

Two miles of runways at the top 25 delay-prone airports would take care of virtually all of the delay in the system. The solution, therefore, is 50 miles of runways.

With Additional Federal Funding in Place, Environmental Streamlining Should Be a Priority

Congress took a giant step forward in addressing the capacity crisis last year with the passage of FAA reauthorization legislation that provided significant increases in capital funding for airports and air traffic control modernization. Thanks to the efforts of this Subcommittee in shaping the final compromise on

that legislation and subsequently ensuring full funding of $3.2 billion for the Airport Improvement Program, the $3 billion annual investment gap that plagued airports during the previous decade has been reduced significantly. Fully funding AIP in fiscal year 2002 at $3.3 billion will provide further help.

While continued federal support is a must, the most serious challenge today in enhancing capacity lies in putting additional resources to work as quickly as possible on critical projects such as runway construction at the nation's most congested airports. Unfortunately, the process for approving these proposals routinely gets bogged down in a seemingly endless maze of overlapping, duplicative and onerous environmental reviews. Runway projects routinely take 10 years from start to finish and many take longer.

As the General Accounting Office pointed out at a hearing last October on why runways cost so much and take so long to build, overlapping federal and state environmental requirements can delay airport projects "without necessarily providing commensurate environmental benefits." The problem is also becoming more evident throughout the aviation industry. Several airline CEOs and a number of other groups have recently voiced support for quickening the process to approve runways.

Accelerating Process Could Add Capacity Without Harming the Environment

While no one questions the wisdom or need for strong environmental stewardship, it is clear that the current system unnecessarily delays many critical projects for the sake of process rather than environmental benefit. In our view, the need for aviation infrastructure improvements is fundamentally compatible with the need for environmental progress. It is clear, however, that the interests of our aviation system will be best served by accelerating the pace at which delay-reducing projects are moved forward. Such acceleration should not relax our national agenda of environmental progress.

From the standpoint of water and air quality, noise, and dozens of other environmental concerns that help to define the end product, it matters little whether the process of moving the project forward takes weeks, months, years, or decades. What is critical is getting the appropriate environmental safeguards identified early and built in as the project progresses. Airports have proven effective in accomplishing that goal, and we look forward to working with this Subcommittee and the Congress to implement some common-sense procedural changes that will accelerate key project approval while maintaining strict environmental safeguards.

In the absence of such changes, we are doomed to live with a system that routinely drags runway projects out a decade or more. We simply don't have that kind of time.

The Current Process: Numerous Players, Numerous Considerations

Typically, the current environmental review process for major capacity enhancing projects begins with the incorporation of the project into an airport master plan, which is subject to FAA review and approval. Master plans almost always include preparation of initial environmental review, including key analysis of project purpose, the need for the project, and potential alternatives to the project. Master plan documents are part of the record for environmental review and provide much of the data the FAA and other agencies require for that review.

Beyond the airport master plan, the National Environmental Policy Act of 1969 (NEPA) creates the procedural framework for review of environmental impacts and for compliance with applicable federal, state, and local laws. NEPA procedures apply to "Federal actions" that "significantly affect the quality of the human environment." Many critical capacity projects such as new runway construction typically meet that definition and as such are required to follow NEPA guidelines. In addition, several states have "NEPA-like" requirements that must be followed.

The NEPA process for airports is managed by the FAA as the lead agency coordinating activities with other federal and state agencies as well as with the public. Other agencies or individuals involved with the NEPA process include, but are not limited to, the Environmental Protection Agency, the Fish and Wildlife Service, the Army Corps of Engineers, the Advisory Council on Historic Preservation, the state historical preservation officer, and state air and water pollution agencies.

These agencies administer the following laws, which typically are addressed as part of the NEPA process or parallel to it: The National Historic Preservation Act; The Farmland Protection Policy Act; the Department of Transportation Act; the Clean Water Act; the Clean Air Act; the Endangered Species Act; the Airport and Airway Improvement Act; the Comprehensive Environmental Response, Compensation and Liability Act; and the Resource Conservation and Recovery Act, among others. In addition, Environmental Justice must be addressed.

Building on the initial environmental review contained in the master plan, FAA and the airport work with the appropriate agencies under NEPA and other statutes to develop an environmental analysis (EA) or a more detailed environmental impact statement (EIS) when necessary. This documentation must adequately define the purpose and need for the project, identify project alternatives, and discuss the affected environment, including nearby land uses, population characteristics, future plans for the area and existing environmental conditions. FAA manages the EA/EIS process.

The EA/EIS must also discuss the environmental consequences in 20 defined impact categories. They are: noise; compatible land use; social impacts; induced socioeconomic impacts; air quality; water quality; publicly-owned land of a public park, recreational area or wildlife and waterfowl refuge or land of an historic site; historic resources; biotic communities; endangered species; wetlands; floodplains; coastal zone management; coastal barriers; wild and scenic rivers; farmland; energy supply; light emissions; solid waste impact; and construction impacts.

Finally, the EA/EIS must address conflicts with other governmental objectives, policies, laws and plans; adverse environmental consequences which cannot be avoided; irreversible and irretrievable commitments of resources, and mitigation of adverse environmental impacts. When this lengthy process is finally navigated, a Record of Decision (ROD) is issued by the FAA and construction is allowed to proceed. In many cases, however, the ROD spurs legal challenges that can further delay the project.

With so many players and so many considerations, it is not difficult to imagine why the process takes so long to complete. The attached document provides a visual account of the 44-step approval process.

Case Study: Memphis-Shelby County Airport Authority

Consider the Memphis-Shelby County Airport Authority and their efforts to add infrastructure to accommodate anticipated growth at Memphis International Airport. Before construction ever began, the planning processes included two master plans, two FAA/industry capacity plans, one FAR Part 150 noise compatibility plan, one environmental assessment, and one environmental impact statement. These efforts consumed nearly ten years of time to complete before construction began.

At Memphis, the initial master plan – which included the construction of a third parallel runway, the reconstruction and extension of an existing runway, the construction of new and expanded taxiways, terminal building expansion, improvements to ground transportation facilities, and the continued expansion of air cargo facilities – was begun in 1984 and completed in 1986. This phase included the development of an FAA approved Part 150 noise compatibility program to insure that capacity projects were tied to needed noise mitigation projects.

An environmental assessment of the master plan followed in 1987 to identify and quantify the effect of the proposed expansion on noise, water quality, air quality, and other impacts on communities

surrounding the airport. Due to the requirement for multi-agency reviews by numerous local, state, and federal agencies, the EA took five years to complete. During this time, each agency worked at its own pace and often with conflicting viewpoints on impacts and needed remediation.

Upon completion of the EA in 1991, the Airport Authority began the environmental impact statement. As part of this process, the FAA required extensive reviews and supplemental studies to be completed as a result of comments from the Environmental Protection Agency and other agencies. The attorneys for the FAA were particularly deliberative during this period because of concerns about legal challenges. A Record of Decision was finally issued in May 1993 some seven years after the beginning of the environmental review process.

Thankfully, the construction aspect of the process has been more successful. The parallel runway was completed in 1996 and construction and extension of the existing runway was completed in September of 2000. In the end, the process took 16 years at a cost of $250 million. Noise mitigation projects consumed another $150 million.

The Memphis example illustrates the problem with the current system. At no time in the planning or review process did the airport oppose or attempt to avoid any mitigation efforts recommended or required by local, state, or federal agencies. The extensive time delays were due to lengthy review times and disagreement among the reviewing agencies as to appropriate mitigation actions and the apparent lack of priority given to streamlining and expediting the environmental review process.

Other Examples Illustrate Similar Problems

It should be noted that Memphis is not an isolated case. Phoenix, which opened a new runway in October of 2000, offers another example of the difficulties in getting critical runways built. After deciding on proceeding with construction of a third runway at the airport in September of 1989, the EIS process began in May 1990. It wasn't until January of 1994, however, that a ROD was issued due in large part to the same sort of delays that plagued Memphis. Litigation, another common cause of delay, followed the release of the ROD further delaying construction.

Orlando is expected to complete a new runway in 2003, some 15 years after the project was approved by the FAA and the Airport Authority. Again, permitting and study activities consumed an inordinate amount of time before construction every started. Detroit added one runway in 1993 and will complete another in December 2001. In both instances, the projects will have taken eight to ten years.

Streamlining the Environmental Review Process

With flight delays and growing concern about system gridlock and with critical runway projects planned at key airports including Detroit, Minneapolis, Orlando, Denver, Houston, Miami, Charlotte, Atlanta, Boston, Cincinnati, Washington Dulles, Seattle, St. Louis and Dallas/Fort Worth, it has never been more important to ensure the efficiency and effectiveness of the airport project review process.

AAAE and ACI-NA have developed several proposals to improve the environmental approval process for projects that would enhance capacity and reduce delay at the nation's busiest airports. We have worked with environmental, airport planning and development professionals; key FAA staff; and environmental and aviation law experts. Our goal is to expedite the process by which airport operators, and federal and state regulators and environmental agencies review and approve critical airport projects.

The Expedited Airport System Enhancement (EASE) initiative (copy attached) would give priority to critical airport capacity projects within the scope of existing environmental laws and better integrate application of those laws into the process for approving such projects. EASE also seeks to improve

procedures at FAA and elsewhere in the federal government to make sure that these critical projects receive prompt and informed attention.

Key provisions of the proposal include the declaration of "Critical National Airport Capacity" Projects, which would eliminate the need for the lengthy off-airport "alternatives" process for such projects; priority processing by involved agencies of Critical Airport Capacity Projects; the establishment of an Airspace System Capacity Enhancement Council or Czar; airport funding of project-specific FAA staff or consultants for expedited review of Critical Airport Capacity Projects; the expansion of categorical exclusions; the facilitation of agreements with local governments to allow additional mitigation for Critical Airport Capacity Projects; the requirement of realistic state air quality implementation plans; and elimination of the duplicative Governor's Certificate.

In addition to the procedural suggestions contained in this proposal, one item we urge the Subcommittee to consider in its FY 2002 bill is a special funding increase in the FAA Chief Counsel's Office, dedicated specifically and solely for the purpose of reviewing and approving critical airport capacity projects.

Our recommendation is that these resources be added to the overall FAA Operations budget and be made available for a limited time in order to expedite the review and approval process for key runway projects. If the Subcommittee believes these resources are not available for this, the FAA should at a minimum consider a reprogramming request to shift resources to this initial endeavor.

Conclusion

Although the causes of airline delays are complex, it is clear that adding runway capacity remains a key challenge. In light of the current volume of travel and the projected growth within the next decade, we cannot afford to allow critical capacity enhancing projects such as runway construction at major airports to become mired in an unending process that produces no measurable environmental benefit.

Enactment of a few common-sense procedural changes can make a difference in ensuring that critical projects currently under consideration move forward responsibly and with appropriate environmentally sensitivity. Success in this regard will produce profound results throughout the aviation system.

Bringing additional runways on-line is time to meet the billion passengers that the system will face by the end of the decade is critical not only for aviation but also for our whole economy. Expedited runway construction combined with ongoing efforts to modernize the tools to manage air traffic control can go a long way toward reducing airline delays and the accompanying frustration, inconvenience and lost time and productivity.

We look forward to working with this Subcommittee and others in Congress to bring about needed reform of this process. Thank you again for the opportunity to testify.

EASE Proposal

Note: All of these proposed measures would be limited to "Critical National Airport Capacity Projects" at a small number of specifically designated airports where delays have serious impacts on the national air transportation system. They would not change the environmental review process or any other laws or procedures with respect to other projects or other airports. Although limited in scope, these changes would produce profound benefits throughout the nation.

- **Declaration of "Critical National Airport Capacity" Projects**

  Proposal: FAA shall establish a threshold of total annual hours of delay at the most delay-prone airports. Upon application by the sponsor of an airport having greater than the threshold amount of delay established by FAA, the Administrator shall designate the project at that airport as a Critical National Airport Capacity Project. In legislation, Congress would determine that, at such airports there is no alternative to a Critical National Airport Capacity Project that is consistent with the needs of the national air transportation system; and, Congress shall declare that no alternative other than a project at that same airport that contemporaneously produces equal or greater capacity is reasonable, prudent, feasible or possible for purposes of the Airport and Airways Improvement Act and federal environmental review laws.

  The legislation would mandate that the FAA and all other federal agencies would be required to accept that finding as conclusive. Airports would be included only with their consent and could subsequently opt out of the designation.

  Explanation: Under existing laws, the FAA and other agencies must determine whether a reasonable alternative exists to a proposed capacity project. This part of the Alternatives Analysis consumes time, money, and effort even when there is no reasonable alternative. The effect of a congressional declaration would be to avoid the delay caused by consideration of off-airport alternatives. This proposal, if enacted, would be a legislative determination that these other off-airport alternatives cannot possibly solve the nation's airport capacity problems. A side benefit would be to focus analysis on ways to minimize potential adverse environmental impacts through project design and mitigation. It is estimated that approximately 10 –15 airport projects would qualify for designation as Critical National Airport Capacity Projects.

- **Priority Processing By All Agencies of Critical Airport Capacity Projects**

  Proposal: Require by law or executive order that FAA and all other agencies conduct environmental reviews of Critical National Airport Capacity Projects on a "highest priority" basis.

  Explanation: Much of the delay in environmental processing occurs outside the FAA, at other agencies. Although proper review by those agencies may take some time, this proposal would ensure that no additional time is lost while the proposal awaits the agencies' attention. The Executive Order implementing this initiative would compel the agencies to provide adequate staffing and funding to insure compliance with the existing CEQ-established deadlines.

- **Airspace System Capacity Enhancement Council/Czar**

  Proposal: Create a Council/Czar appointed by and reporting directly to the President to coordinate review of federal agency actions as they affect capacity enhancement and environmental review.

Explanation: The Council/Czar would be responsible for examining and addressing any aspect of the system that impedes the volume of air traffic. It could be granted the authority to exempt projects from environmental and other regulations that are unnecessarily hindering capacity enhancement; or, the Council/Czar could simply facilitate coordination with the Secretaries of Transportation, Interior, Commerce, State and Defense, as well as with the Administrator of EPA, with the Chair of the Council on Environmental Quality and with the Governors. It is important, however, that such a Council not be simply another level of review, with boxes to be checked, and reviewers to be staffed.

- **Airport Funding of Project-Specific Additional FAA Staff or Consultants for Expedited Review of Critical Airport Capacity Projects**

  Proposal: By law, executive order, or FAA action, allow airports to provide funds to FAA to hire additional, project-specific staff to supervise and implement reviews of Critical National Airport Capacity Projects. The additional staff would work exclusively under FAA's supervision and would have no obligation to the airport.

  Explanation: FAA faces serious resource limitations with environmental processing. This proposal would allow the addition of staff for the most difficult and critical projects without increasing FAA's permanent headcount. This is solely a funding mechanism to allow the airports (and through them, the airports' users) to pay the cost of accelerating project reviews.

- **Categorical Exclusions Expansion**

  Proposal: By law, executive order, or FAA action, direct FAA to institute national procedures for excluding specific airport project actions from NEPA review.

  Explanation: Categorical exclusions, as currently outlined in FAA Order 5050.4, constitute a successful FAA review tool that ensures compliance with environmental regulations while expediting agency review. Many, if not most major airport projects, receive approval for categorically excluded elements of the project. While extraordinary circumstances and controversy can and do prevent a specific project category from being universally excluded, apron expansions, taxiway expansions, and other capacity enhancing project elements are customarily approved. Legislative expansion would formalize consistent application of NEPA that allows specific categories of a project to be excluded from review based on historical impact findings.

- **Facilitation of Agreements with Local Governments to Allow Additional Mitigation for Critical Airport Capacity Projects**

  Proposal: Legislation which would allow directed interpretations of policies on revenue diversion and use of passenger facility charges, noise and access restrictions for Critical National Airport Capacity Projects to improve mitigation of environmental impacts. Encourage FAA to agree to enforceable limits on new runways, where necessary, to ensure timely approval of Critical National Airport Capacity Projects.

  - Local airport funds could be used to reach practical mitigation agreements with nearby communities, even if not traditionally permitted under existing rules on revenue diversion and PFC use. This would be tightly controlled to prevent local governments from holding projects hostage until a "ransom" unrelated to the project impacts is paid. There should be a nexus between the to-be-funded project and the airport runway (Note: the implementing statute would acknowledge that these local communities bear a significant impact on the national need for

aviation capacity and therefore, this unique exception for the "revenue diversion" restriction may be justified. This cannot be cited as a precedent for non-critical airport capacity projects).

- FAA would be directed to make binding commitments with respect to air space management, runway use, or other operational conditions for Critical National Airport Capacity Projects, where reasonable, and subject to findings that the limitations do not substantially interfere with air traffic efficiency and safety.

- FAA would be authorized to approve noise or access restrictions on use of a new runway which is designated as a Critical National Airport Capacity Project without further compliance with the procedures under the Airport Noise and Capacity Act (ANCA), where such restrictions are fully evaluated in the EIS for capacity improvement, costs and benefits, preservation of at least the existing level of access, where the projects are deemed necessary to avoid delay in project approval/construction and authorized in the Record of Decision.

  Explanation: Agreements with local governments surrounding an airport can remove or reduce opposition to a project, saving time and reducing the risk that the project will not be approved. However, those agreements sometimes require funding for purposes not currently approved for use of airport revenues, either because of the application of anti-diversion rules or limits on PFC eligibility. The expansion of mitigation would be limited, to preclude payment of cash bounties or funding of unrelated development that a community desires. Rather, the new authority would cover only costs of reasonable, project-related impacts (as determined by FAA), that go beyond current funding standards. Such expanded funding could include, for example, mitigation of traffic impacts on nearby, non-exclusive airport access roads or repairing building code deficiencies that would otherwise make soundproofing schools or homes ineligible for federal funding.

  Some projects would be easier and faster to build if communities could be assured that use of the new runway will be consistent with the assumptions built into the environmental processing (for example, time-of-day and directional limitations, limits on use for departures) but FAA historically has not been willing to give such commitments. Similarly, for those restrictions that might, theoretically, be achievable through an ANCA/Part 161 process, that process may cause added, redundant delay through review of the restriction. FAA has been unwilling to approve any actions under Part 161. In essence, the proposals relating to potential restrictions on new runway use recognize that it may be better to obtain, in a timely manner, a capacity benefit that may be less than a project's full physical capacity, rather than to hold out for an unrestricted project that may be inordinately delayed or never achieved.

- **Require Realistic State Air Quality Implementation Plans**

  Proposal: Require State Implementation Plan (SIP) inventories to be revised within 180 days of enactment of legislation to base air quality emissions inventories at airports having Critical National Airport Capacity Projects upon FAA's Terminal Area Forecast for that airport, or an alternate forecast approved by FAA.

  Explanation: If a region does not meet national ambient air quality standards, the state is required to prepare a state implementation plan (SIP), that regulates emission sources. The Clean Air Act prohibits FAA from approving an airport project if it will interfere with the SIP. If the SIP already includes an allowance for the project, this process is simple and causes no delay. If the SIP does not include such an allowance, months or years can be lost collecting and analyzing data, and negotiating with air quality agencies. Many SIPs contain unrealistically low airport emissions budgets, and few realistically anticipate reasonable airport growth. Mandatory SIP

revisions that realistically account for airport activity would eliminate this major source of delay and risk.

- **Eliminate Requirement under 49 USC § 47106(c)(1)(B) for Governor's Certificate**

  Proposal: Eliminate, in its entirety, the requirement that each state certify that federally funded airport projects comply with applicable air and water quality standards.

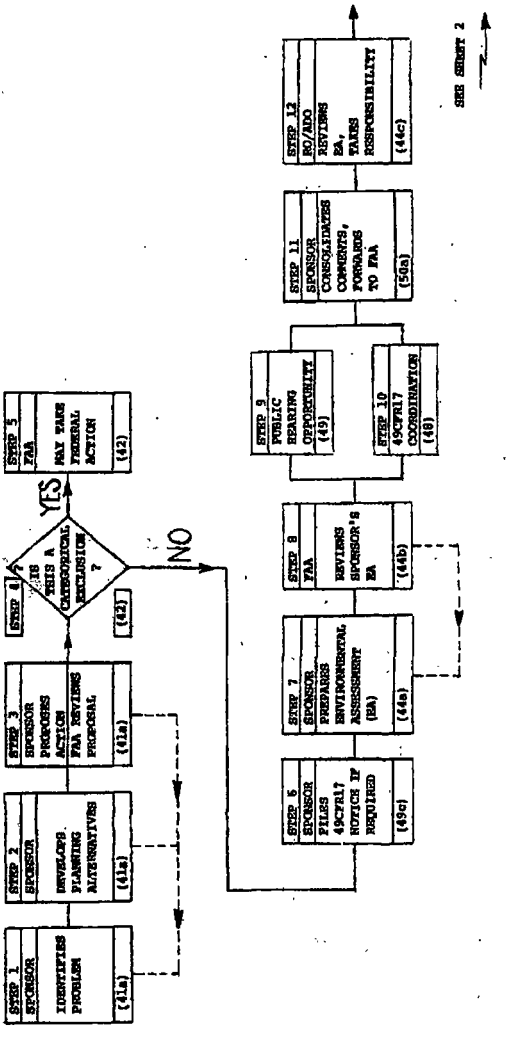
  Explanation: This certificate requirement, contained in the Airport and Airway Improvement Act, duplicates existing compliance and conformity rules under the Clean Air Act and Clean Water Act.

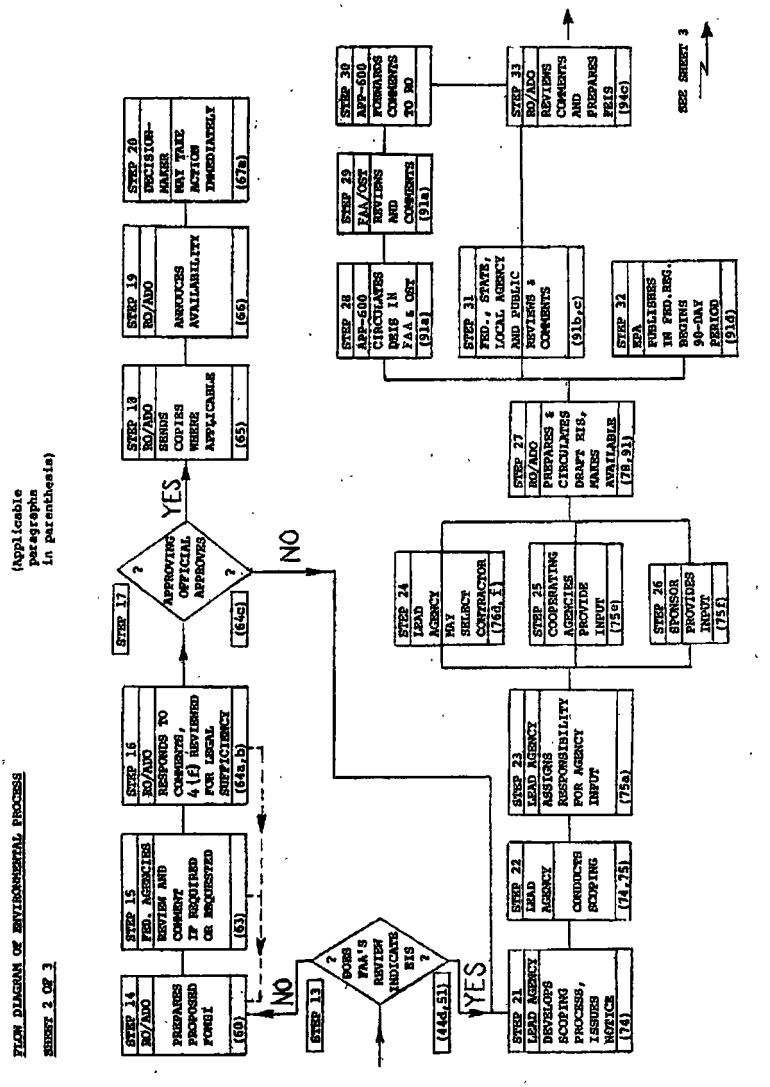
FAA Order 5050.4A
Dated 1985
Applicable As Of March 15, 2001

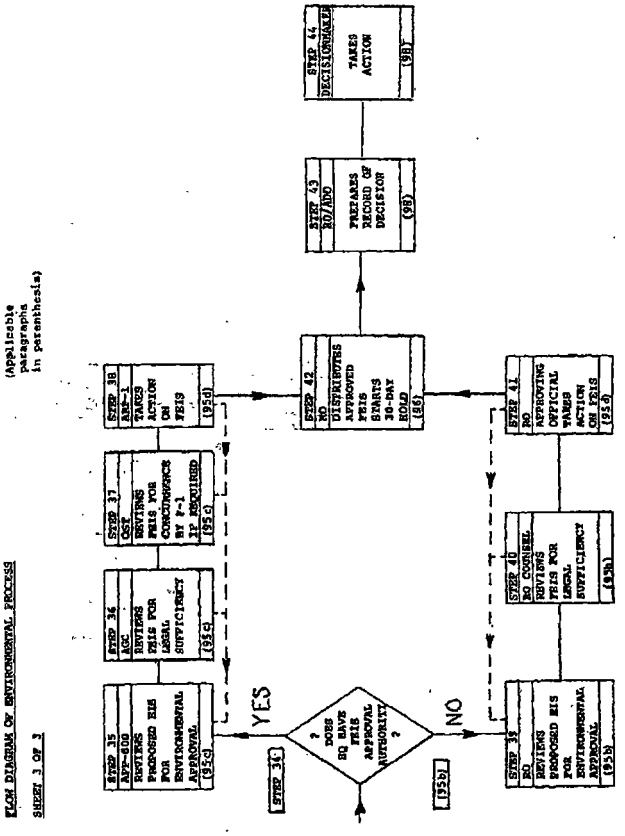
FLOW DIAGRAM OF ENVIRONMENTAL PROCESS

SHEET 1 OF 2

(Applicable paragraphs in parentheses)




FLOW DIAGRAM OF ENVIRONMENTAL PROCESS
SHEET 2 OF 3
(Applicable paragraphs in parentheses)
STEP 14 RO/ADO PREPARES PROPOSED FONSI (60)
STEP 15 FED. AGENCIES REVIEW AND COMMENT IF REQUIRED OR REQUESTED (63)
STEP 16 RO/ADO RESPONDS TO COMMENTS; 4(f) REVISED FOR LEGAL SUFFICIENCY (64a,b)
STEP 17 APPROVING OFFICIAL APPROVES ? (64c)
YES
STEP 18 RO/ADO SENDS COPIES WHERE APPLICABLE (65)
STEP 19 RO/ADO ANNOUNCES AVAILABILITY (66)
STEP 20 DECISION-MAKER MAY TAKE ACTION IMMEDIATELY (67a)
NO
STEP 13 DOES FAA'S REVIEW INDICATE EIS ? (44,51)
NO
YES
STEP 21 LEAD AGENCY DEVELOPS SCOPING PROCESS, ISSUES NOTICE (74)
STEP 22 LEAD AGENCY CONDUCTS SCOPING (74,75)
STEP 23 LEAD AGENCY ASSIGNS RESPONSIBILITY FOR AGENCY INPUT (75a)
STEP 24 LEAD AGENCY MAY SELECT CONTRACTOR (76d,f)
STEP 25 COOPERATING AGENCIES PROVIDE INPUT (75e)
STEP 26 SPONSOR PROVIDES INPUT (75f)
STEP 27 RO/ADO PREPARES & CIRCULATES DRAFT EIS, MAKES AVAILABLE (78,91)
STEP 28 APP-600 CIRCULATES DEIS IN FAA & OST (91a)
STEP 29 FAA/OST REVIEWS AND COMMENTS (91a)
STEP 30 APP-600 FORWARDS COMMENTS TO RO
STEP 31 FED., STATE, LOCAL AGENCY AND PUBLIC REVIEWS & COMMENTS (91b,c)
STEP 32 EPA PUBLISHES IN FED.REG. BEGINS 90-DAY PERIOD (91d)
STEP 33 RO/ADO REVIEWS COMMENTS AND PREPARES FEIS (94c)
SEE SHEET 3


FLOW DIAGRAM OF ENVIRONMENTAL PROCESS
SHEET 3 OF 3
(Applicable paragraphs in parenthesis)
STEP 35 APP-EOD REVIEWS PROPOSED EIS FOR ENVIRONMENTAL APPROVAL (95c)
STEP 36 AGC REVIEWS EIS FOR LEGAL SUFFICIENCY (95d)
STEP 37 COST REVIEWS EIS FOR CONCURRENCE BY F-1 IF REQUIRED (95e)
STEP 38 ARS-1 TAKES ACTION ON EIS (95f)
STEP 34
DOES RQ HAVE EIS APPROVAL AUTHORITY ?
YES
NO
(95b)
STEP 39 RQ REVIEWS PROPOSED EIS FOR ENVIRONMENTAL APPROVAL (95h)
STEP 40 RQ COUNSEL REVIEWS EIS FOR LEGAL SUFFICIENCY (95k)
STEP 41 RQ APPROVING OFFICIAL TAKES ACTION ON EIS (95m)
STEP 42 RQ DISTRIBUTES APPROVED EIS STARTS 30-DAY HOLD (96)
STEP 43 RQ/AMD PREPARES RECORD OF DECISION (98)
STEP 44 DECISIONMAKER TAKES ACTION (98)

CHARLES M. BARCLAY

1983 to present	**President**, American Association of Airport Executives. Chief executive officer of the professional association for airport executives in the United States. AAAE represents 4500 members, coordinating its policies and programs with regional chapters.
1977 to 1983	**Professional Staff Member**, Aviation Subcommittee Committee on Commerce, Science and Transportation, U.S. Senate. As the senior staff member on aviation issues, tenure included directing staff work on airline deregulation, aviation trust fund authorization, aviation security and safety, accident investigation, international aviation, aircraft noise and NTSB authorization laws.
1975 to 1977	**Assistant Director**, Office of Community and Congressional Relations, Civil Aeronautics Board.
1970 to 1975	**Assistant Director**, American Association of Airport Executives.

APPOINTMENTS

1997	Appointed by DOT Secretary Slater to the National Civil Aviation Review Commission. Twenty-one voting members were appointed by the DOT, House and Senate Leadership to make recommendations on: (1) future financing of the FAA, air traffic control and airport systems, and (2) the regulation of aviation safety and accident trends.
1993	U.S. Senate appointee to the President's "Airline Commission." Fifteen voting members were appointed by the President, House and Senate Leadership to make recommendations on the financial condition of the airline industry. Chaired the FAA/ATC working group.

OTHER POSITIONS

1996 - 1998 **Chairman of the Board**, Travelers Aid International. TAI is the association of local charity agencies that serve transient and disconnected people in need. The local agencies' operate homeless shelters, runaway youth programs, health care programs and many other social services.

EDUCATION

B.S. Aviation Management
Auburn University, 1969

M.S. Administration
George Washington University, 1974

Disclosure required by clause 2(g)(4) of rule XI of the Rules of the House

Neither I, nor the American Association of Airport Executives or Airports Council International – North America, have received any Federal grant or subgrant thereof, or contract or subcontract thereof, from the Federal Aviation Administration during the current fiscal year or either of the two previous fiscal years.

Statement of Edward A. Merlis, Senior Vice President
Air Transport Association of America
Before the Subcommittee on Transportation,
Committee on Appropriations
House of Representatives Hearing on
Air Traffic Delays
March 15, 2001

Good morning, Mr. Chairman and members of the subcommittee. I am Edward Merlis, Senior Vice President of the Air Transport Association of America (ATA).[1] I appreciate the opportunity to appear before you today to discuss our shared concerns with the level of delays in the air transportation system. We believe it is necessary to take bold steps to resolve these issues.

Simply stated, our aviation system's three components of capacity – airlines, air traffic control, and airports -- are out of synch. Each is under the control of very different forces. Yet, at the end of the day, all of the components must work together perfectly, if we are to have a smoothly functioning aviation system.

Airlines: By any measure -- available seat miles, enplaned passengers, aircraft departures, number of aircraft etc. -- airlines are making available more to the traveling and shipping public. Concurrently, the traveling and shipping public is using our services more. In the past ten years[2] we have made 25% more seat miles available, on 23% more flights, yet the traveling public has purchased even more -- 33% more. As a result, planes are more crowded – 71% of our seats are filled – than at any time since World War II.

Exacerbating the delay problem – at least in so far as the airlines' contribution to it -- is the consequence of the acquisition of regional jets. These aircraft, for which the number purchased or on order exceeds 1200 at this time, can fly longer distances, with greater payloads than the turbo props that they are replacing. However, since they fly in airspace used by larger jets, they add to congestion.

Air Traffic Control: The second component of the capacity equation is the air traffic control system. This subcommittee, perhaps more so than any other body in Congress, know full well the problems in developing, acquiring, deploying and staffing an air traffic control system capable of meeting the public's demand for air transportation. Suffice it to say means need to be

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1 ATA member airlines include: Alaska Airlines, Aloha Airlines, America West Airlines, American Airlines, American Trans Air, Continental Airlines, Delta Air Lines, DHL Airways, Emery Worldwide, Evergreen International Airlines, Federal Express, Hawaiian Airlines, Midwest Express Airlines, Northwest Airlines, Polar Air Cargo, Southwest Airlines, Trans World Airlines, United Airlines, United Parcel Service, and US Airways. Associate members include: Aerovias De Mexico, Air Canada, Canadian Airlines International, KLM Royal Dutch Airlines, and Mexicana De Aviacion

2 For purposes of this discussion, the ten years covered are 1989 – 1999. Complete DOT Form 41 data for calendar year 2000 is not yet available.

found to accelerate the innovations which are in the pipeline, otherwise previous summer's problems will not be ameliorated to the satisfaction of anyone – the airlines, our customers, or the Congress. Appended to this statement is an industry prepared top ten list of most important ATC-related programs that can be implemented over a five-year period and which would result in real national aviation system capacity improvements.

The third component of the capacity problem is the airport capacity piece. Mr. Chairman, I am sure you have heard the data. 12 major airports account for 51% of all delays. Since 1974, when Dallas Fort Worth International Airport opened, only four new airports have opened. Between 1995 and this fall, only eight new runways have opened, and of the top 100 airports, there are 14 new runways planned to be operational through December 2005.

What can be done about this? We think this is an area ripe for congressional intervention. Through the generosity of the Congress and the financial capability of major airports, money is not the issue. However, runway construction should be made a top federal priority. Steps can be taken that put the FAA in the position of being the advocate for increased airport capacity. Moreover there is an urgent need for the Congress to address the environmental review process that has resulted in taking so much time to build so few new runways.

Mr. Chairman, we stand ready to work with you to bring about the expeditious deployment of new technologies and new approaches to expediting the environmental issues associated with airport expansion. We feel that these are the approaches that must be taken. While some have suggested that limits be put on the American people's appetite for air transportation, we feel that capacity management is the appropriate response. The more efforts are directed at demand management, the more we fail to keep our eye in proper focus, and the more we fail to provide what the American people want – safe, fast, frequent, efficient air transportation at fair prices.

ATA Top Ten ATC Modernization Program List

This list is comprised of the top ten most important ATC-related programs that can be implemented over a five-year period and which would result in real national aviation system capacity improvements.

1. **En Route Software and Hardware (HOST Computer) Upgrades**: The HOST Computer is the "central nervous system" for the En Route Air Traffic Control System, but it operates on antiquated software. The software upgrades included in this program would bring the system to current standards and would provide the capability to automatically assign routes around flow constrained airspace; i.e., areas affected by severe weather or congestion.

2. **Airspace Redesign**: Along with the RVSM program, this badly-needed redesign project will help relieve the daily airspace saturation that causes ground delay programs and restrictive increased spacing between aircraft in the en route environment. By optimizing air traffic control center and sector boundaries and revising arrival and departure routes at complex terminals, aircraft can be routed through the system more efficiently.

3. **Choke Point Initiatives**: Over the past year, FAA and industry have identified 21 initiatives designed to help relieve seven choke point areas which create congestion and delay in the National Airspace System. These areas are in the Midwest corridor east of Chicago and several sectors dealing with traffic in/out of the New York terminal area – the most congested airspace in the world. The choke point initiatives are focused on resolving conflicts between full and equitable access to the NAS without violating FAA regulatory requirements or degrading safety in any way.

4. **Domestic Reduced Vertical Separation Minimums (RVSM)**: Perhaps the biggest problem in the ATC system today is the lack of en route airspace capacity due to outdated separation standards and requirements. Updating these standards by reducing the vertical separation above 29,000 ft. from 2000 ft. to 1000 ft.will allow FAA to make more efficient use of our nation's airspace.

5. **Aircraft Vortex Spacing System (AVOSS) at major terminals**: This research and development program may permit an increase in runway capacity at some 30 airports by allowing less than standard wake turbulence separation on final approach in those instances when the system determines increased spacing is not required.

6. **Controller-Pilot Data Link Communication (CPDLC)**: This program will speed the modernization of voice and data communications technology between controllers and pilots and allow for more automated information transmission between the ground and cockpit, especially in the oceanic environment.

7. **Free Flight Phase I and II Implementation:** The Free Flight initiatives consist of a series of programs designed to improve National Airspace System operations by providing more user-preferred routings while maintaining existing or greater safety

levels. These programs include efforts such as **Collaborative Decision-Making (CDM)**, to improve communications and planning between the FAA and the users of the Air Traffic Control System; **User Request Evaluation Tool**, a conflict probing tool to facilitate optimum routings; the **Center/TRACON Automation System**, a sequencing and spacing tool to aid in more efficient terminal operations; and the **Surface Movement Advisor**, to expedite ground operations at airports.

8. **Safe Flight 21 Initiatives:** This government/industry partnership is designed to validate the Free Flight concepts in a real-world operating environment. There are nine major elements in the program, utilizing **ADS-B** (a satellite-based surveillance tool) and/or **TIS-B**. The results of the Safe Flight 21 evaluations will be used to develop programs that will lead to reduced separation standards, fewer runway incursions, and improved provision of real-time weather reports to the cockpit.

9. **Full-Scale Global Positioning Satellites (GPS) Satellite Navigation Implementation (including LAAS, WAAS, and RNP/RNAV procedures):** Completion of the GPS network, including the Local Area Augmentation (LAAS) and Wide Area Augmentation Systems (WAAS), will provide more accurate and reliable navigational capabilities, create an environment to facilitate reduced separation standards, and increase the availability of user-preferred routings. In addition, FAA must complete standards development for new RNP/RNAV procedures that will support reduced separation standards between aircraft and between aircraft and obstacles. These systems should be developed and implemented so that they are fully compatible with similar systems elsewhere in the world, for example the European Galileo (GNSS) system.

10. **Staffing**: In order to fully implement these and other initiatives, FAA will need to hire and train 75 certification experts to aid in the acceptance of new avionics needed to use the new satellite systems and ADS-B. Also, 1,050 new air traffic controllers must be hired beginning in FY 2001 to cover attrition and expand the number of sectors.

Top Airport Capacity Enhancements

This list is comprised of the airport capacity improvements that are needed to truly improve delay problems in the United States. Coupled with our Top Ten ATC Improvements, these projects will significantly reduce delays, increase capacity, and improve the efficiency of the national air transportation system. *This list is presented alphabetically and is not prioritized in any fashion.*

Atlanta Hartsfield (ATL) – A new 9,000' runway 10/28 is in the final EIS review stages. If the current EIS process completion date of July 2001 is met, the runway can be in service by May 2005. This project, which is estimated to cost $1 billion, will provide capacity benefits of fifty percent – from 180 operations per hour to 270 per hour.

Boston Logan (BOS) – A new unidirectional 5,000' commuter runway will alleviate delays at Boston Logan by as much as 60 percent during certain operational conditions. MASSPORT and the airline industry are trying to overcome local political opposition, which have prevented this runway from moving forward. Plans are mostly complete but construction is not expected to begin before 2002. It is estimated that this runway will cost $33 million.

Chicago O'Hare (ORD) – A new 7,500' 9/27 runway, discussed then shelved in 1994, could be completed in the 2008 timeframe if planning was to re-start today and construction began in 2005-06. Current "back of the envelope" estimates place a $2 billion price tag on this project. This project would create the ability for "triple approaches" at O'Hare but would also require the relocation of other runways, taxiways and support facilities.

Cincinnati (CVG) – A third, fully independent, 8,000' North-South runway that will improve capacity at Cincinnati by as much as 50-70 percent by providing triple parallel approaches. The runway, with an estimated price tag of $220 million, is designed to open with full ILS capabilities. It is currently in the Draft EIS comment stages; this process should be completed by December 2001. If this date is met, the estimated opening date is December 2005.

Dallas-Ft. Worth (DFW) – A 9,760' eighth runway at DFW would allow for four approach streams during IFR conditions, and would take the annual capacity to 1.2 million operations. This runway would be located on current airport property on the west side of the airfield. EIS work is anticipated to begin in 2001 and without undue delay the runway could come into service in 2006 at a cost of $350 million.

Greensboro (GSO) – Airport management is expecting a final EIS decision on new runway 5L/23R in the spring of 2001. This runway carries an estimated price tag of $126 million and will increase the capacity of Greensboro by as much as 60 percent when it goes into service in late 2005 or early 2006.

Los Angeles (LAX) -- Airfield delays are becoming more common at LAX, especially as traffic continues to grow without any appreciable increases in airfield capacity. The City of Los Angeles is currently developing a master plan, and its preferred alternative includes marginal airfield improvements, such as additional taxiways to improve airfield circulation and an

extension to one of the primary takeoff runways. However, because have political, environmental and community pressures, the preferred alternative does not include the addition of any new runways. There is also strong sentiment in the region that planning should focus on improvements to other airports in Southern California instead of LAX.

New York LaGuardia (LGA) and Kennedy (JFK) – While there are no planned new runway projects at LaGuardia Airport, there are technology improvements (see the ATA Top Ten List) that would improve – but not resolve the shortage of -- capacity at LaGuardia. Additionally, we understand that PANYNJ planners are beginning to look at potential new runway capacity at JFK; while we encourage this planning effort, there are no proposals that can be evaluated as of this writing.

Philadelphia (PHL) – Airfield delays are a serious impediment to future air traffic growth at Philadelphia and the problem will be exacerbated with the completion of two terminal expansion projects in the next two years. The City has retained outside engineering and planning firms to study alternatives to: (1) provide more runway capacity, with the goal of accommodating dual independent jet operations; and (2) improve the constrained system of taxiways, with the goal of accommodating two way traffic in many areas. The City has not yet identified a preferred alternative.

San Francisco (SFO) – Airport planners are in the preliminary engineering and environmental planning phases, including the modeling of capacity benefits of the various options for adding runway(s). The next step in the process is to identify a preferred alternative -- no target date has been set yet. Even without unnecessary delay, any new runway(s) would not come into service until after 2008. Current cost estimates for improving runway capacity at San Francisco range from $2.5 to $10 billion.

Seattle-Tacoma (SEA) – A new 8,500' third runway is in the final environmental approval process, awaiting permits from the Army Corps of Engineers and Washington State Department of Ecology. This runway, which will increase the capacity of Sea-Tac by 12-18 arrivals per hour in poor weather, is expected to begin service in 2006 and will cost $773 million.

St. Louis Lambert (STL) -- New runway (12R/30L) just received its final environmental approvals, and the airport is in the final stages of design and land acquisition. When completed in 2006, this $1.1 billion runway will increase the hourly capacity of St. Louis Lambert by 43-51 percent.

Washington Dulles (IAD) – Airport planners currently finishing the design of two new runways New runway 1L/19R is targeted for completion in December 2011, will cost an estimated $183 million, and will reduce delays by approximately 33 percent. New runway 12L/30R, targeted for completion in January 2006, carries an estimated price tag of $216 million, will reduce delays by an estimated 50 percent.

Former Military Bases – The airline industry supports having FAA take a lead role in calling together the various supporters and opponents of former military bases (for example, El Toro, Moffitt, and Homestead) to determine what might be done to advance the conversion of these facilities into practical commercial aviation facilities. All operational, environmental and other concerns must be addressed, but the Federal Government, through the Federal Aviation Administration, must take a leadership role in advancing the cause of expanding commercial aviation infrastructure through the military base conversion process.

Air Transport Association

Edward A. Merlis
Senior Vice President
Legislative and
International Affairs

20 February, 2002

Ms. Linda Muir
House Appropriations Committee
Subcommittee on Transportation
2358 Rayburn House Office Building
Washington, DC 20515

Dear Ms. Muir,

In accordance with the Truth in Testimony Act, this letter is to inform you that the Air Transport Association of America receives federal grants from the Federal Aviation Administration for the AV Local Area Augmentation System (AVLAAS) program. ATA received $1 million in 1999. In addition, the ATA is seeking grant funding in FY 2003 for this program.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Edward A. Merlis

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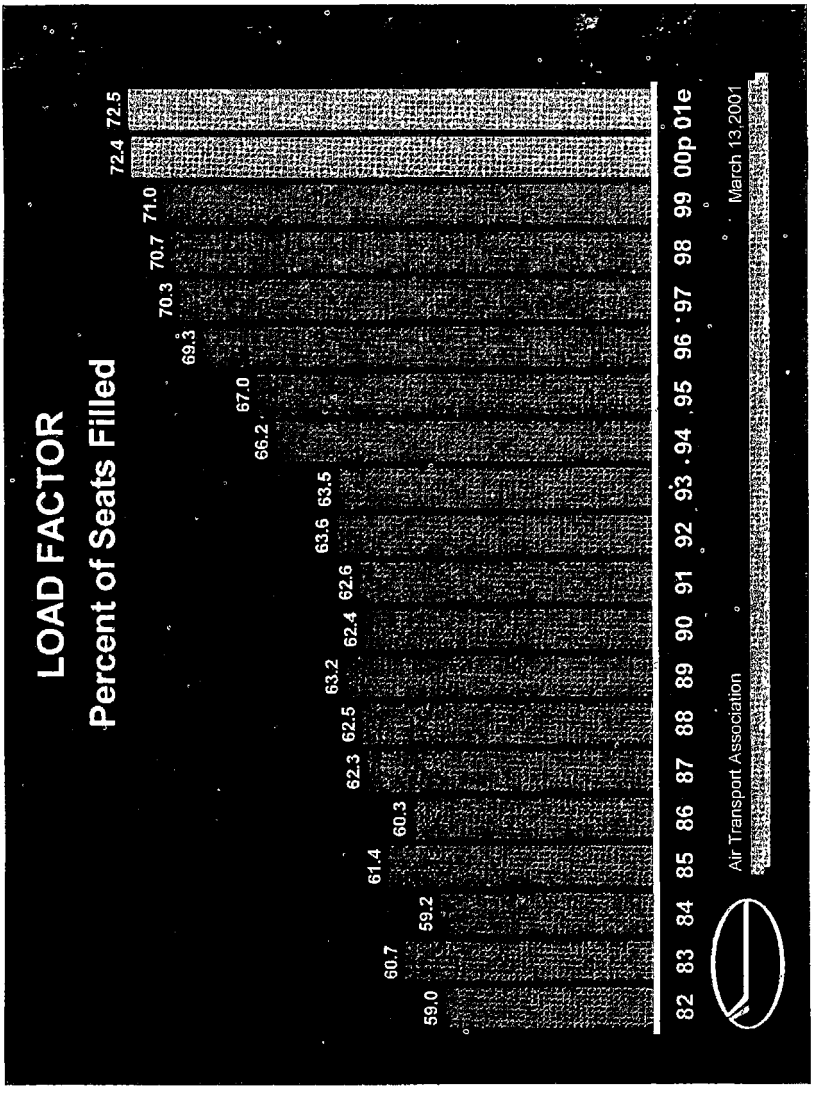
(202) 626-4182 ◆ FAX (202) 626-4208
emerlis@air-transport.org


LOAD FACTOR
Percent of Seats Filled
59.0
60.7
59.2
61.4
60.3
62.3
62.5
63.2
62.4
62.6
63.6
63.5
66.2
67.0
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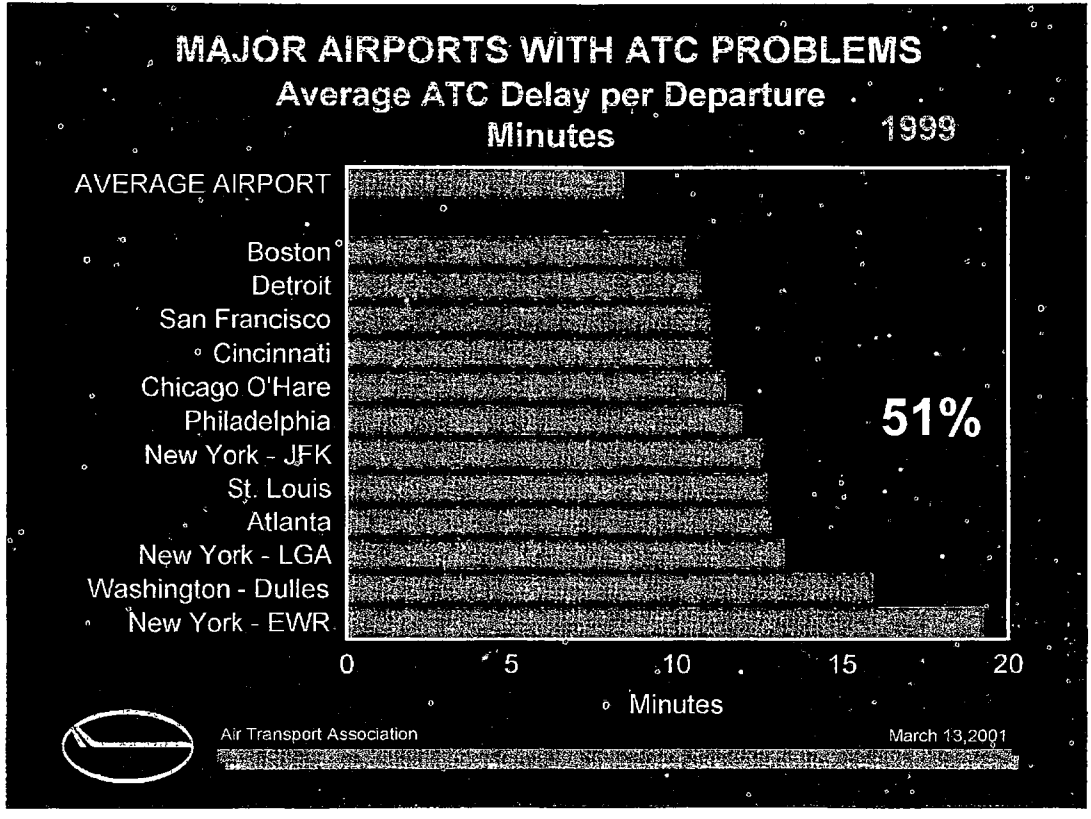
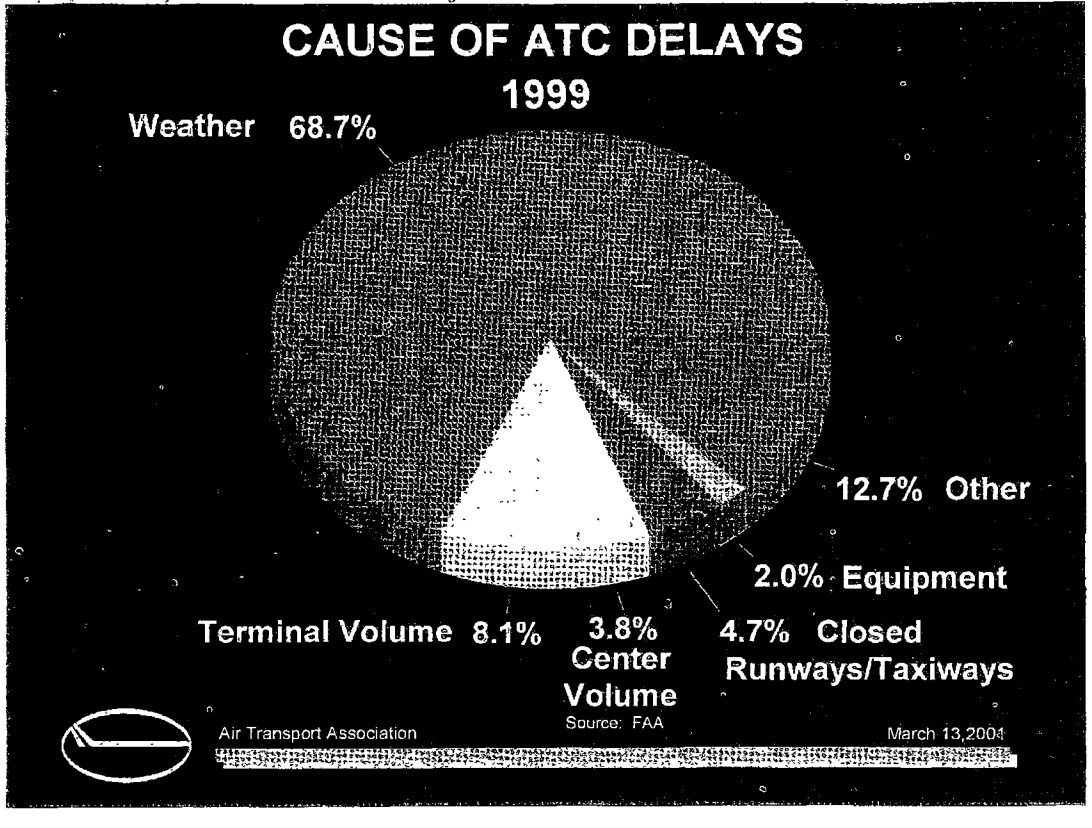
Air Transport Association
March 13,2001


MAJOR AIRPORTS WITH ATC PROBLEMS
Average ATC Delay per Departure
Minutes
1999
AVERAGE AIRPORT
Boston
Detroit
San Francisco
Cincinnati
Chicago O'Hare
Philadelphia
New York - JFK
St. Louis
Atlanta
New York - LGA
Washington - Dulles
New York - EWR
51%
0
5
10
15
20
Minutes
Air Transport Association
March 13,2001


CAUSE OF ATC DELAYS
1999
Weather 68.7%
12.7% Other
2.0% Equipment
4.7% Closed Runways/Taxiways
3.8% Center Volume
Terminal Volume 8.1%
Air Transport Association
Source: FAA
March 13,2004

BIOGRAPHICAL SKETCH

Edward A. Merlis
Senior Vice President - Legislative and International Affairs
Air Transport Association of America

Edward Merlis is Senior Vice President - Legislative and International Affairs of the Air Transport Association of America. In this capacity he oversees ATA's Federal, state and international legislative and executive branch advocacy, and ATA's airport and energy activities. Mr. Merlis has also served in a number of other capacities at ATA, including Senior Vice President - Government Affairs, Senior Vice President - Federal Affairs and Airports, and Senior Vice President - External Affairs. He joined ATA in March 1990 as vice president, policy and planning, after working for a number of trade associations and corporations in public policy positions.

Previously, Mr. Merlis worked for nine years on the staffs of several committees of the United States Senate, including serving as staff director of the Senate Committee on Commerce, Science, and Transportation during committee consideration of the Airline Deregulation Act of 1978.

He is a graduate of Columbia and has done graduate work at both Columbia and The George Washington University.

National Air Traffic Controllers Association
AFL-CIO

Testimony of

John Carr
President

National Air Traffic Controllers Association

before the

U.S. House of Representatives

Appropriations Transportation Subcommittee

Airline Delays

March 15, 2001

1325 Massachusetts Ave., N.W. Washington, D.C. 20005 (202) 628-5451 (202) 628-5767 FAX www.natca.org

Good morning Chairman Rogers, Congressman Sabo, and members of the Subcommittee. I want to thank you for this opportunity to appear before the Subcommittee to discuss the problem of airline delays and proposed solutions. I am John Carr, President of the National Air Traffic Controllers Association, the exclusive representative of over 15,000 air traffic controllers, engineers and other safety related professionals.

Airline delays and cancellations, capacity and access constraints, and traffic congestion continue to plaque our National Airspace System. Passenger frustration is over the top and customers are unhappy. It is time for all interested parties to stop placing blame and to start working together on real, tangible solutions to this dilemma.

Aviation delays are a multi-faceted problem, and no single element is responsible for causing them. Rather, a number of contributing factors including growth in the number of travelers, scheduling decisions by airlines, bad weather, slow pace of airport construction, and the under utilization of airports have led to the record number of aviation delays. And, just as there is not one cause, there is also no blanket solution or quick fix to the problem.

The United States air traffic control system is the not only the largest, most complex and most demanding in the world, but it is also the safest. This is, no doubt, due primarily to the dedication and professionalism of the nearly 15,000 FAA air traffic controllers. Air traffic control is a 7 days a week, 24-hour operation.

As an air traffic controller, I can tell you that we are under extreme pressure to squeeze more aircraft into an already congested airspace. Our motivation is to move aircraft as safely, efficiently and quickly as possible. The longer a delayed aircraft is in our airspace or occupies concrete on the ground, the more difficult our jobs become. Controllers go to enormous lengths to ensure the safety of millions of flyers each year. Safety is our business and business is good. And, air traffic controllers should not be put in a position of compromising that safety for any reason.

An airport's capacity to handle air traffic is a function of its size, the layout of its runways, the air traffic patterns, both arriving and departing, and the time frame in which a surge of traffic must be dealt with due to airline scheduling. Our system is built to allow for unfettered discretion in adding demand. However, you can not add limitless demand to a finite system. Case in point is what happened at New York's LaGuardia Airport last summer when airlines filed for 600 slot exemptions within about a week. Market forces failed to limit the number of flights at LaGuardia, so the FAA and the New York/New Jersey Port Authority had to step in.

Delays occur every day at every major U.S. airport. Schedules are made to reduce operating costs and maximize revenue without regard for other airlines, terminal airspace or airport capacity. At "peak" times, dozens of planes are simultaneously taxiing for take-off or queuing above the airport in a finite amount of terminal airspace. This is where the laws of physics kick in. Given runway capacity, only certain number of flights

can depart and arrive within a specified time period. Therefore, scheduling during peak hours contributes to delays at busy airports even in good weather. All scheduled flights will not be able to arrive on time. Responsible scheduling of flights within airport capacity limits will go a long way toward alleviating delays. Capacity management - prudent use of at air traffic system – is key.

Inclement weather has, and will continue, to play a significant role in air traffic delays – accounting for approximately 75 percent of all delays nationwide. Unfortunately, nobody but Mother Nature has any control here. Planes fly on a complex set of invisible "highways in the sky" with intersections, speed limits, separation requirements, etc. Storms or inclement weather can cause blockage or closing of one or many of these unseen highways. When this occurs, air traffic bottlenecks just like it does on the interstate at rush hour. Controllers must then reroute all air traffic. In addition to air traffic, ground holds may be placed on planes if their destination airport is unable to accept traffic. It can take hours to recover from a brief shut down of one air route.

Most often large storms are predicted early enough to ensure flight safety. However, sudden weather shifts require controllers and pilots to alter flight operations to ensure safety. Wind shifts or even the glare of the sun can mandate that an airport be shifted to change the active runway(s) and traffic patterns.

Controllers need timely, accurate information to reroute traffic to avoid turbulence and delays. The following four technologies dominate aviation weather information: the Automated Surface Observing System (ASOS); the Digital Automated Information Service (D-ATIS); the Next Generation Weather Radar (NEXRAD); and Terminal Doppler Weather Radar (TDWR). However, funding levels limit deployment of these technologies to large hubs and primary "bad" weather facilities.

The FAA, under the leadership of Administrator Garvey, has made significant progress in modernizing the air traffic control system. Our system can no longer be characterized as "outdated and antiquated." NATCA is a firm supporter and partner in Administrator Garvey's evolution not revolution strategy of "build a little, test a little, deploy a little," and we will remain an advocate of this throughout the modernization effort. NATCA will continue to work with the agency to move new technologies into the workplace as quickly, efficiently and safely as possible.

Over the past 3 years, the FAA has replaced or upgraded most of the major components of the air traffic control system. The radar displays (Display System Replacement) and the Host hardware in the 20 en route centers have been replaced. One hundred and thirty-one automation systems have been modernized (ARTS IIE) at low-to-medium density facilities, new hardware color displays (ACD) have been installed at five large facilities, the automation and hardware systems have been upgraded at higher demand facilities in Atlanta and Northern California, and automation systems (ARTS IIIE) are being fielded at St. Louis and Minneapolis to meet Free Flight Initiatives. In addition, the Standard Terminal Automated Replacement System has moved from development to deployment

with initial versions operational in Syracuse, NY and El Paso, TX. All of these activities are essential to meeting the present and future demands of our air traffic control system.

FAA modernization is an ongoing process consisting of over 100 projects. The stable and guaranteed funding provided in AIR-21 is essential to the modernization of the National Airspace System. However, while continuing upgrades and new technological advances are necessary to ensure safe, efficient travel in the future, they will not solve the problem of airline delays. According to the FAA and Mitre Corporation, improvements in air traffic control technology will enhance system capacity by 5 to 15 percent at best. While newer equipment will greatly increase reliability, it will not change the number of aircraft that can land or depart at any given time

There is no question that increased airport capacity will have a significant impact on reducing airline delays. Part of the reason we are here today is that airport construction – terminals, taxiways, runaways, gates – has not kept pace with passenger growth. According to the July 25, 2000 DOT Inspector General Audit Report, only nine new runways were opened at the country's 100 largest airports between 1995 and 1999. And, only three of these nine runways were built at the nation's 28 largest airports. While proposals exist for 15 new runways at our nation's largest airports, construction has only begun at five of these facilities.

Capacity can be increased through construction, and AIR-21 provides the necessary financial resources. Fifty miles of concrete poured at our nation's 25 busiest airports will solve most of our aviation delays. A new runway can allow 30 to 40 more operations per hour. The problem, however, is that any airport construction or expansion plan faces a number of obstacles including political hurdles, space limitations, community opposition, noise restrictions and environmental concerns. It can take years for a project to be approved. Meanwhile, we are fast approaching a crisis situation with respect to aviation gridlock.

The DOT Inspector General notes in the July 25, 2000 Audit Report, "Air Carrier Flight Delays and Cancellations" that the majority of the increase in flight operations and passenger enplanements over the next 15 years will occur at the nation's 28 largest airports. While most of these airports and the surrounding airspace have already exceeded existing capacity, regional airports are being underused and ignored. A close examination of the use of our nation's existing airports is needed. NATCA believes that certain city airports are better suited for originating and/or terminating flights than associated hub airports. Increased usage of these airports by passengers and airlines will alleviate congestion and delays at the hubs. All one has to do is look at the success enjoyed by Southwest Airlines to see that there is unused capacity in the system.

It may also be possible to find unused capacity through a close examination of the requirements for separating aircraft. Separation standards are designed to ensure the safety of aircraft and its passengers from other aircraft. The FAA separation standards, which date back to the 1950s, require 5 miles laterally in the en route environment, 3 miles laterally in the terminal airspace, and 1,000 to 2,000 feet vertical depending on

altitude. Therefore, an operational error can occur when one aircraft is trailing another by 2.8 miles instead of the requisite three miles. NATCA believes that it is time to consider safe and reasonable changes to these separation standards. While air traffic controllers are using 1970s radar with 1980s radios and 1990s scopes, they are using 1950s separation standards.

The air traffic controller workforce serves on the front line, managing thousands of commercial, military, and general aviation operations on a daily basis. Twenty years ago this summer, over 11,000 air traffic controllers were fired as a result of the PATCO strike. Now, two decades later, the air traffic controller workforce and the country is about to feel the aftershock of that event. The thousands of controllers hired during the post strike recovery period will reach retirement eligibility in just a short period of time. By 2010, cumulative retirements will exceed 50% percent of the workforce. We need to ensure that there are enough qualified and trained air traffic controllers to handle today's increasing workload and to prepare for the coming wave of controller retirements. Mandatory overtime, six-day work weeks and understaffed shifts are what air traffic controllers will be facing if the government does not do something now to prepare for this crisis. Currently, there are not enough controllers to fill the gap, and it takes anywhere from 2 to 4 years to become a full performance level controller. We believe that the FAA must immediately begin hiring and training the next generation of air traffic controllers.

One thing is clear, privatization has no place in the discussion on airline delays. It only detracts from the important tasks that lie ahead. Privatization will not increase airport capacity, or build more runways or airports. It is simply a business-oriented solution being offered by so-called think tank experts and others who stand to make a profit. Proponents argue that competition in the private sector allows companies to provide services more efficiently while reducing costs. It is foolish to think that a change in ownership will improve safety, increase capacity and reduce costs. Private companies will constantly balance their bottom line against my bottom line: the safety of the travelling public. Some things should not be reduced to dollars and cents.

Proponents often point to Canada's privatized system as the solution. However, Nav Canada is the perfect example of a not-for-profit air navigation corporation with a single-minded focus on saving money. The system is financed by fees charged to passengers and collected by the airlines to cover the costs incurred by Nav Canada in providing air traffic control, flight information, and other services. However, instead of investing surplus revenue in new technology, modernization efforts, staffing or infrastructure projects, Nav Canada has chosen to reduce air navigation fees charged to airlines, and to give the airlines fee rebates. Profits are being put before safety.

Let the words of Mike Murphy, an Ottawa based aviation safety consultant and former head of air traffic control in central Canada, speak for themselves. "The motive is to save money and make it more efficient but efficiency often works at the expense of effectiveness," Murphy said. "In our business, effectiveness is otherwise known as safety."

According to Murphy, the Canadian Automated Air Traffic System, or CATS, has been, "wound down over the years to the point where it's probably going to deliver 40 percent of what was promised and the cost is double or triple what it was supposed to be." The CATS system, five years overdue, has yet to be installed in Canada.

According to the Canadian Press, the Transportation Safety Board of Canada has repeatedly cited Nav Canada for overworking its employees, pointing to excessive overtime, understaffing and fatigue as problems in the air traffic system. In September Canada's board blamed the fact a Winnipeg controller had worked 198 hours in 32 days - 43 hours more than his contract stipulated - for circumstances leading to a near collision between two Boeing 767s.

Air traffic control is an inherently governmental function. The U.S. system is a national treasure that demands thoughtful, proactive decision-making that will result in real, lasting improvements in procedures, processes and infrastructure. Privatization of this system will never be the answer because the safety of air travelers is not for sale.

CONCLUSION

I would like to again thank the members of the Subcommittee for allowing NATCA to testify on the problem of airline delays. Without expanding domestic airspace and airport capacity, and addressing the issue capacity management, delays will not only continue to increase but they will reach the point of gridlock in the foreseeable future. As an industry, we must stop pointing fingers and placing blame. Teamwork and collaboration are needed to develop and implement concrete solutions.

National Air Traffic Controllers Association
AFL-CIO

John S. Carr
President

John Carr is serving his first term as NATCA's president. John joined the FAA in 1982. Prior to his election in September 2000, he worked as an air traffic controller at the Chicago TRACON and, most recently, at Cleveland Hopkins Airport.

John's involvement in the formation of a national air traffic controllers' union began in 1986. He is one of NATCA's remaining active founding members. When the organization became certified in 1987, he held many influential positions where he helped shape its foundations, procedures and policies.

Throughout the past 13 years, John has served in numerous leadership positions, including pivotal committees and work groups, as a member of the union's 1998 contract negotiating team and president of the Chicago TRACON local.

John's background in air traffic control goes back to 1977, when he served in the U.S. Navy for three years.

From Capitol Hill to the White House, government agencies to the myriad of industry trade groups and commercial providers, NATCA's strong presence in the aviation community has earned many grassroots successes. Combining those with strong citizen support for NATCA's issues, the organization's stature has solidified in all arenas.

By speaking up in industry settings, during congressional testimony, and in high-level policy meetings, John stands at the forefront of a long-standing effort to bring the public into the aviation debate.

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CAPTAIN DUANE E. WOERTH

PRESIDENT

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

BEFORE THE SUBCOMMITTEE ON

TRANSPORTATION APPROPRIATIONS

U.S. HOUSE OF REPRESENTATIVES

ON

DELAYS IN THE AIR TRAFFIC CONTROL SYSTEM

MARCH 15, 2001

Air Line Pilots Association, Int'l
1625 Massachusetts Avenue, NW
Washington, DC 20036
(202) 797-4033

STATEMENT OF

CAPTAIN DUANE E. WOERTH
PRESIDENT
AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
ON
DELAYS IN THE AIR TRAFFIC CONTROL SYSTEM
MARCH 15, 2001

Good day Mr. Chairman, I am Captain Duane Woerth, President of The Air Line Pilots Association, International (ALPA). ALPA represents the professional interests of 59,000 pilots who fly for 49 airlines in the United States and Canada. We appreciate the opportunity to appear before you today to discuss the very complex issues of flight delays and proposed solutions to the problem.

The summers of 1999 and 2000 have proven the forecasts for increased traffic and potential for gridlock in the ATC system to be quite accurate. The aviation community and travelling public after 1999 believed that the air traffic control delays could not have been worse and that positive steps needed to be taken to prevent a repeat performance. ALPA believes the FAA took a very positive step with the Spring 2000 (S2K) Initiative. Without it, in the summer of 2000, things could well have been worse. This work continues under the name S2K+1.

Spring 2000 set up a daily collaborative planning process that is designed to allow significantly better response to severe weather situations and other system constraints. Its goal is to deploy the tools and processes that will provide consumers with the predictability, accountability, and reliability they expect from the national air transportation system. The list of technologies and tools in use include Flight Schedule Monitoring, the Collaborative Convective Forecast Product, Departure Spacing Program, Coded Departure Routes, the National Playbook (deals with severe weather reroutes), Military Special Use Airspace Access, and Post Event Tools, to name a few. Many more innovative technologies are under development and their testing and deployment needs to be accelerated.

Spring 2000 is a much-needed tactical approach to managing the National Airspace System (NAS) on a real-time basis and it is clear that this initiative must be continued indefinitely. We urge that the FAA's Operations and Maintenance budget be increased to fund this new process for managing the daily operation of the system. We expect that the FAA will shortly change the name of this initiative to properly reflect that it is an integral part of the NAS.

The issue of Air Traffic Service delays, and their relationship to system safety, is an issue in which ALPA has a deep and lengthy history of interest. The air traffic control system has become a convenient target and a scapegoat for much deeper systemic problems. Air traffic control is often blamed for delays it is compelled to implement to maintain the safety of the National Airspace System, but are actually caused by problems outside the control of air traffic.

Keep in mind that delays are merely symptoms or manifestations of larger problems or uncontrollable situations in the National Airspace System. Delays can come from a number of sources-the two most prominent are airspace and airports – although it is in the interfacing of these two elements that seems to produce most delays. The causes of delays are primarily weather, scheduling that is based on optimum weather scenarios, the hub and spoke system, usable runways, gate availability, and choke points caused by airspace saturation. With that background, I need to point out that there are airspace sectors throughout the system that sometimes are at absolute maximum capacity even without the influence of other previously mentioned factors such as weather. When these other external elements are added, the system just collapses.

Was the Summer of 2000 worse than the Summer of 1999? In 2000 the eastern third of the nation experienced more severe convective weather, approximately three times the average number of days. That was the primary cause of the delays. In addition, the airlines scheduled a record number of flights, which increased the potential for greater delays. Our understanding is that while more flights took place, and more passengers were moved, there were a greater number of delays.

It is clear that at certain times on certain days scheduled traffic at the hubs is at absolute capacity. Most of the time Visual Meteorological Conditions (VMC) prevail and airline schedules are based on VMC airport arrival rates. When the weather drops below visual minimums, especially at airports with limited instrument landing capability, the impact begins to ripple through the system. When an airport must restrict use of its runways because spacing or configuration precludes their use under Instrument Meteorological Conditions (IMC), then the airport acceptance rate falls and departure rates are cut. This results in ground delays at departure airports, inbound airborne aircraft holding, and then ground delays for departures at the arrival airport where planes are waiting to take off – it's like dominos. In the summer thunderstorm season, when severe convective weather activity develops, it often results in airports being closed to all traffic for an extended time, thus creating havoc in the system. The Spring 2000 initiative has shown that tactical management can relieve some of the problems, but there is no total solution to mitigating the impact of severe weather, except not to fly into or near it. Maintaining the safety of the system is the guiding principle for all decisions.

We have possibly created a false level of expectation for the flying public by promising that people can fly where they want to, when they want to. To satisfy this demand we have created a scheduling system that requires more aircraft to operate at the same time than the system can efficiently handle, even on the best of days. The schedule unrealistically projects more aircraft into an airport in a one-hour time period than the airport can accommodate. Competition compels airlines to schedule a maximum number of departures at the top of the hour, so the real crunch occurs in a thirty-minute block.

Therefore, whenever uncontrollable events like weather occur the system collapses from its own weight.

To maintain a semblance of on-time operations, the time between city pairs has been increased, in some cases dramatically. An example is the Washington – New York shuttle schedules that display considerably different times for the same route depending on the departure time. At least this schedule is realistic and the travelling public has correct information on which to plan.

The pressure continues to be put on the ATC system. A while ago, it was mandated that the four slot-controlled airports permit more flights. Allowing more flights at these airports will aggravate the situation, unless arrival and departures are mandated to the slack periods. However, these times may be less desirable by the travelling public.

Our pilots are every bit as concerned about these delays as you and the flying public are. We too hear the stories of excessive delays for no apparent reason. These experiences, combined with some of the less thoughtful capacity initiatives the FAA has tried, have only served to reinforce our suspicions that capacity is being emphasized to the detriment of safety. We still have the safest system in the world, but our confidence in it is challenged by what we experience on a daily basis.

Several of the FAA's innovative capacity enhancements have been aimed directly at this aspect of the equation – how can we get more airplanes on the concrete in a given amount of time? Air traffic control has very specific, safety based, restrictions on runway utilization. These air traffic control standards are designed to ensure the separation of an aircraft and its passengers from other aircraft thus establishing a safety standard. We cannot afford to lessen these standards without full and open testing and evaluation. Capacity critical initiatives must be backed with data that proves that the minimum level of safety is maintained and hopefully enhanced. The FAA clearly has the burden of proof.

Sometimes forgotten, or underestimated and overlooked, is the real impact that the FAA's punishment-based ATC system has on delays. With the emphasis by the FAA on disciplinary programs designed to assess blame/fault, rather than educational-based programs designed to determine cause and solution to the problem, the FAA has created a built-in delay-producer. The FAA grades itself on the number of controller and pilot mistakes it detects – Operational Errors and Pilot Deviations. The pilot or controller involved is subject to administrative disciplinary action if it is determined either is at fault. Error detection in the enroute portion of the program is automated (Quality Assurance Program, or "snitch patch") and, until recently, there was no discretion available for "no harm, no foul" situations. Because of this, controllers add miles in buffers to existing separation standards to ensure they won't have a "deal." Pilots are equally paranoid and mistrusting of anything the FAA suggests because most of their interface with the FAA is when Flight Standards is pursuing an enforcement case which could result in a suspension of a pilot's license and loss of income. This does not contribute to a healthy environment on either side of the microphone, and results in additional questioning, readbacks and pilot rejection of controller clearances that only serve to further clog the system.

One recent decision by the FAA indicates some change in the investigative process for controller errors. In the past, operational errors that violated separation standards subjected the controller to relief from duty, remedial training and loss of certification, regardless of severity of the incident. The FAA now will assess the safety loss from an error, and, provided 80% of the separation standard was maintained, will designate it as a technical violation and will treat it more leniently. The resulting technical violation will be recorded on a separate sheet in the controller's training folder and be discarded after twelve months. The FAA will keep track of both technical errors and operational violations.

The error versus technical violation approach supports shifting the focus to preventing and managing errors and recognizes there are minor deviations that do not jeopardize safety. While pilots have some leeway and can deviate from airspeed and altitude within accepted limits, controllers could not. This methodology recognizes that human error can not be avoided by disciplining operators and that sanctions, threats and fear have only a very limited effectiveness, and do more harm than good to morale, self respect and to the individual's and organization's sense of justice. We realize that another reason for this method of operation is to have the controllers apply the current standards without adding margins to protect their careers, thereby adding some efficiency and capacity to the system. This may be an added bonus to the system. We believe that the FAA cannot reasonably expect to eliminate all the personal margins controllers may use to prevent errors, but that the new guidelines may improve the work environment.

Another significant element of any program truly designed to enhance safety and efficiency is an ability to collect accurate data concerning incidents that occur within the system. The only realistic way to do this is to establish a "no-fault" reporting system for both pilots and controllers. This program must have the objective of investigating for safety purposes – investigate incidents to determine why they happened, and what can be done to ensure they don't happen again. The individuals involved must be able to participate freely, without fear of repercussions, in order for a system like this to work. Several programs that could be used as models already exist – the American Airlines ASAP program that is currently being expanded to all air carriers, the NASA Aviation Safety Reporting System, and the US Airways Altitude Deviation Reporting program. A number of airlines are also currently in the process of setting up Flight Operations Quality Assurance (FOQA) programs that are designed to use automated aircraft performance data to improve operational safety and aircraft operating procedures. A program must have integrity and credibility with both the pilots and controllers to be effective. To be able to work on the root causes of deeply imbedded systemic problems it is essential that the program have accurate, safety-oriented data to work with. Only through such a program, with guaranteed immunity from all but intentional rule violations will we ever be able to identify and correct potentially catastrophic problems.

Environmental concerns have a great impact on the aviation industry. Noise restrictions constrain arrival and departure routes thereby exacerbating the delay problem. The airlines and manufacturers have spent millions of dollars designing newer, quieter aircraft. Pilots are compelled to fly highly complex procedures at less than optimal operational performance standards to comply with ground based constituent concerns.

The industry has done all it can do to alleviate these complaints. There must be a paradigm shift in the public to understand that part of the cost of reducing system delays may be the more efficient use of terminal airspace and aircraft performance capabilities – and that may result in an aircraft overflying someone's house. This wholesale acquiescence to environmental concerns may have to be amended if we are to thoroughly address the entire scope of the delay problem.

For example, Phoenix International Airport is the busiest two runway operation in the U.S. but is confined to a single departure stream because the departures on both runways 8 R and L must fly up the dry river bed that is roughly between the two straight-out departure paths. Pilots are required to establish visual separation from the previous departure in order for the departure rate to be maintained at an acceptable level. In normal operations, when there is no weather or other factors causing departure delays, the airport is forced to operate in a very inefficient manner. When weather is a factor, the delays are compounded and the controllers have no way to expeditiously get the backlog of departures airborne. In reality, the environmental delay is part of the airport's normal operation.

Resectorization of enroute airspace can lead to some efficiency gains by eliminating some of the traffic flow choke points referred to earlier. At this time the FAA has identified nine choke points and if traffic increases as predicted the number of choke points will increase accordingly. Initial evaluation of en route airspace resectorization proposals being touted by a number of potential contractors seems feasible – and they may well be, but not quickly. In fact, RTCA has Special Committee 192 looking into this concept, among others, to better utilize our national airspace. The recommendations that will be forthcoming from this Committee will result in better management of our scarce airspace resource but will not be possible without allowing the FAA to consolidate facilities and that will require some tough political decisions.

Additionally, the solution to resectorization in the past has been to divide the airspace, assign frequencies and train controllers. However, the FAA has stated that not enough frequencies are available to accomplish the needed sectorization. The problem of a lack of needed frequencies was predicted some time ago and it is coming to pass. The FAA has been pursuing solutions and has requested RTCA's assistance to produce an operations document to characterize an operational concept and associated requirements for an integrated digital air/ground voice and data system in the U.S. National Airspace System. We fully support the work of RTCA Special Committee 198 and anticipate that the target date for a document of September 2001 will be met.

ALPA's view is that construction of new runways, taxiways, terminals and other infrastructure is equally as important as the development of additional ATC capacity initiatives. And, in fact, many of the top 100 airports are planning for new and extended runways and other facilities to create more capacity. Some considerations for new runway construction are: runways must be built where the traffic demand is forecast to be highest; must be fully usable by appropriate aircraft (appropriate length and navigational aids); must have flyable noise restrictions; must have ready access to the parking and gate areas, and must be usable throughout the day and night.

Obviously, the new runways are built to expedite and increase departures and arrivals. However, it should be noted that new runways, depending on the airport location, could fail to meet the design potential because of the airspace above the airport could be saturated with enroute traffic. The departures have to fit into the flow and with the constant stream of enroute traffic, requested cruise altitudes, or any operationally acceptable altitude, may not be available which will cause departure delays. Resources must be made available to expedite resectorization, frequency availability, reduced vertical separation above flight level 290. Construction of new runways and modernization of our airspace system must be undertaken simultaneously if we are to truly address the growing problem of delays.

ALPA's motto is Schedule With Safety. We will continue to champion that standard and will work with the FAA and members of the aviation industry to develop initiatives that will improve efficiency, as well as maintain and hopefully improve the safety of air operations. A fundamental objective that is not always demonstrated when changes are proposed is that any decrease in existing separation standards or any capacity enhancement procedure must result in meaningful increases in capacity to be justified. The costs and benefits are not always defined and backed by credible study. New procedures must not require pilot or controller actions that cannot always be complied with and pilot responsibilities must be properly integrated with all other flight deck duties. All capacity initiatives must be proven to maintain or increase the safety of air operations and good test and evaluation data is needed to support the implementation of new technologies and procedures. We can accept nothing less.

No pilot organization wants capacity controls placed on the air traffic system. Fewer airplanes means fewer jobs. At the same time, we cannot schedule twenty aircraft to depart one airport at the same time and not have significant delays. If market forces dictate those departures, something will have to yield. The La Guardia Airport experience after slot restrictions were relaxed demonstrates that we can not have unlimited service at physically limited airports. Just as is the case when new runways and airspace changes are proposed, a public debate on scheduling practices is necessary.

In closing, I want to thank you for giving me this opportunity to address this most complex of topics. This is one of, if not the top priority for ALPA, and you will be hearing much more from us in the future about the need to modernize our National Airspace System. I would be most happy to answer any questions.

BIOGRAPHY

CAPTAIN DUANE E. WOERTH, PRESIDENT

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

Captain Duane E. Woerth, a Northwest Airlines pilot with extensive experience in the field of international aviation, is the seventh president of the Air Line Pilots Association (ALPA). He was unanimously elected by the Association's Board of Directors in October, 1998, and assumed office January 1, 1999.

As the Association's chief executive and administrative officer, President Woerth presides over the meetings of ALPA's governing bodies, which set policies for the organization. He is also chief spokesman for the Association, testifying before Congressional committees and presenting the pilots' views to the media and in many forums.

Captain Woerth has served as US-ALPA's Director for the International Federation of Air Line Pilots Associations (IFALPA) and previously served as chairman of IFALPA's Industrial Committee. He also served for five years as a member of the Northwest Airlines Board of Directors under the Northwest employee stock ownership plan.

Before assuming office as ALPA president, Captain Woerth served for eight years as the Association's first vice president, its second highest-ranking officer. He has been the association's principal spokesman and representative in the area of international aviation.

Currently a B-747 captain, he has flown at Northwest for eighteen years and at Braniff Airlines for five years. He was involved in ALPA activities at both carriers, and served as the chairman of the Northwest Master Executive Council, the highest elective office for the Northwest pilot group. He also completed a term as ALPA's executive vice president.

He served in the U.S. Air Force for six years and retired with the rank of Lieutenant Colonel from the Air National Guard. He accumulated over 20 years of active and reserve duty, primarily with the Strategic Air Command.

A native of Scribner, Nebraska, Captain Woerth, 52, received his B.S. degree from the University of Nebraska and his M.A. from the University of Oklahoma.

ALPA is the world's oldest and largest labor union and professional organization of airline pilots. It represents over 55,000 airline pilots and flight engineers at 50 air carriers in the U.S. and Canada. In its professional role, ALPA is the industry's leading air-safety advocate. The Association is affiliated with the AFL-CIO, for which Woerth serves as a vice president, and with the Canadian Labour Council.

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September 2000

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March 14, 2001

Mr. Richard Efford, Staff Assistant
Subcommittee on Transportation & Related Agencies
Committee on Appropriations
2358 Rayburn House Office Building
Washington, D.C. 20515

Dear Richard:

In compliance with committee rules, I am informing you that ALPA is currently under contract with the Federal Aviation Administration to administer an alcohol and drug education and intervention program for airline pilots. The contract for this fiscal year is in the amount of $140,000.

Thank you for your consideration.

Sincerely,

Jerry Baker
Legislative Counsel

JB:jw

Mr. ROGERS. Before we proceed, let me recognize my partner, Marty Sabo, for any opening statements he cares to make.

Mr. SABO. Mr. Chairman, let us proceed.

IG—RESPONSIBILITY FOR DELAYS

Mr. ROGERS. That is a wonderful opening statement.

Okay. Here we go. I am going to start with the Inspector General, and we are going to go down the line in order. The question is who is responsible for the problem and what are you going to do about it? Mr. Mead?

Mr. MEAD. Responsibility has to be laid at the feet of the Federal Aviation Administration, the airlines, the airports, the local communities and I think main DOT. I say that because they are all key players in the air traffic scenario and the congestion and gridlock we have today.

What needs to be done about it? I think you need to move out on a multifaceted front, and by multifaceted I mean you have to examine the state of the air traffic control system and its modernization. We need more runways because that is where you are going to get your quantum leaps in capacity. You need to take some accountability measures to make sure that the people that are responsible for taking these actions are ultimately held accountable.

Now, I think you take apart this problem in three pieces. You would want to look at the short term because a lot of the American traveling public wants to know: what are you going to do for me this summer? Am I going to have a repeat in the summer of 2001 of what we had in 2000? Like we had in 1999?

The fact is that we cannot have more runways in time for the summer of 2001 or 2002. Air traffic control technology is not going to yield material gains in the short term. Some short-term actions need to be taken, and they need to be taken in the airline scheduling area.

Also, FAA, DOT, and the airlines need to start tracking the delays. We have two or three different systems. They are recorded in our statement. They are very confusing. They are misleading to the traveling public. We have to straighten out the data on how many delays there are, how many cancellations there are, and what the causes of both are. I am incredulous that we do not have such a system in place today.

Second, FAA needs to come out with capacity benchmarks. Those capacity benchmarks will state by airport, by the top 30 airports, how much traffic that airport can handle by time of day under great weather conditions and under less great weather conditions. The airlines need to take heed to what those capacity benchmarks say, because the extent to which the scheduling exceeds those benchmark lines, the traveling public can expect problems.

I think a third action that should be taken is that the Consumer Enforcement Division of the DOT needs to be beefed up. The resources there are woefully inadequate. You have less resources there now than you did in 1985, and it is all at a time when the complaints are skyrocketing, and the delays are skyrocketing, and the complaints are coming in. There are just not enough resources there to provide adequate protection for consumers when they do complain.

On runways, there are about 14 runways I believe in this country that are posited for construction over the next say decade. About six of them could be completed in the next several years. I think we ought to set dates for completion of those runways, and we ought to monitor them very carefully.

I think that is my short-term action plan.

FAA—RESPONSIBILITY FOR DELAYS

Mr. ROGERS. Thank you. Ms. Garvey?

Ms. GARVEY. Thank you very much, Mr. Chairman. I would echo in part some of the comments of Mr. Mead.

First of all, all of us at this table have the responsibility for action, and I would focus as he did on both the short-term and then long-term issues. Certainly in the short-term effort, and I am going to speak specifically about what the FAA can do. I think we have really changed the way we do business. That is, we have opened Herndon, which is our command center, and I think we have an unprecedented collaboration both with the airlines, the partners of the airlines, the controllers, and the pilots. Every morning at 5:00 a.m. we begin with conference calls, and they continue every two hours throughout the day to plan a course of action. I think that kind of collaboration is absolutely essential and key.

The airlines with us have identified a triangle in this country that really acts as a kind of choke point. It is from Chicago to Washington to Boston. We have 21 short-term initiatives for those choke point areas. We have initiated and implemented half of those and are well on our way to the others. They essentially involve changing the procedures in and out of some of our busiest airports. Again, these are short-term initiatives, but they have begun to produce some benefits. We have been able to reduce some of the departure delays at some of the New York airports. We need to stay the course on those initiatives and make sure we stay with and get them done.

As Mr. Mead suggested, we are in the final stages of the capacity benchmarks working very closely with the airports to establish both the benchmarks at those airports, what the capacity is, what the demand is. I think that is another again very important short-term initiative.

Improving our weather technology is another short-term initiative that we can do with the airlines. Again, I think collaboration is absolutely the key with the controllers as well.

Long-term, the Inspector General's testimony speaks about the need to have a long-term strategic plan. We completed a draft of that on December 31. It is critical because it includes not just the technologies, but also the procedures, the benchmarks, the budgets, the certification that is required. Long term, it is a blueprint really for all of us. We are working right now very closely with the airlines to make sure that we all sign up to it. I think it is absolutely critical that we sign up to that together.

So short-term initiatives around choke points and procedures and things we can do right now are training with the airlines, changing the way we do business through even more collaboration and a long-term strategic plan to have in place with the airlines. I think

those are some important steps that we can take, and they are steps we can take together.

NATCA—RESPONSIBILITY FOR DELAYS

Mr. ROGERS. Thank you. Mr. Carr?

Mr. CARR. Thank you, Chairman. I am very grateful you asked the question who is responsible, and I believe it is best answered by acknowledging that we are all responsible.

Twenty-five years ago, aviation transportation was the transportation system of the elite. Now flying is mass transit. Any one of us can go down to the airport and hop the next flight to L.A. The country did not maintain the infrastructure needed to turn the transportation model of the elite into mass transit.

For the last 25 years, we have accommodated growth and demand through scale by building bigger airplanes—727, 737, 747, 757, 767—but not by building new runways. Due to market forces, labor difficulties, and, quite frankly, the decisions of the corporations, we have most recently started accommodating demand through frequency. We go every hour on the hour with smaller aircraft. That increased frequency is straining the infrastructure that has basically been static for the last 25 years.

I could not agree with you more. It is time to stop laying blame. It is probably time to start laying down some concrete. We believe and most people in industry will tell you that 25 airports getting one new runway apiece or 50 miles of runway at the 25 busiest airports would probably absorb most of the delays that we encounter in the system now, arrival delays, as well as departure delays, but we are not going to be able to get any runways poured by this summer, and I acknowledge that.

What can be done short term? I think we have to continue to support AIR–21. I think we have to fully fund the initiatives in AIR–21, and I think we have to give the Administration and the FAA Administrator, quite frankly, a chance to make those things work.

I believe that we have to name a very proactive and aggressive Chief Operating Officer (COO) to lead the FAA Performance Based Organization (PBO). I believe we have to give the Management Advisory Council (MAC) and the Air Traffic Services Subcommittee an opportunity to lead rather than just follow. I believe that we need to hire more controllers.

Twenty years ago this August the Professional Air Traffic controllers Organization (PATCO) strike of 1981 caused 11,500 air traffic controllers to be fired. Well, their replacements are coming up on retirement age now, and we need to very, very carefully monitor that situation so that the people I represent know that replacements are coming on line.

I think we are all to blame for it. I think that the answers to this dilemma are right here in this room. I would like to thank you for the opportunity to contribute to the debate, and I look forward to working with everyone here on proactive solutions.

ALPA—RESPONSIBILITY FOR DELAYS

Mr. ROGERS. Thank you. Captain Woerth of the Air Line Pilots Association?

Mr. WOERTH. Thank you, Mr. Chairman. After three previous speakers I concur with almost everything I have heard so far, so I feel sorry for my colleagues even to the right of me.

I think I would like to emphasize a little bit what Mr. Carr also just emphasized that over most of my nearly quarter century as an airline pilot, airplanes are getting larger and larger and larger, and the economies of scale are being used to compete, both to get lower consumer prices and to get more people to destinations.

A competitive reality today, and all the airlines do this, and I understand why because it works, is especially for the high yield business customer who is buying those fully refundable tickets whose business plans are changing hourly, if not daily. They want to be able to go any time they want to go. They want to have hourly service to almost any place they go.

To respond to that, in a rational way the airlines have not built bigger airplanes. Instead, they are using smaller and smaller aircraft to accommodate high frequencies because that is the business strategy that works. Nobody can argue with an airline that is using a business strategy that works. The problem is eight or nine major network systems cannot all have the business strategy with the infrastructure we have right now.

Let us look at the poster child. An example sometimes is worth a thousand words. LaGuardia. Let us just say LaGuardia, and let us say last year. To borrow a phrase from Chairman Greenspan, when we lifted what we used to call slots—now we want to call it capacity enhancement benchmarks or whatever. It was the same thing.

The fact of the matter is we relaxed it, and the response by the airlines was irrational, competitive exuberance. They put so many flights into LaGuardia it had zero chance. On a blue sky day with calm winds, there would be no chance that airport has any chance of operating on time.

We have tried to deal in different ways with LaGuardia, but those are the type of choke points that affect it. Not just New York. They affect Los Angeles and San Francisco. Those airplanes are supposed to end up in those destinations, and they are an hour on the runway in LaGuardia. We are going to have to do something practical and realistic about when we know we have a choke point. We cannot pretend we do not know what one of those problems is.

Part of our answer is going to have to be to make sure we get all those passengers into airports like LaGuardia, keep the capacity up, but not try to have a lot more airplanes than necessary to do the same job. So that is one simple thing that I am trying to deal with that we can actually do this year and next year.

I think we all have to acknowledge that the technological fixes, the stuff that is going to enable air traffic controllers and pilots to deviate around weather more safely and with less of the same rules and limitations we have today are five, six and seven years away. If everything goes great, if AIR–21 is supported and there is no drop in funding and five other miracles happen, then everything is going to be okay technologically five or six years from now.

In the meantime, we are going to have to make some very hard decisions amongst all of us together and cooperate with the limitations we have and not fool each other about what we can schedule

or operate in a type of system that simply is not going to work. At one point I have even suggested that the airlines might even be given antitrust immunity to, frankly, work out some of their scheduling practices four or five times a year. Let us just admit that nobody is going to unilaterally withdraw. They cannot. If they pull down flights or frequencies, their competitors will probably just add them. Whether they are cooperating with each other I will leave that to them to determine, but we need some practical solutions because there are no technological miracles available to us, sir.

Thank you.

ATA—RESPONSIBILITY FOR DELAYS

Mr. ROGERS. Thank you. Mr. Merlis with the Air Transport Association?

Mr. MERLIS. Thank you, Mr. Chairman, and thank you for this opportunity. I cannot disagree at all with the previous speakers. I think the shared responsibility for the situation we are in is a description of the system being out of kilter. In an attempt to meet demand, we have put planes into an infrastructure that is not adequate to meet the demand that we have in this country, and what we have to do is find ways to resolve that both short term and long term.

In the short term, among the initiatives that we have undertaken, as Administrator Garvey described, is the daily collaborative decision making to figure out how we deal with the current weather of the day in order to accommodate the passengers who want to travel in this system. Weather is a fact of life, and we have to figure out a way to deal with it when we have that situation.

Among the ways carriers are trying to deal with it is dedicating fleets out of certain hubs so that if there is adverse weather conditions it will not necessarily affect the entire system. It will limit the adverse consequences to traffic in and out of that particular hub. Other carriers are spreading out their flights during the course of the day. Instead of having let us say eight or ten banks of flights, flights in and out of a hub, they have spread it out, reducing the number in each bank and increasing the number of banks starting earlier in the day and ending later in the day, and that way there is less strain on the system at any one point.

Additionally, carriers are implementing technologies to coordinate their dispatch systems with their reservation and customer service systems so that we can do a better job. Clearly we have a long way to go in doing a better job of informing consumers and handling interrupted operations situations when they do arise.

Another thing that some carriers are doing is taking planes out of the regular fleet and putting them in as backup spares so that if a problem arises because of weather, or a plane cannot get into a destination because of a mechanical, there are more planes available to be used as spares in order to take those people to the destination and try to accommodate them in that respect.

In the longer term, we have been working with the airport community in attempting to find ways to deal with the environmental hurdles which have been such significant obstacles to expanding the runway capacity in this country.

Those are just a few of the initiatives that we have been engaged in. There is more to be done, and I would be happy to respond to further questions about that.

AAAE—RESPONSIBILITY FOR DELAYS

Mr. ROGERS. Thank you. Charles Barclay with the American Association of Airport Executives.

Mr. BARCLAY. Thank you, Mr. Chairman. I would join my colleagues and say we are all responsible, and one of the main things we are responsible for not doing is being convincing enough in some cases or looking forward enough in others to see that we had in the 1990s, 200,000,000 people added to this system who wanted to fly, and yet we have only added six runways to the system at major airports. That is an equation that simply does not work.

It is difficult in this complicated system to get people to agree to build capacity in advance of demand. I think we are now paying the price for a booming economy. We have great demand for this system. It is enormously important to a country as large as ours.

If you think of Germany and Japan and other competitors in the world with smaller geographic countries, they can move their economies with roads and railroads internally. Countries the size of the United States have to make sure that we have the airport and air traffic capacity to handle all the demand that wants to get into the system.

One of the answers I firmly believe is not coming up with really good controls, really good ways to allocate the scarcities at different airports. We have to find a way to add the capacity to make sure that we can meet all the demand that wants to fit into this system.

I think it is helpful to understand that we have a network airport system, 550 air carrier airports. Ninety percent of the traffic, however, travels between the top 75, and it is a network that is built around really only a few key, very important connecting hubs. Those hubs have been getting a lot of attention lately for their problems, and their problems are real, but in looking at the system's airport capacity you have to start with the understanding that that is a very advantageous system.

By having a network that focuses on only a few key connecting hubs, you get exponential growth, particularly for small communities, in the frequency of service you can provide and in load factors. This means you can have lower fares and still the airlines can make a profit. Those network effects of the way we run the system have great advantages.

The dark side of that same equation is that when one of those hubs has a problem the same exponential effects ripple blaze throughout the system. That is usually, in normal times, an equation that you can put up with. If it is only an occasional thunderstorm that rolls through Atlanta and the network system is running properly, you wind up saying we can accept those negatives. When we have an epidemic of delays like we did last year where one out of every four flights is delayed or canceled, it becomes a much more difficult equation to say this is a good system.

What I hope we see is a network system where we can focus on relatively few airports and add capacity at airports that are the key choke points. With that you get enormous, inordinate, positive cu-

rative factors for the efficiency of the system as a whole. So if we can do something, and I am not underestimating the fact that ten to 15 airports that we are going to focus on are also some of the toughest places to add capacity, but tough is not impossible. That is where we, in the airport community, are going to focus our attention—not on reducing environmental standards, but on streamlining the process for getting to applying those standards.

Our difficulty in adding capacity has been when we measure adding runways in decades rather than in years. That by definition is a broken process. We want to simply speed up the process of getting to the decision whether a project is a go or a no go against today's environmental standards, and then we can either build the project, or we can move on to finding another solution.

We are all responsible. I really think there are solutions to focus on, and that is what we in the airport community intend to do.

FIVE SOLUTIONS TO THE AIRLINE DELAY PROBLEM

Mr. ROGERS. Thank you. I thank all of you. Now, each of you has said that what the previous speaker said was accurate and correct. I am not going to let you get by with that. This is not a circular firing squad that you are in here. We have a line of sight to each one of you. You are not in a circle, and we are going to come to some conclusions here today.

I am going to yield to the panel here for other questions before I come back at you, but I will be back, and I want you to be thinking. I want each of you to write down during the course of this morning the five things that need to be done that you can do to solve the problem. I do not want you to confer with your compatriot there. I want five answers from you.

We will take those and put them in a box and shake them up, and I think we are going to find some common elements amongst you. We are going to devise us a work plan. We are going to lay out a plan, and each of your respective groups is going to have then a work plan that this subcommittee is going to expect from you.

We are not going to play around. Funding will go to the places where solutions exist and where synergism exists, and it is not going to be doled out the old, usual way. We are looking for answers. We are looking for solutions. We will not rest with anything short of that.

I am glad to have my full committee chairman with us today, who is as interested as anybody is in this problem, and I expect he will have some words to say at the appropriate time.

Now let me say this. I have nothing to lose. The flights, my air travel schedule, could not be worse, so you cannot do much to me. I am going to be very objective about this, and I am going to be very harsh about this, and I am going to be expectant that we will see improvements. If we do not see improvements, there will be consequences. There will be consequences to each one of your groups, like it or not.

As I said, I do not have anything to lose, but we are going to see improvements. You are going to serve the American public better. They deserve it. They are paying for it, and the government has an obligation to see that that takes place. The economy of the coun-

try, as has been said, is dependent upon airline service. The largeness of the country dictates that.

So it is not just a matter of private concerns making profits, although that is good. There is a public interest here that supersedes most of that, and that is our concern. That public interest is not being served today. You are turning us into a bunch of travel ragers, and that is not good. That is not good for stomachs. It is not good for families. It is not good for business. It is not good for the well being of our nation.

I want your five answers after a while, and then we are going to compare notes. Then the work plan will be devised, and there we go. Funding will follow or not follow. I do not know how to be any more plain.

Mr. Sabo?

PEAK DEMANDS AND NOISE

Mr. SABO. Thank you, Mr. Chairman. We just had a whole series of Members testifying before our committee yesterday with a whole series of requests related to different modes of transportation. Some related to transit development. Others related to highways.

I am struck that our problem in dealing with how we handle other types of transportation fundamentally involves how we handle peak demand. Often there the solution is simply to build more capacity rather than to manage the existing capacity, and our experience often is as it relates to highways the more we build the quicker they are filled up and that we really have not accomplished much at the end, so before we rush to simply build more capacity, I think we have to pay particular attention to how we handle peak demand.

Also, I may be different than the other Members of this committee. The air problems I hear about, delays are minor in comparison to the complaints I hear from citizens on noise. It is large. It is immense. When people are asked what issue do I hear about the most of my local constituency, it is noise. I suspect our airport is typical of many in this country. They were located years ago close to major population centers. People bought homes with an old traffic system, with old capacities, and it grows and grows and grows.

I would just suggest to you, and I happen to think our airport commission is fairly aggressive in dealing with noise, but it still leaves people very, very unhappy, and we are increasingly discovering that we not only have the overhead noise. We now have what is called low frequency noise from ground level noise that FAA is going to have to figure out how to deal with. The problem is real, and it is different than overhead noise.

When you say it is going to take some time to build runways, the local opposition is immense, and it relates to the noise issue. The suggestions to move further out with new airports, I do not find the industry jumping on board in most cases. I guess occasionally. I am not sure what happened in Denver. I think that was over opposition of industry in many ways, so when you deal with all your suggestions I would suggest that part of your solution is you ask for more capacity and also how you deal with the noise issue.

AIRPORT CAPACITY—LANDINGS AND TAKEOFFS

Let me ask this question of the airport operators. What capacity do you have today to regulate capacity during peak hour demands? My understanding is you have limited control basically because of federal law, and it involves a very difficult issue and a hot one. I do not know how we resolve it between passenger, between freight and between general aviation.

As I understand law, it is equal priority for landings or takeoffs involving very few people versus takeoffs for lots of people. That is long and historic and not easily changed. Why do you not tell us what you can or cannot do?

Mr. BARCLAY. All right. I can shed a little light on it, I think.

There are a few airports like the Port Authority of New York and New Jersey that have minimum landing fees they put in place to do some small thing about the airplanes coming in—the general aviation aircraft, most of which in New York's case have moved over to Teterboro as a result of those fees.

One of the key difficulties when people talk about why not use more peak hour pricing at the airport? Even if you could, without worrying about what the federal regulations are, you are talking about an equation where the landing fees at an airport are about four percent of an airline's operating cost. So you have to make such a huge change in landing fees to hope to have any impact on the decision of that airplane coming in. That is one problem.

The second problem is the airlines do not always pass those added fees for that airplane's landing on to the passengers in that airplane. Sometimes if this is a real important hub to them they tend to say well, I am going to keep my hub working, so I am going to keep the planes coming in with that. I will spread those added costs around my system differently.

So the airport is not really getting at the demand element, which is that the passenger who wants to peak up. They like traveling at 9:00 and 5:00 and getting home early. They need to make those connecting bank peaks if it is a hub like Minneapolis. So your ability to shift that demand around from looking at it strictly from an airport operator's point of view has some limitations.

There is also the question of if you raised a huge amount of money with peak hour charges and you are, for example, LaGuardia where you cannot add capacity. What normally happens in our open market system is when you run out of capacity you start charging monopoly rents, and the monopoly rents eventually find their way to adding more capacity, which brings the pressure back down on prices.

When you cannot add more capacity at a place like a LaGuardia, for example, the question comes up. You are charging these huge charges to spread things out. What do you do? What do you do with that funding to help the system itself? Just collecting it up as the Port of New York and New Jersey is not one of the solutions either.

PEAK DEMANDS

Mr. SABO. I am really not following your answer.

Mr. BARCLAY. Sorry. Where can I start again? The economics of peak hour pricing are just much more complicated than simply——

Mr. SABO. My question was not simply peak hour pricing, but just your general capacity to regulate peak hour. It might not necessarily be pricing.

Mr. BARCLAY. Right. Yes. We cannot discriminate among classes of carriers.

Mr. SABO. What about during any time of the day?

Mr. BARCLAY. Other than economically, I do not think you could start putting—the Airline Deregulation Act said that local and state governments could not get into regulating which rates and services——

Mr. SABO. Yes. It is a national system where local governments, you know, are frustrated because as they deal with the problems we have preempted them in most cases. Is that not right?

Mr. BARCLAY. That is correct. In order to have a national system, you cannot have a patchwork of regulation out there.

Mr. SABO. Ms. Garvey, do you have anything?

Ms. GARVEY. Just to add, Congressman, in the case, for example, of LaGuardia what we are trying to do, because recognizing that there really is a federal interest in the national system, we are working closely with LaGuardia to try to come up with a couple of alternatives of demand management strategies. All of us I think have come to that somewhat reluctantly.

On the other hand, as everyone has indicated, we cannot get a runway down there in a short period of time, if ever, so in LaGuardia you really have to take some different steps and look at it differently. We tried the lottery. That was definitely a short-term answer. We are now looking at a couple of alternatives to put in the Federal Register to get some comments, but they would be demand management strategies. They might be something like an auction.

Chip has raised a really interesting question. If you have a premium landing fee, what do you do with the money? We would suggest that maybe there might be some interest for small communities to use that money, but there are certainly some legal questions around that. We think getting it in the Federal Register and getting some comments around it and showing some action around it is really important.

I know as Mr. Sweeney knows, there are some very, very important public policy questions, though, any time you do that trying to make sure that we are still protecting access to small communities. We have some opportunities with demand management. I think the important thing is to get something in the Federal Register to give the airlines and airports an opportunity to comment.

We are trying to focus primarily on a place like LaGuardia where there is a real problem rather than thinking of, you know, maybe a broad policy that might be pretty controversial, but let us look at a place where we have a problem, see if we can figure out a solution that is some kind of a compromise and move forward.

PASSENGER ONLY AIRPORTS

Mr. SABO. I suppose my most fundamental question is to what degree should our major hub airports and major other passenger carrying airports be geared primarily as passenger airports?

Ms. GARVEY. I think that is a very good question. I think when you look at where airports are heading, it is very possible that at some point there will be some airports that will become more cargo airports. Certainly Memphis is almost that today. We might have kind of niche airports. In the case of LaGuardia, for example, are there some incentives we can put in place to encourage even some of the passenger air carriers to go more to John F. Kennedy Airport (JFK).

We are looking at a whole range of those issues. Niche airports are a possibility for the future, and some are perhaps even encouraged by the federal government or the local airport authorities to encourage air carriers to go perhaps to other airports. I think that is important.

Frankly, the work that AIR–21 or the incentives that you put in place where small airports are given a lot more money are going out to some of the small and mid size airports. I think that is a big help as well if we really look at the system.

Mr. ROGERS. Mr. Chairman?

SAFETY RELATED DELAYS AND RUNWAY CAPACITY

Mr. YOUNG. Mr. Chairman, thank you very much. I wanted to say a word of welcome to all of the witnesses at the table and say thank you very much for being here. I want to say a special welcome to Captain Woerth, who happens to live in the same community where I do. I just learned this morning we actually lived in the same building for a while. It is good to have all of you here.

The issues that have been raised so far are important issues to all of us who travel, and that is everyone at this table, our families, our constituents, but I wanted to be here for one reason, Mr. Chairman. I would not want to solve the problem of on-time service at the risk of safety.

I am a survivor of an airplane crash, and I know what it is like to feel that thud and see the flames and the explosion and barely get out alive, and so when I go to the airport with my family I am concerned about getting where I want to go, but I am primarily concerned about getting there safely.

I have two questions I would just like to throw out, and anybody can respond that would like to. Number one. Of the delays that we are talking about and the difficulties we are talking about, how many of them or what percentage of them are related to safety? Something that I am satisfied that Captain Woerth is concerned about because he is in that airplane.

Secondly, I wanted to ask Mr. Carr about runways. Are we talking about building new runways or extending existing runways? Just what is the need as it relates to runways?

Those are my two issues here today, Mr. Chairman.

Mr. CARR. I would be happy to address them both. I am very, very glad to hear you mention safety because safety is our business. As air traffic controllers, that is our only business, and business is very good.

We hold the safety of the flying public as a sacred trust, and I have to tell you that I do not know the percentage of delays that can be attributed to a safety margin, but I can tell you that it is more than just a little. Seventy-five percent of all delays are weath-

er related, and I would much rather delay you five minutes too many than one minute too few. So to the extent that we add margin for safety in real time as we work the aircraft, absolutely. Delays are added to the system incrementally by air traffic controllers who have nothing but the safety of the flying public at their very foremost.

With respect to runways, I think everybody will agree that at the airports where capacity has reached its limits and, quite frankly, where demand exceeds capacity, the only way you can increase it is by adding new concrete, by increasing the number and types of runways at that airport.

O'Hare has three different sets of parallel runways that can be configured 27 different ways, but the addition of another runway at Chicago O'Hare would increase capacity there by almost 40 flights an hour. I happen to know that because I worked there for ten years. So as it relates to runways, it is going to take brand new concrete to accommodate the increased growth.

AIRLINE DELAY RELATIONSHIP TO SAFETY

Mr. YOUNG. Captain, before you respond, I was very interested in your written statement where you say the issue of air traffic service delays and their relationship to system safety is an issue in which the Air Line Pilots Association (ALPA) has a deep and lengthy history of interest. I find that very assuring.

Mr. WOERTH. Well, you should. As you know, our motto has been the same and we are having our seventieth anniversary this year. ALPA was formed in 1931. From the beginning it has been "Schedule with safety," Always understanding whether it be cargo or passengers always wanting to arrive on time. That is what a commercial business does, but if you do not have the emphasis on safety you are not going to have much of an industry. Having said that, that has never changed and never will change.

To address some of the things that Mr. Carr just said, until we get some better tools, to increase the margins of safety, we are going to have to work with what we have. Now, we are trying to maximize capacity, but there are limits of what the tools and information and between what a pilot can accept and what a controller can authorize.

We have to be not 50 percent certain or 60 percent certain. We want to be as close to 100 percent certain that what he just authorized and we just accepted is something that says there are no other airplanes in the vicinity, and that in the interest of hurrying up it does not cause a problem that none of us could live with.

One of the things I think we can do better and we are starting to is, I think the spring initiative, as we called it, S2K. The collaborative stuff between certainly the FAA, the controllers, the dispatchers and the pilots is working. We can even do better.

Information is always power, and I am operating on the information I have. John's people are working on the information they have, and hopefully we can have the national command center have a better national picture because one of the things that we have in this system is that it is truly all interrelated. LaGuardia causes problems in Los Angeles, and Denver causes problems in Miami.

In the National Command Centers we cooperate better and have more information. Usually sometimes we do not have the same information. That is why we have disagreements. What the controller in Chicago or over Cleveland Center where there is a bottleneck sees or believes is the weather pattern, we need to insure that we all agree on what is in front of us and what the alternatives are. We can do a better job of that. The spring initiative is a good start. I think we are all committed.

I will give you one of my answers ahead of time, Mr. Chairman. More cooperation with the National Command Center between all the principal parties in making those decisions on where the delays are and what our alternatives are is something we can do better. I think we had a good start last year, but I have committed the Air Line Pilots Association to working even harder on that initiative.

AIR–21 RUNWAY CONSTRUCTION FUNDING

Mr. YOUNG. Mr. Chairman, just one final question for Ms. Garvey. AIR–21. Somebody mentioned AIR–21 in their response. AIR–21 basically made runway construction mandated, if I remember correctly. Those monies would now come from mandatory accounts, as opposed to discretionary accounts. Am I correct there?

Ms. GARVEY. Well, it certainly has a level of protection. Rich will know this better. I guess you would call it a fire wall, and I have to say that has been extraordinarily helpful. I think the airports are very, very grateful for that additional funding.

The challenge for us at the federal level is to make sure that we can do everything we can, as Chip said, to help really streamline the process where it is appropriate. We do not want to short circuit any of the environmental laws, but streamline it where we can.

We have some teams in place for airports that really have an impact on the national system. Dedicated teams in place, streamline the process, do more simultaneously. Secretary Mineta has talked about coordinating more with the Cabinet Secretaries on some of the environmental issues, and I think that is a great help as well.

Mr. YOUNG. Mr. Chairman, thank you very much.

Mr. ROGERS. Thank you.

Mr. MEAD. Mr. Chairman? I wanted to comment on AIR–21. I think the jury is still out, sir, on how much of that money is going to go to runways. It is true that a large portion of that pot is to go to the airports. That is different from saying that it is going to go to the runways. The jury is clearly still out.

With respect to your safety points, I, too, am glad to hear that point made. People talk about delays, congestion, and cancellations in efficiency terms, but there is a safety issue involved. This past year we had 420-odd runway incursions, which is where the planes come too close together on the ground. We also had a record year for operational errors, which usually occur in the air where there is a loss of the separation minimum, so those are two priority areas.

Mr. ROGERS. Just quickly to follow up before yielding further, you said the monies would go to the local airports, not necessarily for runways. Where else would the money be spent? Could it be spent?

Mr. MEAD. It could go to a wide range of things. It could go to safety features. I think it could go along with PFCs (Passenger Facility Charges), which you authorized increasing to a wide range of things like parking lots. There is a very long list. Noise barriers—noise is a popular one.

Mr. BARCLAY. Mr. Chairman, if I could add? Certainly we are all focused on runways at a couple of these key airports where there is not enough runway capacity, but there is a wide variety of problems in the system.

An airport is a system locally, so it does not matter at a big airport whether you do not have enough runway capacity or enough road capacity to get the passengers in and out of the airport. You still cannot operate efficiently, or if you do not have enough gates for all the carriers that want to provide service.

There are a number of needs airports have to meet, so when you look at the total spending you do not see it all concentrated only on the air side on runways. There are a variety of needs, and if you then start examining each situation they usually wind up making sense.

As I was saying in my opening, from a network point of view, though, we do now at these key hub airports need to focus on those runways because they are impacting the capacity at all the airports in the system.

AIRPORT GRANT FUNDING FOR HUB AIRPORTS

Mr. ROGERS. Mr. Mead, under the AIR–21 is there any formula that would direct a disproportionate amount of those monies to these hub airports where the choke points are?

Mr. MEAD. Well, there is a formula certainly that is based on enplanements, and if these airports, the hub airports, have a passenger facility charge, which most of them do, they take a hit on the amount of AIP (Airport Improvement Program) money, the airport improvement grant money, that they would otherwise be entitled to under formula, but the PFC benefit far outweighs the amount of money that you would get under a formula. There is also a discretionary grant program that FAA uses to fund hub airports as well as others, but that is not something that they are entitled to by law.

Mr. ROGERS. Well, there may be ways to adjust formulas to where the real problems are, and if there is no way now there very well may be a way because we are going to force a solution. If it takes an act of Congress, and authorization act, that is not without precedent.

Mr. MEAD. I would encourage the Subcommittee, if it goes in that direction, that you also consider the passenger facility charge because the airport improvement grant program monies, per se, as a proportion of the total funding of these large airports is not that great. When you add the passenger facility charge in, which is authorized under federal law, it increases quite a bit.

Mr. ROGERS. Thank you. Mr. Olver?

NEW RUNWAY CONSTRUCTION IN CHICAGO-BOSTON-NEW YORK REGION

Mr. OLVER. Thank you very much, Mr. Chairman. I appreciate you taking me at this point. I have another committee that I rank

on that is meeting at the same time, and I would like to get back to it.

Chip Barclay, you made a comment, which I am close to quoting, that it is tough to build capacity, but tough is not impossible. I wonder if you have identified for yourself a future profession. Maybe you should be handed the LaGuardia situation.

Mr. BARCLAY. As someone once said, if nominated I will move to Mexico, and if elected I will fight extradition.

Mr. OLVER. I see. Mr. Mead, you had mentioned that there were 14 runways that were actually under consideration around the country. Mr. Carr, you used the number 25. Now, I do not know whether that was a kind of a speculative number or a hypothetical number, whereas Mead was talking about the ones that are under consideration.

I wanted to ask Ms. Garvey. How many of those 14 or 25, whichever it is, are in the iron triangle, the delay triangle from Chicago to Boston to New York?

Ms. GARVEY. Congressman, that is exactly the challenge. They are important runways, like Atlanta, for example, is very critical in some of the choke point issues. In fact, Atlanta ranks up there in terms of delays. Some of the most critical ones like San Francisco and Los Angeles are in the very, very early planning stages, so that is really the challenge. We have a number that are on deck, so to speak, like Detroit and Charlotte and so forth, and those are very good. They are important to the system, but they do not have the same criticality that a Los Angeles or a San Francisco would have, and that is really the challenge, or LaGuardia where you cannot really put a runway, and you have to think of something else.

Mr. OLVER. Well, how many of the 14 that are in the planning stages, even early, I take it, given your comments about what is at the very early stage. How many of those 14 are in the critical triangle?

Ms. GARVEY. I think——

Mr. OLVER. Your Boston-New York-Chicago triangle.

Ms. GARVEY. I would like to go back and get the actual number for you. I notice that Mr. Mead has a chart here.

Mr. OLVER. Would you like to tell me how many are in that area?

Mr. MEAD. Yes. I can run right down the list, sir. Houston is short-term. By short term, I mean by 2003, that time frame. Houston, Minneapolis, Orlando, Denver, Miami, Charlotte, Atlanta. Well, Atlanta is 2005. Cincinnati, Boston, 2005–2006, Dallas-Fort Worth, 2005–2006.

One of the problems here is that when we were preparing for this testimony, we tried to get a list of the runways that were included in the top 40 airports in the country and what the schedules were. What we found in a number of instances were three different numbers. One number the FAA had, another number the airport had, and another number Mitre Corporation, which was helping to prepare the strategic plan that Ms. Garvey referred to, had.

One of our recommendations in the testimony is that for airports that are on this list that we settle on a date, and we track that date, and we hold ourselves accountable for meeting it.

Mr. OLVER. I thank you for that. In listening, I do not know whether you got to all 14, whether you actually named all 14, but I only noticed that Boston and Cincinnati were within that triangle of the ones that you mentioned.

The corollary or the conclusion is that the capacity issue is not going to be significantly solved within that triangle by anything that we can do very quickly on the basis of runways. I am not sure that there is anything—well, there are the various management techniques that will have to serve in the short run.

In the long run, within that triangle, it seems to me, knowing most about the Boston to Washington route, that is most likely to be solved by high speed rail, that portion of it. That would be helped by that in reducing the number of landings and takeoffs.

I saw an analysis of what the timing was on the Washington to New York run now by plane, by car, by air in the last few days, and now finally with the new Amtrak Acelas going, and I do not know exactly how reliable that is yet, but the center to center of the cities, Washington to New York, was within about ten minutes of each other between rail and air. Driving was quite a bit farther behind like an hour more behind.

That was just recently analyzed, so that is certainly an area where this committee also has the responsibility for making certain that we maybe make certain that those places where high speed rail would be effective can get at the problem. Our traffic problem cannot totally be solved either by autos or planes or viewing them each in very separate kinds of ways. They need to be viewed together. The triangle is 400 miles on one side from Boston to Washington and about 800 from Washington to Chicago and about 1,000 from Boston to Chicago.

I thank you very much, Mr. Chairman.

Mr. ROGERS. Thank you.

Mr. OLVER. My feeling is that in situations like this there may have to be a situation where you can with a change of law, and certainly the tradition in law has been there, that general aviation maybe has to be moved out of the central really choke point.

In New York there is Westchester, Islip, and Teterboro and some others that are not too far. In Boston there is Beverly and Norwood. I hesitate facing anybody and appearing again after having suggested that.

Thank you, Mr. Chairman.

Mr. ROGERS. Does anybody want to comment on that suggestion?

Ms. GARVEY. Mr. Chairman, if I could? Not on the general aviation question, but on Congressman Olver's earlier comment.

One, I think your point about other modes of transportation is important. When we think in terms of the system, we also need to think particularly along the Northeast corridor of other modes of transportation, but also your point about what will be the solution.

Frankly, when we think in terms of the capacity benchmarks that is one of the data points that we hope we can use in sitting down with airlines and with airports and saying look, what makes sense here? If it is not a runway, are there procedural changes? Is there technology? Is there data management? Are there scheduling issues? What can we figure out together to deal with the solution?

I will defer to others on the general aviation question.

[The information follows:]

QUESTIONS FOR THE RECORD FOR FEDERAL AVIATION ADMINISTRATION FROM REPRESENTATIVE JOHN W. OLVER

INDUSTRIAL ROLE IN AIRLINE DELAYS

Mr. Olver. Administrator Garvey, it's wonderful to see you again. Thank you for your testimony today. I wanted to highlight what you said about safety. I agree--our safety record is our most prized possession, in a sense. I wouldn't want to see the FAA pursue anything that compromises safety. But I also want to touch on the industry's role in delays. What can we as members of Congress do to hold the industry carriers responsible? I'm curious as to how we can aid in the disclosure of delays and the management of their schedules without being overbearing and reducing the amount of flights to rural areas like my district.

[The information follows:]

The FAA has one of the best ways to influence the performance of the industry by facilitating the free play of market forces. But the FAA needs to further foster information-sharing with the traveling public so that they can make informed decisions about their travel plans. The FAA and the Department of Transportation are working with airlines and airports on several fronts to make more and better information available to the traveling public.

The FAA has developed a standardized definition of delay: arrival at the gate 15 minutes or more past scheduled arrival time. We are actively working with the airports and the airlines to disseminate our website information that has real-time updates on delays in the air traffic system. This effort should begin in May. We are working with the Bureau of Transportation Statistics and airline industry volunteers to pilot a program to collect and analyze the causes of delays.

Airlines have committed to provide real time delay data to their customer service representatives at gates for sharing with passengers. Information on the past on-time performance of specific airline flights is available to customers when they make their reservations. Our capacity benchmark study, due to be released this month, will show how current airline schedules compare to the actual capacity of the airport. In the short term, this may influence airlines to adjust the "peaking" of their schedules, and for the long term may spur local action on airport capacity needs.

PASSENGER BILL OF RIGHTS

Mr. Olver. If Congress passes the Passenger Bill of Rights legislation how will this affect rural and semi-urban airports and less traveled routes (such as DC to Hartford, CT)?

[The information follows:]

Estimating the potential effect that "airline consumer protection" legislation could have on service to and from lower-activity destinations would depend on the content of a final enactment and the means the carriers and the Federal government choose to implement it. Any conclusions would be highly speculative at this point.

MEGA-MERGERS

Mr. Olver. What effect will mega-mergers have on delays and cancellations?

[The information follows:]

The FAA cannot accurately predict the impact of airline mergers on delays and cancellations. Each proposed merger could impact delays and cancellations. However, only after a merger has been completed and current service routes have been changed can the FAA assess the effect potentially caused by these mergers.

PROGRESS ON AIRLINE DELAYS AND CANCELLATIONS

Mr. Olver. What progress does the FAA expect to make this year on airline delays and cancellations? I've listened to your various initiatives, but I'm interested to learn what goals you've set?

[The information follows:]

Delay: The FAA tracks delays in five categories: equipment, volume, weather, runway, and other. Recognizing that any delay is a disruption in the expected level of service, we are committed to reducing all types of delays. We have, therefore, established a fiscal year 2001 target of 171 or fewer delays per 100,000 activities.

Cancellations: The FAA has no control over an airline's decision to cancel flights. The FAA has no established goal in this area.

Mr. ROGERS. Mr. Callahan?

Mr. CALLAHAN. Thank you, Mr. Chairman.

Following along with that same line, and I hope Dog Patch, USA, is not in Kentucky. I think it is in Arkansas, but I recall reading once that they had a tremendous problem in Dog Patch, USA. They had a U-turn at the edge of a cliff at the approach to Dog Patch, and people were always running over the cliff. They were breaking their arms and their legs, so they comprised a committee to find a solution to that, and the committee came up with a solution, and that was to build a wing onto the hospital.

Let me tell you. What I am hearing here today is that you all are indicating that maybe the solution is to provide more runways to the already congested air traffic problems. For instance, in Atlanta I am sure that you can use additional runways there, and I am sure that would facilitate some of the problem, but the traffic in Atlanta is approaching a crisis stage.

With the least bit of weather problem, Atlanta, and I am sure that O'Hare and I am sure that all the hub areas have the same problem, but we have a problem, and the problem cannot be resolved by more concrete.

You have not had any problem, your entire industry, getting money out of this Congress. We have been most generous. Last year we were more generous than ever before, and we are willing to make these type of efforts to get you the necessary money, but the solutions that have been taking place, compounded I know by the problems of increased air traffic, are not working.

The passenger rage that Chairman Rogers mentioned is something that we can witness nearly every weekend in Atlanta, whether the sun is shining or whether there is a tornado within 50 miles of Atlanta. There has got to be a solution, and the solution is not to build more runways to an already overcrowded terminal. You have got to find a vehicle to transfer the routes.

I am from Mobile, Alabama, and we have to in most every instance go through Atlanta to get anywhere. We have to go through Atlanta to get to New Orleans or to San Francisco, and there are opportunities available if we could find a way whereby we could divert our western traffic to the west rather than to the east.

I do not know what the solution is. Certainly you six are the experts in this field, and you represent every area of our concerns. Certainly with your talent you ought to be able to come up with some solution to this problem. We try to resolve it on the local level. We try to encourage airlines to come in to compete against Delta.

I fly Delta every week, and they are most courteous to me. They give me good service. I fly home every week. I have only had to spend one night in Atlanta in the last ten years, so Delta takes care of me, but the average passenger is not a United States Congressman, and the average passenger being bumped in Atlanta or having the last flight out of Atlanta to Mobile canceled or delayed or over booked is a serious problem.

We have undertaken the step to get more carriers into our captive little city because we are captive to Delta, but we are even

having difficulty there. I know I wrote to the chairman of one of the airlines and asked for his audience if he came to Washington for anything. You know, that was February 14, and I have not even heard back from him.

They are not interested, number one. They do not have planes. Number two, it is difficult to establish new routes, but you all in your capacity have got to redirect this traffic instead of concentrating on the same system that we have. If you build more runways in Atlanta, you are going to have more airplanes in the air, and every time a small weather problem comes up it is going to be even more congested. That is not going to stop it.

If we can find a system with your talents with the money that the Chairman just told you would be available if you can provide us with some concrete solutions, but other than the one solution that we build more runways, and I certainly respect that, sir, and I would also echo the Chairman's concerns about our primary concern is safety. We do not care how much it is delayed, and we do not care how many are canceled. We want to make absolutely certain that the planes you fly us in are safe and protective of us.

We will provide you with whatever resources you need to ensure that and whatever inspections you need, but our concern I do not think can be resolved if we are going to have continued increases in capacity and travel simply by expanding the problems that are there now.

Mr. CARR. Yes, sir. I do not want to pretend that new runways are the silver bullet solution to the dilemma that is currently facing the traveling public. It is but one piece of the puzzle. We are working with the agency collaboratively right now on designing new sectors that can off load some of that work, that can redesign some airspace, that can move some air waves around so as to spread the workload.

This is not a new problem. I like to call it a good news/bad news problem. The good news is the crisis has gotten so bad that on August 8 Life magazine ran a cover story called Stack Up: The Air Traffic Control Problem. The bad news is they ran that on August 8, 1968, 33 years ago, so we are not digging up new ground here.

That article on August 9, 1968, said that we need a fourth airport in New York, and that need has been known for over a decade, so that predates that need to 1958. That article also said that traffic in the New York area gets so acute the airplanes are forced to wait on the ground as far away as Atlanta and Miami and Los Angeles. That is not new. That is 33 year old information I am regurgitating to you out of Life magazine.

New runways are just one part of the solution that I think the community has come up with to collaboratively deal with the issue. Another part of it is airspace redesign. Another part of it is the margins that we can nibble at with respect to new technology.

I could not agree with you more that everything has to be measured up against that litmus test. Is it safe? If it is safe, then I think we should all work collaboratively to implement it.

Mr. CALLAHAN. Thank you. Thank you, Mr. Chairman.

AIRPORT CAPACITY UTILIZATION

Mr. ROGERS. Thank you, Mr. Callahan.

True or false? There is plenty of capacity out there that is not being used. There are hundreds of airports, dozens at least, of some significant size whose runways are practically empty today, whose terminals are perfectly good and have plenty of capacity. They are just not being used. Is that true or false?

Mr. CARR. That is true.

Mr. ROGERS. But the airlines have chosen to establish their own hub systems which have focused traffic in just a few of the airports of the country. True or false?

Mr. CARR. I think they have focused it where market forces have sent them.

Mr. ROGERS. True or false?

Mr. CARR. I would say that is true.

Mr. ROGERS. Is a solution at least in the short term to get more capacity in the air system immediately if the airlines dispersed their hubs a bit more? True or false?

Mr. CARR. I do not know that I am necessarily qualified to answer that, sir.

Mr. ROGERS. Well, somebody is here. What do you think?

Mr. MERLIS. While it might be short term, I do not know what the adverse economic consequences of it would be.

One of the reasons hubs are where they are is they generally generate a lot of originating traffic. A number of hubs that previously existed—for instance, U.S. Airways had Indianapolis—it had Dayton. American Airlines at one time had Raleigh-Durham and Nashville, and Continental once had Greensboro—apparently did not generate enough local traffic for that hub to remain financially viable.

Mr. ROGERS. But hubs by definition are transfer points. It is not local traffic that is keeping those hubs hubs. It is the traffic from all the rest of the country that feeds through the hub to somewhere else that makes it a hub. Is that right?

Mr. MERLIS. Generally, sir.

Mr. ROGERS. My question is there are tons of airports out there with beautiful runways that are sitting empty that could give us immediate capacity if the airlines would merely either subhub and disperse some of the heavy traffic into the concentrated big hubs that we have now. Is that a realistic possibility?

Mr. MERLIS. As I was about to say, sir, I do not think so because generally 50 percent of the traffic at a hub originates there, and the financial viability of a locale which has ten percent or 15 percent——

Mr. ROGERS. Hang on.

Mr. MERLIS. Yes, sir?

Mr. ROGERS. Half of the traffic in Pittsburgh is not local. You have to prove that to me. Pittsburgh for U.S. Air, their hub.

We fly in there from all over the country and transfer to another plane. A minuscule percent of the travelers through the Pittsburgh Airport are local travelers.

Mr. MERLIS. I do not have that. I will get the facts. I was saying generally. There are some hubs which obviously are less than that.

Mr. ROGERS. Atlanta?

Mr. MERLIS. I will get the data for you, sir.

Mr. ROGERS. LaGuardia?

Mr. MERLIS. LaGuardia? Maybe LaGuardia.

Mr. ROGERS. I do not think any of the major hubs are kept in business by the local traffic. It is the fly through traffic.

I am just saying why can we not utilize some of the other airports that are laying there wide open like St. Louis and disperse the traffic away from these super hubs that have become the choke points for American travelers?

Mr. MERLIS. I think one of the things some carriers have done is more point to point flying where the volume does take it.

For instance, there are now flights on American Airlines, I believe, to San Jose from the east coast instead of going through Dallas or Chicago, so where there is enough traffic carriers do. Is it at the rate which diminishes the congestion? Clearly not.

INCREASED FLYING TIMES

Mr. ROGERS. You are not doing enough of that because the delays keep going up. I wish for the days when you had more point to point flying non-stops. The hub system has just increased the flying time for most American travelers normally.

I used to be able to travel from Lexington to Washington in an hour or less. Now it takes me five or six hours to get to the same spot at probably triple the cost. I suspect most of American travelers have the same problem. If you are flying hub to hub you have it made. If you do not live in a hub city, you are up a creek.

Mr. MEAD. Mr. Chairman?

Mr. ROGERS. Yes? Who?

Mr. MEAD. That was me.

CAPACITY BENCHMARKS

Mr. ROGERS. Oh, yes. Mr. Mead?

Mr. MEAD. I think there is something to what you are saying on Mr. Callahan's point and some of the other Members on this dispersion issue.

Soon FAA will be coming out with these capacity benchmarks for the top 30 airports. You will be able to see by looking at those what is happening in the way of scheduling in relationship to what that airport can physically handle.

Currently, though, there are no consequences for just unlimited scheduling other than hearings like this, public ire. I think if there were some consequences, whether they are simply cajoling or they are legal in nature, I think you would begin to see some dispersion and some more sensible pattern in the air traffic control system.

I also think Mr. Merlis is right. At the present time, these mega hubs, they are economic gravy trains, for want of another term, and they economically make sense. That is where the most revenue can be generated, and the airline does not see the same financial incentive for going to another airport.

The thesis, though, that there is lots of unused capacity in this country, particularly on the ground, is absolutely correct.

Mr. ROGERS. Well, I would hope the airlines would see the ire that is building in the country and the demands upon us to do something about it, whatever it is.

None of us want to reregulate. That is not a conversation piece at the moment, but if the demands from our public continues upon

us we will do whatever it takes to make this system work. I would hope that dispersal from these super hubs would be immediately addressed as a possible at least short-term answer to today's capacity limitations that we have.

We have about eight minutes before a vote. It is a single vote, so we will stand in recess for a few minutes as we go vote.

[Recess.]

COMPETITIVE PRICING

Mr. ROGERS. We thank you for your indulgence, and now we will turn to Mr. Pastor.

Mr. PASTOR. Thank you, Mr. Chairman. Welcome to the panel members.

This weekend I was a participant in the bipartisan retreat, and I learned two things that I will talk about. One is that you support the Chairman whenever you can, and you hopefully have many occasions to do that, and the second thing I found out is that Mother Nature is still unhappy about the deregulation and the hub system as it developed.

Taking John's position and Chairman Callahan and Chairman Rogers, if I look at Los Angeles, which I hear is going to build or is in the process of building a new runway and having traveled in that part of the country frequently, you find that now if the prices were comparable to flying into L.A. that I can go to Burbank, I can go to Ontario, I can go to Orange County, and probably there is another one there you do not know about, just as easily as flying to Los Angeles (LAX), but because of the price of the ticket—it is not the convenience of getting from LAX to downtown, but getting to where I am flying from to L.A., the price of the ticket—we go to LAX.

In the line of questioning that the Chairman and some of my peers have asked, in the short term is it possible to use and provide incentives both to the airports that are under utilized and to the airlines who obviously have made political decisions so that we might be able to distribute the landing capacity and remove some of those choke points?

I think that maybe the six of you there and those of us on the committee may look to what can we do to provide incentives because I would agree with John Olver. If you go to New York, there are other smaller airports that might be feasible to land in if there were incentives to have the airlines fly there and provide incentives so that the prices will be competitive in this area.

I had the pleasure of being at a meeting with Ms. Garvey, and we talked about the potential technology that is being developed. One of the things that struck me was that information is not shared by the airport, by the airlines, by the air traffic controllers and whoever else is in the system. Sometimes that lack of sharing of information—and the pilot up in the plane—causes sometimes delays.

Weather. Mother Nature is what, 80 or at least 60 or 70 percent of the problem, and we were told in this particular briefing that sometimes the airline may have information that it may not want to share with the airport people or share with the air traffic controller, and so sometimes delays may grow longer. Weather is the

reason it is being delayed, but not compromising safety the planes could be taken off quicker or different routes.

The other thing that I found at that briefing is that we tend to only think of the management of the airplane only if it is in the air, but if there was information shared from the time the plane took off in terms of when it is going to land, what the weather conditions and the groundwork preparation was made in terms of crews being able to be there on time to get it off, get the luggage off on time, that sometimes better coordination between the whole system will cause the airlines to maybe run a little better, and you will not have some of the problems that we are experiencing today.

We also talked about the aircraft itself, that maybe the technology will be there sometime when the mechanics will know while the airplane is in the air some of the problems that they are experiencing so when they land immediately you can go and get to the source of the problem.

The other technology I was impressed with was communication between the pilot and the air traffic controller, but somehow we have to if we can improve the speed of it and that basically this voice communication can be improved. Maybe it can be done electronically through whatever instrument the pilot can see, and that would help out.

What I would like to hear from you is this short-term solution because concrete is going to be problem. I can tell you in Phoenix we just built a runway. It took us almost 20 years from the day they thought about it until the day we dedicated it, which was about a month ago.

I will tell you that with that third runway we now have the constituents not around the airport, but constituents out in Owatuki, which is miles away, complaining about the noise. I think that Sky Harbor would have a very difficult time in terms of people supporting a fourth runway, but they are going to try it to increase capacity. Noise that is created by additional aircraft is impacting the outer suburbs of Phoenix and not only the downtown area, but the outer suburbs.

AIRPORT CAPACITY UTILIZATION

Just contemplating on concrete and causing that to be the solution may be one that is going to be hard to reach, so I would ask is it possible to look at another alternative, and that is using under utilized airports close to the major hub that we can distribute the wealth and other incentives you can provide to the airlines that would cause them to look at that solution?

Whoever would like to respond to that.

Mr. WOERTH. I will be foolish enough to try to answer that.

One thing, and it goes to some of the other questioning from the Chairman and others, is that I might be a surprising witness who has as many arguments with airline management as anybody could ever possibly have, but I also recognize that a number of years ago that they did start to try to eliminate some of the delays in their own hubs before it reached the crisis proportion we are in here and to try to get excess capacity and went to a multiple hub strategy.

What happened in every case is it failed. None of the small hubs made money. I mean, they did try it. Whether they have better

yield curves today or whether they could do it differently I do not know if I could speak to that, but I do know they tried. There are only about five or six hubs in the country that make money, and there is a certain critical mass. At some point they do not.

If we need to change, and again the variable is, is there something as a matter of public policy and interest that we can do to incentivize a different financial outcome? Because they are not going to move there with the wrong financial outcome.

Mr. PASTOR. Right.

AIRLINE COMPETITION

Mr. WOERTH. I think efforts to explore that are going to be required, but they are going to need an incentive. It might be on the cost side, and I am really leery about interfering in pricing. I think that is a very dangerous place to go, and I think we really need to make it work for the consumer and everybody else allowing the market to determine the pricing, but we can influence it if we want to incentivize cost, because there is a matter of public policy.

We recognize we have a problem. The Chairman made it very clear. We want solutions. We are tired of talking about it. We want to do things. I think evaluation of what we used to have essential air services. That was one way to incentivize for small communities.

We need other airports incentivized to have the cost lowered or subsidized in some way. That airline has an incentive. He has a lower cost. Now he has a pricing model that he can make sense out of. All these things. You cannot have one without the other. We have to do it together.

We are not going to be able to go, and I do not think in a competitive environment they are not going to volunteer to go someplace that loses money, so we are going to have to as a matter of public policy and to make it work and not kid ourselves if it is going to be incentives it is going to be on the cost side to incentivize them to go someplace they are not incentivized to go right now to make it work with the pricing models that they all compete against each other with.

All these hubs compete. If you are going from Los Angeles to Boston, there are about eight ways you can get there through some hubs, and they are all going to compete with each other. That is going to be a pricing model. They are going to use a different airport. That pricing model is going to have to work in there as well.

I think we should not necessarily look away from any solutions, but in all these things in public policy there are conflicts. You fix one problem, and it might be the noise problem. I know people do not want noise, this is the seventh ATC hearing I have testified at, but they do not want delays either.

As long as runways are one of the choke points—not the only choke point. As John said, with runways you are either waiting to take off or you are waiting to land on a runway, so we cannot pretend runways are not a big part of it, but the other part, as John mentioned, is the ATC system itself, the sectors, how much traffic do you have in the air at any given point. We know where those choke points are as well, so I think we should really focus on all of it.

We are not going to have the silver bullet that is going to fix the nation at every airport and every community and every state. But if we can fix the top seven choke points both on the ground and in the air, then the way to approach the problem is to go after the biggest problem. That is where the most bang for your buck is going to occur.

The seven top airports and the seven top airspace problems. If we can attack them, we will have the biggest again solution in the quickest possible time, sir.

AIRLINE INCENTIVES

Mr. PASTOR. Mr. Chairman, can I just follow up?

In the airports themselves, can we provide incentives to help? Can the airports themselves provide incentives for greater utilization? How can this committee intervene in doing that?

Mr. BARCLAY. A number of smaller airports or airports within reach of competition from major airports have actually gone into marketing agreements with airlines to help advertise the services and those kind of incentives.

I do not know that there has been any kind of set subsidies or anything like that except in some very small communities to get just one or two flights. There have been a few examples of those, but the problem is just the scope of the economics, trying to get in to change behavior, and this way is very, very expensive and beyond the reach of most local communities.

Mr. PASTOR. Is there an incentive for the airlines that we might pursue?

Mr. MERLIS. I think the issue you differentiated from the Chairman, who raised the issue of hubs, and you were using the example of spokes. Burbank, Los Angeles, Ontario are spokes. I think it does indicate that is an area that both of them ought to be explored, but it may be less complex to do it at the spokes than it is in the hubs.

In response to your question, Mr. Chairman, about how much originating traffic, during the break I found those numbers out. I was not aware of this, but in Pittsburgh 64 percent of the traffic originates and ends in Pittsburgh. In Atlanta it is 62.6, so even the whole hub is a lot of people who would then have to go from—well, they would not have to go from Pittsburgh to a different hub. They still have originating traffic, but it is a bigger deal than to find incentives to get people who want to go to Los Angeles to fly to Burbank instead or to Ontario.

Whether that could be done through landing fees, which are not a large component—they are about five percent—or other kinds of incentives, is worth exploring.

Mr. PASTOR. Thank you. Thank you, Mr. Chairman.

LOCAL AIRLINE TRAFFIC

Mr. ROGERS. On your Pittsburgh and Atlanta figures, 60 percent of Pittsburgh is what?

Mr. MERLIS. Sixty-four. This is from Aviation Daily on March 7. Sixty-four point nine percent of the traffic at Pittsburgh either begins there or ends there. It does not connect.

Mr. ROGERS. The question is passengers.

Mr. MERLIS. Passengers. Excuse me. Of the passengers. I used the word——

Mr. ROGERS. Are you telling me that 64 percent of the passengers that fly out of Pittsburgh are Pittsburgh area people rather than us people that fly through Pittsburgh, the major hub?

Mr. MERLIS. They are either Pittsburgh area people or, alternatively, they are ending their trip in Pittsburgh because they are going there for business exclusively. It is passengers. I should not have said traffic. I should have said passengers. It is 64.9 percent of Pittsburgh's passengers are originating or destined to Pittsburgh, not passing through to some other location. In Atlanta it was 62.6 percent.

Mr. ROGERS. I do not believe it.

Mr. MERLIS. It is not my data, so I cannot take pride of authorship. This comes from the O & D survey data and T–100, filings with the DOT, and has been computed by Aviation Daily.

CHOKE POINTS

Mr. ROGERS. It is beyond belief. Anyway, we will leave that for another time.

The so-called seven choke points that are causing I think by unanimous agreement most of the delays and cancellations and all of that, those choke points are really the creation of the airlines. They are the ones who are choosing to use those hubs as their hub.

Adding more runways, it seems to me, would require adding more gates, which in turn requires bigger terminals and all of the infrastructure that is associated with that. We are talking really long-term solutions here, but I hasten to add a second time there is airport capacity beyond belief out there that could alleviate our problem overnight but for the decisions, whether it be economic or otherwise, of the airlines to choose to just fly into and out of those seven major hubs. Is that right or wrong?

Mr. MERLIS. You are correct, sir.

Mr. ROGERS. So what are you going to do about it?

Mr. MERLIS. Well, let me address the choke points because choke points are twofold. One is sectors in the air traffic control system, not airports, and the other is airports.

With respect to the sectors in the air traffic control system, we have been working with the FAA and the controllers in trying to resectorize, and perhaps a controller should explain the language rather than I, in order to increase the capacity through these bottlenecks so that traffic moving east to west and west to east through these points, which are east of Chicago principally related, I think, to the Cleveland Center—is that correct—can accommodate more planes. That should have a lot to do with those delays, though it does not have a lot to do with those places where additional concrete is needed.

I think where additional landing capacity is needed, carriers are exploring alternatives, as I mentioned earlier, moving their traffic through a wider part of the day so that you do not peak as much in let us say the 10 hours between 7:00 a.m. and 5:00 p.m. If you can move some of it a little earlier and some of it a little later, then what you do is you smooth out some of those peaks. Carriers have been exploring that.

As I mentioned, Delta has actually embarked upon doing that. I think as of April 1 in Atlanta it is going to do that, and other carriers are currently in that exploration right now.

AIRLINE MONOPOLY

Mr. ROGERS. Are any of the airlines considering subhubbing, creating more hubs?

Mr. MERLIS. I am not aware. They may be, but that is the kind of business plan that more often than not I find out about when it shows up in print. They do not share that with the trade association.

Mr. ROGERS. I want to get back to this when it comes my turn again and have you discuss with us the question of competition, the question of whether or not airlines in effect are monopolizing in regions of the country to the practical exclusion of all other competition. I will save that for another round.

Mrs. Emerson?

INTERNATIONAL DELAYS

Mrs. EMERSON. Thank you, Mr. Chairman, and I appreciate the opportunity of serving on this subcommittee as one of the two newest Members. I also look forward to working with all of you.

This is a real general question and one that strikes me as perhaps being applicable. What about airports, other airports around the world, those of comparable size to our major choke points, if you will, or the larger airports? Do they have similar types of delays?

Mr. MERLIS. If I can address that? Yes. They are far worse in most countries. One of the ways they handle it is by managing demand.

In the United States, in the deregulated environment what we try to do is encourage people to travel by air, and the competitive marketplace has resulted in more people traveling. In other countries there are slot limits at each individual airport in some cities or some countries, and so the pool of planes that can land is very limited.

In some of them, I think Malpensa in Milan, 50 percent of the flights are delayed, so some places are far worse. I think most places are far worse than the United States.

Mr. WOERTH. If I can testify as somebody who has flown every region of the world? As bad as we think the United States is right now, this is dream land compared to Europe. Europe is a terrible place.

Almost 22 different air traffic control centers are trying to make Euro Control to make it one thing, but the delays and limits in Europe and the restrictions are very much worse than here in the United States. We do not ever want to get to be like Europe. I can appreciate that very much.

Ms. GARVEY. Congresswoman, we had a recent visit from the European countries to the Command Center to see how we manage it here. I think, and this is really to the controllers' credit, we still control about 50 percent of the world's traffic in this country, so it is an extraordinary challenge that we have.

DEFINITION OF DELAYS

Mrs. EMERSON. Quite frankly, my major flying overseas is from here to there and not within or on the continent or whatever. That is very interesting.

Let me just switch to, and I appreciate your answers. Let me ask you all why there seem to be so many different standards in determining if a flight is going to be delayed or not.

I was interested in reading the Subcommittee on Aviation hearing transcript or overview from last year. I cannot make head nor tails out of, you know, why, you know, the airlines say one thing, the FAA says something else, you know, and air traffic controllers say something else. I mean, why are there so many different standards?

Mr. MEAD. A couple of us may want to take a shot at that.

Last September we testified on this because we were doing a job with Congress and the Secretary on delays. We were trying to quantify the delays, a very, you would think, kind of basic task since everybody is complaining about them.

As a second order request, we wanted to identify: what are the causes? We found out that there are different systems for keeping track of things. The airlines keep track. The airlines internally individually keep track of their delays and what they believe are the causes. The Federal Aviation Administration has a system where they keep track of delays once a plane is under their control. The Bureau of Transportation Statistics, which is part of the Department of Transportation, also keeps statistics on delays, but that information is without assigned causes. In other words, it does not keep causal data.

We recommend that there be a unitary system. I think the committees in both the House and Senate thought likewise, and so, too, did the Secretary of Transportation. A task force was convened and they came up with a set of recommendations on how to fix it.

Those recommendations have not been satisfactorily addressed. Indeed——

Mrs. EMERSON. By whom?

Mr. MEAD. By the Department of Transportation, by the FAA or the airlines.

Mrs. EMERSON. Why?

Mr. MEAD. Because, among other things, the last Administration made the recommendation in its closing weeks, and the issue was left for this Administration.

Frankly, if you asked me under oath to say who is accountable or responsible for doing it, I could not tell you. I know this is of concern to the Secretary. Beyond that, I cannot give you assurances.

I do want to say, though, to show you just for the record how absurd this is in my statement. "Under current rules, you can leave the gate within 15 minutes of scheduled departure and then wait on the runway for three hours and be considered on time by the Bureau of Transportation Statistics, but late by FAA," because the airplane was under their control so they count it.

"Conversely, you can wait at the gate for three hours past scheduled takeoff time and take off within 15 minutes of backing away

from the gate, and FAA will say you are on time. The Bureau of Transportation Statistics will say you are late."

One other example—just to hammer home the importance of this point. On March 9, Aviation Daily, which is a trade publication, using data from FAA, reported there were 1,900-odd more delays in January, 2001, than in January, 2000. That same day, the Washington Post, using Bureau of Transportation Statistics data, reports that the percentage of flights arriving on time had improved over the identical time period.

This is an absurd situation, and I think it could be corrected and has to be corrected if we are going to analytically get to the bottom of the problem. That is my speech for the day.

DEFINITION OF DELAYS

Mrs. EMERSON. Yes. I would be interested because, I mean, of all things this is the one thing that does not take a rocket scientist to figure out how to make it uniform. I mean, that is easy in my opinion. I mean, some of the other things require lots of money. This does not require a whole bunch of money to fix it. Anyway, I am curious to hear what the administrator——

Ms. GARVEY. Thank you very much, Congresswoman. I will just comment on three points. First, just to step back for a minute, Mr. Mead is absolutely right when he says the FAA collects data for the period of time when the plane is under our domain. So to speak, and that is really to understand the performance of the system better and do something about it, we have really focused on that piece of it.

The Bureau of Transportation Statistics, as Mr. Mead has said, has focused more on data that has come from the airlines about on-time arrival and delays and lost baggage, et cetera, so we are really two parts of a whole.

From a customer's point of view, though, you are absolutely right. You want a standard that makes sense. You want a standard that is uniform. Absolute agreement on that.

Mr. Mead talked about the task force that was put together in the last minutes of the last Administration. They did some work, some initial work. I think this Secretary—in fact I know this Secretary—is very, very eager to get back to those recommendations, and is putting his team in place. I know it is going to be headed by an Assistant Secretary that will really jump start the process.

I do not, though, want to leave anyone with the impression that we are not taking that seriously. In the meantime, until the task force really gets underway, both the airlines and the FAA have been working for about a year to establish a common set of metrics. We have them in six categories. We are collecting them from 13 airlines now at about 20 airports. We will be at 30 by the end of this month. It is, I think, definitely a step in the right direction. We want that task force to take a look at that when they are back underway to see if that is a common ground that we can arrive at. I think you are absolutely right. We want to make sure that we have a standard that is understood by the customer who is really being served.

Mrs. EMERSON. Does anyone else want to comment on that particular question?

Mr. WOERTH. I would just say that you are right. It is almost like the rest of our information—we cannot analyze and agree on a solution if we cannot agree on what the facts are. If we are going to argue over if we were late or we were early or on time, we really need to be on the same database and agree with what that is before we can make any good decisions.

PUBLIC SERVICE

Mrs. EMERSON. I agree. It is kind of like the Health Care Financing Administration trying to fix medicare. I mean, that is a little more complicated. There are certain sets of data here, and we all know what it is.

You know, I missed seeing the Dateline TV show the other day, but I did actually read the transcript of it. I am a little confused about how Dateline, and this probably, Mr. Merlis, would go to you. I am confused how Dateline could figure out more than two hours early that a plane was going to be delayed, and yet the public is only notified a short period of time in advance, or the people working at the gate are notified a little bit, you know, later or quite a bit later.

Why not just tell the public earlier when you all know? If a plane has not taken off from New York and yet it is supposed to be in D.C., for example, I mean, why not just tell us?

Mr. MERLIS. I think that is a goal we have. It is a very complex, ironically, issue because our computer reservation systems are not tied into that data. Carriers are committed to getting better data out to their customers by creating the links so that when a dispatcher knows a flight is late or whatever the time for the flight is it will get put into that. It should not be left out. It should be included, and that is one of the things that we, as we move forward with our customer service program, intend to do.

Mrs. EMERSON. Well, excuse me. Maybe I did not articulate that right.

If I am at the airport and there is something on the board that says the plane is delayed 15 minutes, or let us just say it is on time and it is half an hour before the flight is taking off, but yet the plane has not even left from New York or from St. Louis, which is generally where I fly back and forth to every week. You know, obviously somebody knows.

Mr. MERLIS. You are correct.

Mrs. EMERSON. But yet the people at the point where I am supposed to be departing from either do not know that, are not told. I mean, why try to pull the wool over our eyes? I mean, I would be a lot happier if I simply knew what the real story was.

You know, it is that, and then all of a sudden, you know, I am delayed going to St. Louis because of weather. I am talking to my husband in St. Louis. He says well, it is sunny here. We are ten minutes from the airport. The plane is sitting in D.C.

I mean, I guess I have to ask why? You know, why is it so difficult to just tell us the real skinny?

Mr. MERLIS. I think there are two pieces. There are two pieces.

Mrs. EMERSON. Okay.

Mr. MERLIS. One, we can do a better job. We are committed to doing a better job, but it cannot be done overnight. We have to put

links together to link the flights and the information that we have from our dispatchers into the computer reservation systems. It has not been done yet. It ought to be done, and people are committed to do it.

Mr. ROGERS. Why has it not been done?

Mr. MERLIS. Because it was not the highest priority it should have been.

Mr. ROGERS. I know that. The highest priority of the airlines is profit, not service to the public.

How soon will you have this information in your computers so that the public, the traveling public, who paid the good money can have that information?

Mr. MERLIS. I do not have the answer, but I will get it for you.

Mr. ROGERS. How soon will you have the answer?

Mr. MERLIS. I will try to get it by the end of the week.

Mr. ROGERS. No. That is not satisfactory. By the end of the day.

Mr. MERLIS. I will try to get it by the end of the day.

Mr. ROGERS. You will not try. You will get it by the end of the day. By close of business today, I want the answer.

Mr. MERLIS. Yes, sir.

COLLECTION OF DELAY DATA

Mr. ROGERS. The gentlelady has raised a very, very important question.

The airlines, by my information, according to the IG in fact, Mr. Mead, the FAA does not collect data on delays due to air carrier activities such as aircraft equipment failure, late aircraft or flight crew, fueling delay, late boarding of passengers, meals or baggage, but the airlines do keep that data. Is that right?

Mr. MERLIS. Yes, sir.

Mr. ROGERS. Why is that information not available to the FAA?

Mr. MERLIS. I do not know if it has been requested.

Mr. ROGERS. Has it been requested, madam?

Ms. GARVEY. Actually, I think generally it is through the Department of Transportation. Is that correct, Ken?

Mr. ROGERS. Has the information been requested of the airlines, Mr. Mead?

Mr. MEAD. This was what I just was referring to, Mr. Chairman, where in the last Administration they recommended that that type of information be provided and meshed with the FAA information, and that still has not been implemented.

Mr. ROGERS. Why?

Mr. MEAD. With all respect, sir, I do not know who is in charge of this particular responsibility. It was a task force operation. Those people left, and now somebody needs to be put in charge.

Mr. ROGERS. Where?

Mr. MEAD. I would say in the Office of the Secretary—at the Office of the Secretary level.

Mr. ROGERS. Why not FAA?

Mr. MEAD. Well, because, by law, collection of delay information from the airlines is vested in the Bureau of Transportation Statistics, which is separate from FAA.

It could be placed in FAA, but I think it would require somebody at the Secretary's level to say this is how it is going to be done because you have two different agencies involved.

Mrs. EMERSON. Can I ask one more follow up question to yours, Mr. Chairman?

Mr. ROGERS. Yes.

TIME FRAME FOR DELAY STANDARDIZED SYSTEM

Mrs. EMERSON. Mr. Mead and Administrator Garvey, let us say this task force is working, and it is set up under the Secretary in the Secretary's office. How long would it take once we have it operational?

Now, granted, let us just say everybody is in place, so we will start from that point in time. How long would it take to figure out a standardized system with all of the agencies involved, as well as the airlines and everybody else? How long do you think it would take to put in place a standardized system?

Mr. MEAD. I think if the airlines were all to cooperate, you could have the design of the system done in about two or three weeks. I would allow probably a month or two to implement it. I think the basic information sets are out there already.

FAA, as Administrator Garvey was saying, for FAA's part, I think they have moved the envelope forward, and now the airline data need to be meshed in with it. In other words, delays that are the responsibility of FAA, I think they are collecting that information.

Mrs. EMERSON. And then the airlines I assume would be willing also to provide that data so you could all put it together. That way, you know, once we have it and it is standardized, at least then you do not always have to be the bad guy.

Mr. MEAD. With due respect, that assumption about what the airlines would be prepared to do is not one that I would be prepared to vouch for.

Mrs. EMERSON. Mr. Merlis?

Mr. MERLIS. We have been participating in that advisory committee. I think ultimately the recommendations that advisory committee comes out with we are going to implement.

I mean, it has been a collaborative process, and I think it has worked. It is just that no one wants to unilaterally put out data and still have these two other data sets, and another carrier does not put out the same data because there is no standard. We will do whatever is required.

Mrs. EMERSON. Okay. Let us say we will give you a little extra time. Two months from the inception? You think that would be long enough to certainly standardize three or four different sets of data, correct?

Mr. MEAD. Yes, at least with three or four carriers.

Mrs. EMERSON. Okay.

Mr. MEAD. Big carriers.

Mrs. EMERSON. Okay. I appreciate that.

Mr. MEAD. Yes. Thank you for your line of questioning.

Mrs. EMERSON. Thank you.

Mr. ROGERS. Look, you were talking about this in 1993, the airlines and FAA, and we are still talking about it. Time is up. This afternoon before close of business.

Mr. MERLIS. Yes, sir.

Mr. ROGERS. If the task force will not do it, we have a task force right here, I guess.

That would be a major step forward, in my opinion. Do you agree with that?

Mr. MERLIS. Yes, sir.

Mr. ROGERS. Is that satisfactory?

Ms. GARVEY. Absolutely, Mr. Chairman.

Mr. ROGERS. Okay. Ms. Garvey, you are going to be back up here in a couple of weeks to testify?

Ms. GARVEY. I am, Mr. Chairman, yes.

DEFINITION OF DELAY

Mr. ROGERS. That would be a perfect time for you to have for us a definition of a delay. That is plenty of time, is it not?

Ms. GARVEY. I could probably give you at least our definition probably before then, but yes. I mean, you are talking about the agreement with the airlines?

Mr. ROGERS. Yes.

Ms. GARVEY. We certainly will be able to do our part.

Mr. ROGERS. Well, the goal of the airlines is to provide the information and mesh that into the computers so that we are all sharing information.

Ms. GARVEY. And, Mr. Chairman, part of the work of the task force is again determining this definition of what is a delay and what the standard is.

Mr. ROGERS. Yes, but the task force time is up. When you testify here in two weeks, I want a definition of a delay. If it is not agreeable to everybody, then that is too bad because it is going to be defined.

If we have to define it in this bill, the Appropriations bill this year, I have no problem with that. Task force/mask force in this case.

Ms. Kilpatrick?

PARTNERSHIP

Ms. KILPATRICK. I love this, Mr. Chairman. Thank you, Mr. Chairman, and thank you for framing at 10:00, almost two and a half hours ago, what this hearing would be about so that we would not get totally smoked.

At the table are the people who are responsible for almost 700,000,000 people a year using our aviation system. Sitting here now two and a half hours later, though you look like you work together it is very clear to me you do not. There is competition and finger pointing and all of that, and I think the Chairman said at the onset he was not even going to deal with that. You all accepted the responsibility. There is a problem. Let us try to change it and fix it.

I visited VOLPE the Tech Center last year and, among other things, went into one of their rooms where they have this big visual and dots of the United States map. This shows where planes

leave and take off all day long, and they know when a plane is there on time and when it is not and how late it is going to be by the dots in the communication system that they have.

What I hear this morning has no connection to what the airlines know or do. I think Congresswoman Emerson is right on point in terms of you know when there is a delay. Why do you not tell the 700,000,000 of us so we do not all get hyper and mad? They call it road rage in a truck. I think it is air rage. Then they come home and beat their wives or hit their kids up side the head.

It is a way to fix it, and I am not sure, Chairman Rogers, who has been spending these last couple hours, that you all got the message. I think you got it. It has to be a partnership. Policy is always better when the parties come together and tell us what you need rather than letting us tell you what you need. I am hopeful that as we leave here today and as we move forward that all the pieces will begin to work together.

Ms. Garvey, you hit it right on point in doing my briefing for this. Why is it different, their figures different, first of all, and then how do you compute it? You know, the people we represent and all 535 of us, and my ticket is $500 plus a week. We pay big money.

You are in for profit, and we want you to stay in for profit. We want you to employ and train other people and our constituents so that they can take care of their families, but I had not felt, and maybe the Chairman in the last 15 minutes has made an appeal here. I do not feel the urgency from the operators of the system that you are going to work on this together and work it out.

By business today? Now, that is a mandate. That is pretty quick. You said yes, sir, you are going to take care of that. Hopefully you will, but, you know, as a Member of the subcommittee and one who flies twice a week, as do most of us 500 plus people, the problems are severe, but they are not too complicated to fix.

The IG was here last week, Mr. Mead, telling us distinctly what the problems are in the industry. Most of our constituents and us, we feel it as we take the service, so safety is the number one issue for us. Profit and safety has to be for you.

The pilots association, the airports—we have a couple of airports in our district—the hubs, the subhubs. Why can some of that not be changed? Profit is obviously a motive, but how do you work to make that change, to make the 700,000,000 who use the service?

Wait. If I can save $100 and fly 20 miles away I might do that with the proper kind of public relations effort on it. There are ways to fix it without just doing the concrete. The concrete is a long way out and certainly needed. We also need additional people, Mr. Air Traffic Controller.

Mr. CARR. Yes.

AIR TRAFFIC CONGESTION

Ms. KILPATRICK. This is the Committee that can give them to you, but you have to say that and ask for what you want. Some things we can do right away. Other things we cannot.

I am not sure that as a group those of you who are the heads of the airports and the airlines and the pilots who fly and the controllers who keep us safe, and, Ms. Garvey, you are just overall.

Mr. Mead, you are the guy. You can be called that. Do your job. That is all we are asking. Safety. Profit. We want you to do that.

We were told last week that the airlines really have very little to do with what comes in and out. How can we flood LaGuardia and then at the same time, you know, you do not have to check with anybody? You just put ten more flights in. They are going up.

I tried to get to LaGuardia last week. I could not get there on an 8:00 flight. Hey, we could not get in. We sat for two hours. They opened the door, and I got out before. I was in Detroit. I left. There is a better way to do it. Mr. Chairman, so many questions have been already asked. I just say ditto to all of that.

As the air traffic control gentleman said earlier, Mr. Carr, aviation is one part of the mass transit system that we have in our country, and if England is worse than ours God help them because the good thing about your industry is there have not been any major tragedies, and we commend you for that, but there are tragedies waiting to happen with the number of incursions we hear about.

The profit/loss has got to be a thing of the past. You know, people have to get from Point A to B. Aviation is probably the best way to get there. That it is safe, convenient and affordable is what we hope that you will make it.

Mr. Chairman, I do not really have a question. If VOLPE Center knows in the morning what is going to be late at 5:00, then you all ought to know it, too. But, more than that, so should our constituents.

Thank you for your strength, Mr. Chairman, and hold them to their word, please. Thank you.

QUESTIONS FOR THE RECORD FROM
REPRESENTATIVE KILPATRICK TO THE
OFFICE OF INSPECTOR GENERAL

AIRPORT INFRASTRUCTURE PROJECTS

Ms. Kilpatrick. Mr. Mead, in your testimony you outline near-term actions which can be taken to address the problem of airline delays. You mention, for example, 14 new runway projects planned or under construction in some of your largest airports that are due to be completed within the next 7 years (Detroit is one of these) (p. 6). This is an encouraging happening. However, should I be disturbed by your statement that "various parties" provided you with different completion dates?

a. Who are these various parties?

b. How do you account for the discrepancies in their projections? I assume you questioned them on this point?

[The information follows:]

The information was provided by individual airport authorities, FAA's 2000 Aviation Capacity Enhancement Plan, and FAA's National Airspace System Operational Evolution Plan, Version 1. The discrepancies were due to the lack of regular updates and coordination of project completion dates within FAA and between FAA and the airport authorities. In most cases, the differences should be easily reconciled. However, one noticeable exception was the completion date for the new runway at Washington Dulles: 2004 in FAA's National Airspace System Operational Evolution Plan, 2007 by the airport authority, and 2008 in FAA's 2000 Aviation Capacity Enhancement Plan.

We have recommended that FAA, in coordination with the Secretary and airports, establish consistent milestones for completing new runways and ensure these milestones are met and the projects completed on time.

Ms. Kilpatrick. You also state that the Department of Transportation can provide important leadership in moving these airport infrastructure projects along. Have you gotten an indication that the DOT is providing such leadership?

[The information follows:]

The Secretary told the House Transportation and Infrastructure Committee that streamlining and expediting runway construction is a top priority. Clearly, FAA has given the issue renewed attention and focus. We will monitor and assess the efforts underway and report on their progress as part of a follow-on audit we are conducting concerning airline delays that we will issue later this year.

Ms. Kilpatrick. We know many of the projects are locally driven. Given existing constraints in the federal, state and local partnerships of these projects, what kind of oversight does the FAA have to exert to ensure these projects come on time, on line and on budget?

[The information follows:]

FAA can streamline and expedite its own approval process and aid in the resolution of state and local conflicts. Although most decision-making authority lies at the local level, FAA can provide a focal point for assisting in dispute resolution and keeping projects on track.

Ms. Kilpatrick. As you state "while new technology has potential" to expand capacity, the largest increase in capacity will come from these ground infrastructure projects. If, as you say, funding is not the main problem it would seem there are some serious problems in the management of these projects. Do you think all parties that need to be talking and working together in government and airport management levels are doing so?

[The information follows:]

I don't know that they have communicated as well as necessary in the past, but clearly all parties today view airport infrastructure projects as crucial to relieving airline delays. I have been encouraged by the renewed focus of resolving problems and moving projects forward. However, follow-through is the key. We will continue to monitor these efforts along with the project milestones and will report on their progress as necessary.

Mr. ROGERS. Thank you. Mr. Sweeney?

AIRLINE PROFIT, COMPETITION, HUBS

Mr. SWEENEY. Thank you, Mr. Chairman. Let me start by saying hello to all of our witnesses who have testified in one capacity or the other in the past when I served on the authorizing side as Vice-Chairman of Aviation.

Let me commend you, Mr. Chairman, for not just conducting this hearing, but setting a tenor and a tone that I think is long overdue. I am proud to be here. I made the right decision. I am very happy.

Let me also say my name is Sweeney. In a couple days it is kind of an important day for my family. I am supposed to be sitting at a dinner right now with the President and the Prime Minister of Ireland. I am here because this is critical, and it is important.

Mr. Merlis, I have to tell you. They talk about air rage. This is one Member of Congress, and I think you have heard it from many others. That rage is real and witnessed by many of us, so I want to start my questioning by focusing very specifically on what I think is the complicity of the airlines in all of this. I am going to start with a series of facts. You stop me if you do not think any of these are accurate.

Fact. Airlines use hub airports to maximize economies of scale.

Mr. MERLIS. Yes.

Mr. SWEENEY. Airlines work hard to push more passengers through their hubs to maximize profits?

Mr. MERLIS. Correct.

Mr. SWEENEY. The major airlines do not compete against each other's hubs?

Mr. MERLIS. No. They do.

Mr. SWEENEY. In what instances?

Mr. MERLIS. When you say they do not compete against each other's hubs, you can go over different hubs to get to the same destination. Is that what you mean?

Mr. SWEENEY. No. I mean in direct competition. Scheduling of flights and diversifying those.

Mr. MERLIS. I think there is competition.

RUNWAY PLANNING AND DEVELOPMENT

Mr. SWEENEY. We disagree on that.

Fact. Hubs are a tool of market domination and profit centers for the airlines as evidenced by how difficult it is for low fare carriers to gain access, as evidenced by the fact that many of the major airlines hold onto slots allocated to them and do not use them to their maximum capacity?

Fact. Hub airport operators say that to reduce delays at airports, and we have already gone through this, additional runways are needed. We have heard a lot of questioning from the committee on the utility of that.

Fact. Once an additional runway is built, the major airline will probably add more flights to the airport. This will maximize the economies of scale and grow their profit. The fact that the airport fills up, we are probably going to be asked at some point in the future for more funding for more runways.

The fundamental question to you, Mr. Merlis, and, more specifically, to Administrator Garvey and maybe Inspector General Mead, is what have we done thus far? That is the question Mr. Chairman was asking. Is there anything you have not told us in terms of planning and development that is already underway?

Ms. GARVEY. Well, I did not speak, Congressman, a little bit earlier about the technology. I know I have appeared before you before in other committees and talked about a building block approach in getting out technology as aggressively as we can. I think there are enormous challenges in that, particularly with some of the satellite navigation pieces. I think staying the course on technology over the next several years is going to be critical, staying the course on a building block approach. We are focused now on our terminal areas, and we just have to get it done. That is a piece we did not talk about a little bit earlier.

STEWART AIRPORT

Mr. SWEENEY. How much work has the FAA or the DOT been able to do on looking at the viable alternatives that exist in airports other than LaGuardia like Stewart and Islip?

Ms. GARVEY. Actually, again with a lot of help from Congress we had the pilot program on the public/private partnerships in airports, and Stewart is one of those. I do think that when you look at the increased funding that this committee has provided for some of the smaller and mid size airports, I think that is a step in the right direction.

I think someone mentioned earlier, and it may have been Captain Woerth, that there is this idea about are there other incentives. I do not know the answer to that, but I think it is the right question. Are there additional incentives we can put in place or we can think of putting in place to encourage the use of some of those airports?

I know LaGuardia and the Port Authority have been looking at some of the ground transportation, for example, around JFK because certainly one of the issues is getting from JFK to downtown. Sometimes the incentives may even be on the ground side, as well as on the air side.

AIRLINE SCHEDULES

Mr. SWEENEY. I would like to work with you especially as it relates to Stewart. As you know, it services the southern part of my district. I would like to look at the development plans and alternatives.

Let me go to the delay question, Mr. Merlis, more specifically. A recent report showed that 62 flights were scheduled to depart O'Hare between 7:00 and 7:15 p.m., but even if flying conditions were perfect only about half of those flights would actually be able to take off in that period on time.

It is simple math, sir. The question is why are the airlines scheduling so many flights? Not only are they not notifying the public of when they know of delays, but they are actually scheduling in advance. It seems premeditated.

Mr. MERLIS. I think that the airlines cannot talk to one another to divvy that up, and it is very rare that you will find one airline

schedules in a block of time in excess of the capacity at the block of time, but collectively they do.

They cannot talk to one another, and also I think they fear that if one carrier drops out some of those flights another carrier will come in and fill those flights—not those flights, but those times—thus resulting in the same congestion that you had before, but the carrier who dropped out not being able to get any revenue out of it.

Mr. SWEENEY. So would a system in which we attempt to redistribute slots in some way, thereby developing some methodology to evaluate the effectiveness and the efficiency of what the airlines is doing, not make some sense?

Mr. MERLIS. Well, I think that is sort of what the lottery that took place at LaGuardia was attempting to do. Yes.

Mr. SWEENEY. I am talking about something longer term.

Mr. MERLIS. I think that longer term the goal would be to increase capacity, not to manage the demand. Short-term clearly there are demand management initiatives which the FAA has undertaken, but long term what we should try to do is meet the demand.

AIRLINE CUSTOMER SERVICE

Mr. SWEENEY. Let me just conclude. There are a number of very good pieces of legislation out there. Last year the last term of Congress, faced with enormous numbers of consumer complaints, and as Chairman Rogers aptly pointed out, the airlines seemingly—they are in the business for profit really at the expense both literally and figuratively of their customers.

The airlines entered into some agreements saying that they would move their customer service process forward. Inspector General Mead did a very good report that indicated that that progress was very, very slow, which has motivated many of us to reintroduce pieces of legislation and, frankly, much tougher pieces of legislation.

I think you can tell by the leadership being provided here today by the Chairman that Congress is very serious about this issue and very serious this term of Congress, so I would implore you to tell your constituents to pay attention. It is very real. The complaints and concerns are very real out there.

Mr. MERLIS. If I may respond, sir?

Mr. SWEENEY. Sure.

Mr. MERLIS. I think we did make progress. As the Inspector General's report showed, nine out of the 12 categories he graded us in an A to B. There are three which we clearly failed to get up to the level we should, and we intend to do that. We also have identified some other areas that the Inspector General recommended, and we are going to pursue those because we know we have to get better.

Mr. SWEENEY. If I can, in your response you fundamentally did not deal with the root cause of delays in the process. The airlines avoided that issue throughout. My example at O'Hare is just one of a number that we could provide for you, so more is required.

I yield back. Thank you, Mr. Chairman.

DELAYS

Mr. MEAD. Mr. Chairman?

Mr. ROGERS. Yes.

Mr. MEAD. You inquired of the three of us if there was something we had left out, and there was something I left out when the Chairman said, what actions do you deem need to be taken. My recollection of what I said is that I did leave one item out.

I do not think it is unreasonable for the airlines to tell people at the time they are booking their ticket that the flight they are about to book is canceled a significant percentage of the time or is delayed 40 percent or more of the time.

That is not necessarily a positive incentive that some of the Members have been asking for, but it is an incentive, and it seems to me a fair way of doing business. If you are going to be reasonably free to do the scheduling, then you tell people ahead of time before they make the financial commitment to fly at that time.

Mr. SWEENEY. My question then, Mr. Mead, is what standard are we going to use to define what a delay is, and how do we notify the customer of what that is?

Mr. ROGERS. Well, we are going to solve in a couple of weeks.

Ms. GARVEY. I am working on it now. I will tell you.

HUB COMPETITION

Mr. ROGERS. We already have that one down. Thank you, Mr. Sweeney. The new Member of the subcommittee is a very valuable addition, and we are delighted to have you.

The meshing of the computers I think would solve a lot of the difficulties, Mr. Sweeney, as mentioned in terms of forewarning the traveler about an impending problem. I do not want to be personal here, but let me give you a small example of some time ago, not too long ago, I took a commuter from Lexington to Pittsburgh, there to transfer to a flight directly to Washington.

No one told us in Lexington that there was a problem with the connector flight that would leave out of Pittsburgh, but that flight, because of weather in Orlando, had not yet taken off, nor was it going to take off for several hours, so when we got to Pittsburgh the connector plane was still in Orlando. It would have been a real easy, simple thing for the Lexington terminal to say look, do not take that flight because you cannot connect. That is a simple thing.

If you were in real competition, if there was any real competition at that airport, you would be more aggressive in trying to please me and fellow travelers like me. Therefore, I want to get to the competition question here.

Mr. Mead, I think maybe you have some thoughts about whether or not there is effective competition particularly in the hub areas and their feeder areas.

Mr. MEAD. That one catches me a bit off guard. It is not what we would like to see.

Is there effective competition? I think it depends on your definition. I do not want to be too loose with this, but I think it depends on what market you are looking at. There is clearly less competition today than there has been. There is a lot of concern about the effect that these mergers will have.

Certainly when you have dominance at a hub, that dominant carrier can control a lot about the prices, particularly when it has to do with you going to the spokes. That is why you see fares going to the spokes that are substantially greater than on the routes that there is competition, which are sometimes five or six times longer in distance.

For example, if you fly from here to Los Angeles, there are several hubs you cross over, and you do not care what hub you go to. The airlines know that, and that is why the prices to Los Angeles if you booked in advance are much more competitive than a trip from here, for example, to Columbia, South Carolina.

I am not familiar with the routing to your home state. I can probably draw another analogy to that, and it is, you said, $500. I believe that. Senator Hollings probably can beat you out on the fare to Charleston. It is the same type of issue.

Mr. ROGERS. I guess my question dealt not so much with the price of the ticket, although that is a huge consideration, but I guess I am thinking more of just the efforts of the airline to please people, to sell themselves to the public, to be accommodating.

Mr. MEAD. Oh yes. Absolutely.

Mr. ROGERS. I mean, there is an arrogance. I have to say this. There is an arrogance that we encounter on these airlines, an attitude of I do not care. Either fly with us or you do not fly, so take that and shove it up whatever.

That is the attitude that we encounter, and it is not just that we are trying to report on what our constituents are hearing or saying, although that is a big part of it. It is what we have all experienced ourselves. There is an arrogance that you would not find if there was a competitive carrier saying hey, if you do not like them come with us. We will serve you this. We will do that for you.

Mr. MEAD. I misunderstood your question, sir.

Mr. ROGERS. Yes. Now that you understand it, what do you say?

Mr. MEAD. Yes. I say absolutely, although I would hasten to add since we did that customer work on the report we issued very recently, I have to say that Congress has gotten the attention of the airlines. I have had CEOs of at least four carriers tell me that things had gotten way out of balance in their attitudes towards customers.

When the carriers entered into those voluntary commitments, they did so because they saw the threat of legislation. I think they are taking customer service a lot more seriously today, but I think these messages need to be reinforced.

Mr. Sweeney had it quite right that the results of our review show that there was real progress by the airlines in all the areas they made commitments on except when it came to the fundamental reasons people are dissatisfied, which are delays, cancellations, and baggage not showing up on time.

Mr. ROGERS. Well, I just want the world to know that this subcommittee is not going to go away. We are going to be here, and we are going to be here, and we are going to be here. We are going to check on, and we are going to insist upon, and we are going to do whatever is necessary.

There is a storm brewing, my friends, and we will not rest until it eases up. Our constituents are demanding it. We have no choice.

You can make it easy, or you can make it hard. If you make it hard, you require hard answers from the Congress, we are prepared to do that. I will do it either way. Be nice or be mean, but until we get some response I am going to be mean. There we are.

Now, we need to close down here. We are past your lunch hour, but we do have one final thing we need to attend to, and that is your five things that you are going to do to solve our problem.

MINNEAPOLIS AND DETROIT AIRPORTS

Mr. SABO. Mr. Chairman, can I ask a question?

Mr. ROGERS. Please.

Mr. SABO. Thank you, Mr. Chairman. I am just sitting looking at some data on size of airports in terms of passengers and landings and takeoffs. I looked at my own, and I discovered Minneapolis is larger than I expected. In terms of domestic airports, it is seventh both in terms of total passengers enplaned/deplaned and seventh in terms of landings and takeoffs, but we are not on the list of ten airports with the most arrival delays and cancellations. Detroit is roughly equivalent to us in both of those categories, and they are not on the list.

I do not know that our weather is better than the rest of the country. We tend to have winter storms. I look at in the listing of airports I have is of the 30 largest internationally. LaGuardia is not on the list of the 30 largest airports—this is from 1999—in terms of either passengers or landings, and I gather lots of problems generate there. I am just curious why. If both Detroit and Minneapolis are northwest, are they doing a better job with the airplanes? Is our weather better?

Mr. MERLIS. If I may, sir?

Mr. SABO. Yes.

Mr. MERLIS. One of the issues may be related to the discussion about Cleveland Center and the choke points. One of the issues may be that there are not as many markets served out of Minneapolis to the east as they are west. As a result, and I just have a list of the top 20, Seattle is the second largest, Los Angeles the third largest, San Francisco the fourth largest, and Phoenix the fifth largest served out of Minneapolis, so it may be just the volume of aircraft into and out of Minneapolis is not passing through that choke point, the eastern choke point. That is only part of the answer, but that alone could explain some of it.

Ms. GARVEY. Congressman?

Mr. SABO. But I keep hearing lots of delays and cancellations are due to weather. That is the number one reason.

Ms. GARVEY. I might add just maybe one or two other points. One is that the sectors that we are opening up that John talked about a little bit earlier, one is in that area so we do have some new airspace. I again credit the Department of Defense, who worked very closely with us.

I will tell you, Northwest, to their credit, has played full out in the spring/summer plan. They are hooking in every day at the Command Center and really I think taking advantage. Not to single them out because there are a number of airlines that have done that as well, but I think if you ask them they would say that collaborating in that way has made a difference. Richard Anderson

has said that directly to us; that he thinks that really helped their delay numbers last year.

Mr. MEAD. Well, another factor here is that, at the two airports you have mentioned, Northwest is an extremely dominant carrier. Therefore, they have greater control over the scheduling of those facilities.

I would also say Minneapolis ended up 17 on the list, and Detroit ended up as number 13. I think our testimony just had the top ten. I wanted you to know what those two airports did.

CHOKE POINTS

Mr. SABO. But it just strikes me. So the choke points are fundamentally an east problem, although I see Phoenix, L.A., San Francisco, Phoenix, Denver, Las Vegas are on this list.

Ms. GARVEY. The choke points, Congressman, are principally from the Chicago to the Washington-Boston area. That is not to say that we do not have delays and difficulties at some of those local airports that you mentioned as well. Those are also very crowded airspaces, and those areas we are focusing on as well.

Last year we said where are the biggest problems? Where are we having the most difficulty? That was in spring/summer 2000, and that is what really focused us on that triangle.

Mr. SABO. But somewhere did we not hear that weather was 70 percent of the problem?

Mr. CARR. Well, The air waves that the choke points deal with are identical to a highway map. Most of the congestion is east of the Mississippi. If you look at a map of the interstate highway system, once you get east of the Mississippi River it is just a spaghetti bowl. West, in the western states, where you not only have larger land to work with, you have fewer highways. The congestion is not as dense.

It is identical in the air above our heads. I will even widen the triangle to include from Chicago to Washington, D.C., to Miami. If you want to really have a Bermuda Triangle of airplane difficulty, that would be how big I would draw it because there are sectors down over Atlanta that are impacted by what we call choke points.

Choke points are nothing more than the funneling of numerous streams of aircraft into a single stream for the next controller or the next facility because while you can have almost an infinite number of streams of airplanes heading towards Atlanta, eventually you have to reduce those streams from 20 to ten to six to four to two to however many runways they are landing on. That creates bottlenecks. It creates choke points during peak periods.

What we are working with the agency on collaboratively is identifying where those choke points exist and mitigating the impact by redesigning the airspace. Airspace is nothing more than similar to a wedding cake, actually. It just depends on how many layers you have control over. We are going to stratify those layers to allow for more controllers to work a more finite piece of airspace and try to spread out some of the impact.

ARRIVAL DELAYS

Mr. SABO. Although when I look at arrival delays, Los Angeles is there. Phoenix is there. San Francisco is there. Denver is there. Las Vegas is there. St. Louis is there.

Mr. CARR. And that is exactly descriptive of what happens when you have an infinite number of potential incoming arrival routes reduced to a finite number of concrete planning surfaces because you can have airplanes taking off from 2,000 cities in the United States headed for Los Angeles, but when you get to L.A. you are landing on two pieces of concrete, and you are landing two by two.

Mr. SABO. Well, in terms of takeoffs and landings in 1999, I think L.A. had 517,000. We had 482,000.

Mr. CARR. And I would have to look. To be honest with you, I would have to look at the construction of the airport. Like I said earlier, O'Hare has three sets of parallel runways. You can configure them 27 different ways.

Mr. SABO. I understand O'Hare.

Mr. CARR. So it would depend on the configuration of the airport versus—Los Angeles has two parallels. You can land east or west, and that is it. They have two pieces of concrete only.

They predominantly land from the east to the west and take off west over the ocean for noise abatement reasons, which you have mentioned earlier as being a great concern, so L.A. is a single direction airport.

Mr. SABO. Denver, with the new airport, is seventh on arrival delays.

Mr. CARR. And that I would attribute to weather.

Mr. MEAD. Mr. Sabo, be careful how far you take the 70 percent on weather figure. The 70 percent figure is derived from FAA data for the flights for what they tracked, for the reasons they tracked. They do not keep track of all the other reasons that you have for delays.

They report delays that they track. For example, when I compare the FAA delay number for Minneapolis, their number is 6,658 for 2000. The actual number of arrival delays there were about 30,000, so that is another reason why——

Mr. SABO. Which is comparable to the figure on your testimony?

Mr. MEAD. Yes, the 30,000.

Mr. SABO. It is comparable?

Mr. MEAD. Just split the number in half because what goes up must come down, but that is just a further illustration of why it is important to mesh these different databases.

Mr. SABO. Thank you, Mr. Chairman.

PITTSBURGH AIRPORT

Mr. ROGERS. Mr. Merlis, one piece of business here.

We called the Pittsburgh Airport and asked them how many parking spaces they have in their parking lot. They have 9,375. We also asked them how many enplanements they had in Pittsburgh, and it runs about 200,000 a week. What do you think of their parking?

Mr. MERLIS. I really do not know much about Pittsburgh.

Mr. ROGERS. Well, let me tell you about Pittsburgh. You told me earlier that most of the traffic coming out of Pittsburgh was local generated traffic. Aviation Week had it wrong. Perfectly wrong.

According to the DOT for the 12 month period ending in June 1999, local traffic was 36 percent, not 63. The fly through traffic was 64 percent, just the flip side of what you said, which makes sense to me. I mean, I told you at the time I did not believe it.

Mr. MERLIS. I stand corrected. I was quoting somebody else. It was not our data, sir.

AAAE FIVE STEPS TO SOLVE THE DELAY PROBLEM

Mr. ROGERS. Yes. Okay. Now the five steps. Here is what I will do to help solve the problem with travel rage in America.

I am going to save Mr. Mead until last because I think maybe he will have a different seat. We will start at the other end of the table.

Mr. BARCLAY. Very good.

Mr. ROGERS. And we will ask Mr. Barclay.

Mr. BARCLAY. Number one, we are going to push for streamlining the construction process of adding runways. Two, we are going to seek the ability to pay for FAA employees to speed up the approval of runway projects when that would help. In other words, similar to pharmaceutical companies when they want to speed up the approval of a new drug can actually pay the added costs that are imposed on the Food and Drug Administration (FDA) to do that, the major airports are also going to be asking for that ability to help FAA out in those circumstances where they need special employees to move things quickly through.

Mr. ROGERS. Halt. What do you think, Ms. Garvey?

Ms. GARVEY. Great idea and we are very enthusiastic.

Mr. ROGERS. Congratulations.

Mr. BARCLAY. Well, I am worried about getting to this one. These do not have to be easy political things that we are seeking. We have been recommending that we lift the cap on PFCs because it primarily benefits the largest airports with the most passengers and, as part of that, give the airports more flexibility on how to spend those funds.

One of the things that would help a lot in adding capacity is if airports had more flexibility, for example, to do off-airport remediation. If you want to build a new Bay runway at San Francisco, but you are willing to do a lot more to help the Bay than damage you are going to do and you are willing to spend a lot of money to do that, that makes that capacity addition a lot more doable. So at these larger airports where today money is not their biggest problem, usually, but if we add this element of remediation that could be a positive for the system. That is number 3.

Mr. PASTOR. Mr. Chairman?

Mr. ROGERS. Yes?

Mr. PASTOR. In Phoenix, we are trying to deal with these problems with additional runways, how do you get light rails into the airport, and one of the comments that was made by the people who serve us in our federal agencies, both the Federal Transit Administration (FTA) and the FAA, is that through some of the laws we have passed and regulations that have been developed that we

have diminished the flexibility with the FAA and with the airports to have the flexibility to work out unique situations.

Not every airport is the same and by having general regulations sometimes a way of saving money to solve some of the problems the airports have those strict regulations and laws have caused us not to be able to do things. And so I would suggest, Mr. Chairman, that maybe that may be something we would want to look at as a committee because I have recently encountered that and would be a proponent of maybe looking at regulations, how we can give flexibility to the FAA and to the airports, including all the charges that are there, to see if we can speed up the infrastructure development.

Mr. ROGERS. Mr. Barclay, proceed.

Mr. BARCLAY. Let me footnote that and say that we do agree that in general you should keep airport revenues on the airport. These are for some useful exceptions to add capacity. Fourth, we would like to see what we can do to help improve the sharing of information with customers and among industry partners. Airports have not had a direct role in that, but we really also have not been involved in the committees that have been working on it and I think we ought to see what we can do to help get better information to customers when we do have it under our control.

And, finally, we also need to be involved in the coordination on ATC operations that has been talked about here. That is something that is primarily again an airline/FAA function that goes on, but it is something that airports, if they know in advance what the flow control plan is for that day, they can also make plans that may help the system. So that was the best I could come up with in a couple of hours, Mr. Chairman.

Mr. ROGERS. Does anybody see a problem with any of those?

[No response.]

ATA FIVE STEPS TO SOLVE THE DELAY PROBLEM

Mr. ROGERS. Mr. Merlis, you are next.

Mr. MERLIS. Yes, sir. First, these are not in order of priority, they are just in order of my jotting them down. We will commit to better utilizing the products of the Herndon Command Center conference calls to address the daily schedule so that we can identify places where delays may be occurring and deal with those accordingly so that we reduce inconvenience to the customers.

Mr. ROGERS. How much better will you cooperate on that?

Mr. MERLIS. I do not know how much we cooperate now, so I cannot put a number on it, but clearly from the Administrator's description, some carriers are doing better than others and so what we need to do is identify which carriers are not paying as much attention and admonish them to participate in this process so that they can do a better job with their customers, as she identified is the case with one of them.

Mr. ROGERS. Any thoughts on that, Ms. Garvey?

Ms. GARVEY. That would be wonderful and welcome indeed to have Mr. Merlis make that kind of a commitment.

Mr. ROGERS. How soon would that take place?

Mr. MERLIS. I will have our president, as soon as she returns from out of town, send a letter to the CEOs saying it is an impor-

tant step that must be taken in order to meet the expectations of not just the traveling public, but also the Congress of the United States.

Mr. ROGERS. Well, the administrator is coming back to testify in a couple of weeks. We should see the attitudes at that time to see if it has improved. We will know by then, will we not?

Ms. GARVEY. You certainly will, Mr. Chairman. Yes.

Mr. ROGERS. All right. We will let you know in a couple of weeks. Number two?

Mr. MERLIS. Number two. Subject to approval by DOT, put in place the recommendations of that DOT delay reporting advisory committee so that we can have a common system by which we inform our customers of the reasons for delay and also can identify the reasons for delay so that we can individually try to remediate the causes.

Mr. ROGERS. That is what you are going to let us know by close of business today, is it not?

Mr. MERLIS. No, sir. The next one is the one.

Mr. ROGERS. All right.

Mr. MERLIS. Which is to aggressively pursue the transfer of the delay data from the FAA database into on-line computers that are used to provide customer information. These are two separate components, sir.

Mr. ROGERS. Okay. You are going to let us know about that by 5:00.

Mr. MERLIS. Yes, sir. Yes, sir.

Mr. ROGERS. All right.

Mr. MERLIS. Third, we will work with the airport community to identify capacity expansion projects and ways of accomplishing them and financing them.

Mr. OLVER. Can you repeat that?

Mr. MERLIS. Yes. We will work with the airport community to identify capacity expansion projects which have the goal of reducing delays and work with the airport community to find ways to fulfill those, both financially and through the regulatory process.

Mr. ROGERS. Does that include sub-hubbing or extra-hubbing?

Mr. MERLIS. Well, I think that is one of the things that we will bring to the carriers' attention. Clearly, we have heard your message, sir, but I do not know how much it is the airport community as the airlines themselves have to make the business decision. Once they have made a business decision, they have to work with an airport to see if it has the capacity to do what it is they may want to do.

Mr. ROGERS. What do you think, Mr. Barclay?

Mr. BARCLAY. I think you are going to see some sub-hubbing, as you called it. In other words, when American, as Effective date said, tried National and Raleigh-Durham and San Jose in the mid 1990s, at that time, we were not seeing the cost of delays they are now absorbing at Chicago and Dallas and Atlanta and the other major hubs. So the economics are going to drive them to say we have to consider having more hubs in the system. The interesting question you brought up is whether there are incentives that we can get them to speed up that consideration that the marketplace will get them to eventually.

Mr. ROGERS. Of course, your airports have a passing interest in this because more and more people are driving long distances to get to that mega hub, bypassing a lot of airports who are going out of business, who are withering on the vines. And not only would creating more mini-hubs or sub-hubs, if you will, improve the travelers' convenience and, I hope, pricing, but it will also help those local airports to survive and not cost so much to their city fathers.

Mr. BARCLAY. Airports are out there in the marketing business these days. Airports go and visit airlines, trying to attract their business when they are not a congested major hub and they are pretty aggressive about competing with each other.

Mr. PASTOR. Mr. Chairman?

Mr. ROGERS. Yes?

Mr. PASTOR. Could I request that as part of that resolution the airline industry give us what are reasonable incentives that they would consider to develop and go to spoke hubs, sub-hubs or whatever you want to call it, because I think it would be important for us to know what would be some incentives and then how we could assist them in providing those.

Mr. BARCLAY. Surely, sir.

Mr. ROGERS. All right.

Mr. MERLIS. And the last one, we will petition the DOT to reconsider the denied boarding compensation rules in order to better accommodate passengers who are bumped and otherwise inconvenienced. These rules are quite old, sir, and I think they should be updated to take account of current circumstances.

REGULATION FOR PASSENGER COMPENSATION

Mr. ROGERS. Mr. Mead, what is your reaction to that?

Mr. MEAD. Yes. The people that get involuntarily bumped, they get paid less than the people that voluntarily get off and the limits have not been changed in two decades.

Mr. ROGERS. So you are going to change them?

Mr. MERLIS. Yes, sir. We will petition to change them. It is done by rule, so unilaterally it is not done, but the carriers will petition to change them.

Mr. ROGERS. How soon will that take place?

Mr. MERLIS. I would anticipate within the next two weeks or so the documents will be prepared. I cannot be sure because I do not know which lawyer is writing it. I do not know what his schedule is. But I anticipate within two weeks or so.

Mr. ROGERS. I am sure you will speak with whatever lawyer it is and encourage him.

Mr. MERLIS. Yes, sir. I will encourage him. And I will provide him with your phone number if he does not take my encouragement.

Mr. ROGERS. All right. I would love to hear from him if he has a problem.

Mr. MERLIS. He will not.

Mr. ROGERS. How long will it take the DOT to react and act on that, do you think, Mr. Mead?

Mr. MEAD. If it comes in as a concrete proposal, I think they can move pretty quickly when the airlines are behind it. A case in point is the increase in the baggage liability limit from $1250 to $2500.

The airlines petitioned for that and it moved like lightning, especially in comparison to that 3.8 years I was telling you about last week.

Mr. ROGERS. Well, okay. That is a good step. Proposed step.

Mr. MERLIS. Sir, I just wanted to affirm that we are committed to doing the right thing and we have been tardy in doing so and you have our assurance that we want to serve our customers better. No one should be treated poorly and steps that can be taken to improve are a high priority for the airlines.

ALPA FIVE STEPS TO SOLVE THE DELAY PROBLEM

Mr. ROGERS. Glad to know that. We will test their actions by your words. By their acts shall ye know them. All right. That is your five. Thank you very much.

Captain?

Mr. WOERTH. Well, the first thing, as I am a member of the Free Flight Steering Committee and if there is any committee that has a chance to bring forth realistic proposals and more importantly to Appropriations Committee, a budget is one of the things we can do together, and as a member of that committee committing to absolutely eliminating all competing bids. We cannot fund every project in the world and what happens all the time, we try to ask you guys for an awful lot of things but we have not coordinated amongst ourselves.

Let us agree amongst ourselves what we need so we do not put five requests to you. Let us put two requests before you that you can fund and will actually work. All of us will not get what we want, but we will be better off coming to Congress with a plan the industry agrees on. That is all the operators, controllers, the pilots, the military is involved with it, the operators. Do a better job of prioritizing what we want from you so you are not always having so many requests to deal with and you are not trying to fund a lot of projects that never come to fruition. Because I am a member of that Free Flight Steering Committee as the president of the Air Line Pilots Association, we will do that.

And with John, I commit really to John, we have an alliance, a liaison, rather, with the National Air Traffic Controllers Association (NATCA). There are two people directly involved with the scope and with the flight controls, everything we can do together to improve that liaison to make sure that we are not in conflict. We coordinate a lot together, but every once in a while we bump up against each other because of our different responsibilities and to work with air traffic controllers to smooth that out.

The third was to bring into that liaison and dialogue that we have had between NATCA and the Air Line Pilots Association, frankly, the flight dispatchers, that is where the company comes in, that is where the rubber meets the road, that is the company's representative on an hour-to-hour, minute-by-minute basis. We need to do a better job of bringing the flight dispatchers into our decision making group to make significant improvements there.

And the fourth would certainly be, frankly, to take—we are going to do everything we can in the Air Line Pilots Association to standardize flight time and duty time across the industry and not allow egregious behavior by—not all these competitors are the same and

I want to tell you why that is important. Inside a lot of this reporting that the FAA cannot agree on, the DOT cannot agree on, what the airlines cannot agree on, there are an awful lot of things that end up as being reported as crew delay. Well, it was really a crew delay because the crew has been scheduled up and passed their legal limits by the Federal Aviation Regulations (FARs). That is a 16-hour duty day.

And we especially in a lot of our regional carriers that is common practice and I am intent on eliminating it, not just for the pilots' benefit, for the public's safety benefit, but it has a corollary. We are going to have a lot of improvement in delays if we do not have unrealistic and candidly unsafe scheduling practices by a lot of our carriers that have not come to grips with their responsibility on scheduling something that has a realistic chance, not just of serving the customer, but its flight crew is not going to end up 16 hours later still having two legs to go. So we are committed to do that.

And the fifth thing is the buck stops with us, to never lose sight of what we have to do. We are going to cooperate with efforts to improve capacity where we can. There is Land and Hold Short Operations (LAHSO), there is Precision Runway Monitor (PRM), there are a number of different things and we will move aggressively to do what is possible, but know the difference when we are pushing the safety margins, but give our best efforts in every one of those, improve capacity while maintaining the highest levels of safety.

NATCA FIVE STEPS TO SOLVE THE DELAY PROBLEM

Mr. ROGERS. All right. Thank you, Captain.

And Mr. Carr?

Mr. CARR. Yes, sir. The very first thing that I am going to do and that the people I represent are going to do is to ensure that anything else anybody else in this room comes up with is measured against the safety of the flying public. We actually are at the point of service delivery for that safety and between ourselves and the pilots, it is at either end of that microphone where the safety of the flying public lies. I am going to commit to everyone in this room that any of these initiatives that we all come up with and can agree upon are measured against that very basic litmus test.

The second thing I am going to do is I am going to come before the Congress at some point and ask you to hire some more controllers. I think we need to hire more air traffic controllers sooner rather than later. As I previously described, we are on the 20th anniversary of the PATCO strike of 1981. The men and women that I represent are coming up on retirement and I think that we need to proactively hire the workforce that is going to replace the workforce that has been working the traffic for the last 20 years.

The third thing I can commit to doing is to working with the FAA to reach agreement on key national air space redesign initiatives. In addition to freeing up controllers to work on national air space redesign by hiring new ones, we can work to unleash the human capital that we both represent.

I believe that the answers to a lot of the questions with respect to air space redesign, with respect to choke point sectors, with respect to over saturation, is within the workforce that I represent. Like I say, they are at the point of service delivery. I think they

are uniquely qualified to give the answers to the agency that they seek on air space redesign and I can commit to you that we are going to continue to work towards the goal of a clean sheet of paper approach to redesigning the air space because the air space has not been redesigned since manned flight began.

Speaking of things that have not been redesigned since manned flight began, the fourth thing I would like to commit to you is that we are ready, willing and able to join with NASA, National Transportation Safety Board (NTSB), the pilots, the FAA and any interested parties that think it might be prudent to conduct a study and a very careful examination of separation standards. The separation standards that are currently in use date back to the late 1940s and early 1950s. They were invented out of whole cloth. They were basically agreed upon due to limitations in radar, limitations in equipment, and they date to the dawn of radar itself.

I find it extraordinarily hard to believe that the separation standards which literally were made up 50 years ago are the actual, real number. So I can commit to you that any time the community of aviation wishes to take a realistic reexamination of those separation standards, we are ready, willing and able to do that. Any marginal or fractional decrease in separation standards, again, has to be measured against the litmus test of safety, but could instantaneously free up unused capacity in the system.

Fifty years ago they said five miles is an adequate separation distance. I am not so certain that they knew that then. I think they knew that it was plenty, I do not know if they knew if it was the number. So we stand ready to take a look at those any time anybody is willing.

And the last thing that I say that we will commit to do, in 1996 the Congress passed FAA reform. The FAA reform bill created the Management Advisory Council (MAC). AIR–21 last year identified the players on the Management Advisory Council. It provided for a labor seat on the MAC. The MAC has already met several times and yet the labor seat on the MAC continues to languish. So I would like to encourage the members of this subcommittee to work with the administration to fill the labor seat on the MAC. That committee continues to meet without labor's participation. I think the labor seat on the MAC should be filled and as long as I have the microphone I think you should fill it with me. And those are my five.

FAA FIVE STEPS TO SOLVE THE DELAY PROBLEM

Mr. ROGERS. Ms. Garvey?

Ms. GARVEY. Mr. Chairman, thank you. I have actually six because I added delays.

First of all, complete the implementation of the choke point initiatives and to measure the results. I think that is almost as important as implementing the initiatives, but really taking a look at what we are getting from it, is it making a difference. So measuring the results, I think, is very important.

Secondly, use the capacity benchmarks as a springboard for action boards for the top 10 airports. Each one may be different, but I think an action plan for the top 10 is important.

Number three, keep Free Flight Phase 1 and Free Flight Phase 2 on track, get it implemented and deployed. We have met every schedule and stayed on budget with Free Flight Phase 1. We want to make sure we keep at that and also implement Free Flight Phase 2.

Number four is to reach agreement with the airlines on the National Operation Evolution Plan. That is the 10-year strategic plan that the Inspector General referred to. We think it is critical and it is important. We look forward to really reaching a conclusion with the airlines on that.

Number five would be to work with the airport community and the initiative around streamlining some of the projects for capacity. Again, we would probably focus on the top airports. We are committed to getting a report to Congress in April with some recommendations around environmental streamlining. We will meet that deadline and also continue to work with Mr. Barclay and others on other initiatives around streamlining. And then finally, of course, define delays in time for the budget hearing. We will take that on willingly.

IG FIVE STEPS TO SOLVE THE DELAY PROBLEM

Mr. ROGERS. All right. Thank you. And Mr. Mead.

Mr. MEAD. I was taking notes here as my colleagues were laying out their lists and I think consistent with what our role is, we have the good fortune of not having to run these programs. We audit them, review them and investigate them, so we grouped what we would do into five categories also, but they lend themselves more in terms of reporting to the community and to you and to the Secretary on the status of these various initiatives, chief among which were the causal tracking system. We think we need to run that to ground and we will stay on top of that and report to you and others on the exact status of it and what needs to be done to fix it.

Once the airport capacity benchmarks are issued, we think we probably could play a good role there in tracking dispersal of flights from your main hubs to sub-hub activity; we'll also analyze what these benchmarks mean in terms of the future because we do not want them to be static. We do not want to live with the status quo.

On the runway projects, we feel we need to establish what the milestones are and to track where they are in relationship to the costs of the projects.

Also, a number of initiatives that Ms. Garvey mentioned, we think we could usefully be some eyes and ears to check on the status of the implementation of those.

And you should also know that on the demand management front, how you manage demand during the short-term period is an area that I think is going to get increasing attention in the next year or two and we would provide you, the Congress and the secretary, with an analysis of that.

WHISTLEBLOWER PROTECTION

Mr. ROGERS. All right. Does anybody want to comment on any of the others' points before we wind down here?

Mr. WOERTH. One point, if I could, Mr. Chairman. One of the things that is going to be a key in this whole process, working with

the FAA and NATCA, is really if we are going to get to the truth of what separation can be and what is the safety system and what are our real margin of safety, we need to have what we call a no-fault reporting system. The air traffic controllers and the pilots, to keep it safe, need to tell everybody the absolute truth of what is going on there but not fear that every single time we are going to get fired for telling you what is really wrong with the system.

That is what we have right now, we have a punishment system and it is designed that way because of FAA enforcement. We are working with Ms. Garvey to ensure that—and with NATCA, whether it be "snitch patch" on busting five-mile separation rules or anything that a pilot might be involved with deviation, if we are going to find out what this capacity can actually do, we need to know the absolute truth so we can have absolute safety at the same time. And we are not going to get there until we have no-fault reporting, especially on the basis of pilots and air traffic controllers.

If we can do that, we will find out what we can really do. That is getting to the point about having the right data, the right facts, we can all agree on something. I know John and Ms. Garvey agree with us, if we can get to that, we will find out what we can really do with this system.

Mr. ROGERS. What do you say about that, Ms. Garvey?

Ms. GARVEY. Mr. Chairman, we agree fully. We are in the process of developing a rule just to that effect. As Mr. Mead knows, we have had some difficulties with some of the other agencies, they have a slightly different point of view, but I know that this Secretary seems very prepared to work that through the current Administration, so we look forward to that.

Mr. MEAD. Do you recall, sir, last week we were discussing rulemakings? And one I mentioned, I said I thought in our judgment the FAA had taken it about as far as they could? It's the one on the sophisticated black boxes and there were issues with the Justice Department and the Environmental Protection Agency and OMB. This is the rulemaking that Ms. Garvey was referring to.

SEPARATION STANDARDS

Mr. ROGERS. And on the separation question, what is your reaction to that?

Ms. GARVEY. Mr. Chairman, I just actually made a note to myself to talk with John. I think that is absolutely the right question that we need to be asking. And his point about bringing in the NTSB is, I think, to be applauded. I think it is a standard that is very old and is worth reexamining. It is not easy because obviously we all care very deeply about safety, but I think having the controllers, the pilots, the NTSB at the table, I think you would have the right players certainly.

CONCLUSION

Mr. ROGERS. Okay. Now, we have your five goals that each of you have set for yourselves and for the system and it is quite a bite out of the apple. If we can achieve these five steps that each of you have outlined, we will have gone a long way.

So what I propose is that we have had such a good time today that we reassemble this group in about a month or six weeks and we want a chance to give you a report card about how well you will have achieved the goals that you are setting out because the only way I think we will make these things happen is if somebody forces all of us to pull the same direction and communicate with each other, as well as the Congress.

So you will be receiving an invitation to reappear here and to let us chat with you about how well you are doing and we will keep that brief. It will be probably—I do not want to set the date at this time, but the Secretary of Transportation is scheduled to testify in about a month, I think, about six weeks, and I would like to be able to do that before he comes so that we can all cheerfully report to the Secretary that we have all of these problems solved.

Is that agreeable with everyone?

Anything further?

[No response.]

Mr. ROGERS. Mr. Clyburn, you have not had a chance to ask questions. Would you like to be recognized?

Mr. CLYBURN. No, Mr. Chairman. I have really been on the phone for the last 45 minutes trying to get from here to San Jose and it is proving to be quite an issue to try and get that done today. So maybe in six weeks I will have something to say about it.

Mr. ROGERS. Well, as somebody once said, I would just as soon be in Philadelphia.

Well, thank you very much for your time. We have kept you beyond what we had hope. So we will see you in a few weeks and thank you so much for participating.

QUESTIONS FOR THE RECORD FOR FEDERAL AVIATION ADMINISTRATION FROM REPRESENTATIVE JOSE E. SERRANO

COMMUNITY ROLE IN AIRLINE DELAYS

Mr. Serrano. Several of you have briefly mentioned communities as factors in airline delays. Please describe more fully the roles that communities have in causing delays and in developing solutions.

[The information follows:]

Communities do not directly cause congestion and delays. However, communities often influence or control the provision and expansion of airport facilities. Generally, our large hub airports have accommodated significant increases in both aircraft operations and air passengers during the past few decades. However, many communities have been reluctant to sponsor further expansion of existing airports or the development of new airports due to a variety of reasons -- environmental concerns (noise and emissions), or the lack of suitable sites. In addition, failure by some communities to engage in effective land use planning and zoning in areas adjacent to airports, has resulted in land development that is incompatible with the presence of airports. This situation restricts use of existing and potential airport capacity.

Communities can help reduce congestion and delays by working with airport sponsors in the following ways:

1. Support needed airport expansion and development;
2. Engage in effective community development planning and zoning to create compatibility between airports and surrounding land use;
3. Identify and implement ways to mitigate adverse environmental impacts associated with airport activity and facilitate/expedite required environmental reviews and approvals of airport development; and
4. Work with airport sponsors, airlines, and the business community to provide adequate funding for airport development.

LAGUARDIA AIRPORT

Mr. Serrano. I would be interested in hearing the views of the witnesses on these questions regarding LaGuardia: What do you think are the elements of a long-term solution to the capacity limits at LaGuardia?

[The information follows:]

There are several key features that I would expect to see in any viable solution.

1. The number of scheduled flights at LaGuardia should be better aligned with capacity.
2. There must be an increase in the efficient use of capacity by increasing the number of passengers carried by each aircraft.
3. If the approach ultimately implemented generates revenue above current levels, that excess revenue should be used to expand transportation access and capacity within the New York area.
4. There must remain some degree of access to the New York market that encourages airline competition and provides service to small communities.

AIRLINE SERVICE TO SMALL COMMUNITIES

Mr. Serrano. How can a market-based system accomplish such public good as giving new carriers access while maintaining incumbents' operations, or ensuring access for small communities?

[The information follows:]

Market-based solutions are the most economically efficient means of allocating scarce resources, such as airfield capacity at constrained airports. Those who value access the most will be willing to pay for access during the most congested times each day. Unfortunately, those most able to pay may not be small carriers, new entrants, or airlines serving small communities. For this reason, it may be necessary to ensure access for some types of carriers, regardless of market value, to address these and other policy objectives, such as service to small communities by exceptions to a general application of a market based system. Such exceptions can take a variety of forms such as granting a base level of gratis access or creation of special small community pricing/allocation procedures.

THURSDAY, MARCH 15, 2001.

AFTERNOON SESSION

WITNESSES

AMR ELSAWY, PRESIDENT, CENTER FOR ADVANCED AVIATION SYSTEMS DEVELOPMENT, MITRE CORPORATION
JOHN HANSMAN, MASSACHUSETTS INSTITUTE OF TECHNOLOGY
GEORGE L. DONOHUE, GEORGE MASON UNIVERSITY
CYNTHIA BARNHART, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

OPENING REMARKS

Mr. ROGERS. The Subcommittee will be in order.

This afternoon, we are returning for a second session on the subject of airline delays and cancellations.

This morning, we had representatives of the major government agencies and associations representing the aviation community and they have told us what they were going to do and be held accountable for over the next few weeks to address the delay problem which has reached epidemic proportions, as you know, in this country.

They gave us five solutions each that they will be working on. We intend to have them back here in this room in five or six weeks to see how they are doing on those five chores that they have set for themselves each.

This afternoon, we want to delve more deeply into an understanding of the delay problem itself, receiving testimony from a group of independent university professors and from Mitre Corporation's Aviation Research and Development Center.

I hope this analysis will help us verify whether or not the items selected this morning are on the right track. Your independent perspective is greatly appreciated.

INTRODUCTION OF WITNESSES

So I welcome the panel today. We will first hear from Mr. Amr ElSawy, the senior vice president of the Mitre Corporation and General Manager of Center for Advanced Aviation System Development; then we will receive testimony from Dr. Cynthia Barnhart and Dr. John Hansman from the Massachusetts Institute of Technology (MIT) and from Dr. George Donohue of George Mason University. And Dr. Donohue has appeared before the Subcommittee before as FAA's head of acquisition and research. The others, I think, are new before the Subcommittee.

We will receive your oral statements in the order that I described and then proceed to questions. We will file your written statement as part of the record and you will be invited to summarize it orally for us as briefly as you can.

Before we proceed, though, let me yield to my colleague.
Mr. Sabo.
Mr. SABO. No opening, Mr. Chairman.

MITRE CORPORATION OPENING REMARKS

Mr. ROGERS. Okay. Mr. ElSawy, the floor is yours.
Mr. ELSAWY. Mr. Chairman, good afternoon, and thank you very much for the opportunity to be here.
What I would like to share with you today is the result of work that was done with the Federal Aviation Administration in collaboration with airlines, airport authorities, air traffic control facilities, the command center. So what you see here is analysis that takes a variety of different perspectives. I will cover three scenarios from actual operations in June 2000, focusing primarily on three areas that we feel really demonstrate some of the causes for enroute delays that you addressed earlier in this morning's session.
And then I will talk about what is happening on the ground and how those two mesh together to provide some clarity on the problem of delays.
This is a picture of the en route centers of the contiguous USA. We heard a lot this morning about the northeast and what is happening with the northeast.
The boundaries that you see on this picture represent the air traffic control center boundaries. Of course, each of those centers is responsible for traffic and for the control of traffic in its boundaries and then as airplanes and users cross those boundaries, then there is communications between the centers.
What I show here are the routes for the Newark arrivals from the west. As I start adding the arrival routes for Kennedy and JFK and LaGuardia, the density of those routes increases quite substantially and it really starts demonstrating the funnelling effect that you heard about this morning in the statements by Mr. Carr.
Now, those are the routes in the system today and those are based upon the existence of ground-based navigational aids. As we start moving towards GPS and more sophisticated navigation systems, you will get some flexibility in those routes and you will start seeing some improvements in the navigational capability for aircraft to take advantage of that increased accuracy. But, even though you are adding flexibility and capacity in the air space, you will still need to be able to land those airplanes and funnel them through the particular airports that they are destined for.
So in fact the first scenario that I want to address, and this was all done in preparation for the establishment of the creation of the NAS Operational Evolution Plan that Administrator Garvey referenced this morning, that strategic plan that starts to look at what are the causes of the delays, what are the basic problems in the system and how do we address them.
I am going to step through this scenario very quickly.
The first problem we characterized as widespread delays resulting from local problems.
What you can see is Newark airport right here and Newark airport has traffic destined for it. Five arrivals show up in the air traffic system more than were expected in Newark and certainly more than the scheduled capacity of Newark at that time.

At that point in time, the New York center notified the Cleveland center that it cannot accept any more arrivals into the Newark airport.

The result is that the Cleveland center begins to hold incoming Newark aircraft further out into the enroute system and you start seeing a propagation of that holding pattern in those areas.

Now, that does not mean that all of those aircraft are going to be delayed. They are simply impacted by that capacity constraint in Newark.

The problems can then cascade in a very short time. As far back as Minneapolis, and Chicago, centers start seeing congestion and, in fact, the problem that started out as an airport demand capacity imbalance quickly translates into a problem of en route congestion because there is simply no more air space available to relieve that congestion.

And so, in fact, what you start seeing in the system, and this is—we discussed this this morning and you heard many discussions about this—the various airports start being affected and the flows from various parts of the country into those airports also start being affected because the air space is congested.

So when talking about capacity and delays, we have to talk not only about the *capacity* of the air space, but also the *flexibility* of the air space to move traffic around. Some of the initiatives related to air space design, and this was one of the commitments that was made this morning, I think is a very, very important element of the solution set that you were starting to ask about.

The air space in the northeast to accommodate and to resolve the choke points is extremely important, the resectorization is extremely important and the staffing associated with those sectors is also extremely important. So I wholeheartedly agree with those commitments.

The second scenario is one that was also raised this morning where this is an example, and everything I am showing you is based upon actual information, it is not simulated, this is actual data that we used to analyze the situation.

On one day, the New York area traffic flows were affected by a very thin line of thunderstorms that persisted over an extended period of time.

The New York area metro traffic was then diverted to avoid the weather and to take advantage of holes in the weather pattern. That in turn started affecting the D.C. metro flows and the other airports that you heard about today like Atlanta and DFW and Houston. And this scenario repeats on a regular basis as you start shifting the traffic flows. There are always aircraft coming into the system and I think Professor Hansman will show you a very clear demonstration of what that looks like.

Even as the controllers in the command centers start shifting that traffic to allow the maximum number to go through, you still are impacting other parts of the system in ways that in fact are pretty clear here.

So, in fact, in Atlanta, you could very well get a delay as a result—if you are going from Atlanta to Minneapolis, for example, or if you are going from Atlanta to the New York area, you would very

much get a delay that is "weather related," but when you look outside the weather is perfectly clear.

So in terms of the communication that we talked about and the information sharing and so forth, this is an example of why timely, shared information is needed.

Also what you can see is that as this scenario develops the density of the traffic in Atlanta and around the northeast becomes very, very high and that is an essential element of some of the improvements that Administrator Garvey talked about in the free flight programs. To, in fact, provide the tools to the controllers to be able to handle that increased level of congestion. That is another component of the commitments this morning that I think was very much valued and exactly right on track.

The third scenario is a little bit different, but just as predictable, and this is what happens in San Francisco. San Francisco has fog on a regular basis. That fog results in essentially a halving of the capacity for the San Francisco airport and, in fact, the result is that the departures and the arrivals cannot come into the airport which then ripples through the system on a regular basis. And that is an example of where some of the technologies are really needed in order to improve the capacity of the airport.

I think there was a commitment made to look at parallel runway monitor technologies as well as LAHSO procedures and things like that and I think those are the kinds of activities, although LAHSO would not help in San Francisco, it certainly would help in other places. Again, so I would agree with that recommendation as well.

So this is what is happening in the air. We are now going to shift gears a little bit and go to what is happening on the ground.

This is an actual simulation of the LaGuardia operation at four p.m. This work is the result of, again, a lot of collaboration with the air traffic control facilities, with the LaGuardia authorities, with the tower controllers, and this is a very high fidelity simulation, so every aircraft, the gates, the taxiways, the runways, and the air space around the LaGuardia airport is very much true to the actual operation, but this is sped up.

It will just take you a minute here to see what is happening in the airport and what you can see are the arrivals coming in from the top, and the departures lining up.

The length of the departure queue that you see is close to a mile. And so you could see a tremendous number of aircraft that are sitting on the runway waiting to depart and it really indicates very clearly how the resource in the airport is so over constrained there is no capacity and there is no flexibility and there is no margin for anything out of the ordinary to happen.

What I showed you here is what happens on a perfectly clear day. You can imagine as conditions deteriorate, as runways are affected by debris or other issues how the capacity of LaGuardia becomes severely affected.

So we asked the question, so what is the impact of one airport or any number of airports on the rest of the system? And, again, we took some actual data, we looked at delayed flights as defined in the airline service quality performance data and actually "flew" the system on an airframe by airframe basis and this is what it looks like.

So in the morning, this is an example of LaGuardia, and I am only using LaGuardia to illustrate a set of the points that we discussed today. Out of 34 airports early in the morning, 204 flights are destined to go to LaGuardia. Conditions at LaGuardia are such that 144 of those flights are delayed. Seventy-one percent of the flights going into LaGuardia get affected.

At LaGuardia, there are other flights that are sitting ready to take off and so the 204 that came in plus an additional 34 that were already at LaGuardia start getting ready to take off. They also are delayed. The percentage of the delay there, this is the first leg now out of LaGuardia to 37 other airports and you can see that the percentage of delay there increases to 77 percent.

Those aircraft that have now arrived on their first leg are now preparing for the second leg and they move to 62 other airports. You could see the percentage delays there are not much better, 69 percent. And then finally, in the third and fourth leg of the system, by the end of the day, you have affected essentially 74 airports and the percent delay in the system has not changed substantially because we are now still operating with that delay, that resource that is common gets used over and over and over again as part of the system strategies that the airlines are using and therefore you see that effect propagate through the system.

Now, this is on a day where things were bad, but they were not bad enough for a lot of cancellations to be there. So as a result, what you can see here is that—and we have done this for the seven top airports that you were asking about earlier today, both on good days and on bad days.

On a good day, you see a very interesting effect, which is that if LaGuardia's delays are reduced by 20 percent, then you see a very quick dampening effect in the other airports, so the effect is not as great.

All this points to the plan that Administrator Garvey referred to where we basically looked at the four basic problems in the national airspace system, en route congestion, arrival/departure throughput, airport weather conditions and en route severe weather, and we have identified solutions in each of those areas that are agreed to by the community. We are working with the airlines, with the general aviation community, with the controllers as well as with the pilots to put together a set of solutions that make sense and that people will think will start addressing the problem.

None of these are easy by themselves and will require the commitment that I think, Mr. Chairman, you expected this morning and also will require a great deal of consistency in the execution of these plans.

One of the areas that did not come up this morning as a recommendation and I would certainly think it is very important is that when you start thinking about the new technologies that need to be introduced into the system, not only from the air traffic control side but also from the airframe side, the aircraft themselves need to be equipped to be able to meet the higher standards of required navigational performance and required communications performance.

As we start talking about adding flexibility, as we start talking about adding precision to the way that we fly and to the way that

the aircraft use the system, we also need to incentivize the accelerated implementation of avionics that can support that. And this is one of those areas that can in fact start leveling the playing field a little bit in terms of the capabilities of the various aircraft, small and large, and also provide the controllers with the ability to manage the system in a more effective way.

With that, I will take any questions you may have. Thank you for your time, sir.

[The prepared statement of Mr. ElSawy follows:]

"THE ANATOMY OF DELAYS" PRESENTATION SCENARIOS

AMR A. ELSAWY
HOUSE APPROPRIATIONS COMMITTEE
SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES
HEARING ON AIR TRAFFIC DELAYS

15 MARCH 2001

Mr. Chairman, thank you for inviting me to appear before your Committee. My name is Amr ElSawy and I am a Senior Vice President and General Manager of the MITRE Corporation. I am also the Director of MITRE's Center for Advanced Aviation System Development (CAASD), which is the FAA's Federally Funded Research and Development Center (FFRDC).

Although delays often occur in the National Airspace System (NAS), it is not always easy to diagnose the causes that contribute to those delays. The following scenarios illustrate how seemingly small, localized problems can rapidly expand across the country.

The scenarios illustrate the interdependence of the resources in the National Airspace System (NAS) and the impact of loss of flexibility or "buffering capacity" on the overall system performance. The data used in all the scenarios is based on actual events and are part of the analysis used to develop the NAS Operational Evolution Plan.

The first scenario occurs on a clear weather day, the second and third scenarios show the impact of weather conditions in the en-route and airport specific basis.

The second scenario illustrates how severe weather impacting a major traffic flow can ripple across the country, including areas where weather is not a factor.

The third scenario shows how severe weather conditions at San Francisco Airport can also have a system wide effect.

Finally, I will show you how, inter-dependent and connected the nations airports are. I will use a high-fidelity simulation of the Laguardia Airport to link what is occurring in the air to capacity on the ground.

Scenario A -- Widespread Delays as a result of "Small" Localized Problems

19:35 Zulu Time: On a clear weather day, the capacity for the Newark airport runway configuration in use is 45 aircraft per hour. Five more aircraft arrive. A demand/capacity imbalance occurs. The Terminal Radar Approach Control (TRACON) in New York and the New York Air Route Traffic Control Center, begin to hold aircraft in their airspace. They have limited room to hold aircraft and when that limit is reached at 19:40Z, New York Center notifies Cleveland Center that it can not accept any more Newark arrivals until the existing queue is reduced.

19:40Z: When Cleveland Center is notified by New York Center that it can not hand off EWR traffic to New York any longer, it must put those aircraft into holding patterns.

Because Cleveland Center has no room to accommodate EWR traffic other than what is already in the center, it immediately notifies Indianapolis and Chicago Centers that it is no longer accepting EWR bound traffic.

The EWR arrivals are held in Cleveland, Indianapolis, and Chicago Centers at their en route cruise altitudes.

19:45Z: Nine (9) EWR arrival aircraft are being held in Cleveland Center and three (3) EWR arrivals are being held in both Indianapolis and Chicago Centers. The holding begins to affect not only the non-EWR bound aircraft at the holding altitudes, but also all the other aircraft in those sectors and surrounding sectors.

19:50Z: Chicago Center stops accepting additional EWR arrivals from Minneapolis Center. Other centers (e.g., Kansas City and Atlanta) will also be affected as time goes on with the impact rippling to the west coast in a short time. All of this is in clear weather conditions.

So, as a result of a very small demand/capacity imbalance, the short 5 to 10 minute no-notice hold in a congested airspace, impacted an estimated 250 aircraft in addition to the EWR arrivals in less than 20 minutes.

Scenario B – Congestion Due to En-Route Severe Weather

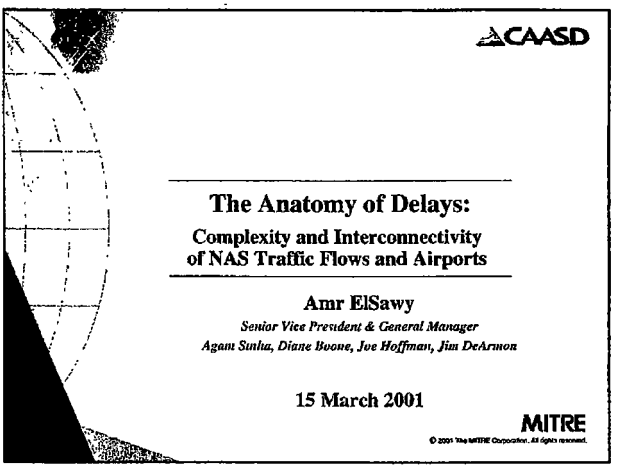
This scenario begins with identification of a problem with the New York area arrival flow penetrating the storm line that crosses Cleveland Center.

The New York area arrival flow is rerouted south into Indianapolis Center behind the most severe part of the thunderstorm line. In order to address the congestion, the New York area arrivals receive restrictions to reduce the flow. Additional reroutes occur for other traffic flows. Washington D.C. arrivals from the south and west are rerouted out of Indianapolis Center into Atlanta Center. Atlanta Center also already had its airspace full with the traffic planning to fly their normal routes. The Washington D.C. metro adds to congestion over the Atlanta airport and begins to affect departures out of Atlanta. The Washington D.C. metro traffic departing Dallas and Houston are also restricted to balance the traffic mix across the airspace among the competing traffic flows.

In addition to showing the "domino" effect that rerouting major traffic flows has on the NAS, this scenario also illustrates how weather delays can occur for flights that have clear weather along their routes.

Scenario C – Capacity Reduction Due to Airport Weather Conditions

In this scenario the capacity of the San Francisco airport is severely reduced as a result of fog. The conditions result in arrival/departure throughput constraints, which in turn translate into en route congestion in the surrounding airspace.



Agenda

- Three scenarios from actual operations in June 2000
  - A. Widespread delays resulting from local problems
  - B. Congestion due to en-route severe weather
  - C. Capacity reduction due to airport weather conditions
- Airport Connectivity

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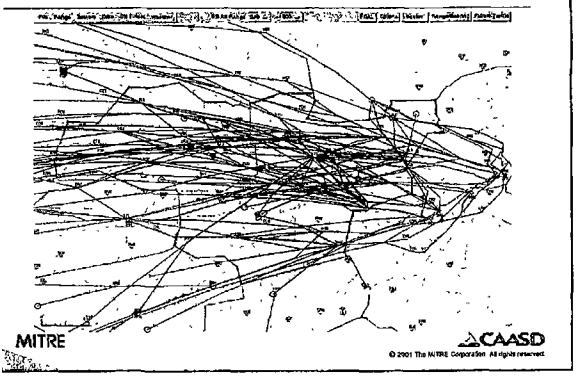
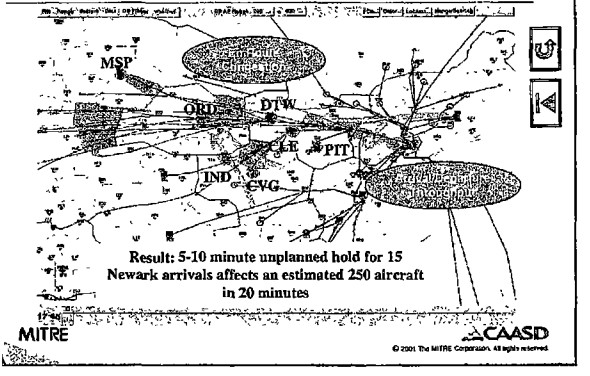
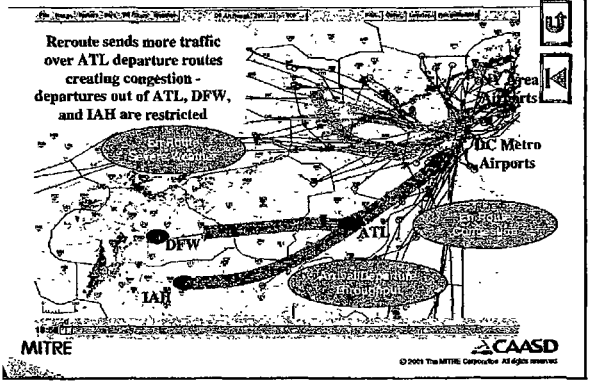
New York Area and DC Metro Arrival Routes from the West



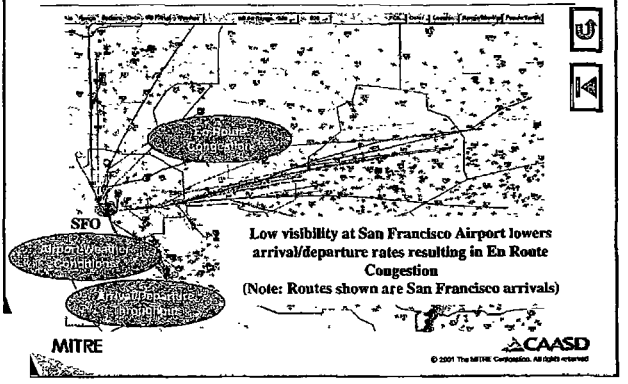
A) Widespread Delays Resulting from Local Problems



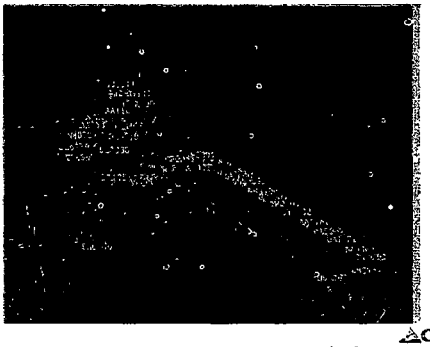
B) Congestion Due to En Route Severe Weather



C) Capacity Reduction due to Airport Weather Conditions



LGA Operations (1600 EDT)



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Airport Connectivity Analysis

- Selected Friday, December 22, 2000 as a sample delay day — delay in the NAS was high, yet cancellations were low
- Airline Service Quality Performance (ASQP) data were used
- "Delayed" flights defined as flights with 15 minutes or more delay against scheduled "gate-in" arrival time
- Airframe connectivity determined using aircraft tail number

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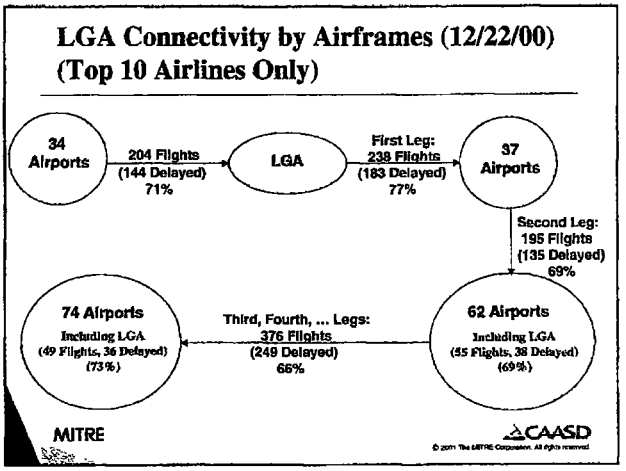
LGA Connectivity by Airframes (12/22/00)
(Top 10 Airlines Only)
34 Airports
204 Flights
(144 Delayed)
71%
LGA
First Leg:
238 Flights
(183 Delayed)
77%
37 Airports
Second Leg:
195 Flights
(135 Delayed)
69%
62 Airports
Including LGA
(55 Flights, 38 Delayed)
(69%)
Third, Fourth, ... Legs:
376 Flights
(249 Delayed)
66%
74 Airports
Including LGA
(49 Flights, 36 Delayed)
(73%)
MITRE
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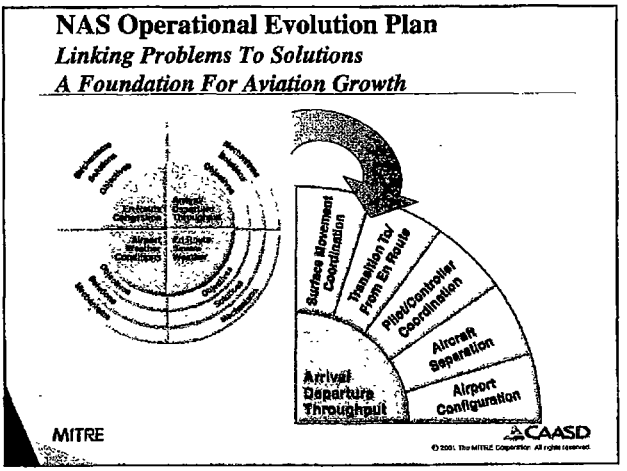

NAS Operational Evolution Plan
Linking Problems To Solutions
A Foundation For Aviation Growth
Surface Movement Coordination
Transition To/ From En Route
Pilot/Controller Coordination
Aircraft Separation
Airport Configuration
Arrival Departure Throughput
MITRE
CAASD

Committee on Appropriations (Transportation)

Witness Disclosure Requirement - "Truth in Testimony"

Required by House Rule XI, Clause 2(g)

Your Name: AMR Ecstony		
1. Are you testifying on behalf of a Federal, State, or Local Government entity?	Yes	No
2. Are you testifying on behalf of an entity other than a Government entity?	Yes	No
3. Please list any federal grants or contracts (including subgrants or subcontracts) which you have received since October 1, 1999: - Contract with FAA		
4 Other than yourself, please list what entity or entities you are representing: The MITRE Corporation		
5. If your answer to question number 2 is yes, please list any offices or elected positions held or briefly describe your representational capacity with the entities disclosed in question number 4: Sr. VP and General Manager		
6. If your answer to question number 2 is yes, do any of the entities disclosed in question number 4 have parent organizations, subsidiaries, or partnerships whom you are not representing?	Yes	No
7. If the answer to question number 2 is yes, please list any federal grants or contracts (including subgrants or subcontracts) which were received by the entities listed under question 4 since October 1, 1999, which exceed 10% of the entities revenue in the year received, including the source and amount of each grant or contract to be listed: - Contract with FAA # 63M in 1999		
Signature: [signature] Date: 05/15/01		

MITRE

Amr A. ElSawy
Senior Vice President & General Manager
Center for Advanced Aviation System Development
(703) 883-7824
Fax (703) 883-6809

Mr. Richard Efford
House Appropriations Subcommittee on Transportation

Dear Rich:

Please add the following information to the disclosure statement I signed yesterday prior to my testimony.

Federal contracts with MITRE/CAASD since 1 October 1999:

FAA

Contract # DTFA01-93-C000001
FY'00 Value $ 72,323,434

FY '01
Contract DTFA01-01-C-00001
FY '01 Value $80,000,000

NASA

Contract # NCC-2-1207
Award Date 11/01/00
FY'00 Value $144,458

FCC

Contract # CON00000022
Aware Date 9/15/00
FY '00 Value $498,418

Contract # FCC01-14
Award Date 01/09/01
FY '01 Value $250,000

Thank You.
03/16/01

The MITRE Corporation
1820 Dolley Madison Boulevard
McLean Virginia 22102-3481

MIT PROFESSOR BARNHART OPENING REMARKS

Mr. ROGERS. Thank you very much. Dr. Barnhart.

Ms. BARNHART. Let me begin by saying thank you for the opportunity to talk to you today. I have prepared a short presentation to describe some of the work that is going on at MIT under the umbrella of the Global Airline Industry Program, which is a new program we have. It is about a year and a half old, funded by the Alfred P. Sloan Foundation, and this is just one of the many research activities that we are undertaking.

In this presentation I am going to describe some of the work we have done in looking at airline flight delays and cancellations and I think importantly the impact on passengers. So let me begin with some simple statistics.

If you take a look at the delays experienced by aircraft over the time period from 1995 to 2000, you see that the percentage of flights that are arriving later than scheduled is not changing all that much in this timeframe. So you see in 2000, the percentage of flights arriving late is about 50 percent, not so different from the previous years.

You go a little bit further and you look at the average delay experienced by flights that are being operated, you see again something that might be somewhat surprising. In 1995, the average delay was six minutes; in 2000, it has increased, but to an average of 10 minutes per flight.

Let us take one more look at a statistic and here we are looking at the on-time performance as defined within 15 minutes of scheduled arrival time. And here you see that from 1995 to 2000, on-time performance has worsened, but it is still showing that over 70 percent of flights in 2000 are on time.

So the question we asked was why, then, if you look at these statistics are passengers so disgruntled?

And our response is that simple statistics are misleading. They do not tell the whole story. The statistics that I just presented talk about aircraft delays, but there is not a direct correlation between aircraft delays and passenger delays, so let me give you a couple of slides here that try to explain as you delve more deeply into this why aircraft delays seem to be somewhat controlled while passenger delays are growing at a much quicker rate.

So here what I show is if you contrast 1995 and 2000 and you look at the number of flights that are delayed, you will see that there is a shift from flights experiencing short delays, that is, 15 minutes or less, to flights experiencing long delays, more than 45 minutes.

So you see that between 1995 and 2000, the number of flights delayed more than 45 minutes is almost doubling. And you further see that the total minutes of delay associated with those flights, these long-delayed flights, is increasing rapidly.

Now, why is this important?

Well, it is important because it has really critical effects on what the passenger experiences, so what I have done here is I have put a summary chart and we have taken data provided by the ASQP that shows both the scheduled flights on a given day and the actual schedule for those flights.

As part of this Global Airline Industry Program, we have gotten data from one of the major airlines in the U.S. that shows their passenger demand data for that day. And what it shows is that although on average aircraft arrived early, the average passenger delay was 25 minutes.

So the question is how can this be, that aircraft on average arrive early but passenger delays are 25 minutes?

And the key to understanding this is to look at the mix of passengers, the local passengers and the connecting passengers.

A local passenger who flies on a single leg, the delay they experience is much more closely related to the delay the aircraft experiences, so they experience here an average 10-minute delay.

Well, you might ask, why do they experience any delay at all on average when the average flight delay is negative?

And the answer to that question is that there are cancellations in the system and when you compute average delay minutes for the aircraft, canceled flights do not come into the calculation, but they do for the passenger because when their flight is canceled then they have to be reassigned. Their arrival time can be delayed significantly.

Now, if you take a look at the purple bar here, you see the average delay for the connecting passengers is more than 30 minutes and what is happening here is that as you shift from the shorter delays to the longer delays, more and more passengers miss their connections, and so although the flight they were supposed to connect to might have arrived on time they are not on it and they have to wait until the next flight or, with these increasing load factors, perhaps even the flight after that before they are able to finally get to their destination. So you see that the delay experienced by the aircraft can be very different from that experienced by the passenger.

Another important point to look at is canceled flights. Again, because the delay experienced by passengers is a function of canceled flights, we took a look at this and what we found was that from 1995 to 2000, the cancellation rate increased significantly. And as we delved a little more deeply, we found that there are two things to look at here: the green plot and the blue one.

The green one represents the cancellation rate starting at about 1 percent in 1995 to about 4 percent in 2000 for all the major U.S. airlines except Southwest.

Southwest is the bottom blue line. That shows that from 1995 to 2000, their cancellation rate has been maintained at a pretty constant rate of about 1 percent.

So the question that arises here is why this difference?

And so we took a look at hubs and what we found was that if you look at the hubs for the various large airlines and you compare the cancellation rate in 1995 with that in 2000, you see that there has been a tremendous increase in the rate of flight cancellations. And so this phenomenon at the hubs has resulted in an increase in flight cancellations for the major airlines using these hubs.

So let me just summarize that what we are finding with this work is that the simple statistics that measure aircraft delays are not adequate to measure passenger delays because there is the issue that passenger delays can outpace aircraft delays, sometimes

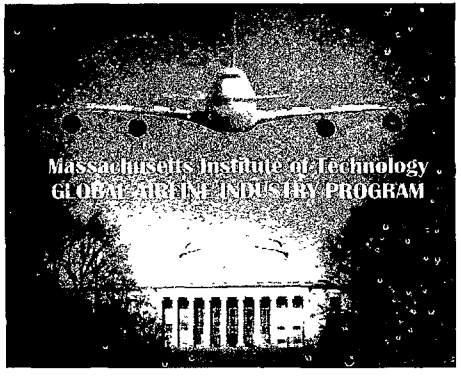
significantly, especially as the number of connecting passengers increases, as cancellation rates increase and as load factors increase, and so managing passenger delays and congested hub and spoke networks can be especially challenging.

As part of our work, we will further investigate the impacts of these various network structures and schedules on both aircraft and passenger delays.

Thank you.

[The prepared statement and biography of Ms. Barnhart follows:]

National Trends in Airline Flight Delays and Cancellations, and the Impact on Passengers

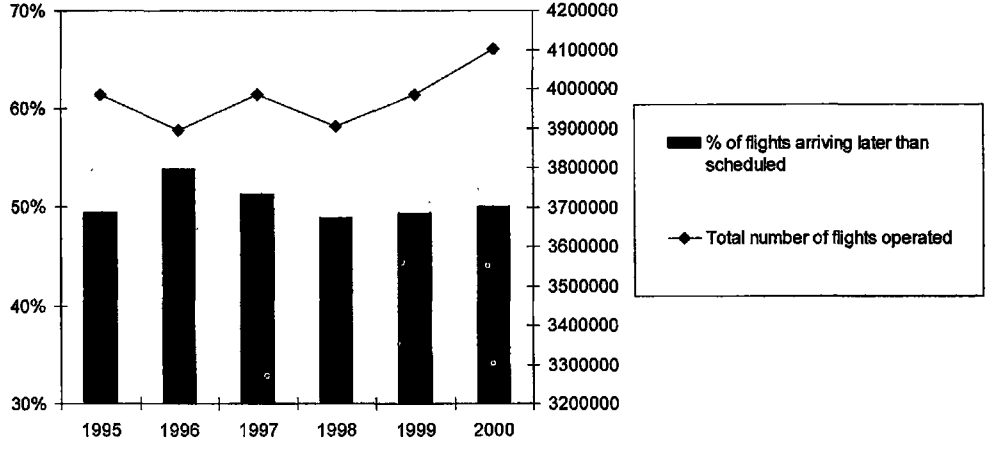


Cynthia Barnhart (cbarnhar@mit.edu)
Stephane Bratu (sbratu@mit.edu)
Massachusetts Institute of Technology
Global Airline Industry Program

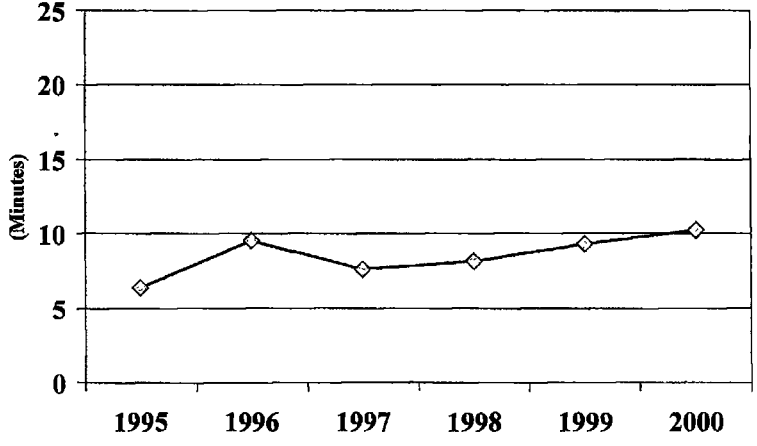
March 15, 2001

Some Simple Statistics …

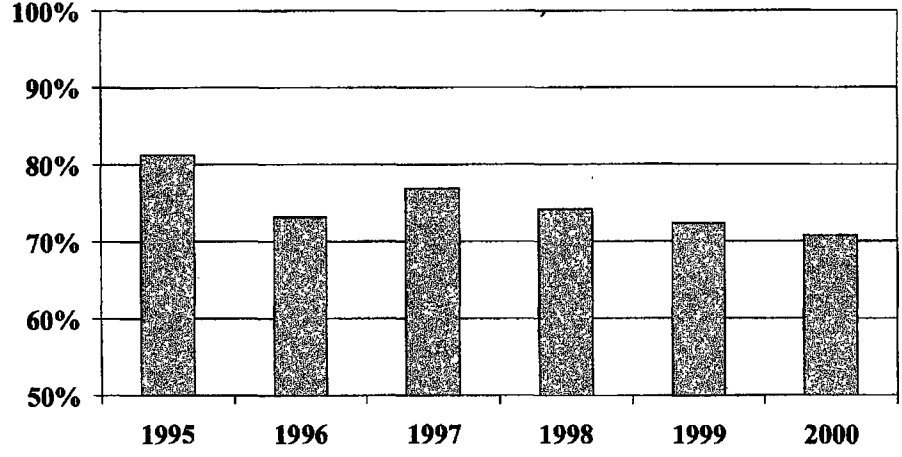
Number and Percentage of Delayed Flights



Average Delay Duration of Operated Flights



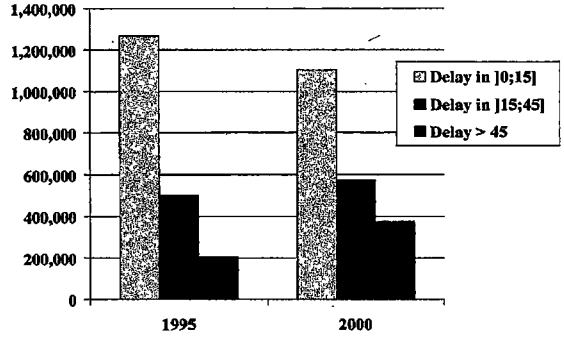
15-minute On-Time Performance



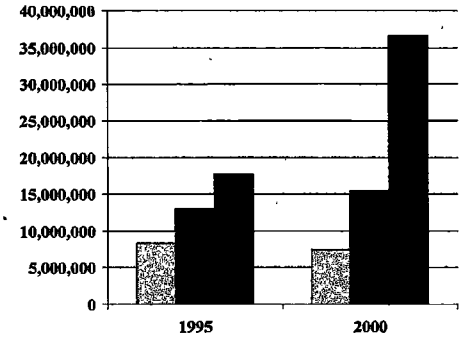
Why are Airline Passengers so Disgruntled?

Simple statistics are misleading...

Factor #1: Shift to Longer Flight Delays



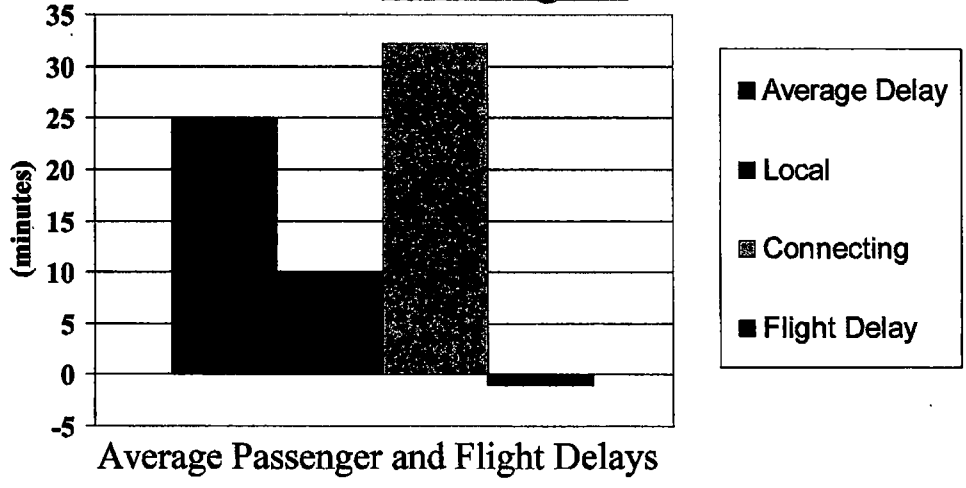
Number of Delayed Flights



Total Delay Minutes

The delay distribution has shifted from short to long delays

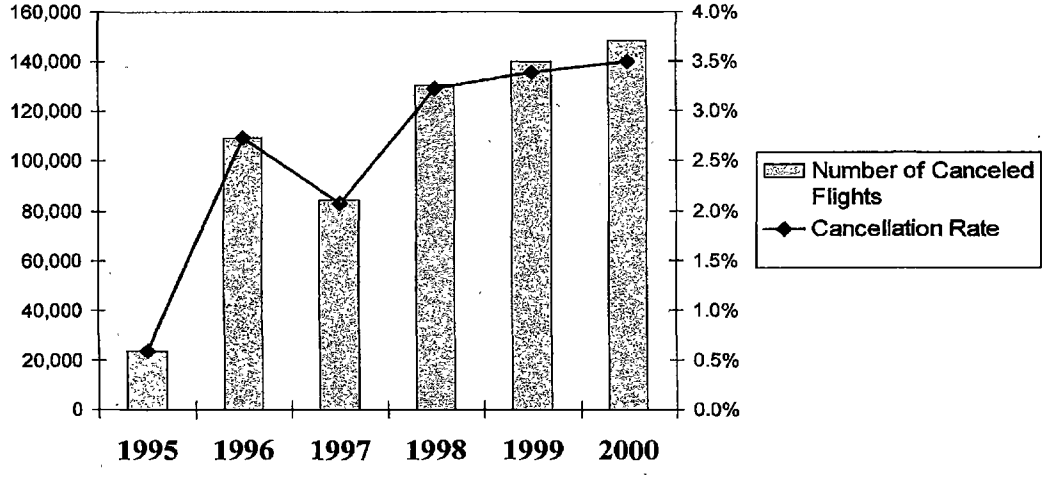
Factor 2: Percentage of Connecting Passengers



Average Passenger and Flight Delays

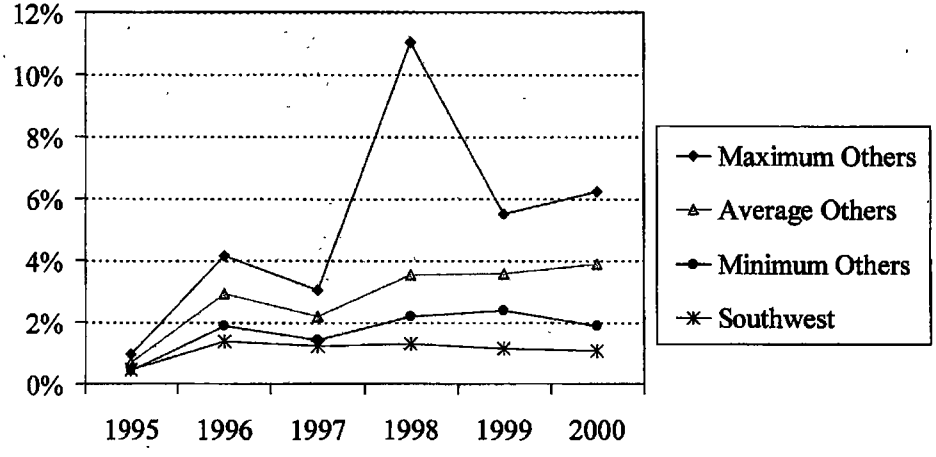
- Flight delays underestimate passenger delays
- Key explanation lies in the connecting passengers

Factor 4: Number of Canceled Flights and Cancellation Rates



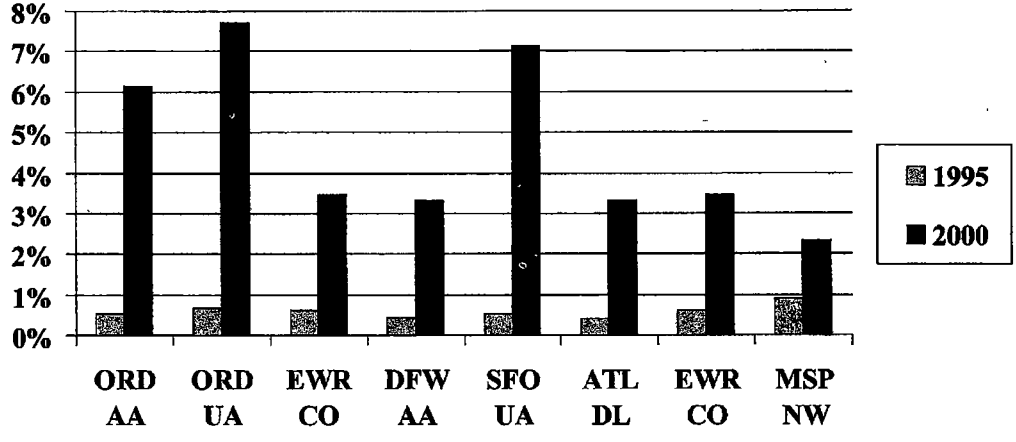
- Delay duration statistics do not consider cancellations

Cancellation Rate: Southwest and the Other Majors Airlines



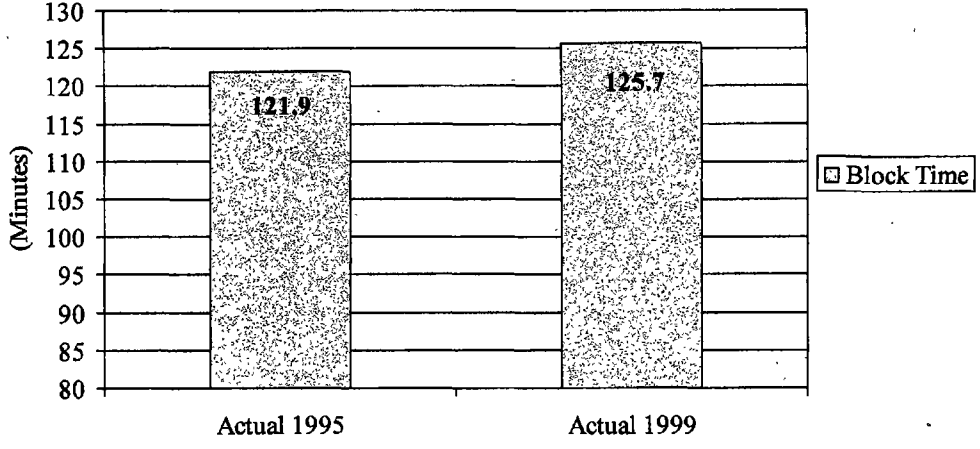
- Southwest has a lower cancellation rate than any other Major from 1995 to 2000 due in part to increases in cancellation rates at some congested hubs

Hub Cancellation Rates



In Fact, Delays are Worse than We Know…

Flight Operations Statistics; 1000 Most Frequent Routes



- Block time = taxi-out + airborne + taxi-in
- If 1995 block times had been scheduled in 1999, delays would have been even worse

Summary

- Simple statistics measuring aircraft delays are not accurate proxies for passenger delays
- Passenger delays can outpace aircraft delays significantly
  - as the number of connecting passengers increases
  - as cancellation rates increase
  - as load factors increase
  - ➢Managing passenger delays in congested hub-and-spoke networks is especially challenging
- Next steps: further investigate the impacts of various network structures and schedules on aircraft and passenger delays

Cynthia Barnhart

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E-mail: cynthia_barnhart@mit.edu

Education:
B.S., University of Vermont (1981)
S.M. (1985) / Ph.D. (1988), MIT

Bio/ Research Overview:

Cynthia Barnhart is an Associate Professor in the Civil and Environmental Engineering Department and serves as Co-Director of the Operations Research Center. At MIT, she has developed and teaches courses including Transportation Systems Analysis, Optimization of Large-Scale Transportation Systems and Airline Schedule Planning. Her research activities have focused on the development of planning models and algorithms to improve carrier operations, particularly airlines. Her work has been published in several books and scholarly journals. She has served as an Associate Editor for ***Operations Research*** and ***Transportation Science***, as a Board member for INFORMS, and as a liaison between the INFORMS Transportation Science Section and the INFORMS Aviation Applications Special Interest Group. She has been awarded the Mitsui Faculty Development Chair, the Junior Faculty Career Award from the General Electric Foundation and the Presidential Young Investigator Award from the National Science Foundation.

Professor Barnhart joined the MIT faculty as an assistant professor in 1992, was promoted to associate professor in 1995 and received tenure in 1998. She did undergraduate work at the University of Vermont and graduate work at MIT, where she received the M.S. in Transportation in 1985 and the Ph.D. in 1988. Professor Barnhart was an assistant professor at the Georgia Institute of Technology in the School of Industrial and Systems Engineering from 1988-92 before returning to MIT.

Committee on Appropriations (Transportation)

Witness Disclosure Requirement - "Truth in Testimony"

Required by House Rule XI, Clause 2(g)

Your Name: Cynthia Barnhart

1. Are you testifying on behalf of a Federal, State, or Local Government entity?	Yes	(No)
2. Are you testifying on behalf of an entity other than a Government entity?	(Yes)	No

3. Please list any federal grants or contracts (including subgrants or subcontracts) which you have received since October 1, 1999:

September '00 - present: NSF project on Transportation / Logistics

4. Other than yourself, please list what entity or entities you are representing: M.I.T.

5. If your answer to question number 2 is yes, please list any offices or elected positions held or briefly describe your representational capacity with the entities disclosed in question number 4:

Associate Professor, Civil & Environmental Engineering
Co-Director, Operations Research Center
Co-Principal Investigator, Global Airline Industry Program

6. If your answer to question number 2 is yes, do any of the entities disclosed in question number 4 have parent organizations, subsidiaries, or partnerships whom you are not representing?	Yes	(No)

7. If the answer to question number 2 is yes, please list any federal grants or contracts (including subgrants or subcontracts) which were received by the entities listed under question 4 since October 1, 1999, which exceed 10% of the entities revenue in the year received, including the source and amount of each grant or contract to be listed:

Signature: Cynthia Barnhart Date: 3/15/01

MIT PROFESSOR HANSMAN OPENING REMARKS

Mr. ROGERS. Thank you. Dr. Hansman.

Mr. HANSMAN. Before I start with the comments, I thought I would show you this movie which to me is the nicest illustration of the dynamics of the U.S. system.

This is a depiction of traffic in the U.S. from real data on a particular day, I think it was in April. It is 24 hours of traffic. When I start the movie, hopefully we will get it starting, you are sort of late in the day here and you can see traffic flowing into the hubs such as Chicago, New York and whatever.

We are going to go into the overnight time, you will see the traffic will die down. You can actually see traffic going into the cargo hubs, Memphis and Louisville.

About this time, this is late in the night, you can see the traffic going out of the cargo hubs to the East Coast.

And look very carefully, here at dawn you can see this blossoming of traffic on the East Coast and a wave of traffic moving across the country until——

About here you are sort of midday U.S. where we have about 5500 airplanes in the air being controlled at any one time.

So you can see that this is a very dynamic system, a tightly coupled network, where any interruption is going to propagate into the system.

Now, let me go to the slides.

So what is the U.S. capacity issue?

Our transportation is approaching—this is my position—a critical saturation threshold where nominal interruptions such as weather result in a non-linear amplification of delay. The U.S. and regional economies are highly dependent on air transportation for business, freight and personal travel.

The system is sufficient complex and interdependent that I would argue that nobody really fully understands the dynamics of the system and we need to better understand it to guide and justify the efforts to upgrade the system.

I will try and show you that the current efforts will not provide sufficient capacity to meet demand and we really do not understand the impact, both in terms of its operational impact and economic impact.

This just shows you the same thing. We have been too successful in our air transportation system. This shows you the growth over the last 40 years in traffic demand.

If you look at the classic queuing model, delay versus demand curve, this is demand here, this is delay, we are starting to approach the capacity limit. And when you do that, a small increase in demand results in a large increase in delay, so you can think of this as a particular airport in the system, particularly the hub airports, or it could be the overall system. And really what is going on with the hub and spoke system is you are getting peak problems in the capacity demand.

The delays are getting worse. I will not spend a lot of time talking about this, you have heard that today.

I want to tell you a little bit more about the national airspace system and air traffic control. Air traffic management is not really a designed system, it is an evolved system.

Air traffic management, the way we practice it today, is really a contract process where we negotiate for air space and airport service resources. It has evolved over 60 years. The system has local adaptations which make it non-homogeneous, and as a result, air traffic in New England is actually very different from air traffic in the middle of the U.S. Controllers cannot easily switch sites. It takes three to five years for a controller to be trained at a new site.

Another thing to remember is that major operational changes in the system were actually driven by crises coupled with technical capability, so positive radar control was the result of a collision over the Grand Canyon in 1956 and TCAS was a result of a collision in Cerritos, California in 1982. There is an interesting question as to what will be the impetus to cause us to really go to a different paradigm in our system.

If you look at the overall capacity of the system, there are factors which limit capacity. In terms of the airport, the capacity is limited by the runways, the gates, land side limits and the weather affects the capacity. The air space is also a factor and Amr talked a little bit about it, the air space design is an issue. Controller workload is an issue in what I call Balkanization here.

Air space was originally really organized under a sort of independent strategy where each air space unit could really be controlled and operated independently and as the system has become more tightly coupled, we now have issues that show up when you have problems that propagate across air space boundaries.

The demand has grown by the hub and spoke and we have a hard time increasing our runway capacity due to environmental problems, particularly noise.

I just want to take you through why airlines do a hub and spoke system.

If you were an airline and you wanted to run a network, this is a simple example of a 50-airport network. If I have hub and spoke, I can fly through the entire network with two times the total—N minus one flights, which means for 50 airports, I can cover the network with 98 flights.

If I wanted to cover that entire network with direct flights, it would take N times N minus one, so it would take me 2450 flights to cover the same network.

So from an airline standpoint, it is very efficient to fly the hub and spoke. And what this really means to the traveling public is that the airlines can justify service into weak markets that they could not otherwise justify if they had to do it in point-to-point.

If we look at the airport system in terms of its capacity limits factors in more detail, the way we view it is you can think about the airport and the way airplanes flow through the airport so they flow in through an entry fix, through the arrival fixes, they share runways, taxiways and ramp resources, and then they turn at the gates and then become departures on the outbound.

The constraints, the number one constraint is runways, which is a major factor for both safety reasons and environmental reasons. The runway capacity varies with weather and I think you heard

that this morning, which is a major issue. If you were to resolve the runway problems, we actually have a shortage of gates in many airports in the U.S.

The big problem, and Amr showed you an example, is that downstream constraints, constraints at other airports, actually back propagate to the runway and we hold airplanes on the runway because of problems at other airports.

The controller workload is actually a limiting factor and we see this. There are problems in the land side limits. It is interesting, for example, at Newark, the constraint on departure capacity for Continental Airlines is actually how many cars they can get through the terminal in front of them.

Environmental constraints and safety are real issues. One of the problems is that we really do not understand we do not know how to do the safety versus capacity tradeoff. If I am going to increase the capacity of the system without adding any more resources such as runways, inherently I am going to have to have the airplanes fly closer together and we really do not know how to look at that. So let me give you one example in terms of radar separation.

The radar separation assurance can be thought of this way. I have an airplane and there is some real hazard zone around the airplane. If I go in here, I hit the airplane.

The purple area here is uncertainty as to where that airplane is due to my surveillance, due to my radar performance.

The minimum separation standard is here as a dashed line and the difference between the separation standard, for example, en route separation is five miles and the radar performance is what I call the procedural safety buffer.

Now, it turns out, outside of that minimum separation standard is an additional personal safety buffer that the controllers will add because they get violated if they go within the minimum separated standards, so because they cannot perfectly control the situation, they are going to add some buffer.

Now, the interesting thing is if you look at the performance of the radars, the en route radars, when these standards were set up in 1950 at five-mile radar separation, the performance of the radar was only about four and a half miles uncertainty, so there was significant uncertainty in terms of the position of the airplane.

Now, the radars have gotten significantly better. They have gotten better by about a factor of two. So you would think that we have taken advantage of the technology, but in fact we have not. This is again a cartoon. Here are the radar separation standards in the 1950s. The surveillance has gotten better, but what we have done is we have used the increase in the procedural safety buffer to improve the effective safety buffer in the system. Because we never designed this in, this was not an engineering factor, we do not really know what is in here, we do not really know why people are using it, so it becomes very hard to say close up the separation and, in fact, we really have no process for closing the separation.

What can you do against the capacity shortfall?

Well, let me say that there is talk about full or partial privatization. That may improve modernization costs and strategic management. It will not really make a significant impact on capacity. You can re-regulate or do peak demand pricing to control the demand.

That will reduce the service to weaker markets. You need to make sure that the monies received from peak demand pricing are going to go into improving capacity.

You can run the system tighter which requires improvements in the communications navigation surveillance that Amr talked about. However, you have to figure out how to do the safety versus capacity tradeoff.

You can build more capacity, but that has problems with local community resistance.

You can look at multi-modal transportation, but that is something we have not done very effectively in the U.S.

So the conclusion is the technology in the pipeline will have limited impact on the peak capacity of currently stressed airports, I say 20 to 40 percent optimistically, this is way optimistic. The system is currently capacity restricted.

Airlines will ultimately schedule in response to the market demand, but they will schedule to tolerable level of delay from their own operations. It is a phenomena we call delay homeostasis.

There will be increased traffic at secondary airports. For example, in my area, Manchester, in Providence, they are seeing increased demand, but the high value passengers still are demanding high frequency service.

You probably know the average size of airplanes for the large air carriers has gone down by about 10 percent in the past few years.

Overall system response not clear. We need more runways. We need new air traffic management paradigms and ultimately we need forcible leadership to convince people to make the changes, which is very hard. There are a lot of people who will fight the changes, but we need that unless we want to live with the capacity of the system as we currently have it.

Thanks.

[The prepared statement and biography of Mr. Hansman follows:]

The Dynamics of the Emerging Capacity Crisis in the US Air Traffic Control System

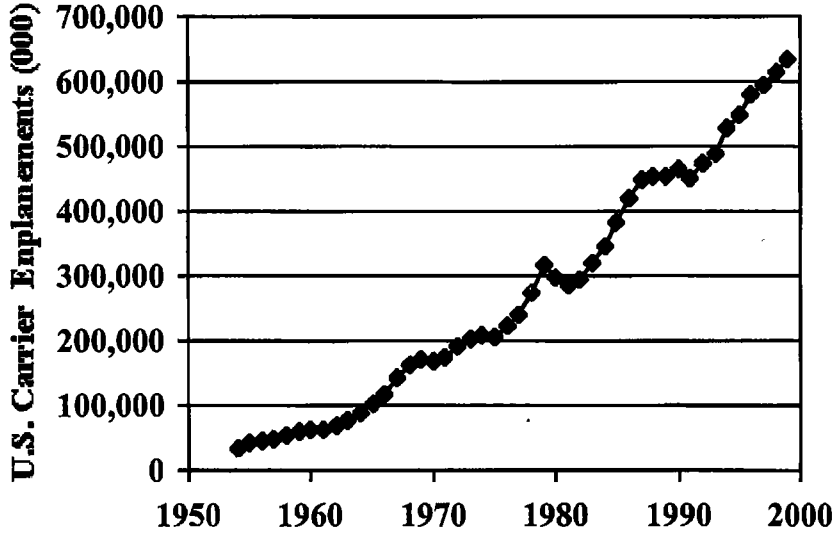
Prof. R. John Hansman
MIT International Center for Air Transportation
Department of Aeronautics & Astronautics

rjhans@mit.edu 617-253-2271

US Capacity Issue

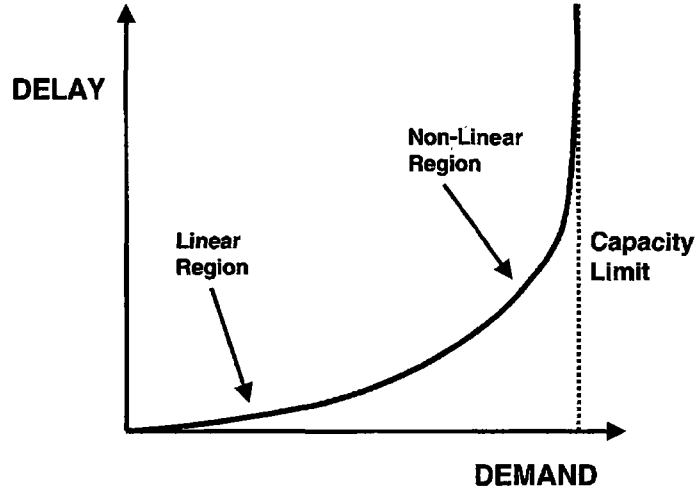
- **The US Air Transportation system is approaching a critical saturation threshold where nominal interruptions (e.g. weather) result in a nonlinear amplification of delay**
- **US and Regional Economies highly dependant on Air Transportation**
  - ❑ Business travel (stimulated by info technology)
  - ❑ Air Freight
  - ❑ Personal travel
- **System is highly complex and interdependent**
- **Need better understanding of system dynamics and real constraints to guide and justify efforts to upgrade NAS**
- **Current efforts will not provide capacity to meet demand**
- **Impact of upcoming capacity crisis is not well understood**
  - ❑ Operational Impact
  - ❑ Economic Impact

Increased Traffic Demand

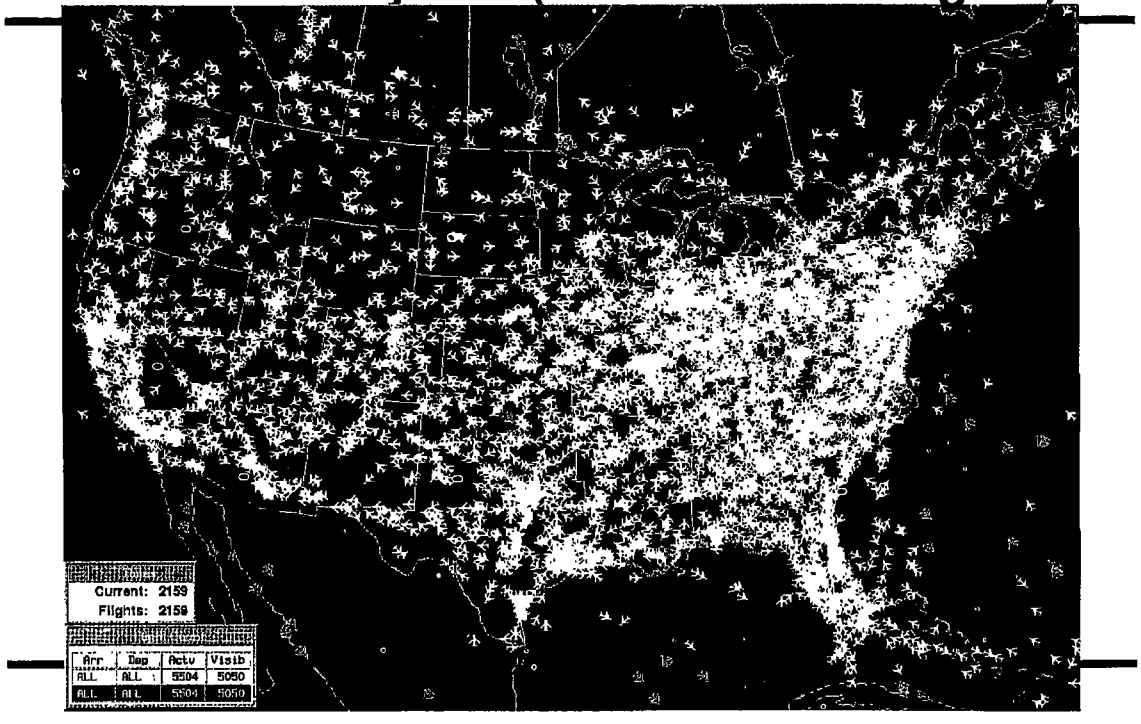


Source: BTS Historical Annual Air Traffic Data

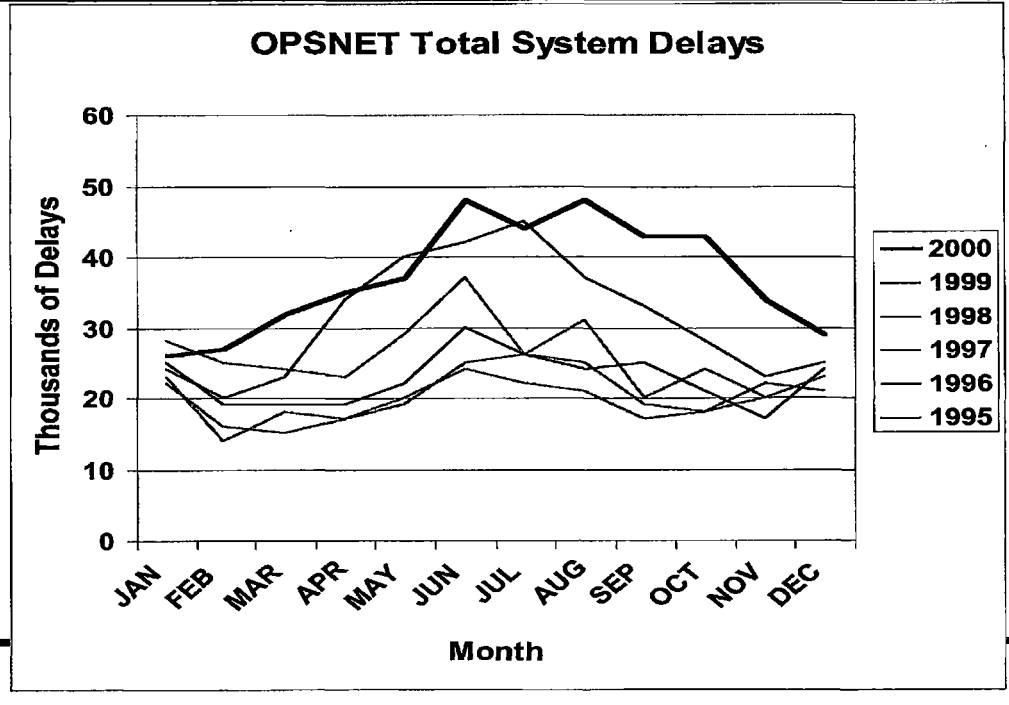
Classic Delay vs Demand Curve



Typical US Traffic Situation
Daytime (5500 Tracked Flights)



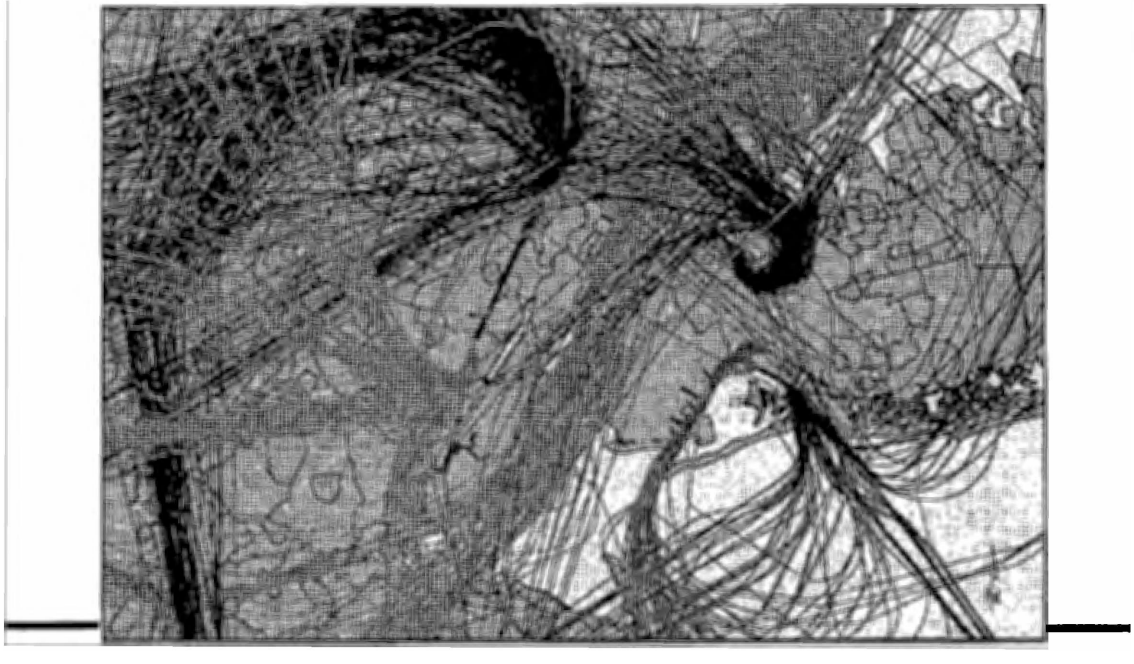
Delays in 2000 Are Worse Than In 1999



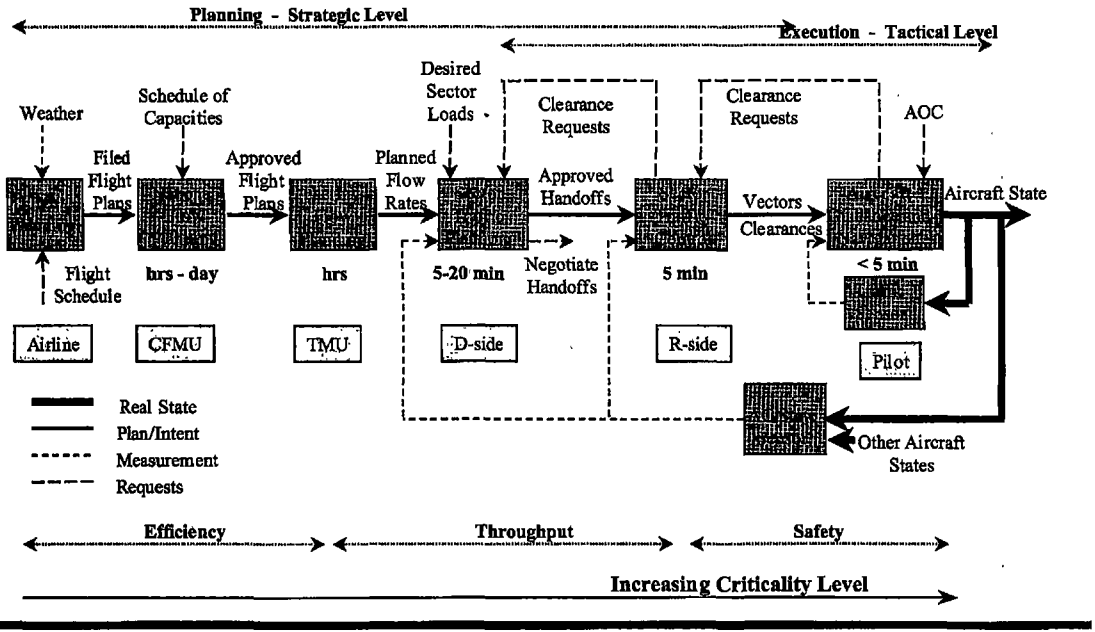
Human Factors and Adaptation

- **ATM is a human centered contract process for the allocation of airspace and airport surface resources.**
- **Current NAS has evolved over 60 years**
- **The system has significant local adaptations resulting in nonhomogeneity**
  - ❑ Airspace design
  - ❑ Local procedures
  - ❑ Letters of agreement
  - ❑ Noise restrictions
  - ❑ Site specific training (FPL = 3-4 years)
- **Major operational changes were event driven, enabled by technical capability**
  - ❑ Positive radar control - Grand Canyon 1956
  - ❑ TCAS - Los Cerritos 1982

New York Arrival and Departure Tracks

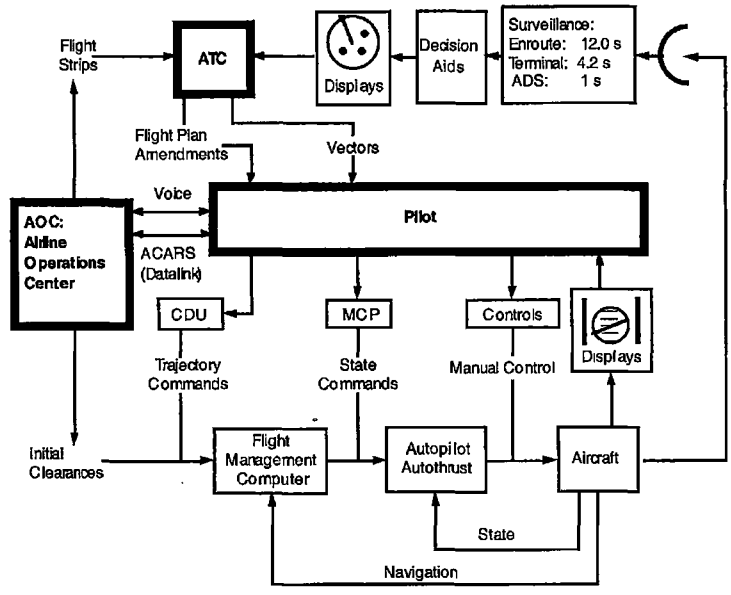


ATM System Current Functional Structure



Source: A. Haraldsdottir Boeing

ATM Basic Control Loops



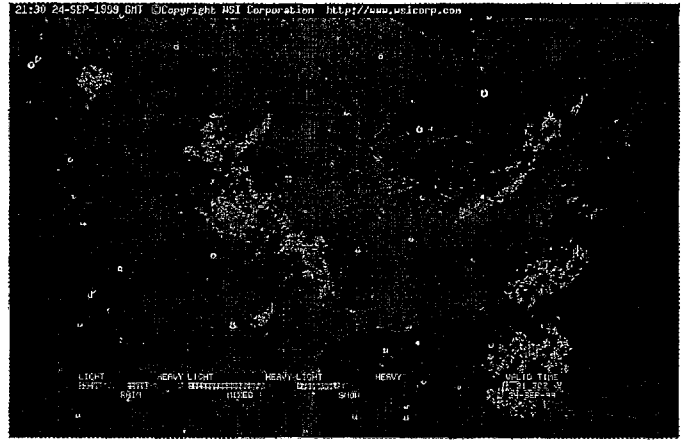
Capacity Limit Factors

- **Airport Capacity**
  - ❑ Runways
  - ❑ Gates
  - ❑ Landside Limits
  - ❑ Weather
- **Airspace Capacity**
  - ❑ Airspace Design
  - ❑ Controller Workload
  - ❑ Balkanization
- **Demand**
  - ❑ Peak Demand
  - ❑ Hub & Spoke Networks
- **Environmental Limits**
  - ❑ Noise (relates to Airport)
  - ❑ Emissions (local, Ozone, NOX, CO2)

Schedule Factors

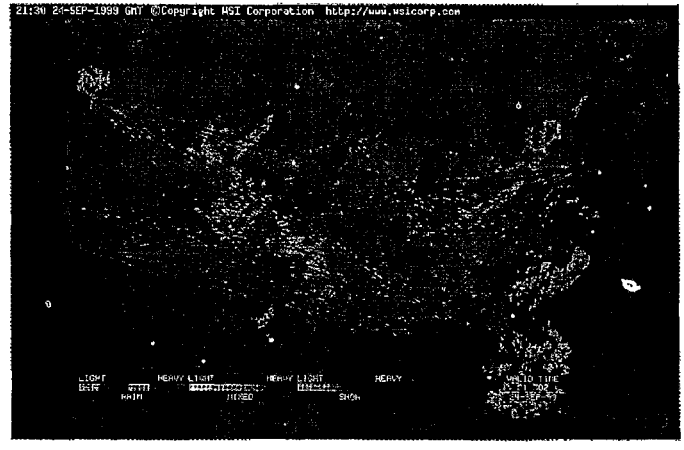
- **Peak Demand/Capacity issue driven (in part) by airline Hub and Spoke scheduling behavior**
  - ❑ Peak demand often exceeds airport IFR capacity (VFR/IFR Limits)
  - ❑ Depend on bank spreading and lulls to recover
  - ❑ Hub and Spoke amplifies delay
- **Hub and spoke is an efficient network**
  - ❑ Supports weak demand markets
- **Schedules driven by competitive/market factors**
  - ❑ Operations respond to marketing
  - ❑ Trend to more frequent services, smaller aircraft
  - ❑ Ratchet behavior
  - ❑ Impact of regional jets
- **Ultimately, airlines will schedule rationally**
  - ❑ To delay tolerance of the market (delay homeostasis)
- **Limited federal or local mechanisms to regulate schedule**

Hub and Spoke Network



Completely Connected Network = 2(N-1) Flights
(eg., 50 Airports, 98 Flights)

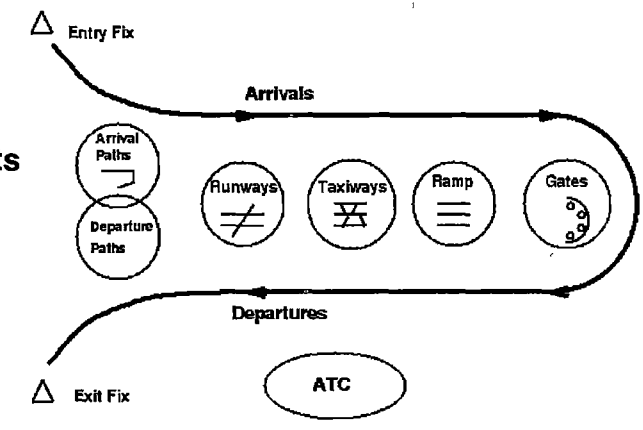
Fully Connected Network



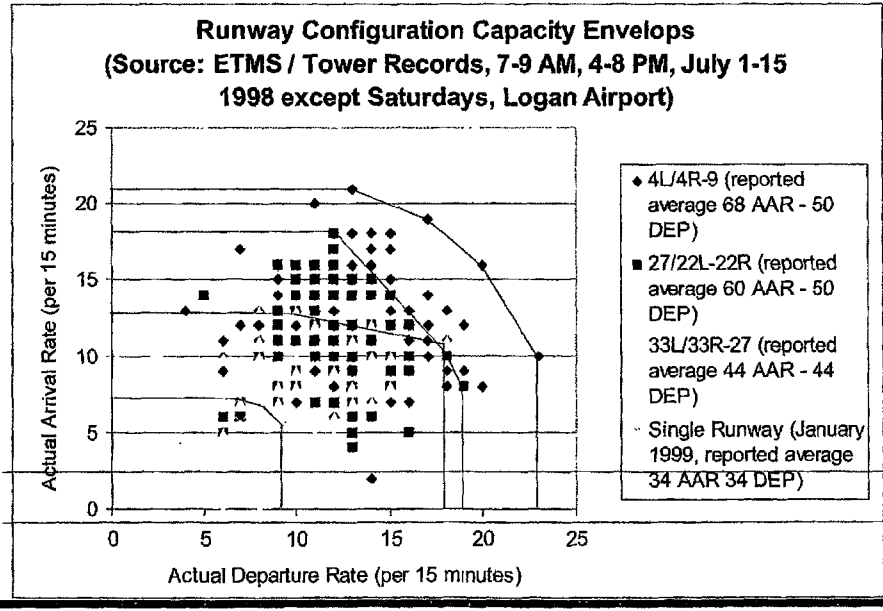
Completely Connected Network = N(N-1)
(eg., 50 Airports, 2450 Flights)

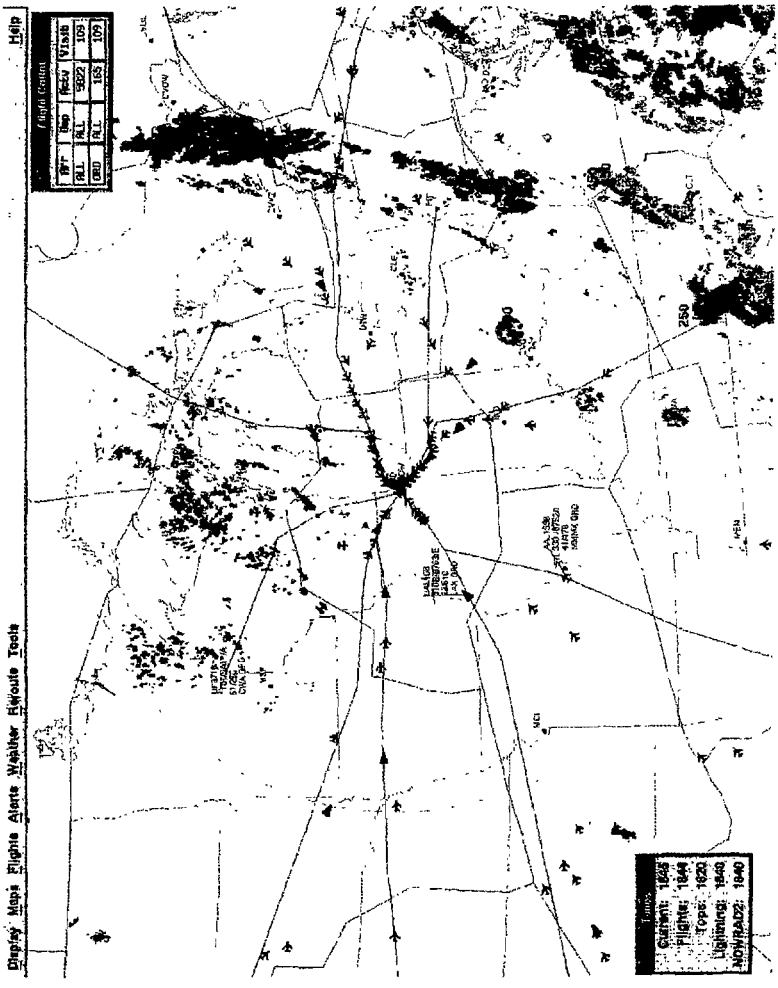
Airport System Capacity Limit Factors

- **Runways**
- **Weather**
  - ❑ Capacity Variability
- **Gates**
- **Downstream Constraints**
- **Controller Workload**
- **Landside Limits**
  - ❑ Terminals
  - ❑ Road Access
- **Environmental**
  - ❑ Community Noise
  - ❑ Emissions (unnecessary engine run times)
- **Safety**



Runway Configuration Capacity Envelops

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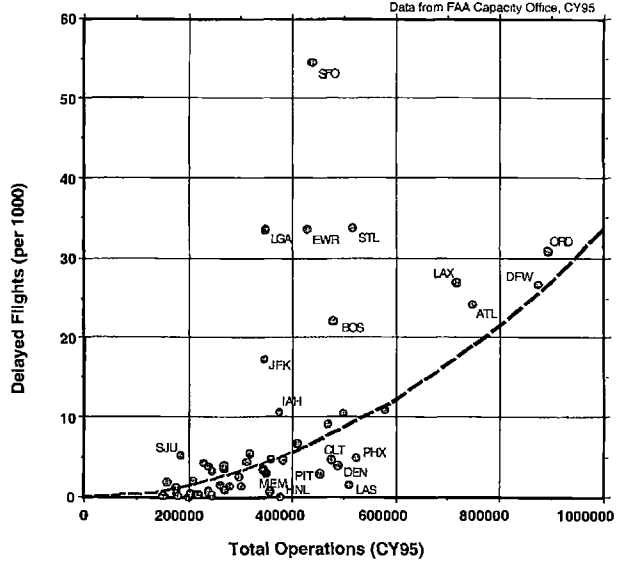
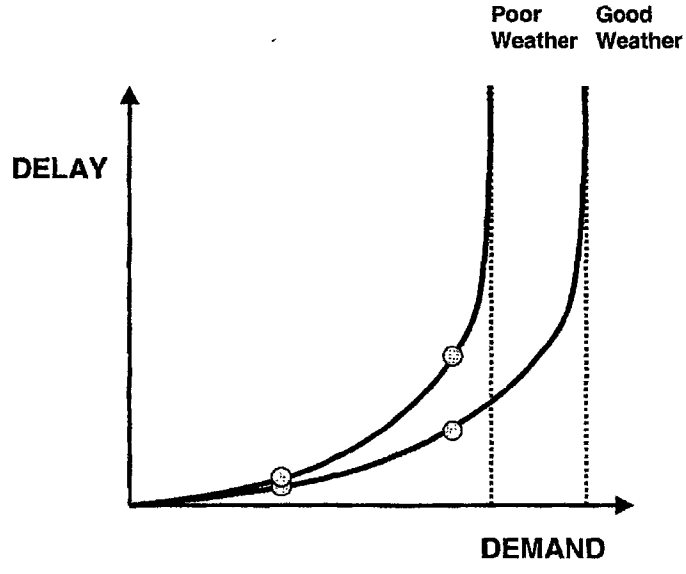
Variable Capacity Effects
1995 Delays vs Operations



From John Andrews, MIT Lincoln Lab

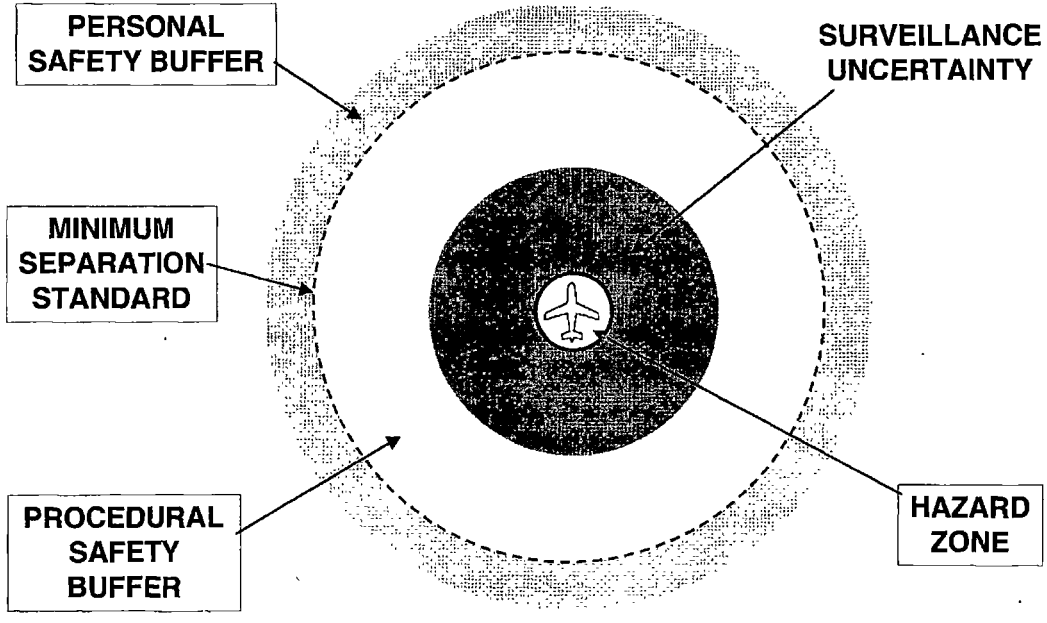
Effect of Capacity Variability



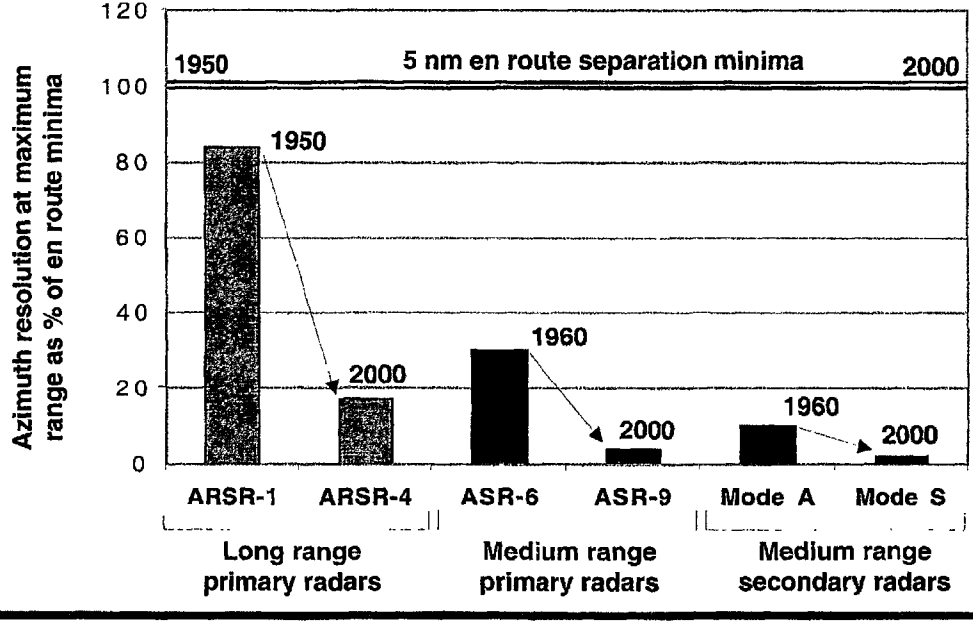
Safety vs Capacity

- **The current airborne system is extremely safe but conservative**
- **Increased capacity with current infrastructure implies Reduced Operational Separation**
  - ❑ Airborne Separation Standards
  - ❑ Runway Occupancy Times
  - ❑ Wake Vortex
  - ❑ Controller Personal Buffers
  - ❑ ...
- **How do you dependably predict the safety impact of changes in a complex interdependent system?**
  - ❑ Statistics of small numbers
  - ❑ Differential analysis limited to small or isolated changes
  - ❑ Models??
- **Safety Veto Effect**
- **Runway Incursions are an area of concern**

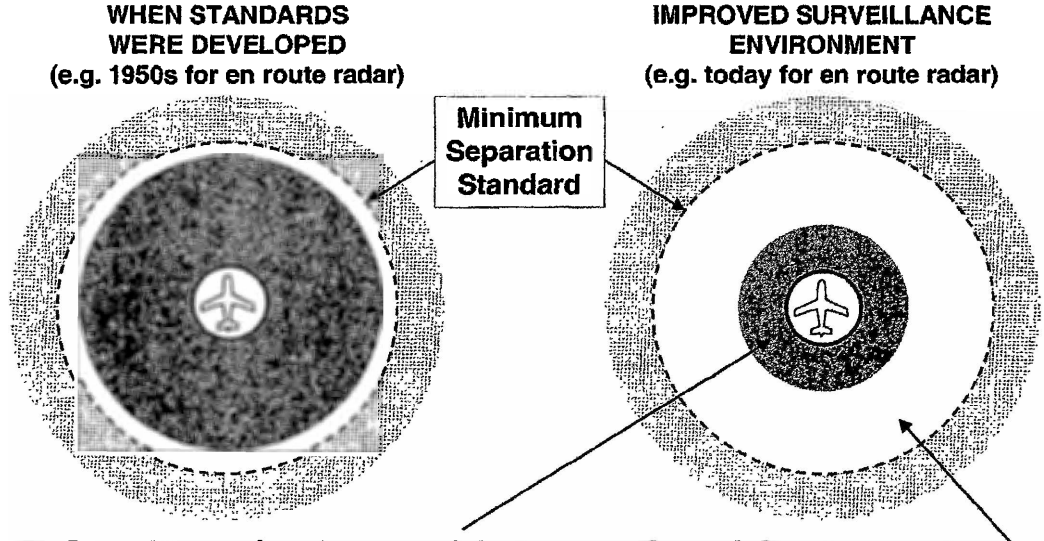
SEPARATION ASSURANCE CONSIDERATIONS



EN ROUTE MINIMA HAVE NOT CHANGED DESPITE 5 x IMRPOVEMENT IN RADAR PERFORMANCE



IMPROVED SURVEILLANCE HAS NOT LED TO REDUCED EN ROUTE MINIMA



- Surveillance has improved, but separation minima have not changed: procedural safety buffer has implicitly increased

Suggested Political Solutions to Capacity Shortfall

- Full or Partial Privatization (eg AIR-21)
  - ❑ May improve modernization,costs and strategic management
  - ❑ Limited impact on capacity
- Re-regulation
  - ❑ Increased Costs to Consumer
- Peak Demand Pricing
  - ❑ Reduced service to weak markets
  - ❑ Need to insure that revenues go to improved capacity
- Run System Tighter
  - ❑ Requires improved Comm-Nav-Surveillance
  - ❑ Safety vs Capacity Trade
- Build more capacity
  - ❑ Local community resistance
- Multi-modal transportation networks

Conclusion

- **Technology in Pipeline will have limited impact on peak Capacity at Currently Stressed Airports**
  - ❑ 20% to 40% Optimistically
- **System will become (is) Capacity Restricted**
- **Airlines will Schedule in Response to Market Demand**
  - ❑ Delay Homeostasis
  - ❑ Increased Traffic at Secondary Airports
  - ❑ High Frequency Service
- **Overall system response is not clear**
- **Protection of Airport and Spectrum Resources**
- **Need more runways in critical locations**
- **Need for new ATM paradigms**
- **Need for leadership**

R. John Hansman, Jr.

Professor of Aeronautics & Astronautics
Director, International Center for Air Transportation
Massachusetts Institute of Technology

A.B., Cornell University, Physics, 1976
M S., M.I.T., Physics, 1980
Ph.D., M.I.T., Physics, Meteorology, Aeronautics & Astronautics, Electrical Engineering

Dr. Hansman is currently a Professor of Aeronautics and Astronautics at MIT, where he is Head of the Humans and Automation Division. He is also the Director of the International Center for Air Transportation. He conducts research in several areas related to flight vehicle operations and safety. His current activities focus on information technologies applied to air transportation. These include, advanced Air Traffic Management system architectures, advanced cockpit information systems, airline operations, and software complexity issues. He is also an internationally recognized expert in aviation meteorological hazards such as icing and windshear. Professor Hansman teaches courses at MIT on Human Centered Automation, Air Traffic Control, Flight Guidance, Human Factors, Automation, Aircraft Design, Aircraft and Spacecraft Instrumentation, and Flight Testing.

Dr. Hansman holds 6 patents and has authored over 200 technical publications. He has over 4800 hours of pilot in-command time in airplanes, helicopters and sailplanes, including meteorological, production and engineering flight test experience. He received the 1996 FAA Excellence in Aviation Award, the 1994 Losey Atmospheric Sciences Award from the American Institute of Aeronautics and Astronautics, the 1990 OSTIV Diploma for Technical Contributions and the 1986 AIAA Award for Best Paper in Thermophysics.

Mar-13-01 10:56am From- T-146 P 02/02 F-380

Committee on _____

Witness Disclosure Requirement - "Truth in Testimony"
Required by House Rule XI, Clause 2(g)

Your Name: J. JOHN HANSMAN SR.		
1. Are you testifying on behalf of a Federal, State, or Local Government entity?	Yes	~~No~~
2. Are you testifying on behalf of an entity other than a Government entity?	Yes	~~No~~
3. Please list any federal grants or contracts (including subgrants or subcontracts) which you have received since October 1, 1999: SEE ATTACHED		
4. Other than yourself, please list what entity or entities you are representing: I DIRECT THE INTERNATIONAL CENTER FOR AIR TRANSPORTATION AT MIT BUT MY COMMENTS ARE MY OWN OPINION		
5. If your answer to question number 2 is yes, please list any offices or elected positions held or briefly describe your representational capacity with the entities disclosed in question number 4:		
6. If your answer to question number 2 is yes, do any of the entities disclosed in question number 4 have parent organizations, subsidiaries, or partnerships whom you are not representing?	Yes	No
7. If the answer to question number 2 is yes, please list any federal grants or contracts (including subgrants or subcontracts) which were received by the entities listed under question 4 since October 1, 1999, which exceed 10% of the entities revenue in the year received, including the source and amount of each grant or contract to be listed:		
Signature: _____ Date: 3/13/01		

R. John Hansman:
Federal Grant and Contract Funding Received Since October 1, 1999

Sponsor	Award Number	Award Title	Effective Date	Expiration Date
US DOT - FAA	FAA 95-G-017	Joint University Research Program to Meet Future Air Transportation Technological Needs	06/01/1995	07/29/2001
NASA - Langley R.C.	NAG1-1857	Fundamental Issues Involved with Mode Awareness of Advanced Autoflight System.	07/24/1996	06/30/2000
U. of Calif. (FAA)	SA 1603JB/ PO NO 1-0000244882	Complexity Models and Metrics for the Support of Air Traffic Management Tools and Operations - Dynamic Density and Resectorization	06/01/2000	06/01/2002
U. of Calif. (FAA)	SA1637JB/P01-0000118738	Preliminary Design Process for Future Airspace System Definition	09/27/1999	06/30/2000
NASA - Ames R.C.	NAG2-1128	Departures Planning at Busy Airports	03/01/1997	05/31/2000
NASA - Glenn R.C.	NAG3-2178	Integrated Human Centered Systems Analysis of Functional Requirements for Cockpit Icing Information Systems	06/01/1998	12/31/2001
NASA - Ames R.C	NAG2-1299	Human Performance Considerations for Shared Information in Datalinked Air Traffic Management Systems	03/01/1999	02/28/2002
ATAC Corp. (NASA)	Sub. No. 10-9904-S1	Development of Fast-Time Simulation Techniques to Model Safety Issues in the National Airspace System	04/07/1999	12/31/2001
ATAC Corp. (NASA)	Sub. No. 10-9904-S1, Option 1	Development of Fast-Time Simulation Techniques to Model Safety Issues in the National Airspace System (Option 1)	01/01/2000	01/07/2002
NASA - Ames R.C.	NCC 2-1147	Implementation Issues for Departure Planning Systems	12/01/1999	11/30/2002
NASA - Goddard S.F.C.	NCC 2-1150	Safety Metrics for Human-Computer Controlled Systems	12/01/1999	11/30/2002
NSF	CCR-0086154	ITR:Design Confromant Software	09/15/2000	08/31/2005

Mr. ROGERS. Thank you.

Dr. Donohue.

Mr. DONOHUE. Yes, sir. You can bring up the house lights. I am going to forego any slides.

Mr. DONOHUE. Thank you, Mr. Chairman. It is a privilege to appear before you and your committee this afternoon.

The full testimony I have submitted for the record and so with your permission I will just give a brief summary. The graphics that I think are important to my testimony are included in my submission and I will forego them this afternoon.

To a great extent, I support the major observations of my colleagues at the witness table. In my opinion, the delays in flight cancellations experienced in 1999 and 2000 will continue to increase for the foreseeable future, absent a major economic downturn which would decrease demand on the system. This is no matter what the FAA or the airlines do.

Also, due to budget constraints and a lack of industry confidence in the FAA's ability to successfully make substantial changes, the FAA blueprint for modernization, sometimes called the NAS Architecture 4.0, is not designed to substantially increase the air transportation safety or capacity until well past the year 2010.

As you know, the U.S. hub and spoke system is approaching a capacity crisis. Both safety and capacity are intertwined, as several of my colleagues have already told you. With current technology and procedures, the fundamental capacity cannot be increased much further without decreasing safety.

Today, most air traffic modernization research is done by NASA, not the FAA, and NASA's aeronautics budget is of enormous importance to the FAA capacity improvement. This is a congressional problem because of the different committee structures overseeing their budgets and there is always a coordination issue.

The FAA's research budget, however, including funds for air traffic, airports and certification, must be increased to permit a close involvement with NASA's AvSTAR and SATS programs. Technology transfer is a contact sport and unless the FAA is involved with what NASA does, whatever technology comes out of that research will not be effectively transferred to the FAA.

Specifically, the increase in system throughput by a factor of three, which is NASA's stated goal, in my opinion is not achievable using current paradigms, especially while reducing accident rates by an order of magnitude.

There are five primary capacity limitations that lead to delay.

First of all, as Professor Hansman has said, aircraft spacing, I will say especially on approach to landing, is fundamental to system capacity and therefore to schedule delays. Aircraft spacing is limited by current surveillance system accuracy and, more importantly, communication system time lag delays, which generates some of that safety buffer that Professor Hansman was talking about, in my opinion.

New, more accurate GPS technology is available to safely reduce current spacing. However, an internationally accepted data communications standard is required to implement this technology for sur-

veillance. Such an agreement has not been reached and the FAA has not certified this technology for aircraft certification.

The FAA needs to make a clear, unambiguous decision on this data link system, preferably this year. It is called ADS–B or Automatic Dependent Surveillance Broadcast.

The second primary cause for delays and capacity limitation is bad weather. You have heard this from some of the other witnesses. Bad weather causes the FAA to increase separation between aircraft or institute a system wide ground delay program, which you may have heard about this morning, which greatly reduces system capacity during times of severe winter weather or spring/summer storms.

Better utilization of new convective weather forecasts is required to prevent overly restricting the NAS capacity which causes unnecessary flight delays and cancellations. Better National Weather Service aviation forecasts and procedures for making decisions based upon those forecasts are needed and the National Weather Service Aviation Initiative should be funded. Again, something that is somewhat outside of the control of the FAA's budget, but absolutely essential to being able to deal with some of these severe capacity problems.

Third, wake vortex separation sets the closest spacing that aircraft can safely separate on approach to landing. Technology is available and new systems are required to sense and monitor the strength of aircraft wake vortices. The FAA needs a strong wake turbulence research program and the FAA needs to fund the airport modernization matching grants to begin implementation of these systems.

Fourth, en route sector loading constraints due to human factors cognitive workload limitations. This is an important factor for the en route problems that you may have heard about. It reduces capacity in a limited number of high density, high workload sectors that affect the entire East Coast flight operations.

More attention than the FAA plan currently envisions will be required, in my opinion, to overcome this obstacle. Actions may include ultimately moving to autonomous, airplane-to-airplane separation systems. The FAA needs to support the NASA AvSTAR and SATS programs which are addressing how those things can be safely implemented.

Safety and operational realities must be part of the NASA program which can tend to be separated from these issues that the FAA deals with every day.

Fifth and last, the number of existing runways and runway configurations are also a fundamental limitation to NAS capacity, as Mr. ElSawy pointed out. Unfortunately, more runways added at large hub airports will not increase capacity much because of ground movement congestion and taxi times. Aircraft ground movement, traffic controls and system wide time coordinated time slots may have to be implemented at major hub airports. The queuing problems that Professor Hansman talked about are intrinsic to some of the large delays that we see. Europeans take a somewhat different view from "free flight" on what they call 4–D control which tries to get around some of that large queuing delay.

If we go to slots, slot controls at all of the major hub airports (which I believe is where we will have to go,) these slots have large economic value and the FAA should conduct slot auctions much as the FCC conducts spectrum auctions.

In the short term, increased use of larger airplanes at major hubs and more use of reliever airports will increase system capacity. In the medium term, more runways at airports with one or two runways, therefore simple airports, and additional runways between existing ones which would require new technology to allow closer spacing on landing, will help.

In summary, both NASA, the FAA and the airlines need to do more in the development, operational evaluation and certification of automatic aircraft sequencing, separation and collision avoidance. The airlines must accept increased avionics equipage and increased FAA regulations such as mandatory avionics equipage and slot controls. The development of an international spectrally efficient broadband wireless data communications system is required for ADS–B and automatic sequencing technology that NASA is looking at. It is essential to most of the new capacity enhancing technology.

Actions the FAA is taking will not solve this problem, in my opinion. DOD is developing a similar system for its own use. Civil aviation needs an equally capable system. In my view, DOD should be given the lead development responsibility for this with the FAA in a support role, instead of the way it is today.

In my opinion, as a four-year associate administrator for research, systems engineering and acquisition at the FAA, I believe that the FAA should begin to implement these new systems by outsourcing first oceanic and then high altitude sectors to the private industry which would capitalize, implement and operate portions of the ATC system using these technologies, much as FAA does today with small airport contract control towers. The precedent is already set for doing this but not in the high altitude regions.

Automatic collision avoidance is routinely discussed in the context of the Federal Highway Administration's intelligent transportation program, I am sure you have heard testimony on that, where it is extremely difficult to implement. However, the Department of Transportation has never to my knowledge discussed such a system for aviation where the technology is much more mature and the problem is more tractable. This technology will be required in the future to increase both the safety and the capacity of the air transportation system, but substantial funding for research at both NASA and the FAA would be required before we could implement such a system.

That concludes my remarks this afternoon. I want to thank you for the opportunity to appear before your committee.

[The prepared statement of Mr. Donohue follows:]

Testimony before the US House of Representatives Committee on Appropriations Subcommittee on Transportation

Hearing on the Causes of Air Transportation Delays
Thursday March 15, 2001 2:00pm, Rm. 2358 Rayburn Office Bld.

Dr. George L. Donohue

Professor of Systems Engineering and Operations Research
The School of Information Technology and Engineering
And Senior Research Professor
The School of Public Policy

George Mason University
Fairfax, Virginia 22030-4444
703-993-2093, Fax 703-993-1521

Abstract

The US Hub and Spoke air transportation system is approaching a serious capacity crisis. Both safety and capacity are intertwined. With current technology and procedures, capacity cannot be increased much without decreasing safety. Most air traffic modernization R&D is done by NASA, not FAA, and NASA's aeronautics budget is of enormous importance to FAA capacity improvement. FAA's budget for air traffic, airports, and certification must be increased to permit involvement in NASA's AvSTAR and SATS programs. The FAA and NASA have set very ambitious goals to accommodate forecast increases in air traffic that are not technically achievable without a fundamental change in the operation of the air transportation system. Specifically, the increase in system throughput by a factor of three (NASA's goal) is not achievable using current paradigms, especially while reducing fatal accident rates by an order of magnitude.

The development of an internationally approved, spectrally efficient, broad-band, wireless data communication system is essential to most of the new capacity enhancing technology. DoD is developing such a system and should be given the lead development responsibility for this, with FAA in a support role. Another requirement for capacity enhancement is improved weather forecasting and methods for making traffic flow decisions based on new forecasts. Wake vortex research also must be increased to shorten arrival and departure spacing below the very conservative separations now required.

Both the FAA and NASA need to do more in the development, operational evaluation, and certification of automatic aircraft sequencing, separation and collision avoidance. Automatic collision avoidance is routinely discussed in the context of the Federal Highway Administration's Intelligent Transportation System program, where it is

extremely difficult to implement. However, this capability is seldom discussed for aviation, where the technology is much more mature and the problem is much more tractable. This concept will be required in the future to increase both the safety and the capacity of the air transportation system, and substantial funding will be required for FAA and NASA research to accomplish this while increasing safety. FAA should begin to implement new ATC systems by outsourcing first oceanic, and then high altitude, sectors to the private industry.

The number and configuration of existing runways at hub airports represent a fundamental limitation to NAS capacity. Unfortunately, however, more runway construction at major hub airports will not increase capacity much because of ground movement congestion and taxi times. Substantial funding for research to both NASA and the FAA will be required if goals of increased capacity and safety are to be achieved.

Final 3/15/2001

Testimony before the US House of Representatives Committee on Appropriations Subcommittee on Transportation

Hearing on the Causes of Air Transportation Delays
Thursday March 15, 2001 2:00pm, Rm. 2358 Rayburn Office Bld.

Dr. George L. Donohue[1]

Professor of Systems Engineering and Operations Research
The School of Information Technology and Engineering
And Senior Research Professor
The School of Public Policy
George Mason University

Mr. Chairman and honorable members of the committee, it is a privilege to appear before your committee this afternoon to testify on the FAA research program and the increasing problem of airline schedule delays and flight cancellations. The delays and flight cancellations experienced in 1999 and 2000 will continue to increase for the foreseeable future. Do to budget constraints and a lack of industry confidence in the FAA's ability to successfully make substantial ATC system changes, the FAA National Airspace System (NAS) Architecture 4.0 (the current blueprint for NAS modernization) is not designed to substantially increase the air transportation system safety or capacity, at least until 2010. New approaches must be taken to meet expected traffic growth.

Background

It is widely recognized that air commerce, i.e., the transportation of people and goods throughout the United States and overseas for business or personal purposes, is strongly linked to the nation's economy and our quality of life [1]. Since 1960, DOT statistics indicate that the air mode of transportation has grown at 4 (passenger) to 7 (cargo) times the rate of GDP growth. This is also 4 to 7 times greater than any other mode of transportation. ***Thus, any indication that the air transportation system might constrain future air travel because of the inherent capacity or safety limitations of the National Airspace System (NAS) is a justifiable cause for concern.***

Such indications exist. Captain Russ Chew of American Airlines, in a 1997 study referred to in the National Civil Aviation Review Commission report [2], put forth an analysis suggesting that the limited capacity of the NAS would lead to unacceptable delays by approximately 2010, now less than a decade away. According to Chew, these delays could significantly disrupt airline schedules, bringing into question the efficacy of the current hub-and-spoke system that most major airlines use. Figure 1 [3] supports this hypothesis and shows that the overall system is currently operating at 58% of theoretical maximum capacity (with current aircraft separation technology). Table 1 [4] shows how this capacity fraction is distributed throughout the United States. At current growth rates, it is predicted to reach 70% of maximum capacity by 2010. The nature of transportation systems with elements that are not all precisely organized to fill the entire available space

results in a hyperbolic growth in delays once a capacity fraction of about 50% is reached. The predicted resulting delays are as indicated in Figure 2 [4].

Computing the maximum capacity of the total system understates the seriousness of the capacity crisis. Figure 3 shows the estimated capacity fraction for the top 31 US hub airports under favorable weather conditions [R Shaver, the RAND Corp.]. The figure shows both the capacity fraction today and the estimated capacity fraction in 2010 (incorporating all of the airport improvements identified in the FAA ACE plan). Due to the lack of airport slot controls at most of these airports, the random access, first-come first-serve queuing system dictated by FAA operational procedures leads to large delays above capacity fractions of 80 to 90% (illustrated in Figure 2). You will notice that some of the major airports are at this capacity fraction today and even more are predicted to be so in 2010 (even with planned airport improvements).

A much more serious problem exists when the airports are operated under poor weather conditions. Figure 4 illustrates the same estimated capacity fractions under IFR aircraft spacing and arrival rate restrictions. You will note that even today, almost half of the major US airports are scheduled to operate at levels above their maximum capacity. This situation is expected to get only worse over the next ten years. Only a fraction of these airports need to be restricted to the IFR operations level to put major disruptions into the entire national NAS network schedule.

The resulting consequence of this capacity limitation is increased inconvenience and cost to the flying public. It is expected that this situation will significantly reduce the public's willingness to fly, thereby stifling further growth in the airline industry. While the resulting impact on air travel is hard to quantify, the ***predicted annual growth in passenger enplanement of 3-4% is unlikely to occur without a major insertion of new technology and operational concepts***, with significant consequences for both the airline and tourism industries within the United States, and the economy as a whole [1].

However, predictions of serious problems with the NAS, with airline schedules, or with truncated demand for air travel should not be taken out of the context within which they are made. Many of the predictions about growing delays at specific airports will not occur because they are already operating at maximum capacity. Common sense tells us that the airlines using that airport would adjust their schedules and fleet mixes to "manage" their operations and avoid unnecessary delays caused by unachievable demand for additional access, especially if those delays threaten the operation of their hub-and-spoke system. And common sense also tells us that airport authorities will seek to expand airport capacity, to the extent they can, when demand so dictates. However, recent analysis by Hansen, et. al. [5] indicate that adding runways and redesigning the airspace may not be, by themselves, adequate to satisfactorily mitigate the increasing delays at most large hub airports.

The overall capacity of the NAS is a function of a variety of important factors, including the design and operation of the airspace itself and the equipment that facilitates that operation. At present, NASA and the FAA are engaged in substantial efforts to modernize ATC equipment and procedures to enable significant changes to both how the available airspace can be more efficiently used and how safety can be enhanced. In addition, new operating concepts (e.g., "free flight") have been underdevelopment for

several years. New decision support tools for controllers promise to open opportunities for better adaptation to congested airspace situations, while augmenting the controller's ability to handle a greater number of aircraft safely, although to date the benefit of most of these new tools has been to reduce controller workload rather than to increase system capacity. ***It appears unlikely, however, that these actions, by themselves, will successfully deal with the capacity and subsequent delay problems.***

In a recent set of papers by Donohue and Shaver [3] [4], we describe how the NAS capacity might be evaluated and what might happen if technology and new procedures are not put in place to ameliorate the expected growth in NAS congestion. As a minimum, we expect the airlines to respond by changing their schedules, increasing block times between city-pairs (which increases their costs), increasing ticket prices and (hopefully) purchasing larger aircraft (although current trends are to purchase smaller aircraft, reducing the average seat capacity of the fleet). If the airlines were left to handle this problem on their own, the result for the passengers and air commerce in general would be serious—reduced access, increased prices, reduced convenience, and somewhat increased delays. Our analysis indicates that the future cost of air transportation will not be determined by the cost of designing or building large commercial aircraft but by ticket-price-setting (yield-management) software in a largely unregulated supply and demand market. Since the ATC system is still under government control, it continues to be regulated, even though the other part of the "supply system", the airlines, were deregulated in 1978. Unfortunately, the supply of hub and spoke aircraft operations is technically limited (i.e. number and configuration of runways, runway occupancy time, wake vortex separation, and surveillance accuracy) and the demand for high-speed transportation is steadily increasing.

Any policy on how to make investments to ameliorate NAS congestion must recognize that there are a number of important stakeholders. For the U.S., the six principal stakeholders are the FAA and NASA, the airlines, the aviation industry, the airport authorities, Congress, and (perhaps the most important) the flying public. Others include foreign Civil Aviation Authorities (CAA's) and the international organizations (e.g., International Civil Aviation Organization (ICAO)) that oversee and (to some degree) regulate global aviation activities. Each of these stakeholders have their own incentives regarding responses to NAS congestion. The incentives motivating one stakeholder are often not parallel to those of the others. Worse, they are occasionally diametrically opposed.

The primary motivation of an airline is to make money. While airlines do make long-term investment decisions (especially regarding fleet sizing and mix), most of their focus is on near-term profitability, i.e., return on investment. ***Through experience, most of the major airlines have found that hubbing is an economical way to make the best use of their fleet.***[ii] Passenger convenience, measured by serving a wide variety of cities with frequent flights from their hubs, has proven to be a reliable way to gain customer loyalty, repeat business and a steady revenue stream. It provides air service between many more city pairs than would otherwise be possible, and also provides a more efficient use of airspace than point-to-point routes serving the same number of city pairs. Hub domination (i.e., one major carrier serving the hub) has often been the result, with mixed blessings for the flying public.

The current manifestation of this strategy is airline investments in small and mid-sized aircraft suitable for frequent flights to and from the major hub airports. The convenience this provides to those flying from smaller regional cities to major urban areas (and in the future, possibly directly from one mid-sized city to another) is substantial, and has spurred the recent remarkable growth in regional jets and business jets in the United States. ***It is noteworthy that the average number of seats per commercial airliner has been dropping in the last couple of years and is expected to continue to drop for several more years. This airline behavior is exacerbating hub congestion and has implications for the new NASA AvSTAR and SATS initiatives.***

Airports are also interested in making money. Profitable customers (the airlines) are critical to their success. They benefit from frequent flights, and only secondarily suffer from the costs of congestion. They benefit from growth in passenger enplanements. For the most part, major airport expansion happens only when the airline(s) operating from the airport threaten expansion elsewhere or the dominant airline feels expansion will not threaten it's hub monopoly position. Once an airline has established itself as the dominant carrier at the hub, incentives for expansion are lessened unless that dominant carrier can see further growth. ***In most cases, airport expansion is significantly limited by environmental factors (noise, pollution), and requires local public support and approval. Recently, such approval has seldom been forthcoming [6].***

The flying public wants both the convenience associated with frequent flight schedules and the current low airfares. As demand grows and congestion becomes worse, the leisure flyers will be most impacted as they are highly sensitive to the almost certain rise in airline ticket prices resulting from the increased demand to supply ratio. They constitute approximately 70% of the current passengers, and are the primary beneficiaries of airline deregulation. Business travelers, on the other hand, are likely to continue to fly in growing numbers as they are far less sensitive to price, often paying "full fare". They are considered essential to the profitability of most airlines but may begin to turn increasingly to private air transportation.

No matter how business use develops, airline revenues are likely to continue to rise, and their interest in alternative hubbing strategies will be limited to cities that can provide a solid business-flying base. However, this also has implications for the importance of the new NASA SATS and AvSTAR initiatives. Unmitigated flight delays and cancellations will lead to increased use of air taxi services and private ownership of corporate aircraft for business transport. While this will bypass hub congestion, it will, over time, increase en-route sector controller workload, thus contributing to en-route system saturation, unless research is done and systems are implemented to accommodate more en route traffic (one of the objectives of these NASA programs). FAA should support these programs additionally because they address capacity problems already occurring as a result of the increasing airline use of regional jets.

Finally, Congress has the joint incentives of supporting the nation's interest while also serving the needs of its constituents. Occasionally, these incentives are in conflict, with shorter-term needs and local priorities often getting the largest share of a tightly constrained federal budget. Long-range research investment and planning, something needed to successfully deal with the NAS congestion problem, is often the victim.

Implications for the Future

Despite claims to the contrary, it is unlikely that the impending NAS congestion problem will lead to total gridlock or the economic dismantling of the airlines. The airlines will adapt their behavior to ensure their economic viability, and the flying public will modify their demand for air travel as the inconvenience and cost of such travel increases. The consequences are higher ticket prices, less convenience for the travelers, and a curtailing of the anticipated growth in air commerce, and a curtailing in the sales of new airline aircraft. ***This implication for the U.S. economy is that the growth in U.S. Gross Domestic Product (GDP) will be negatively impacted.***

What does this mean in terms of policy implications for the Federal Government? First, it is important to understand that it is unlikely that the Federal Government will dictate how airlines or the various airport authorities will respond to congestion. Also, congestion is not necessarily bad for either. While greater NAS capacity would offer opportunities for more growth, it seems likely that many of the airlines will still be able to retain their profitability under conditions of moderated growth bounded by capacity problems. To some extent, the higher airline operating costs implied by a congested airspace will be offset by the likely percentage increase in business travelers who pay on the average significantly higher fares per trip.[iii] The airports would also benefit financially from increased traffic and some may even benefit from the increased delays, where the number of passengers within the airports at any time is likely to grow, thus increasing opportunities for the selling of food and other merchandise at the airport. The semi-monopolistic status of specific airlines at many major hubs will also add to the inertia resisting change.

Second, as noted at the start, neither NASA nor the FAA has any magic response they can take to solve the congestion problem on their own. Modernization of the NAS can help ameliorate the problem, deferring the date when the airlines and the air transportation system as a whole will be forced to react. But without complementary actions by the FAA, the states, the airports, the airlines, and the traveling public, that deferral could be short-lived.

Perhaps the most straightforward way to think about how the three major actors could productively work together to meet everyone's interest is ask who is going to pay the cost of mitigating the impacts of congestion. For the airlines, it is clear that the passengers will pay for whatever changes the airlines must make to adapt. For airports, it is also true that the passengers will, for the most part, pay for airport improvements, albeit indirectly through the airline tickets, Passenger Facility Charges (PFCs), and services and merchandise they buy at the airport. For the FAA, there is at present no direct tie to the passengers, but the ticket tax that they pay can be considered to be the principal source of FAA funding for both NAS modernization and operation. Thus, whatever the cost of mitigating the growing congestion, the passengers are going to pay most, if not all of it. And the impact will fall mainly on the low-fare passengers. If the airlines shift the mix of personal and business travelers toward the latter, profitability will increase with the same passenger load factor. Thus, it only makes sense to look for the combination of actions undertaken by the airlines, the airports, the FAA and NASA that adds to the lowest total cost to the passenger.[iv]

Reduce Accident Rates

It is now well known that the commercial aircraft accident rate has been essentially constant for over a decade. Human factors have been the most significant elements in both commercial and private aviation safety for almost a half-century. The insertion of automation on the flight deck of commercial aircraft, although not without some problems and controversy, has been a significant factor in the dramatic decrease in commercial aircraft accidents over the last two decades. Accidents happen due to a complex sequence of events. Better analysis of existing flight data is required to understand these relationships more fully. Most experts would agree that aircraft collision avoidance systems have greatly helped keep accident rates down over the last 10 years. Due to funding limitations, however, the FAA has virtually eliminated its technical support and further development of the onboard aircraft collision warning system, Traffic Alert and Collision Avoidance System (TCAS II). This technology has saved countless lives since its introduction in the US in 1990 and is now being installed on aircraft worldwide. TCAS II version7, the latest software improvement, addresses many problems with the previous version, but is far from perfect and continued development is required. But beyond collision avoidance (which is a safety net to avoid accidents when there is a controller or pilot error that puts aircraft on a collision course), is the need for improved basic aircraft separation methods which can increase capacity. It is fundamental, that in order for system capacity to grow, aircraft need to be spaced closer together. ***Closing the loop from collision avoidance to autonomous separation has yet to be done.***

Figure 5 shows a new way of looking at capacity and safety on a common graph. This research is still in progress and the safety-capacity substitution curve shown is only hypothesized at this point. World wide commercial aviation is currently operating at roughly 20 million departures per year with a hull loss rate of approximately one to two million departures per hull loss. The US is operating at about 12 million departures per year at approximately 6 million departures per hull loss (Europe is operating at about the same safety level). The safety-capacity substitution curve shown in Figure 5 illustrates that to increase capacity at a constant annual hull loss rate, the fundamental system of aircraft separation must be improved. ***I believe that with today's techniques of aircraft control and separation, capacity cannot be increased significantly without a decrease in system safety.***

Increase System Throughput

As my opening comments have suggested, this is an extremely important goal. However, this goal cannot be accomplished within the constraints of the commercial hub and spoke operations alone (as shown in Figure 1). NASA and the FAA have been cooperating for the last several years on technology that can improve aircraft arrival spacing, airport surface movement and wake vortex monitoring. There are five primary limitations to the current hub and spoke system:

1. **Aircraft spacing is limited by the surveillance system accuracy.** There is at least a one to two mile buffer that is added between aircraft so that these inaccuracies will not violate either runway occupancy time separation criteria or wake vortex separation criteria. NASA and the FAA are investigating the human factors of moving to a GPS/digital data linked surveillance system with a distributed control paradigm. The aviation community calls this system Automatic Dependant Surveillance–Broadcast (ADS-B). NASA has been emphasizing ground-based control using the CTAS program for evaluation and implementation. Although this program is addressing the central terminal capacity limitation, there is data to suggest that the time delays inherent in a radar-scan-controller-in-the-loop-to-pilots based system cannot significantly improve aircraft separation [7]. It has, however, been very beneficial in aircraft sequencing and runway assignment at complex airports in relatively simple airspace.

   In addition to human factors concerns, a major barrier to the adoption of ADS-B has been the search for the correct wireless digital data communications system that meets wireless bandwidth concerns and international spectrum standards. The FAA and ICAO have not made significant or satisfactory progress in this area and can use the technical talent that DoD can bring to bear. The funds that the FAA has identified for this effort are insufficient to make a dent in this problem. I would recommend that the FAA should partner with DARPA's program to develop the broadband follow-on to the Internet. This future aviation system broadband data communications system, with wireless tail circuits, can be designed to meet the stringent integrity, availability, security and time latency criteria required for aviation or ground ITS. ***The need for a high integrity, wireless, broadband data communications system is one of the major technical barriers to providing an increase in aviation system capacity and safety. FAA needs to make a clear, unambiguous decision on how it will proceed with an ADS-B data link this year.***

2. **Bad weather causes the FAA Air Traffic Control system to increase separation** between aircraft (or institute a Ground Delay Program), thus greatly reducing the system capacity during times of severe winter weather or spring / summer storms. The resultant delays are propagated throughout the NAS. The National Weather Service (mainly under FAA funding) is developing better weather forecasts, but NWS support is inadequate.. Much more funding is required in this area. In particular, the NWS Aviation Initiative should be fully funded. In the last 10 years, while the NWS has produced dramatic improvements in forecast accuracy in areas other than aviation, there has been no improvement in aviation weather forecast accuracy, even though there has been some new product development. The NWS needs to do more for aviation weather. Today's convective weather forecasting technology is not adequate to provide a high confidence 1 to 6 hour convective forecast. This becomes a problem for the FAA Central Flow Control Facility and the Collaborative Decision Making (CDM) system that the Airlines and the FAA have adopted. Using inherently inaccurate information in a 2 to 6 hour input to aircraft/airport operational capability is leading to overall system instability under bad weather scenarios. Better forecasting is necessary to avoid overly restricting NAS capacity. The inherent

nature of the weather prediction models may mean that the Air Traffic Control Centers and the TRACON's may be the best place to control most traffic flow due to limited accuracy of long range forecasts.. The FAA Central Flow Control Facility perhaps should act primarily as a central data collection and dissemination facility. However, the latest long-range convection forecast (CCFP) is still in its infancy, and at least as important, the FAA's procedures for using it for best effect are similarly immature. It is possible that a focused effort to place at the Command Center an expert on CCFP, who could advise FAA and airline decision makers when and where its predictions are likely to be accurate and when and where they are likely to be inaccurate could vastly improve Command Center decision making. In the absence of forecasts and ways of using them that support multi-hour decisions, the primary control function of the Command Center may be to coordinate decisions between Airline Operation Centers (AOC's) and regional ATC centers on tactical routing decisions. There is much to be learned about how this system of weather forecasting and collaborative decision making should be operated.

3. **Wake vortex separation sets the closest limits that aircraft can approach on landing and takeoff.** FAA should have a much larger effort to integrate existing technologies with new procedures and to develop new technologies to sense and monitor the location of aircraft wake vortices. Last year, Congress (apparently inadvertently) zero funded the FAA's entire wake turbulence research program. This year, FAA plans on proposing a grossly inadequate wake turbulence research program. Congress should increase funding for wake turbulence research by adding funds to the FAA's budget, and not by reallocating funds from weather research (where more is needed as explained above). Congress should require FAA to propose a mult-year wake vortex program that would integrate current technologies such as LIDARS coupled with warning systems such as ITWS to improve operations at airports such as San Francisco, Newark, and Dallas Fort worth. In AIR-21, provision was made for matching grant programs to airports to pursue modernization programs, but no appropriations have been made to support this program. The Port Authority of New York, Dallas Fort Worth, and Chicago O'Hare airports want to proceed, and fund two thirds of these projects themselves. They need FAA funding, mainly to provide the FAA staff necessary to generate the air traffic and flight operations procedures necessary for operational approvals. NASA has a program in this area that needs more emphasis, including flight deck monitoring and display systems. This is an area that has received much rhetoric but little serious technical attention. Increasingly, this factor will set the maximum capacity of the air transportation system. The FAA does not have significant technical expertise in this area and I applaud NASA for continuing to pursue research into determining aircraft wake vortex location. It has been observed that frequently, the preceding aircraft wake vortex has experienced either rapid decay or has been convected away from the succeeding aircraft flight trajectory by the atmospheric boundary layer. For this reason, the current FAA wake vortex separation criteria are extremely conservative. This was not a concern when the system capacity was operating below 50%, but now is having an impact on system capacity. This is an area that deserves more effort than the FAA is proposing.

4. **En-route sector loading constraints due to human factors cognitive workload** limitations reduce capacity in a limited number of high density /high workload sectors, that affect the entire east coast flight operations. The FAA is conducting most of the research in this area. One of the advantages of the Hub and Spoke system is that it is economical in aircraft movements. One needs only 2(N-1) movements to connect N cities (i.e. for N= 100 cities, 198 flights). The bad news is that all of these flights go through the hub and the hub eventually gets congested. Direct flights between N cities does not concentrate flights at any one hub, and thus relieve airport congestion, but can potentially generate N(N-1) flights (i.e. for N=100, 9,900 flights), thus adding to en route congestion. Regional jets are already beginning to make this shift in congestion form airports to airspace. This problem should be addressed in both the NASA AvSTAR and SATS research programs. Adequate FAA involvement, and corresponding budget, is needed in both programs.

5. **The number of runways and runway configurations are a fundamental limitation to NAS capacity.** Unfortunately, computer model simulations and operational data indicate that the existence of more than approximately 3 to 4 runways at hub airports does not greatly increase overall system capacity. Due to the complexity and distances involved in the ground movement of aircraft at large hub airports, diseconomies of scale begin to manifest themselves as increased ground choke points and taxi times. Also, the close proximity of some hub airports to each other (as seen in the New York City metro-plex) produces airspace complexity that limits the arrival and departure aircraft spacing, and that can negate any potential capacity increase from additional runways. System wide, time coordinated slot allocations may ultimate have to be auctioned to air carriers by the FAA (similar to FCC spectrum auctions) in order to make maximum use of hub airport capacity.

Conclusions

In the short time that I have been allotted in this testimony, I have tried to provide the committee my views on an extremely complex problem and research agenda. Both safety and capacity are intertwined in this research agenda, as they are in actual operations. I believe that the increase in system throughput by even a factor of two is not achievable in the hub-and-spoke system with today's aircraft separation technology and procedures. A major reduction in accident rates along with any significant increase in capacity requires even more of a change in the current ATC system.

The development of an international, spectrally efficient, broad-band, wireless data communication system is essential to most of the new capacity enhancing technology. DoD is developing such a system and should be given the lead development responsibility for this, with FAA in a support role. Another requirement for capacity enhancement is improved weather forecasting and methods for making traffic flow decisions based on new forecasts Wake vortex research also must be increased to shorten arrival and departure spacing below the very conservative separations now required.

Both the FAA and NASA need to do more in the development, operational evaluation, and certification of automatic aircraft sequencing, separation and collision avoidance. Automatic collision avoidance is routinely discussed in the context of the Federal Highway Administration's Intelligent Transportation System program, where it is extremely difficult to implement. However, this capability is seldom discussed for aviation, where the technology is much more mature and the problem is much more tractable. This concept will be required in the future to increase both the safety and the capacity of the air transportation system. ***The FAA should begin to implement new ATC systems by outsourcing first oceanic, and then high altitude sectors to the private sector (this could potentially include other countries privatized ATC providers).***

The number and configuration of existing runways at hub airports represent a fundamental limitation to NAS capacity. Unfortunately, however, ***more runway construction at major hub airports will not increase capacity much because of ground movement congestion and taxi times.*** Substantial funding for research to both NASA and the FAA will be required if goals of increased capacity and safety are to be achieved.

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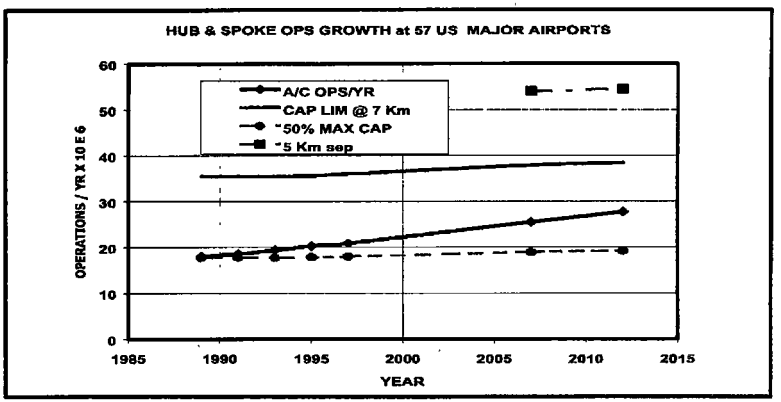

Figure 1. Current US Hub and Spoke operational capacity using the GMU Macro Capacity Model. Dashed line represents 50% capacity threshold above which noticeable delays increase Hyperbolically [3]. Capacity fraction was 58% (1997) and predicted to be over 70% (2010).

TABLE 1 Regional Air Transportation Capacity Fraction For (57) Major Airports

REGION	NUMBER HUB R/W	Estimated # A/C TURN POINTS	Number Ops/Hr MODEL	Number Ops/Hr 1997	% Cap97/ CapMAX	Avg 8 yr Growth Rate %	TAF 1997 ENP X10E6	OPERATIONS 2012	OPERATIONS 1997
NORTH EAST	14	420	348	294	84	9	54	1,950,000	1,645,786
PACIFIC SOUTHWEST	9	262	403	298	74	10	43	2,205,000	1,670,280
PACIFIC NORTHWEST	22	353	693	455	66	8	62	3,364,000	2,549,603
NOTHERN MIDWEST	42	773	1090	684	63	32	99	5,522,000	4,040,088
ATLANTIC COAST	13	269	438	241	55	8	31	1,701,000	1,347,458
CENTRAL MIDWEST	12	205	237	131	55	3	19	1,496,000	1,114,207
WEST	22	415	756	405	53	9	62	3,180,000	2,270,307
SOUTHEAST	21	424	776	391	50	-2	54	2,704,000	2,190,557
FLORIDA & LATIN AM	14	322	602	287	48	18	48	2,114,000	1,608,673
SOUTH SOUTHWEST	27	380	892	433	48	16	59	3,468,000	2,424,105
TOTAL	196	3823	6239	3620	58	11	532	27,704,000	20,861,064
% NATIONAL TOTAL							89	78	77

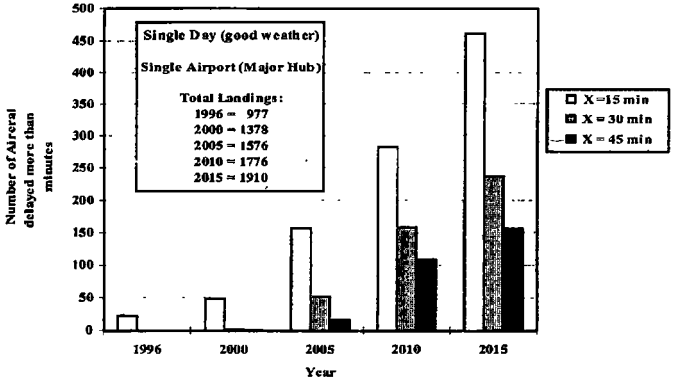

Figure 2. Predicted delay increase at a major hub airport using the MITRE DPAT model [4].

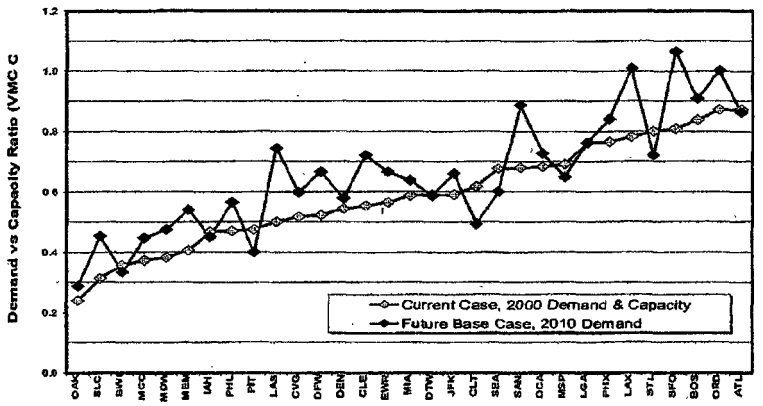

Figure 3. Estimated Hub Airport Capacity Fractions for 31 Major US Airports under Favorable weather conditions. The 2010 Scenario assumes all major runway additions forecast in the FAA ACE plan. Note that delays are projected to increase hyperbolically at capacity fractions in excess of 80 %. Source: R. Shaver, The RAND Corp. 2001 TRB presentation.

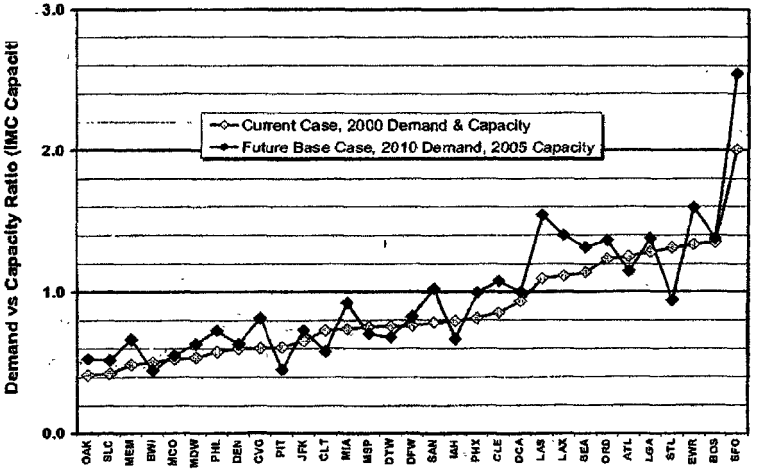

Figure 4. Estimated Hub Airport Capacity Fractions for 31 Major US Airports under Bad Weather conditions. The 2010 Scenario assumes all major runway additions forecast in the FAA ACE plan. Note that delays are projected to increase hyperbolically at over half of the airports today and it is projected to be much worse in 2010. Source: R. Shaver, The RAND Corp. 2001 TRB presentation.

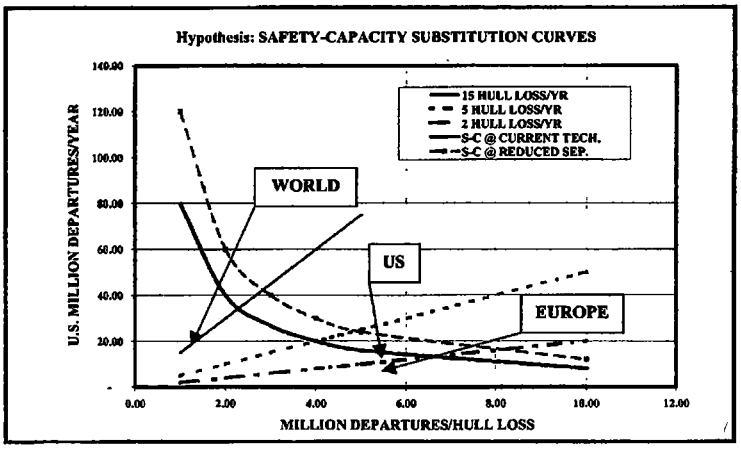

Figure 5. Hypothesized relationship between Capacity and Safety. The solid Hyperbola line represents the potential limit of today's aircraft separation technology. The dashed Hyperbola represents the potential capacity increase that could be achieved by migrating to a GPS based ADS-B aircraft self-separation technical paradigm. International air transportation is currently operating close to the 15 Hull Loss per Year line, while the US is operating close to the 2 Hull Loss per Year Line.

Revised 3/15/2001

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[i] Dr. Donohue was formerly the Associate Administrator of Research and Acquisitions at the Federal Aviation Administration from 1994 to 1998. Prior to this appointment he was a vice president of The RAND Corp. in Santa Monica, Calif. From 1989 to 1994 and Director of the Aerospace and Strategic Technology Office at DARPA from 1988 to 1989. He is a Fellow of the AIAA, a member of the NRC TRB and a member of the Goals subcommittee of the NASA Aero Space Technology Advisory Council (ASTAC). Donohue holds a Ph.D. in Mechanical and Aerospace Engineering from Oklahoma State University and is a licensed private pilot.

The views expressed in this testimony are his alone and do not represent the official views of George Mason University or the Logistics Management Institute, MIT/LL, MITRE/CAASD, the RAND Corp. or Aviation Systems Engineering, Inc., for which Dr. Donohue consults. Dr. Donohue has received research funding from the FAA for ATM model evaluations and from DARPA for aviation applications of the next generation Internet technology.

[ii] Operating a hub is expensive. But this expense is more than compensated by the high load factors and the revenues that are generated by hubbing.

[iii] If the growth in passenger demand exceeds the growth in seats available, then the airlines will be able to fill their aircraft with a higher fraction of business travelers who, on the average, are willing to pay much higher prices for the available seat. Whether the average increase in revenue that results is greater or less than the added cost from congestion is not known.

[iv] This leaves aside the complementary question of just how the FAA, the airports, and even the airlines actually are financed. For the purposes of this testimony I am assuming no fundamental change in the pricing structure or in FAA financing.

Committee on Appropriations (Transportation)

Witness Disclosure Requirement - "Truth in Testimony"

Required by House Rule XI, Clause 2(g)

Your Name George L. Donohue		
1. Are you testifying on behalf of a Federal, State, or Local Government entity?	Yes	No X
2. Are you testifying on behalf of an entity other than a Government entity?	Yes ~~X~~	No ~~X~~

3. Please list any federal grants or contracts (including subgrants or subcontracts) which you have received since October 1, 1999: FAA Contract on ATM model evaluations, DARPA contract on Communications; sol to ATM, subcontract to NASA via LMI on SATS, subcontract to MITLL on AvSTAR.

4. Other than yourself, please list what entity or entities you are representing:

myself

5. If your answer to question number 2 is yes, please list any offices or elected positions held or briefly describe your representational capacity with the entities disclosed in question number 4:

N/A

6. If your answer to question number 2 is yes, do any of the entities disclosed in question number 4 have parent organizations, subsidiaries, or partnerships whom you are not representing? N/A	Yes	No

7. If the answer to question number 2 is yes, please list any federal grants or contracts (including subgrants or subcontracts) which were received by the entities listed under question 4 since October 1, 1999, which exceed 10% of the entities revenue in the year received, including the source and amount of each grant or contract to be listed:

~~N/A~~

See 3

Signature: George L Donohue Date: 3/15/01

Mr. ROGERS. Thank you.

Dr. Barnhart, Southwest Airlines in your presentation showed that dramatically lower cancellation rate, lower than any other major airline in each year between 1995 and 1999.

What are they doing that others are not?

Ms. BARNHART. I think the thing that this alludes to is the fact that they are flying into less congested airports. The chart I showed that had hub cancellation rates at the busy airports, what is happening there is you have points during the day at which more flights are scheduled in than there is capacity in the best of times and so on days when weather affects the airport and capacity is reduced, to be able to handle operations at that airport, you must cancel some of the flights. And what Southwest is doing differently is it is avoiding to a large extent those airports.

Mr. ROGERS. So they are finding capacity outside the hub areas. There are existing runways out there at airports with good terminals that are sitting there idle and Southwest is finding those?

Ms. BARNHART. Absolutely.

Mr. ROGERS. Why are not some of the others doing that?

Ms. BARNHART. Does anyone else want to answer to that?

Mr. HANSMAN. I think they are, but Southwest in our observation, and Cindy and I have worked together on this, are looking for opportunity, so they are sort of looking for markets where they have very high reliability of service because they value that in their system design.

They are not attempting to completely cover the U.S. so there are a lot of places you cannot get to in the U.S. on Southwest. So in some sense you can think of them sort of creaming the system, they are looking for the good opportunities, and they are really much more of a point-to-point market, so they find two markets and fly to it so they are not trying to cover the whole system.

Mr. DONOHUE. Mr. Chairman, if all of the airlines adopted Southwest's strategy, then this N squared type of growth that Professor Hansman talked about would absolutely saturate the air traffic control system en route. And so they are taking advantage of something that if all the airlines took it it would be even worse, but for a different reason. All people cannot play that game.

Mr. ROGERS. Is there any alternative to the present structure of the hub and spoke system that is realistic?

Ms. BARNHART. Well, as part of our Global Airline Industry Program and visiting a number of airlines, there are things that the airlines have been doing and investigating that move to try to help ameliorate the problem. For example, they look at introducing flights that jump hubs, avoid the hub, where there is sufficient demand.

They have looked at introducing additional hubs, some refer to them as mini-hubs. They have looked at trying to spread arrivals and departures through the day at their hub, to spread out these hubs and try to utilize capacity more evenly through the day. And there are things like that that the hub and spoke airlines are looking at.

Mr. ROGERS. But we have seen no real results yet, have we?

Mr. DONOHUE. Mr. Chairman, if I could——

Mr. ROGERS. Have we seen the results?

Mr. DONOHUE. Not yet.

Ms. BARNHART. Not yet. Well, perhaps in Newark.

Mr. ELSAWY. There is also another result that happened and that is the airlines are complementing their hub-to-hub operations with feeder airlines, regional airlines, to essentially provide that feeder system into the hub, to get the point-to-point service as well.

Mr. ROGERS. Tell me about it.

Mr. ELSAWY. But that exacerbates the hub capacity. I know you just experienced that.

Mr. ROGERS. I mean, it is every time you fly.

Mr. ELSAWY. Yes, sir.

Mr. ROGERS. It used to be occasionally you had a problem and now it is every time you fly it is an adventure.

Mr. ELSAWY. But to Dr. Donohue's point, so now you have a very active hub and spoke system, plus you have a very active point-to-point system, so you are getting both effects at the same time.

Mr. DONOHUE. The hub and spoke system happened almost instantly after deregulation. It is compellingly economicly efficient. It is very hard for the airlines not to want to do the hub and spoke system. In Europe, where they have had a very regulated structure, as they are slowly deregulating, they are slowly developing a hub and spoke system, so I think that this is kind of an economic drive in this direction, but I think there is an interesting analogy. With deregulation in 1978, we took the regulations off the airlines to find economic ways of delivering service and that has helped generate a gigantic growth that Professor Hansman talked about.

On the other hand, we did not deregulate the operation of the air transportation services, which is the FAA's air transportation management system. And just as they did in California with energy, you cannot take one of the regulations away and not take the other away. You start winding up with a squeeze and I think that is part of what we are seeing.

Mr. ROGERS. This is not that important a question, but did we not see the hub and spoke system develop as the result of the UPS/Fed Ex freight hub system development? Which came first?

Mr. DONOHUE. I think the airlines came first.

Mr. HANSMAN. I think American Airlines—I think the airlines started it, but it was really Fred Smith with Federal Express who really looked at it as a way to cover the entire network, so he was really the guy who came in with the philosophy of we can cover the entire country with one hub, with the Memphis hub.

Mr. DONOHUE. And now he has gone out to multiple hubs, with satellite hubs.

Mr. HANSMAN. Well, I understand that. Once one hub becomes saturated, then——

Mr. DONOHUE. Then you open satellite hubs.

Mr. ROGERS. Would you like to comment on the significance of airline over scheduling? You have sort of covered it, talking about peak hour saturation, but airlines are scheduling more flights into an airport than they can handle on even the best of days.

How can they justify that and why is that taking place?

Mr. ELSAWY. Well, I will take a shot at it to start.

I think the key point was made earlier this morning, that in fact the rules as they are stated today, the competition rules, essen-

tially, make the opportunity costs for them extremely high and so they have to play the game the way that it is essentially structured. And so to the extent that the constraints in the system today remain the same, I think you will find that the behavior is the same. So you have to change the constraints under which they are operating and change the dialogue so the conversation becomes much more passenger focused as I think you have indicated this morning.

Mr. HANSMAN. I think the other effect is that the airlines know, the schedulers know, that all airplanes are not going to arrive when they were scheduled, so they are actually banking on a certain spread in the schedule because of the earlier delays.

Mr. ROGERS. Rather than banking, it is probably betting.

Mr. HANSMAN. Okay. Betting. Right. Yes. So in fact, it is critical—if you look at the schedule structure you have these waves that come in, but then there are lull periods between them and you need the lulls to recover for the airplanes that are delayed. If you did not have that, any delay right at the beginning of the day would propagate through the system.

Mr. ELSAWY. And, in fact, if I may add to that point, because it is critical, if you look at LaGuardia, LaGuardia has no lulls.

Mr. HANSMAN. That is the problem.

Mr. ELSAWY. LaGuardia has no recovery time associated with either the arrival banks or the departure banks and so you have essentially 12 to 14-hour days just full out.

Mr. ROGERS. Well, I mean, looking at your moving map of all airline flights during that 24-hour period of time, except two to four a.m., I did not see much window for anything. I mean, it is all peak hours, it seems like, in looking at that.

Mr. DONOHUE. About 16 hours a day now is high tempo operations.

Mr. ROGERS. Yes. Well, how are you going to spread that out? There is no place to spread it out.

Mr. HANSMAN. Yes. What I meant by that is if you looked in more detail at like Chicago or one of the hubs, Dallas-Fort Worth, you would actually see a wave of airplanes coming in, that is the bank, then they would trade passengers and then the wave goes out. And in between those waves, there is normally an hour or two between waves, and so the airplanes that are delayed sort of start to fill up the gap between them. So if you were to have waves coming right on top of each other, the airport would go into gridlock, which is sort of what is happening in LaGuardia.

Mr. ROGERS. So what is your conclusion?

Mr. HANSMAN. My conclusion is actually that the airlines will schedule to—the airlines have to design a schedule that will work in some sense and they appreciate now that the delays are becoming a major factor, so we are seeing the airlines start to value robustness in their schedules.

Mr. ROGERS. What do you mean?

Mr. HANSMAN. What it means is that they—let me say it a different way. In the U.S., traditionally we schedule to the good weather capacity of the airports and we bet on good weather. And when the weather is bad, we take the delays, but it turns out you

are making a value judgment that cost is more important than reliability—that is a strategy that you can use.

In Europe, for example, they schedule to bad weather capacity, so they do not push their system as hard.

So we actually run many more people through our system than the Europeans would run for the same network. So that is a reasonable strategy, but the problem is that it is not very robust—it breaks down easily. It is not very predictable, it is not very robust. So if you have some bad weather, the system starts to break down.

You can design a schedule which is more robust but is not as efficient, so what I do is, I do not schedule the airplanes to turn as quickly, to spend more time. And it is not as efficient in terms of my utilization of resources, I cannot fly as many flights, I cannot fly as many passengers, so traditionally airlines in the U.S. have tried to schedule as much capacity out of the system as they could. Because the public is now starting to value reliability they are starting to—the market respond to which will start to push them back to schedules that have more reliability.

In fact, you are starting to see it if you look carefully in the pricing. The prices for high reliability routes are actually higher than the prices for low reliability routes to the same destinations.

Mr. DONOHUE. I think the comparison between the U.S. system and Europe is a very interesting one to look at because we basically fly the same JCAO rules, we basically use the same radars, communication equipment, but we employ them in a very different way.

The Europeans value predictability in their transportation system. They do not like delays, they like the trains to leave on time and they like their airplanes to work the same way. So they always assume the weather is bad and every airport is virtually slot controlled. And so they do that, they are giving up capacity and they are giving up profit margin and profitability of the airlines but they regulate it.

We have a much different philosophy towards regulation and so we have allowed the airlines to try to profit maximize, which is not a bad thing, but they are going to push the system as hard as they can, assuming the weather is good. And when it is, it is great. But when the weather is not so good, then we have delays, cancellations. But to some extent, they fill the seats on the next day or the next plane and so it is not necessarily—I mean, I hate to say this, but some of these delays are not necessarily that bad for the airlines. The lack of growth in capacity is not all that bad for the airlines because you have rising demand and capped capacity and therefore over time we are going to see rising prices.

Ms. BARNHART. I would like to just follow up with that. A lot of the work we have done has been working with the airlines in developing schedules and what I have observed over the last few years is that there is increased awareness of this need for reliability in the schedule, but it is a tradeoff.

What they are looking for is a schedule that is almost as profitable but has more reliability, so they are not, of course, going and saying let us adjust our schedule to maximize reliability at any cost. I think it is important to keep that in mind what is driving

a lot of this—the airlines are well aware of the issues, of course, but what is driving it are the economics.

Mr. ELSAWY. Just two comments on Europe. Europe, as Dr. Donohue said, has a different approach to solving the problem, so some of the things that they started to do, for example, is they started to limit your ability to fly certain segment lengths and they started to say that if the segment length is, let us say, less than 100 miles, then you take the train, you do not fly. Then they also started to limit the altitude at which certain flights can go because what they are trying to maximize is the ability of people to cross the continent.

So their approach to solving the problem is very, very different than the approach that we have adopted here in the U.S.

Mr. ROGERS. Well, sometimes, perhaps now even most times, the concerns of the traveling public are not being taken into account and that is where we come in.

I guess we have driven or allowed—deregulation has given the airlines the notion and idea, rightfully so, I guess, go out there and make a living, go out and there do the best you can to make some bucks for your stockholders. And that is what they are doing and in most cases, in my opinion, in many parts of the country, there is no really effective competition for an airline.

You know, US Air, if you are going to fly out of Pittsburgh, you may as well count on US Air. If you are going to fly out of Atlanta, it is probably going to be Delta. And Minneapolis, Northwest and so on. And they sort of leave each other's hubs alone. They do not mess with Texas. And that means that there is no effective competition.

So therefore they do not have to be nice to their passengers and we are beginning to hear that in big time ways here in the Congress and they expect something to happen.

What could we do to reinstill a sense of public service, if you will, to the airlines' practices?

Mr. DONOHUE. Well, I will stick my foot in my mouth. I think that we are going to have to put some regulation back in the system. I think the deregulation that was done in 1978 was a very good thing and it really allowed the system to grow, the cost of air transportation has come down dramatically, I think that is good. It is probably directly tied to deregulation. Europe did it in about 1985 for the same reason. They finally realized they had to do it to keep up with the benefits of deregulation.

It works great when you are not near the capacity limits of the system. And what has happened is that it has been, as John said, very successful and now we are getting close to the capacity limits of the system. We may be able to squeeze another 20 or 30 percent out, experts differ, but it is on that order. And then I think we are going to have to probably look at some gentle re-regulation that tries to make up for the excesses that can happen in a complete laissez faire process, but not throw out the baby with the bath water.

Mr. ROGERS. What kind of regulations would you think?

Mr. DONOHUE. Well, I think moving towards more coordinated time schedules. Right now, the bankings are not coordinated. To move towards what the Europeans call 4–D control, which basically

means you have avionics on the aircraft that can make a four-dimensional contract. That means that airplane will be where it says it will be in time and in space.

Now, aircraft have the electronics that can by and large do that. And so then you very much try to regularize the aircraft coming in and out so you do not have these big banks of delays and you do not push the airport up to 85 or 95 percent of maximum capacity where the queuing delays go out of sight like Professor Hansman was showing you. You just do not let that happen.

And, by the way, in the process of doing this and maybe by auctioning these slots off because they do have great economic value, you would encourage them to use bigger airplanes on some of these big trunk routes. So they are going to give up some in frequency to make up for emplanements because the limitations we are seeing are operational limitations. And the airlines, as John showed, and I think talked about, are going to smaller and smaller airplanes. Now, that is economically beneficial to them, but it is decreasing the nation's emplanement capacity.

And the regulation will be complex. There is no simple formula. I do not have a simple answer, but I think that is the direction that we are going to have to move. We are going to have to start using some economic tools beyond what technology can do because technology can only do so much.

Mr. ELSAWY. I think in LaGuardia, for example, you can see that to the extent that the value of the resource is zero, then the demand will be infinite. I think there is no arguing that. But a couple of things in terms of what can be done.

Clearly, as I had mentioned earlier, changing the rules as to how airlines can in fact address schedule concerns, especially in some of what I would consider to be the national resource airports, those five or six airports that really represent the backbone of the air transportation system is absolutely key.

I think where you were heading this morning, Mr. Chairman, about the disclosure of information and the sharing of information on a timely basis is absolutely critical.

As Administrator Garvey mentioned this morning, the collaborative decision making process that occurs on a daily basis, this is a very tactical system, some of the things that are happening have four-hour schedules, two-hour schedules and then very tactical 20-minute implications and so forth and so it is very important for the airlines and the FAA and the other users of the system to be aware of the condition of the system and where it is likely to be.

There is a forecasting element associated with it within the four-hour period and the two-hour time window, so that in fact the system can adjust. If you do not have that information, if you are not participating in the process, if the controllers and the pilots are not trained as to what the implications are, the communications between the centers are not effective and so everybody essentially stays in the dark. And so the notion of more transparency in the information sharing, more coordination and communication on a regular basis is the only way in the short term that you are going to get out of some of the anomalies that you see in the system because, as Professor Hansman said, it does not take a big disruption, and this is what I tried to show in the Newark scenario, it

does not take a big disruption to have a very huge effect on the system. And so instead of just talking about capacity, we need to talk about flexibility in the system as well as margin in the system because unless you have that little margin, you are not going to be able to adjust the operation.

Mr. HANSMAN. I think in getting to your question, what can you do to sort of compel the airlines to really serve the traveling public is a very tough question. And I am really torn because there are two ways to go.

You can let the free market act and ultimately if the service is bad enough then someone else will come in with better service.

Mr. ROGERS. If you cannot get the gate, you cannot compete. Or prices will go up.

Mr. HANSMAN. So there is an issue of making sure that there is competition, so that is one strategy.

Another strategy is to try to again put in some degree of regulation which makes it unattractive for the airlines to act in a way which does not serve the public. You have to be a little bit careful there because—I mean, I sort of struggle with what would you put in that would be effective but not drive the prices through the roof? I mean, I could tell the airlines, for example, you cannot over schedule your airplanes. And, you know, that would be an easy thing to do. And the airlines could do that and they would charge more for the prices.

The real fundamental issue in terms of capacity, not necessarily the service part, is that we have too many people who want to go to a few places in the country and we can work the hub thing to some extent, but you are not going to solve New York, because there are too many people who want to go to New York.

And so we are sort of in this space where we are running up against our capacity limits and more people want to go there, so do we provide the capacity to let them go or do we let the market reset itself one way or the other and make it more expensive to go?

And I do not have the answer. It is a struggle.

Mr. ROGERS. If each of the major airlines established one additional hub each, would that not go a long way toward relieving the capacity problem?

Mr. DONOHUE. Some work has been done on that and talking about actually putting new hubs where there is not new congestion. You could say let us go to the middle of Kansas and put a big hub there. That has not happened and one of the reasons it has not happened is because it is not economically viable for the airlines to do that.

The airport people——

Mr. ROGERS. Cleveland is a hub.

Mr. DONOHUE. Cleveland is a hub. There is a rule of thumb that the FAA uses in the airport program which they told me. They said to be a hub airport, an airline needs about a 50 percent origin and destination passenger load to make it economically attractive to make it a hub.

Now, why is that, I asked.

And they said that is because those tend to be walk up business passengers who pay high fares and they carry the bulk of the profit for that flight. And so if you are just trying to put in a hub that

has a lot of capacity. With law origin and destination passengers, it will not happen without regulation.

In fact, the chairman of American Airlines one time said instead of putting extra runways at O'Hare, he could always just go and hub through Kansas City, it is already there, he did not have to put any extra infrastructure in. But he does not, yet. And the reason he does not is because there are not enough people who want to go to Kansas City to have him operate it economically for him as a hub. So there are these economic incentives that are very much tied to the way in which the network works.

Mr. ROGERS. Mr. Sabo.

Mr. SABO. As we listened to folks this morning, pouring more concrete was very high on their agenda. I listened to all of you and even listening to them, it just strikes me that if it is congestion we are dealing with, if we pour more concrete in the most congested airports with the troubles we have in the air congestion, that we would add to the problem rather than solve anything.

Mr. HANSMAN. If it you look at it carefully, I did not spend the time to go through it, it is really right now the runways are the problem. They are the fundamental bottleneck that we cannot redesign the air space around. So if it is only safe to land 60 airplanes an hour due to wave vortex on a runway, then that is all I can safely get into that airport.

And if you look, for example, you know, out there probably right now airplanes are lined up about 400 miles outside of Chicago already to get into Chicago because that is the limiting resource and they know that if they get them any tighter that they are going to run into a problem there.

So it is true, I think, that pouring concrete at the places where people really want to go, you know, is something that you need to do or, you know, ultimately the prices are going to go up there. There are places like New York, I come from Boston, Boston is a place where the local or the regional economies will be capped, their growth will be capped because you just cannot increase economic activity in the region because you cannot support the travel which is necessary to maintain it. So there is a coupling between economic development and airports that I do not think we understand very well, which really should be the root of where you decide you put your airport.

Mr. DONOHUE. There is another problem and I have recently been looking at large hub airports and looking at the effective marginal increase in capacity as you add another runway to a large hub, like a Dallas-Fort Worth or Chicago O'Hare or Schiphol in Europe. And what we see is that the marginal increase in capacity keeps decreasing the more and more runways you add at these big hub airports. And the model that Mr. ElSawy showed the simulation of we also use at George Mason University and we have looked at it and we say why is that happening?

And what you see is that you start getting traffic congestion problems on the ground. In fact, adding a new runway can make it worse. You add an extra runway, you put more planes there, they all have to go across this particular node on the airport to get to where the gates are. And then they have their own queuing problem, as Professor Hansman said. There is a series of queues

in this problem. So you can just shift the problem from one place to another, any one of them will stop the flow and produce the cork.

So I see the strategy, and Southwest is kind of doing this, of going to the Manchesters and the Providences to serve Boston and I think that is what is going to happen, actually, for the foreseeable future. It is not a bad strategy because it gets them out of the air space, because the air space also gets congested, gives them different parking lots, different roads. As Professor Hansman said, you can clog up Boston or any of these places or Newark or LaGuardia from the road system as well.

So we really have to, I think, in some sense distribute where we put the airports, probably using existing reliever airports, putting more infrastructure into them initially until they get filled. I mean, they will fill up, too, but that is what I said in my testimony. I think that is probably the best near-term strategy we have, is investing in the airports like the Manchesters and the Providences all over the country.

It is still a hub in a sense, but now it is like a mega hub. It is like Washington, D.C. where we have three major airports. And, by the way, we have pretty good air service in Washington, D.C. because we are fortunate to have three airports that are distributed around the city that serve our needs.

Mr. SABO. In terms of peak demand, it just seems to me that if we simply build more runways for them there is no way they start adding bigger planes.

Mr. DONOHUE. That is a tradeoff.

Mr. HANSMAN. That is one of the questions, how do you compel people to add bigger airplanes. I think if you go look at Dallas-Fort Worth, at Dallas-Fort Worth they added an extra runway 12 years ago or something like that.

Mr. DONOHUE. No, just recently, about three years ago, four years ago.

Mr. HANSMAN. Okay. But if you actually look at the delays before and after the new runway, they are actually about the same. So what will happen is that the airlines that operate out of those airports will just expand their schedules to take advantage of the capacity.

Now, you can say that that is a bad thing or you can say I am serving a lot more people. And I am not sure what the right trade off on it is, but what it tells you, though, is that the airlines will not schedule too much delay. If they see the schedule start to break down, they will back off, one way or the other.

Mr. DONOHUE. But one of the problems with Dallas-Fort Worth is they are adding independent runways. To be an independent runway for the FAA, you have to have 4300 feet spacing for parallel independent arrivals, which is what you want to do in an airport today. That is almost a mile. So as you add more and more runways, the taxi time to get from where you land to where you want to go is increasing by one mile chunks at a time and then typically you have to cross active runways, which means they have to slow down the arrival rate on an active runway to let traffic cross.

Mr. SABO. One of our growing problems is runway incursions.

Mr. DONOHUE. And we are having a serious problem with runway excursions. And so people are talking about putting light bars, active traffic control. The problem is we cannot put overpasses and underpasses—the way we would deal with this with surface transportation would be to build underpasses but think of a 747 wing span. You know, if you have 300-foot span underpasses so you can put 700,000 pound point sources over the top, civil engineers would love to take that on, but it is not an inexpensive underpass. And then Airbus will build a bigger airplane.

So we actually start getting into this ground transportation problem at some point, so just adding more runways to the big mega hubs, in my view, is diminishing returns. So somehow, like in communication, we went from the big trunk systems to the Internet and we started distributing the loads because we were finding that we were clogging up the gateways, the big switching networks, with big main trunk systems and so I think the same sort of thing is going to happen here. We are going to have to start distributing where these airports are, but recognizing the population density is not distributed. So just putting a big hub in Wichita, Kansas is not necessarily going to help.

Mr. ELSAWY. As a matter of fact, there was a recent study by RAND that showed the population shifts and I am sure you are aware, you can see precisely that effect, where the population shifts are continuing to go to the eastern United States and to the West Coast and so that trend is likely going to increase and so you see people flying to where they live and work and so forth. And so the notion of distributing that load to smaller and smaller airports is, I think, a strategy that will emerge, it is just that the market has not really justified it yet.

Mr. SABO. I sit here looking at some data I have on 30 airports and then I start—and LaGuardia does not show up on it and it is from airports participating in ACI monthly airport traffic statistics collection.

How big is LaGuardia? Is the reason they are not on my chart because they do not participate with the other airports?

Mr. ELSAWY. It is probably a list of the smaller airports. I am really not sure.

Mr. SABO. No, it is Atlanta, Chicago, everything.

Mr. DONOHUE. LaGuardia is in the top 15 at least for operations, maybe in the top ten.

Mr. SABO. They are not on this list. There must be a reason. I have been confused all day looking at this.

Mr. HANSMAN. LaGuardia is not one of the biggest, but it has a prime real estate location. So in fact it is kind of like Washington National. It was one of the early airports that was close in to the city, they were on the water, they really did not have much room to grow.

Mr. SABO. How many runways do they have?

Mr. ELSAWY. They have two.

Mr. HANSMAN. They have two. There are just two runways, but lots of people want to go there and they are willing to pay—they are shuttle passengers who are very high revenue so that is why airlines want to run in there.

Mr. SABO. One is passenger total, the other is landings and take-offs each day and unless there are some initials that I do not understand——

Mr. HANSMAN. It should be LGA.

Mr. DONOHUE. LGA. Yes.

Mr. SABO. They are not on here.

Mr. HANSMAN. I can give you an estimate.

Mr. SABO. You know, JFK——

Mr. DONOHUE. They do as much business as JFK, as I recall. Their operational rate is about the same as JFK and Newark.

Mr. SABO. Well, JFK is 21st internationally. Newark does not—it is 22nd in landings.

Mr. DONOHUE. LaGuardia should be right very close to those other airports.

Mr. HANSMAN. I only have 1995 data.

Mr. SABO. This is 1999.

Mr. HANSMAN. Okay. The 1995 data I have shows LaGuardia at about 280,000 operations, I am not sure, but it is about the same level of operations as JFK or Houston.

Mr. DONOHUE. Right. But it has fewer runways than they do.

Mr. HANSMAN. This is the 1995 data and this shows LaGuardia here. This is actually total operations on the bottom and delayed flights and this is that curve I was showing you, that capacity demand curve, and you can see at the time these were the bad airports, San Francisco, LaGuardia, Newark, St. Louis and Boston. And you can see that the good weather airports like Las Vegas and Honolulu are below the curve. And the strategy Southwest uses is to fly into those airports that have relatively low delays so that they have a much more reliable schedule.

Mr. DONOHUE. Newark, LaGuardia and JFK also have another problem, they are very close together. They are like less than 10 miles from each other, so the air space also gets extremely complicated. Not only do they have runway delay queuing problems, they have airspace interaction problems between three airports. That is a very complicated piece of real estate.

Mr. HANSMAN. These are radar tracks into and out of the New York area, so LaGuardia is up here, Kennedy is here.

Mr. SABO. Do they interfere with each other then?

Mr. ELSAWY. Oh, sure. Absolutely.

Mr. DONOHUE. They have to deconflict. They have to make sure they do not run into each other.

Mr. HANSMAN. That is one of the problems, that they do not have a lot of flexibility. They are carefully designed not to interfere with each other. But, as a result, when you do get bad weather in the New York metro area, then you have to shut down the flow because you cannot move it because you will interact with one of the other airports.

Mr. ELSAWY. As a matter of fact, there is a routine rotation of the runway configurations that are used in the New York airports, as one runway changes, the others have to shift in order to accommodate the flow in and out of the airport. This also is a very good indication of why that air space redesign activity that we talked about this morning are critical.

Obviously, with air space redesign, you also have noise issues and environmental issues, but there are ways to in fact use the existing approved routes in a more efficient way and allow for the separation of some of the choke points that were discussed this morning. So those two things are happening right now and that is why the commitment this morning from NATCA, I think, and the FAA was so critical because we have to start deconflicting some of those streams, especially in the New York area.

Ms. BARNHART. Actually, we had a speaker at MIT who was talking about designing the aircraft routes for their start-up airline out of JFK. And one of their strategies was to fly at a lower altitude, which is more costly, but they said that the fact that they are able to depart more quickly and get out there easily negated the higher cost of flying.

Mr. DONOHUE. ConAir is doing the same thing in Cleveland and they are flying low to get out and then they will request an en route climb.

Mr. ELSAWY. The other thing you will see in New York is that especially on the departures instead of departing everybody to the same fix in the air space, they are also trying to identify what is called a fan out of those fixes so you can go to multiple places and get some efficiency from that as well.

Mr. SABO. To what degree in the major airports—to what degree does general aviation use those major airports? To what degree?

Mr. ELSAWY. Well, I know, for example, that in LaGuardia, 30 percent of operations are carrying 10 percent of the passengers. That is just a statistic I know for LaGuardia in particular. I think the issue is less general aviation per se but more the capability of the aircraft that are flying into the various streams. So, for example, if you have a jet behind a turbo prop behind a smaller aircraft in front of another jet, what you find is that because of the physics of flight and because of how safety considerations and the speed considerations and wave vortex and so forth, that mixture in the stream of aircraft using that runway has a very large effect on how effectively you can use that runway.

And, as a result, as we start talking about new aircraft, new capabilities, it is very important to start increasing the navigational capability of the aircraft by incentivizing equipage to a higher level of equipage.

Dr. Donohue talked about communication systems, navigational systems, but also some of the work on wake vortex protection, for example, becomes very important because that governs how close you are and also the speeds at which you can use the airports.

Mr. DONOHUE. To add to that, many airports actually have some short runways which they tend to use for general aviation, so they do not get in the stream. You do not have a 70-knot landing speed Cessna 172, arriving behind a 130-knot landing speed, a Boeing 777 or something like that. So they will put them off on a separate runway.

What is happening with some of this general aviation activity, though, is that they are moving more to jets and even some of the propeller planes that were in the regional feeder airlines are moving to RJs and they both require longer runways. And so now they are tending to want to move into the mainstream runways because

they need jet-like landing distances and they are decreasing the emplanement capacity. I mean, even an RJ, which is not a general aviation issue, but it is a 30-passenger or a 50-passenger jet that takes up a whole slot in the queue. It is great for flexibility and this goes back to the regulation issue. I asked an airline executive, I said why are you buying more RJs going through your hub?

This was when I was at the FAA and they were hammering me for not giving them more modernization. And I started figuring this out and I said, well, you are buying RJs, you are flowing them in there, you are decreasing enplanement at your major hub.

And his answer to me was because we make money at it, okay? And we have good profit on those RJs. And his view was that the FAA should give them the capacity.

Well, it turns out there are some physical limitations. There is only so much capacity, with all the technology you have you can give them. And so this is the tension I see between public policy, regulation and the benefits of deregulation and economic incentives.

Mr. HANSMAN. Also in answer to your question, there are not a lot of GA airplanes. The problem is not really the GA airplanes. There are a lot of turbo props or smaller airplanes, but they are feeding from the smaller communities. So, again, when we go back and look at it in terms of serving the public, you do not want to cut off the smaller community, so it is a real trade. So it varies, but the really heavily loaded airports like LaGuardia you do not see a lot of GA traffic.

Mr. ELSAWY. The other point that I would like to make, if you remember Professor Hansman's procedural protection zone that was in the chart? Air traffic control has clearly the pilot in command, has the air traffic controller providing separation assurance, and then it has a number of systems that provide for backup so that any failure in the system is a very gradual failure so you do not see catastrophic failures.

One of the critical elements of that is that air traffic control and flying is very procedural and so one of the things that happened is as soon as you enter into that procedural zone, there are lots of human factors, training and so forth. And one of the issues that we are working, for example, with NATCA on is that to the extent that you can have similar procedures for all the traffic flowing in a particular area, then that air traffic controller will be able to handle it with a certain level of efficiency higher than the efficiency that would exist if they had to constantly modify the procedures.

And so as a result, what you find is that the procedures will operate at the lowest common denominator as opposed to the most efficient way of doing it to provide for that procedural integrity in the system and that is something that I do not think that we want to take away.

On the contrary, I would say let us increase the navigational and communication capacity of the aircraft to provide procedural integrity because you never want to take that away.

Mr. SABO. I always thought the Osprey technology was going to probably help us out.

Mr. HANSMAN. Do not hold your breath.

Mr. SABO. Does not sound very good.

Mr. DONOHUE. It has a ways to go.

CLOSING REMARKS

Mr. ROGERS. Well, thank you, lady and gentlemen for your very interesting testimony and helpful testimony and your research that you have brought to us. We appreciate your testimony and we will likely call upon you again at some point in time, with your willingness.

Thank you very much.

WEDNESDAY, MARCH 28, 2001.

FEDERAL AVIATION ADMINISTRATION

MANAGEMENT ISSUES

WITNESSES

JANE F. GARVEY, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

CAROL CARMODY, ACTING CHAIRMAN, NATIONAL TRANSPORTATION SAFETY BOARD

KEITH D. DeBERRY, PROFESSIONAL AIRWAYS SYSTEMS SPECIALISTS, AVIATION SAFETY INSPECTOR, FEDERAL AVIATION ADMINISTRATION

ROBERT KERNER, PROFESSIONAL AIRWAYS SYSTEMS SPECIALISTS, AVIATION SAFETY INSPECTOR, FEDERAL AVIATION ADMINISTRATION

JOHN P. FISHER, PRESIDENT, FAA CONFERENCE, FEDERAL MANAGERS ASSOCIATION

ARTHUR C. EICKENBERG, FAA CONFERENCE, FEDERAL MANAGERS ASSOCIATION

OPENING REMARKS

Mr. ROGERS. The Committee will be in order.

Good morning to everyone. This morning we will receive testimony on management issues within the Federal Aviation Administration, by far the largest operating agency under this Subcommittee's jurisdiction and the one with some of the biggest and most intractable problems.

Today I guess could be considered chapter two or three in the continuing saga of airline service in this country and the delays and the unacceptable cancellations that we are seeing in the business today.

As we begin this hearing, let me again say at the outset that we expect answers and plain talk today, and if you are part of the problem of airline delays and cancellations wherein one out of every four flights is either canceled or delayed, if you are a part of the problem we want to talk to you in nice, but very blunt terms.

We do not want to hear fluff today or filibusters. We want to talk turkey. We are going to get to the bottom of things. If you are part of the industry's part of the problem, then you have a problem from this Subcommittee, and we will stay with you until something freezes over.

You will notice to my rear that we have placed on a placard the promises that were made by six witnesses who testified before us a couple of weeks ago on airline delays, all major portions of the industry from the pilots to the controllers to the FAA to the industry and to the Inspector General of the department. They each gave

us five promises that they would perform or see performed that would contribute to the easing of the problem.

We have placed those on this board and placed them permanently in this hearing room for a purpose, and that is to remind them and all of us that these promises were made to the Congress, to the people of the country and that we expect that these promises will be fulfilled as quickly as humanly possible.

This panel that made these promises will be reinvited to appear before the committee in a short while, and we will grade them on how well or how bad they have done in upholding the promises that they made, and we will be inviting them back periodically, every month or six weeks or so, until we see some solutions to the unacceptable delays and rude service that airlines are trying to furnish the American people today, so just bear that in mind. If you are a part of this board, then you are going to have repeat appearances. Ms. Garvey, you are one of the fabulous six.

Now, as I said, this agency, FAA, is the biggest agency under the jurisdiction of this Subcommittee. I know it is difficult to get a 50,000 person agency to move quickly or to follow the instructions of its political leaders. I spent many years over on my other Subcommittee that I chaired overseeing the Justice Department, but especially the INS, Immigration Service, and we saw this kind of problem all the while in that agency, an agency unresponsive to its political leaders.

I am here to tell you if there is a problem in the FAA, as I think there is, of the leadership's instructions and directions not being followed that day has come and gone. If there is somebody within the agency that is not doing their job, as I have told the director, the Administrator, we are not above on this subcommittee writing into the appropriations bill that none of these funds shall be used to pay the salary of Joe Dokes.

So let the word go forth that you will obey the directions of the leadership of this agency. I do not want anyone to come to me later and say well, I did not know you meant it. If that language appears in one of these appropriations bills that the salary of some of you may not be paid, remember this day.

I want the Administrator's directions to be followed all the way down the line, and if anybody has a problem with that you better come see us pretty quick because we expect accountability in this agency. We expected accountability in the INS. It did not happen, and this year I am hopeful that we will pass the bill that will abolish the INS and replace it with somebody who can do the job.

I am saying to you here in the FAA if you cannot do the job, believe me, we will find somebody that will. Whatever the job you have, we aim to be sure that this problem with the American people by the millions being put out and business lost and lives disrupted and families separated by airline delays and cancellations, if the FAA is contributing to that problem that is the one agency, it being a government agency whose funds we appropriate, that I am sure this subcommittee is going to be sure is straightened out.

Are we clear? Anybody got a question? Performance and accountability is what we expect. It is what we are paying for. It is what the taxpayers are paying for, and it is what we are going to de-

mand from this agency from this point on as long as I have a say on this subcommittee.

We personally asked Administrator Garvey to bring her top management team here today. Those in the room that are a part of that team, would you raise your hand for us? I want them to know that all of this is serious business. I am a new chairman of this subcommittee, and if I have anything to say about it it is going to be a new day at this agency.

We are going to be watching agency heads and top executives who do not meet their performance goals. We are going to hold feet to the fire. When the FAA does well, we will applaud them, and the managers' bonuses will be forthcoming and additional staff will be there if you need it.

When you do not perform, there will be consequences. That has not been the case in the past, and perhaps the nest has gotten nice and cozy. Budgets will be scrutinized, bonuses withheld, staff withdrawn, transfers imminent. Consequences will be felt not as punishment, but as an incentive to the rest of you to get with it.

When the Inspector General was up here three weeks ago we asked him a simple question. If you could change only one thing at the FAA, what would you change? The thing he picked? Not more money. Not better equipment. Not a bigger staff. The thing he picked was to begin holding top agency officials accountable for their actions or their inactions.

The amazing thing is that the previous IG said the same thing in 1996, so we are going to look into the agency's performance in the hearing today and in the days and months to come. We are going to hold it up to the light. We are going to take a good, hard look at how things are being done and who is doing it and who is not doing it.

I want names, ranks and serial numbers of those who are not doing their job, madam and the rest of you, and then we will see whether the FAA is using bonuses and other management tools to properly motivate individuals to do a better job. If not, we might be able to help you out with that.

We will also receive testimony this morning on a number of concerns from field personnel in both air traffic services and aviation safety oversight. We have air traffic control supervisors from Florida, maintenance inspectors form Ohio and Kentucky. I especially appreciate these witnesses taking their time to come here to give us a perspective of what their work is like in the field with FAA.

It is a long chain of command from the FAA administrator down to the maintenance inspector in Cleveland. I know sometimes concerns have a hard time working their way up that long chain. We hope we can cut through some of that bureaucracy today and hear directly from some of them about some of their problems.

INTRODUCTION OF WITNESSES

We want to welcome all the witnesses today, the Honorable Jane Garvey, FAA Administrator, who is now about three and a half years into your five year fixed term; the Honorable Carol Carmody. The acting chairman of the National Transportation Safety Board (NTSB); Keith DeBerry and Robert Kerner, both aviation safety inspectors representing the Professional Airways Systems Specialists,

PASS; John Fisher and Arthur Eickenberg, air traffic control supervisors, representing the FAA Conference of the Federal Managers Association.

We want to hear your oral testimony presented in the same order I just introduced you, and as soon as we hear form my colleague on the other side we would love to hear you summarize your testimony. Your written statement will be made a part of the record.

Mr. Sabo?

OPENING REMARKS OF MR. SABO

Mr. SABO. Thank you, Mr. Chairman. Let me welcome the Administrator and all the other people testifying today. I look forward to hearing your comments.

To the Administrator I would simply say that I think all of us over the years have had questions about the FAA. We find programs have had difficulty being concluded. On the other hand, also let me say I have been tremendously impressed by the work you do, and I look forward to hearing from you and the other witnesses this morning. Thank you.

Mr. ROGERS. We have a vote on the Floor that is close to being concluded, so we must go to the Floor and cast our votes. We will recess the hearing momentarily.

[Recess.]

FAA OPENING REMARKS

Mr. ROGERS. The hearing will be in order.

Mrs. Garvey, we would love to hear your statement.

Ms. GARVEY. Thank you very much, Mr. Chairman, and thank you very much for allowing me to appear before this committee. I am looking forward to it.

I do want to make note of our assignments, and I will note that Chip Barclay and I were the only two who took on six, so I am hoping that there may be a little extra credit in that, Mr. Chairman, if that is possible.

DEFINITION OF DELAYS

I will tell you that as we promised, we have a definition of delays, which I will submit for the record, and I know we will be back to talk about all of those other issues, but good work is going on in each one of those areas.

FAA WORKFORCE AND MISSION

I will also mention, Mr. Chairman, that this morning in the audience, in addition to members of the FAA management team, we also have controllers. We have some of the technicians here and, of course, the inspectors from our flight service activities. Many of them actually own a piece of those initiatives, so I thought it was important that they be here, but I will also add that all of them are accountable and responsible for delivering the essential services that really make up the mission of the FAA.

As you noted, Mr. Chairman, I have been at the FAA for slightly over three years. In that period of time I have seen some good progress, some results, but it is absolutely clear, and certainly from

your comments, too, this morning, there is a great deal more we need to do.

We are taking on an enormous challenge at this agency. We are advancing technology at the same time we are running a 24 hour a day operation and doing it safely, and we are doing that in the midst of some very significant management changes, so that is no small task. My philosophy in approaching these challenges is essentially threefold. First of all, to value the front line workers who have a great deal to contribute. They are smart, they are professional, and they care deeply about what they do. As I look back at every initiative over the last three years, any time we have been successful it is because it has been a joint effort between the management team and the unions and the employees who really make up the front line, so engaging that work force is very, very important.

Secondly, focusing on data and risk analysis to target our resources. It is very easy in the public sector to get pulled in many different directions. There are a lot of agendas out there, a lot of issues that are very, very important. We need to keep reminding ourselves that we need to look at the data to establish the priorities that we need to be focused on, and we need to target our resources.

RUNWAY INCURSIONS

A good case in point is the runway safety program. Thanks very much to the efforts of this committee, last year we were able to engage Massachusetts Institute of Technology (MIT), National Aeronautics and Space Administration (NASA) and also Mitre Corporation to look at all of the runway incursions that have happened since 1997, and as a result of that work we have been able to group those into various risk categories. That is going to allow us to really target our resources on the category that presents the greatest risk. We know those growing numbers are a concern not only to us, but they are certainly a concern to the NTSB and to the Inspector General as well, so we appreciate the kind of support we have gotten from the committee for those efforts.

SAFER SKIES

Secondly, our safer skies agenda, which is something that we have really come up with the industry, which again focuses our resources, targets our resources on the top priorities where we can get the greatest safety benefit. I think that approach is working well. That approach allows us to use the data and also to focus our resources, and I think that is very important.

FAA REFORM

Finally, we have heard a great deal from Congress about the need for the FAA to be more businesslike, and we have heard that from the public as well. The efforts that we have underway on cost accounting, the efforts that we have underway on acquisition reform, establishing metrics, measuring our performance, are critical and are important, and we absolutely must stay the course on those efforts.

I want to give a little bit of credit here to Donna McLean, who is our Chief Financial Officer and who every month publishes with the help of each line of business a monthly performance report. We just started doing this recently.

Both she and Dan Mehan, who is our Chief Information Officer, host discussions every month where we track the performance to date looking at all the critical corporate projects. It also allows us to take a look at where we are with our budget and where we are with our staffing needs. We think this has been a good and a very, very helpful management tool.

We are asking people to take on more responsibilities. We are asking them in many ways to change the way we do business, and in some cases we are asking them to give up some very long held assumptions. I know that is difficult, but I think the effort is absolutely essential and absolutely important.

As I said in the beginning, we still have a long way to go. These five years are going very, very quickly when I realize how much we want to accomplish. I think it is important to go back to a comment that was made earlier, and that is that in spite of all the challenges that we have we really should never lose sight of the extraordinary work that the men and women of this agency do.

SEATTLE EARTHQUAKE

I know in the midst of the recent earthquake in Seattle there were two controllers who were on duty, and they did not leave the tower until they were able to bring every plane down safely. I was particularly struck by the comments in the interviews after the earthquake, and one of the controllers said that he really credited the technicians. He credited the managers. He credited his colleagues. He said, you know, ultimately I was just doing my job.

I think that is your challenge to us; to do our job well, to provide an aviation system that is the safest and the most efficient in the world. We take that challenge on eagerly, Mr. Chairman.

[The prepared statement and biography of Jane Garvey follows:]

STATEMENT OF

THE HONORABLE JANE F. GARVEY

FEDERAL AVIATION ADMINISTRATOR

before the

HOUSE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES

CONCERNING THE FEDERAL AVIATION ADMINISTRATION

MARCH 28, 2001

Chairman Rogers, Congressman Sabo, Members of the Subcommittee:

Thank you for the opportunity to appear before you this morning to discuss the Federal Aviation Administration (FAA) and our budget request for fiscal year 2002. The President's budget request makes a significant investment in our aviation infrastructure that will enable the FAA to continue its progress in meeting the demands of our air transportation system in the 21st century.

Let me begin, Mr. Chairman, by saying that I look forward to working with you in your new role as Chairman of this subcommittee. The FAA stands ready to work with you on the host of issues before us today.

The FAA is a 24 hour/seven days a week service delivery organization. The FAA controls approximately 200,000 takeoffs and landings per day and moves nearly

700 million commercial air travelers per year. Our customers depend on the safe and efficient operation of the National Airspace System (NAS). Maintaining this system in a safe and efficient manner, while providing for the anticipated growth in the use of NAS, is the FAA's top priority.

Our nation's economic expansion has produced a sustained increase in demand for air traffic control (ATC) services. During the past two decades, passenger enplanements in the United States more than doubled and are expected to reach one billion by 2010 – an increase of nearly 50 percent above today's level. As this growth and increase in demand for our services continues, increased pressure will be placed on aviation resources.

Aviation Financing

To meet this increase in demand and services, the President's proposed FY 2002 budget provides operations and capital funding for the FAA consistent with the levels contained in the Aviation Investment and Reform Act for the 21st Century (AIR-21). Airport grants are funded at $3.3 billion; capital modernization programs are funded at $2.9 billion; and, FAA operations are funded at $6.9 billion. In total, this is $725 million, or six percent above FY 2001.

Further details of the President's budget will be made available when the full FY 2002 budget is released in April. However, I want to say now in advance of that date that I appreciate the efforts that you and the members of this subcommittee have undertaken to fund the FAA's budget requests. Fully enacting the President's budget request will

permit the FAA to continue to make the necessary improvements in the NAS, and to improve operational safety and efficiency throughout the entire commercial aviation system.

We at the FAA are faced with ever-growing challenges in aviation, primarily driven by the growth of our industry. This morning I want to discuss the significant developments and accomplishments that will enable us to meet today's aviation growth and future demand. The initiatives and reforms I want to discuss this morning can be grouped into three broad categories: safety, security, and system efficiency. Through these initiatives, and partnerships with stakeholders, we will meet the challenges ahead.

Safety

Every action we take is done with safety as our primary goal. Recent statistics show that the accident rate for commercial air travel has had a steady downward trend for the past two decades. We have a remarkable safety record. Any action we take to address airline delays and capacity issues – and I cannot stress this enough -- will always be done within our primary mission of increased safety and security for the traveling public.

One of the most important FAA safety initiatives is our effort to reduce runway incursions. Runway incursions have increased over the past 5 years, and the FAA is taking action to reverse this trend. Specifically, the FAA is working to enhance pilot and controller communication, identify and implement procedural changes at airports to reduce surface operational errors, and develop and promote runway safety training and

education for airline, airport, and FAA personnel. In addition, the FAA has begun implementation of site-specific solutions at approximately ten airports that sustain the highest number of runway incursions.

As I have already said, reducing the fatal accident rate for aviation is our primary goal at the FAA. We have embraced a goal of a five-fold reduction in the rate of fatal accidents in commercial aviation and a reduction in the number of general aviation fatal accidents to 350 or fewer over a ten-year period. To accomplish these goals, the FAA has joined in partnership with the aviation community to establish Safer Skies -- a focused agenda to make the skies even safer.

The objective of Safer Skies is to find actions that may lead to unsafe operations, develop interventions to address these issues, and track the progress and success of these interventions. We've implemented significant actions to reduce commercial accidents in two areas — controlled flight into terrain and uncontained engine failures. Now we're focusing on the approach and landing phases of flight. More importantly, air carriers are establishing Flight Operation Quality Assurance programs and Aviation Safety Action programs that identify safety issues and trends so that corrective actions take place before accidents occur.

Security

Industry growth, new technologies, and an evolving terrorist threat create tremendous challenges for FAA civil security and the aviation industry. The FAA must ensure that

airports and air carriers implement required security measures, protect FAA employees and facilities, and support national security and counterterrorism policy.

The FAA will continue its efforts to deploy checked baggage screening by installing explosive detection systems; improve screening checkpoints through better screening training, testing, and equipment; and, continued inspection and surveillance of freight forwarders, repair station, and air carriers for hazardous materials (HAZMAT). In addition, the FAA has continued its use of joint testing with airports to improve the performance of US airport access control measures.

System Efficiency

In terms of system efficiency, the initiatives I want to discuss this morning include: our initiatives to modernize and sustain air traffic control services, equipment, and facilities; initiatives that help us better manage our own resources; and, our strong partnership with industry and labor.

First, I want to discuss our modernization efforts. The modernization of the NAS has three strategic goals: (1) maintain the integrity and reliability of the system; (2) improve our Nation's air safety performance; and (3) increase flight efficiency and flexibility for those who use our airports and our airspace. In order to achieve these goals, we are evolving into a modernized system. Instead of taking a "big bang" approach to modernization, we must move incrementally, building upon each step that we have taken, assuring safety and reducing the potential for cost overruns and schedule delays. The

FAA has established strong partnerships with the aviation industry and labor in order to achieve these goals.

In order to sustain our current systems and renew our aviation infrastructure, we have incorporated both major and minor changes to the air traffic control system. Our 20 en route centers are significantly upgraded with new equipment -- the Display System Replacement (DSR), the new Host computer, and air traffic control voice switching – which were on time and within budget. As a result of these upgrades, as well as upgrades system-wide, we have had a 50 percent reduction in delays in fiscal year 2000 due to FAA equipment failures.

Much of the credit for our success in upgrading and modernizing our equipment can be traced to the acquisition reform legislation that was passed by Congress in our fiscal year 1996 appropriations act. This legislation opened the way to significant and important changes in the way we acquire systems at the FAA. Changes that I am proud to say have resulted in a more efficient and more rapid procurement process.

Under acquisition reform we have developed a new approach to buying our equipment and our systems through our Acquisition Management System (AMS). AMS is a true lifecycle approach to procurement that involves the customers and the users in the acquisition process from the earliest stages when the basic requirements are developed right through to its actual deployment.

But even more than this, AMS is a common sense streamlining of the procurement process and one that has significantly shortened the time it takes to award a contract. According to the General Accounting Office, under AMS, the time to develop a new contract at the FAA has been shortened by as much as 50 percent. This has led to a more rapid and more efficient modernization and upgrade of the air traffic control system.

We have made significant progress in the terminal environment -- which is a much more complex airspace. We have replaced the computer automation system at all five of our highest demand terminal facilities, and we provided new color displays to four of these facilities last year. We also upgraded the computer automation system at 131 low-to-mid level demand terminal radar approach control facilities (TRACONS) across the country between 1998 and 2000.

We are now turning our attention to further upgrades in the terminal environment. We are now beginning to deploy the Standard Terminal Automation Replacement System (STARS). When completed, the installation of STARS will replace the display screens and the computer automation systems for 173 TRACONS. Some of the equipment and software STARS will replace is more than 20 years old, particularly at our 54 mid-to-high level demand TRACONS, which include Baltimore-Washington, Dulles, Philadelphia, and Orlando. Furthermore, STARS will also provide a platform for future enhancements to air traffic controllers in such areas as new free flight capabilities. We are working towards the full deployment of STARS by 2008.

Our second element of NAS modernization, adding safety features, is an effort that speaks directly to the FAA's primary mission of ensuring aviation safety. Additional safety features focus on the number one threat to safety – weather. Advanced weather information will provide us with more precise, more accurate, and timelier weather information. In our modernization blueprint, we have included many weather initiatives, such as the Integrated Terminal Weather System and the Weather and Radar Processor. These systems provide more comprehensive and up-to-date weather information in terminal and en route areas, as well as Terminal Doppler Weather Radar for major airports where windshear and microbursts are safety issues.

The third element of modernization, improving the capacity and efficiency of the system, means fewer delays, lower costs, and better service. The crux of this third element is moving to Free Flight. Free Flight is the first step in an innovative approach to air traffic control, moving from a rigid management of air traffic to a more flexible airspace management environment. Free Flight is designed to move the NAS from a centralized command-and-control system between pilots and air traffic controllers to a distributed system that, wherever practical, allows pilots to choose their own routes and file flight plans that follow the most efficient, economical routes. The overall benefit of these programs is to enable our air traffic control system to accommodate the future increase in flights and provide more optimum routings for aircraft in the nation's airspace.

Upgrading and sustaining our air traffic control systems is just one piece of our system efficiency goals and reforms. Other management reforms involve our most important

asset: our people. Our initiatives in cost accounting, labor distribution reporting, and personnel reform are critical to manage and maintain our workforce. I am proud to say that we have been on the cutting edge on the use of these initiatives in the federal government.

The FAA is fully committed to our cost and performance initiative, which includes two important components: cost accounting and labor distribution reporting (LDR). Our cost accounting system is well underway, with reports currently being prepared for en route, oceanic and flight service stations. This information is produced on a monthly basis and gives FAA managers the cost of operations at our various facilities to understand where resources are being used and in what manner. Our LDR initiative will improve the cost information provided to FAA managers to better understand our largest cost element – our labor. The phased implementation of LDR and our Cost Accounting System will be completed in FY 2002. These two tools will help the FAA better deploy our human resources to projects and activities and increase accountability for achieving FAA goals and performance.

Another initiative is personnel reform. In our fiscal year 1996 appropriations act, Congress provided the FAA with much needed personnel reform. This allowed the agency to transform from a cumbersome and rigid human resources system to a flexible system that allows the FAA to better manage our human capital and be more responsive to our customers. The benefits of personnel reform for the FAA have been our ability to simplify the employment process and recruiting, establish pay for performance standards,

and eliminate thousands of pages of complex regulations, rules, and guidelines that govern human resources. Most importantly, personnel reform has enabled us to begin changing the way we manage in FAA, by allowing us to delegate to our managers increased authority to make decisions, by holding them accountable for the decisions they make, by recognizing the contributions of our employees, and by ensuring that we stay focused on meeting our agency goals and mission. The key to personnel reform is flexibility.

I want to comment on one last issue regarding the human element of aviation. As you know Mr. Chairman, nothing is achievable without cooperation from all parties. We have arguably the most complex, safest, and most efficient air traffic control system in the world. but this is achieved not by the FAA alone. Its success is based on the partnership we have with airlines, airports, labor, and all members of the aviation community. From our daily – and hourly – efforts with the airlines to provide collaborative information on delays and capacity of the air traffic control system, to our union partnerships across the entire FAA, we cannot go it alone, nor do we intend to. Solving the problems of aviation today and the future requires cooperation among all parties. Each one of the reforms and initiatives I have mentioned today depend on this premise.

Congress, and especially this subcommittee, has supported the FAA in its efforts toward modernization and reform, and I look forward to continuing that working relationship with you, Mr. Chairman, and the members of the subcommittee. I would be pleased to answer any questions you may have.

U.S. Department of Transportation
Federal Aviation Administration

Office of the Administrator

800 Independence Ave., S.W.
Washington, D.C. 20591

Jane F. Garvey
Administrator
Federal Aviation Administration

Jane F. Garvey, the 14th Administrator of the Federal Aviation Administration was sworn in August 4, 1997. She is the first Administrator confirmed by the Senate to a five-year term. With an outstanding career in public service and extensive administrative experience, Garvey brings to the FAA a strong commitment to ensure the world's safest skies become even safer.

As Administrator, Garvey manages a 49,000-person agency with worldwide impact and presence in promoting aviation safety and security. The FAA regulates and oversees aviation safety and security, conducts cutting edge research and development, and operates the world's largest air traffic control system.

Administrator Garvey initiated *Safer Skies*, the U.S. aviation community's safety agenda, which focuses the agency's resources on taking the actions that safety data and analysis indicate can make the biggest difference in lowering the accident rate. She led the successful transition of the FAA's air traffic control system to January 1, 2000 with no disruptions to service. In addition, the FAA provided world leadership on Y2K transition. Under Administrator Garvey's leadership the FAA is moving forward on its phased plan to modernize the air traffic control system and has, for the first time, achieved government and industry consensus on how to proceed. To bring immediate modernization benefits, she initiated the Free Flight Phase 1 program under which the FAA reached consensus with the aviation community to deploy five specific technologies by the end of 2002.

Prior to being named FAA Administrator, Garvey was Acting Administrator of the Federal Highway Administration (FHWA). She served as Deputy Administrator of FHWA from April 1993 until February 1997. FHWA, also an agency of the U.S. Department of Transportation, has an annual budget of $20 billion and works in partnership with the states to maintain the safety and efficiency of the Nation's roads and bridges. A creative leader at FHWA, Garvey chaired FHWA's Innovative Financing Initiative, which resulted in more than $4 billion in transportation investment in more than 30 states---projects that in many cases would not have been otherwise built.

Before joining FHWA, Garvey served as director of Logan International Airport, one of the Nation's busiest aviation facilities. From 1988 to 1991, she was Commissioner of the Massachusetts Department of Public Works. Before that, Garvey was Associate Commissioner in the Massachusetts Department of Public Works, where she directed construction activities and developed environmental initiatives.

Garvey holds degrees from Mount Saint Mary College and Mount Holyoke College. She has participated in the Fellowship Program for Public Leaders at Harvard University.

CONTROLLER RECOGNITION AT SEATTLE TOWER

Mr. ROGERS. What are their names?

Ms. GARVEY. Brian and Ben are both here. They are sitting in the back.

Mr. ROGERS. Would you stand up so we can see you?

Both of you, gentlemen, from the Congress of the United States and the people of this country, we appreciate your duty and your attendance to your duty under very severe circumstances. We thank you. Ms. Carmody.

NTSB OPENING STATEMENT

Ms. CARMODY. Thank you, Mr. Chairman. Good morning. I am Carol Carmody from the National Transportation Safety Board, and I am here this morning to provide testimony as requested by the committee on aviation safety issues.

RUNWAY INCURSIONS AND FAA OVERSIGHT

The tremendous expansion in the commercial and general aviation fleets are straining the air traffic system. Extreme vigilance and additional oversight is needed to prevent any catastrophic accidents from occurring. The Board cannot emphasize strongly enough that a number of issues must be addressed promptly to prevent aviation catastrophes as operations increase. I would like to discuss a few of those today; runway incursions, errors committed by air traffic controllers and FAA oversight of the industry.

First, as Ms. Garvey mentioned, runway incursions have been steadily increasing for the last few years from 200 in 1994, 322 in 1999, 429 last year. Already this year through March we have 81 reported, which is higher than the same period last year. The possibility for catastrophe only increases with time if the number of errors is not reduced.

Many of the runway incursions we have looked at over the past year all around the country involve two or more large commercial aircraft, and the possibility for loss of life is very sobering. Two years ago our then chairman, Jim Hall, said to this committee, "The Safety Board is concerned that FAA efforts to address runway incursions through technology fall short of what is needed."

That is still our position today. The runway incursion issue has been with the Board since 1990 when we made it one of our top ten, so to speak, one of our most wanted issues. We have issued more than 100 safety recommendations on runway incursions since 1973. Just last summer we had a special hearing on runway incursion at the Board and issued still more recommendations. Our approach at that time was since technology had not closed the gap, we looked at some operational improvements and operational suggestions we thought would perhaps retard the increase in runway incursions.

AIRPORT MOVEMENT AREA SAFETY SYSTEM (AMASS)

FAA has responded. They are evaluating those responses, but the crux or their program still seems to be the AMASS. This is the airport movement system to detect movement on a runway of either vehicles, aircraft or departing or arriving aircraft.

There is a long history with the FAA and AMASS, and it is detailed in my lengthy testimony so I will not go through it again now, but in 1991 the Board made the first recommendation to the FAA to expedite development of this system. Just last year, nine years later, the Board determined that AMASS would no longer meet the safety standards set forth by the FAA when the system was initiated.

Forty of the systems have been installed around the country, but they are not operational yet because the test and evaluation phase has not been completed. We understand testing has been going on of the software in San Francisco, and we also understand that has not been successful, so testing is still going on.

With respect to airports with lower activities, FAA is looking at a number of ASDE systems, airport surface detection systems, and has recently signed a contract to initiate work.

Nevertheless, we are here ten years after the fact, ten years after the initiation of the AMASS project, with still no operational surface detection system in the airports. We think the FAA must give this immediate attention. They must set some deadlines, determine dates for establishing service at the airports and hold to those. We think this is very, very important.

AIR TRAFFIC CONTROL OPERATIONAL ERRORS

Moving on to the violations, on January 17, 2001, the FAA and National Air Traffic Controllers Association (NATCA) signed a memorandum of understanding, which I will call an MOU, to modify existing FAA procedures for identifying operational errors. Operational errors occur when an air traffic controller fails to ensure that separation standards are maintained between aircraft.

The MOU establishes a new subcategory of operational errors and calls them technical violations. It precludes the FAA from requiring controllers to take remedial training following a technical violation. It also prohibits the FAA from suspending or revoking control tower operator licenses and air traffic facility ratings in response to demonstrated performance problems.

According to the MOU, the FAA defines a technical violation as any operational error in which the aircraft involved pass each other with less than 80 percent of the standard separation. The Safety Board is concerned that this provision does not take into account the circumstances causing such an error, and that it could result in the classification of a clearly unsafe instance as merely a technical violation.

Several serious instances have been classified this year as technical violations rather than operational errors, and the controllers involved have not been subject to any remedial training or adverse action. If the FAA believes that current standards are overly restrictive and can be reduced safely, it would have been prudent to have performed the appropriate analyses and make the results available before implementation.

In February the entire Board, by letter, expressed our concern to the FAA about this memorandum, and the FAA has come over and briefed us. They have described the analytical system they have put in place to evaluate the operational errors. We think this is a

very good way to go. We think it should have been done before the system was implemented, but we think they are on the right track.

We would expect, however, that assessment would identify only those errors and deviations that resulted from very minor misjudgments and call those technical violations.

Further, the MOU, as I said, bars the FAA from revoking or suspending controller, airman certificates, and facility ratings as a means of addressing performance deficiencies. It is difficult for us to discern the safety benefits of the FAA prospectively waiving the right to suspend or revoke facility ratings or initiate certificate action against a controller who demonstrates serious performance deficiencies.

INDUSTRY OVERSIGHT

With respect to FAA oversight of the industry, this has been the subject of some concern to the Board for quite a while; most recently in the ValuJet accident. Our recommendations indicated that there were some deficiencies in FAA oversight of the carrier.

At that time, FAA initiated a 90 day review of their system, and they came up with the conclusion that it needed overhauling. They developed the ATOS system, which is the air transportation oversight system. This is their new method of evaluating, looking at, and assessing the compliance of carriers.

The concept is to collect information, allocate inspectors and other resources, look for trends and then take action resulting from those trends. I understand it currently includes ten major airlines. The FAA has developed a plan to extend ATOS to the other carriers, but evidently decided not to proceed until ATOS is fully developed and the necessary resources were available.

The Safety Board has concerns that some of the operators that might benefit the most from additional scrutiny are not getting it. I think the major carriers probably get a fair amount of scrutiny now, so there is some concern that the others may be needing it.

AIR TRANSPORTATION OVERSIGHT SYSTEM

I will say the Safety Board is examining ATOS very, very closely as part of two ongoing investigations. One is the Little Rock accident involving American Airlines, and the other is the Alaska Airlines accident last year in California. We will have more to say about this subject at some time. At this point, since it is an ongoing investigation, I cannot give any specific details.

However, I will point out that in the hearing we had on Alaska Airlines the FAA staff indicated that the ATOS would not have detected some of the changes in the Alaskan Airlines' maintenance practices. Those are the maintenance practices which affected the horizontal stabilizer jacks assembly and that may have resulted in the accelerated wear. It is of some concern if ATOS was the system that was supposed to be detecting deficiencies, it may have missed a big one there.

In any event, we are going to be doing more work on ATOS, and we will be keeping the committee informed of that as we go along.

That concludes my statement at this time, Mr. Chairman. Thank you very much.

[The prepared statement and biography of Carol Carmody follows:]

National Transportation Safety Board

Safety Information

Washington, D C 20594

Testimony of

Carol Carmody, Acting Chairman

National Transportation Safety Board

before the

Committee on Appropriations

Subcommittee of Transportation and Related Agencies

House of Representatives

Regarding

Aviation Safety

March 28, 2001

Good morning, Chairman Rogers and members of the Committee. It is a pleasure to represent the National Transportation Safety Board (NTSB) before you today and to provide testimony today regarding aviation safety issues.

As demonstrated by last summer's flight cancellations, the continued growth of commercial aviation and the general aviation fleet continue to strain the U.S aviation system infrastructure. This growth is challenging the Federal Aviation Administration's (FAA) air traffic control (ATC) system, and requires additional oversight and vigilance to ensure the safety of the aviation transportation system.

According to the FAA, the number of air travelers will increase from 604.1 million in 2000, to more than 926.6 million by 2012. In addition, the FAA projects that aircraft operations at air route traffic control centers will increase from 46 million in 2000, to about 61.7 million in 2012, growing 2.5 percent each year. The number of passengers on foreign flag air carriers traveling to or from the United States is also expected to increase from approximately 139.2 million in 2000, to 267 million by 2012.

We cannot emphasize strongly enough that a number of issues must be addressed to prevent aviation catastrophes as operations increase. I would like to discuss three of those issues today: runway incursions, errors committed by air traffic controllers, and FAA oversight.

Runway Incursions

FAA data show there were 429 runway incursions in the United States last year, more than twice the 200 incursions that occurred in 1994, and a significant increase from the 322

incursions in 1999. In 2000, the rate of runway incursions per 100,000 operations was .63, up from .47 in 1999. As of March 19, 2001, 81 runway incursions have already been reported.

Fortunately, there have been few actual collisions and the number of fatalities has been small. Although most runway incursions have involved small general aviation aircraft, many of the factors involved could affect air carrier airplanes, and the possibility for a catastrophic accident only increases with time if the rate of errors is not reduced.

In testimony presented before this subcommittee two years ago, then-Chairman Jim Hall stated that the Safety Board "remains concerned that FAA efforts to address runway incursions through technological development falls short of what is needed." Two years later, our position has not changed. The following are just a few of the runway incursions we have investigated in the past year:

February 2000 – At Detroit, Michigan, the crew of a Northwest DC-10 on final approach initiated a go-around maneuver to avoid a Northwest A320 cleared for takeoff. The airplanes missed each other by 300 feet vertical and .44 miles horizontal.

March 2000 – At Sarasota, Florida, the tower air traffic controller cleared a Cessna airplane onto the runway in front of another Cessna airplane that was on takeoff, resulting in a collision and the loss of four lives.

May 2000 – At Chicago's Midway Airport, an American Trans Air Boeing 727 was on final approach when the flight crew initiated a go-around maneuver shortly before landing to avoid a Rockwell Aero Commander that was holding in position for takeoff. The Boeing 727 passed about 60 feet over the other aircraft.

May 2000 – At Chicago's Midway Airport, a Cessna Citation business jet was holding in position on runway 31C awaiting takeoff clearance when the tower controller cleared a Beech King Air to land on the same runway. Distracted with other duties, the controller failed to resolve the conflict until the King Air crossed the airport boundary. The controller instructed the King Air pilot to go around but not in time to avoid overflying the Citation. The aircraft missed each other by an estimated 400 feet.

December 2000 – At Providence, Rhode Island, the flight crew of a USAirways A320 aborted its takeoff because a Southwest Boeing 737 was protruding over the hold short line on the active runway. The USAirways airplane was traveling approximately 30 to 70 knots when it passed in front of the Southwest airplane. Because the visibility was 1/4 mile with fog and blowing snow, the tower could not see the area of the incursion. The tower was not equipped with a ground radar system or other type of ground movement safety system.

January 2001 – At Seattle-Tacoma International Airport, a TWA MD-80 flew over an American Airlines MD-80, missing it by an estimated 60 feet. The tower local controller had cleared TWA for takeoff from runway 16L and instructed American Airlines to hold short of the runway. However, the flight crew misunderstood the controller and crossed 16L. Visibility at the time of the incident was 1/4 mile with fog.

March 2001 – At Fort Lauderdale International Airport, Florida, a Delta Air Lines Boeing 767 flew over a USAirways Boeing 737, missing it by less than 100 feet. The Delta airplane was cleared to land on runway 27R while on 5-mile final approach, and the USAirways airplane was cleared to taxi into position and hold on runway 27R. At the time of the incident, the tower controller was distracted by other duties and failed to advise the Delta flight crew of the USAirways airplane's departure from runway 27R or to advise the USAirways flight crew of the Delta airplane's arrival, as required by FAA procedures.

The Safety Board is also assisting in the investigation of an October 2000, accident in which 81 people died when a Singapore Airlines Boeing 747 struck a concrete barrier and hit a construction site as it mistakenly took off from a closed runway at Taipei's Chiang Kai-shek International Airport, Taiwan.

The runway incursion issue has been on the Board's "Most Wanted" list since its inception in 1990. This list highlights issues the Board believes should be acted on as soon as possible because they have the most potential to improve safety, save lives, and reduce accidents and injuries.

Since 1973, the Safety Board has issued almost 100 safety recommendations to the FAA regarding runway incursion issues. On July 6, 2000, the Safety Board issued six additional safety recommendations to the FAA regarding this matter, and information regarding those

recommendations is below. You will note that three of the six recommendations are in an unacceptable status.

- Require, at all airports with scheduled passenger service, a ground movement safety system that will prevent runway incursions; the system should provide a direct warning capability to flight crews. In addition, demonstrate through computer simulations or other means that the system will, in fact, prevent incursions (A-00-66);

- Require that all runway crossings be authorized only by specific air traffic control clearance (A-00-67);

- Require that when aircraft need to cross multiple runways, air traffic controllers issue an explicit crossing instruction for each runway after the previous runway has been crossed (A-00-68);

- Discontinue the practice of allowing departing aircraft to hold on active runways at nighttime or any time when ceiling and visibility conditions preclude arriving aircraft from seeing traffic on the runway in time to initiate a safe go-around maneuver (in an unacceptable status) (A-00-69);

- Adopt the landing clearance procedure recommended by International Civil Aviation Organization (ICAO) Document 4444-RAC/501 (in an unacceptable status) (A-00-70); and

- Require the use of standard ICAO phraseology for airport surface operations and periodically emphasize to controllers the need to use this phraseology and to speak at reasonable rates when communicating with all flight crews, especially those whose primary language is not English (in an unacceptable status) (A-00-71).

Although the FAA has taken numerous actions in response to Safety Board recommendations, as well other runway incursion-related recommendations made by the Department of Transportation's Inspector General and others, it is disconcerting that the number of runway incursions has not diminished.

In 1991, the FAA stated that the cornerstone of its runway incursion efforts was the development and implementation of the Airport Movement Area Safety System, or AMASS. AMASS works by generating an audible and visual alert to controllers when an aircraft or vehicle is occupying a runway and an arriving aircraft is 1/2 to 3/4 mile from the

runway threshold or a departing aircraft on the runway is detected by the system and is moving at approximately 44 knots or greater. However, the visual and audible alert parameters were not based on human performance studies. Rather, they were empirically determined based on a prototype AMASS system.

Following the investigation of an incident that occurred at O'Hare International Airport in 1999, the NTSB asked the FAA to conduct a simulation of AMASS performance using data from several runway incursion incidents investigated by the Safety Board. The simulations showed that AMASS would not have generated warnings in sufficient time for controllers and flight crews to respond effectively and prevent the incidents. Following the simulation, the FAA in 1999 modified its position and has now stated that AMASS will not prevent runway incursions but, rather, runway collisions.

In 1991, the NTSB recommended that the FAA expedite efforts to fund the development and implementation of an operational system analogous to the airborne conflict alert system to alert controllers to pending runway incursions at all terminal facilities that are scheduled to receive airport surface detection equipment (A-91-29). In March 2000, nine years after the recommendation was made, the Board changed its status from "Open-Acceptable" to "Open-Unacceptable" action for several reasons. As mentioned above, the software system envisioned by the FAA to translate radar data into alerts that would warn controllers of an impending runway incursion or collision will have substantially fewer capabilities than initially planned. The Board does not believe that AMASS as currently designed meets the safety goals of the original system promised by the FAA.

Since the FAA awarded its AMASS development contract in September 1990, there has been one delay after another. For example:

- May 1992 -- the FAA reported that the first delivery of an operational AMASS system to a field facility was planned for November 1994.
- October 1993 -- the FAA confirmed the initial field delivery date as "early fiscal year 1995."
- October 1995 -- the FAA revised the delivery schedule, reporting that the first field AMASS system would begin an operational requirements demonstration in October 1997, with all 40 contracted systems installed and operational by 2000.
- August 1996 -- the FAA signed a modified contract for the AMASS project and reported that the delivery of production systems would be completed by August 2000.
- 1997, 1998, and 1999 -- the first evaluation systems were delivered to Dallas/Fort Worth, Texas; St. Louis, Missouri; and Atlanta, Georgia.
- April 1999 -- the FAA reiterated in a letter to the NTSB that the final delivery date would be August 2000.
- October 1999 -- the FAA provided the Safety Board with a revised AMASS schedule, which stated that all 40 contracted systems were scheduled for installation by December 2000; however, it also stated that human factors and operational issues related to the system design had not yet been resolved.
- October 6, 1999 -- during a briefing to the Safety Board on the National Runway Safety Program, the FAA stated that it anticipated that these issues would be resolved by January 2001, and that it expected that all 40 systems would become operational between August 2001 and October 2002.
- March 6, 2001 -- during a briefing to the Safety Board, the FAA stated that new AMASS software was installed at San Francisco on February 19, 2001, and that the facility was on schedule for operation in June 2001.

Safety Board staff have since been informed that AMASS *did not pass the initial operational test and evaluation at San Francisco in February*, and that additional tests are scheduled for April 2001.

The Safety Board remains concerned that AMASS may not be through the test and evaluation phase and fully operational at the 34 major airports that will receive the system for some time. The Board is also concerned that current AMASS parameters may not provide controllers and flight crews sufficient time to react and intervene to maintain safe separation in all circumstances. Therefore, the Safety Board continues to assess the ability of AMASS to prevent runway collisions under various conditions and the need for the FAA to conduct additional simulations of AMASS performance to test its ability to provide effective alerts under real-world scenarios. Such simulations would need to take into account variables such as pilot-controller reaction times, aircraft performance, and meteorological factors (for example, visibility and wind speed).

In October 1993, the FAA reported that it was evaluating several different technologies for managing airport surface movements, including differential global positioning systems, loop and magnetic sensors, and marine X-band radar systems, in lieu of installing full airport surface detection equipment, also known as ASDE, at lower-activity airports. On March 23, 1998, the FAA stated that it was continuing research and development of low-cost ASDE alternatives, including evaluation of marine X-band radar and phased-array radar systems. The FAA also stated that it was investigating the use of inductive loops for aircraft detection and collaborating with the National Aeronautics and Space Administration to test and demonstrate an integrated surface movement management system. Safety Board staff have been briefed by NASA on work it has accomplished in heads-up displays and moving map displays that would provide aircraft movement information directly to controllers and pilots. The initial demonstrations for these technologies have indicated that they provided timely alerting for the flight crew and increased surface situational awareness. These technologies appear to offer reliable accurate traffic

information directly to the controllers and flight crews much faster than transmitting ground based alerts to the aircraft.

The FAA advised the Board that on November 22, 2000, it awarded the ASDE-X contract to Sensis Corporation, and that an operational readiness demonstration was scheduled for April 2003.

Mr. Chairman, in 1993, FAA estimated that AMASS would cost $59.8 million and be installed in 1996. The Department of Transportation's Inspector General reported in March 2000, that costs were then estimated to reach $151.8 million, a $92 million increase. We can only assume that this figure is higher today. Board staff has also been advised that the cost of the ASDE-X systems has increased from an initial projection of $100,000 to more than $9 million.

It has been nearly 10 years since the Board issued its recommendation that the FAA expedite efforts to fund the development and implementation of an operational system to alert controllers to pending runway incursions at all terminal facilities that are scheduled to receive airport surface detection equipment. Ten years later, all such systems remain under development, and none have been commissioned for full operational use at any airport in the United States. The Safety Board continues to be concerned that, despite many years of research and development and the expenditure of nearly $100 million, the FAA has been unable to procure surface surveillance equipment suitable for use at airports to prevent runway incursions. The FAA needs to establish criteria for installation of airport ground surveillance systems and commit to a specific date for completion of the acquisition and delivery of these systems.

The FAA recently established programs to address runway incursions centered on identifying the potential severity of an incursion and reducing the likelihood of incursions through training, technology, communications, procedures, airport signs/marking/lighting, data analysis and developing local solutions. The FAA's initiatives include:

- Promoting aviation community participation in runway safety activities and solutions;
- Appointing nine regional runway safety program managers;
- Providing training, education, and awareness for pilots, controllers, and vehicle operators;
- Publishing an advisory circular for airport surface operations;
- Increasing the visibility of runway hold line markings;
- Reviewing pilot-controller phraseology;
- Providing foreign air carrier pilot training, education, and awareness;
- Requiring all pilot checks, certifications, and flight reviews to incorporate performance evaluations of ground operations and test for knowledge; and
- Increasing runway incursion action team site visits from 25 in 2000 to a planned 130 in 2001.

Technological advances may help accomplish some of the FAA's goals, but there is no single solution that will cover all situations. Awareness and education are important, but in a system as complex as airport traffic control, human mistakes are unavoidable. Some of the Board's recommendations over the years have focused on building in essential redundancies to compensate for inevitable lapses in human performance. We urge the FAA to continue to explore methods to make certain that the air traffic environment is robust and able to minimize the impact of human mistakes before they result in an accident or incident.

Finally, the Board notes that the most recent Director of the FAA's Runway Safety Program is retiring after only a few months in the position. This program, and we have seen several versions, has lacked consistent leadership and staff. We urge FAA management to rectify this situation.

ATC Violations

On January 17, 2001, the FAA and the National Air Traffic Controllers Association (NATCA) signed a memorandum of understanding (MOU) that modified existing FAA procedures for identifying and processing operational errors. The changes implemented by this MOU establish a new subcategory of operational errors known as "technical violations," and appear to prohibit certain quality assurance and training activities following technical violations. The MOU also precludes the FAA from suspending or revoking control tower operator licenses and air traffic facility ratings in response to demonstrated performance problems.

According to the MOU, the FAA defines a "technical violation" as any operational error in which the aircraft involved pass each other with at least 80 percent of standard ATC separation, either vertically or horizontally. The Safety Board is concerned that this provision does not take into account the circumstances causing such an error and could result in the classification of clearly unsafe incidents as mere "technical violations."

For example, a head-on encounter between two air carriers that was resolved by a Traffic Alert and Collision Avoidance System resolution advisory could be classified as a technical violation if the pilots reacted quickly enough to maintain 80 percent of required vertical separation. If controller performance were found to be causal, it would be expected that the FAA would take appropriate remedial action, including retraining or disciplinary action if warranted. However, the MOU appears to preclude the FAA from doing so.

In a letter dated February 7, 2001, (attachment #1), the Safety Board expressed concern about the change in FAA policy that this provision implies. Standards that can be violated repeatedly without consequence are no longer standards. It would appear that unrestricted

application of this provision would in effect result in reducing separation standards to 80 percent of their present values. We are not aware of any FAA studies that demonstrate that current separation standards could be safely reduced or that this change was coordinated with users of the ATC system.

It is the Safety Board's opinion that if the FAA believes that current standards are overly restrictive and can be safely reduced, it would have been prudent for the FAA to perform appropriate analyses and make the results available to interested parties for examination before implementation.

The following are examples of errors and deviations classified as technical violations rather than operational errors since the NATCA MOU was signed in January 2001:

- On January 16, 2001, about 20 miles northeast of Wink, Texas, a Navy F18 and Delta flight 1804 were involved in an operational error when a Fort Worth Center controller cleared the F18 to climb to 27,000 feet head-on with the Delta aircraft already at that altitude. The two aircraft passed with 1.7 miles lateral separation and 900 feet vertical separation. The controller was involved in two similar operational errors that occurred in June and October 2000. The controller involved was not subject to any remedial training or adverse action.
- On January 16, 2001, a King Air and Piper Cherokee were involved in a near midair collision about 1 mile northwest of Fort Pierce, Florida. The incident was the result of an operational deviation that occurred when a Miami Center controller allowed the King Air to enter airspace controlled by Fort Pierce tower without coordination. The controller involved was not subject to any remedial training or adverse action.

- On January 19, 2001, about 20 miles east of Thermal, California, a Cessna Citation was involved in an operational deviation when the aircraft departed from Palm Springs, California, and was allowed to enter Los Angeles Center airspace without coordination. The Palm Springs controller did not notice the deviation until almost 10 minutes after departure. At the time, the aircraft was within the confines of a restricted area that was not in use but normally contains activities hazardous to aircraft. The controller was not subject to remedial training or adverse action.

- On January 23, 2001, Delta Air Lines flight 1934 and United Airlines flight 2833 were involved in an operational error about 30 miles northeast of Mormon Mesa, Utah, when Los Angeles Center controllers failed to complete appropriate coordination before issuing a descent clearance. The United airplane was southwest bound at 35,000 feet, and the Delta airplane was northeast bound at 33,000 feet being handled by a different air traffic controller. The two radar positions that were observed as the aircraft lost separation showed a lateral distance of 4.8 miles and vertical separation of 1,300 feet, followed by 2.35 miles and 1,700 feet. The controller responsible for the coordination error was returned to duty.

- On February 27, 2001, a Washington Center controller cleared an American Airlines Boeing 757 to fly through a restricted area that was protecting an active artillery firing exercise about 30 miles southwest of Patuxent River, Maryland. The incident was noticed by a supervisor and brought to the controller's attention. The controller was not subject to remedial training or adverse action.

Following receipt of the Board's February 7, 2001, letter, FAA officials briefed Safety Board staff on its development of a risk assessment index for classifying the severity of an operational error. The index considers vertical separation, horizontal separation, closure rate, flightpaths, and controller awareness of the conflict. The FAA's classification system appears to be a reasonable approach to evaluating operational errors, and Safety Board staff have suggested that using this proposed process to identify and classify technical violations as those situations in which minor, non-hazardous errors have occurred would be more appropriate than classifying errors based solely on distance between aircraft regardless of the surrounding circumstances.

Using this system to classify a limited number of non-hazardous errors as technical violations may be appropriate, but this should not be done without performing a sufficient investigation to decide whether corrective actions are needed to prevent recurrence. Regardless of how the FAA addresses this concern, we would expect that only those errors and deviations that result from

very minor misjudgments under controlled circumstances would qualify as technical violations, that the acceptable number of these violations would be strictly limited, and that such errors would not become routine during ATC operations. In addition, arbitrarily classifying all operational deviations as technical violations clearly mischaracterizes incidents that result in serious safety problems as minor when, in fact, controller actions caused dangerous situations.

The MOU also appears to preclude the FAA from revoking or suspending controller airman certificates and facility ratings as a means of addressing performance deficiencies. It is difficult to discern the safety benefit on the FAA prospectively waiving the right to suspend or revoke facility ratings or initiate a certificate action against a controller who demonstrates serious performance deficiencies. If an individual's performance is of such concern that these actions appear to be necessary, we expect that the FAA would proceed accordingly.

The Safety Board views the effectiveness of the FAA's quality assurance processes as critical to the safety and reliability of the air traffic control system. If properly followed, FAA procedures for the investigation of operational errors appear to provide a reasonable basis for the establishment of causal factors and the development of appropriate remedial actions. The integrity and thoroughness of its quality assurance program require the FAA to place a high priority on ensuring that operational errors and deviations are fully investigated, causal factors are identified, and corrective measures are applied whenever deficiencies in ATC system performance are found.

FAA Oversight

FAA oversight has been of concern to the Board for several years. After the May 11, 1996, accident involving ValuJet Airlines flight 592 in the Florida Everglades, the FAA directed

a 90-day safety review of its Flight Standards Office. The review determined that the FAA's regulatory oversight system -- PTRS -- needed to be replaced. The manager of the Flight Standards Division for the FAA's Western Pacific Region chaired the committee that sponsored the development of Air Transportation Oversight System (ATOS) as the FAA's new oversight system for all Part 121 carriers. Sandia National Laboratories, a Department of Energy national security laboratory in New Mexico, was a consultant in the development of ATOS because of the laboratory's expertise in system safety.

According to FAA staff, ATOS was intended to replace PTRS because that data repository system had reached a plateau and there was no way to make further safety gains. Also, a January 2000 FAA fact sheet stated that ATOS replaced the regular surveillance work program and National Aviation Safety Inspection Program (NASIP) inspections with a more flexible, focused inspection program that utilized new data analysis tools.

The ATOS program is designed to conduct inspections in 7 air carrier systems (aircraft configuration control, manuals, flight operations, personnel training and qualifications, route structure, flight rest and duty time, and technical administration,) 14 air carrier subsystems, and 88 elements. ATOS has eight processes that are linked in a closed-loop system. These processes follow:

- module 1, system configuration—to certify Part 121 operators;
- module 2, certificate management—to develop a Comprehensive Surveillance Plan (that is, safety attribute inspections and element performance inspections to be conducted over the course of a year);
- module 3, resources—to allocate the inspectors and funding to do the necessary work;
- module 4, surveillance implementation—to carry out the Comprehensive Surveillance Plan;
- module 5, reporting—to compile the data;
- module 6, evaluation—to ensure that the reported data are complete and accurate;
- module 7, analysis—to determine what the reported data are showing in terms of trends; and
- module 8, implementation—to take actions that result from what the analysis has indicated.

The ATOS program currently includes 10 major airlines—Alaska, America West, American, Continental, Delta, Northwest, Southwest, Trans World, United, and US Airways. ATOS program implementation began in October 1998. Only surveillance data for the 10 carriers are currently being recorded under ATOS; certification activities and data for the 10 carriers are still recorded under PTRS. According to the Flight Standards Division manager, all collected ATOS data is entered into a database located on the FAA's Intranet. As part of module 7 (analysis), each carrier is to be assigned an analyst.

The Flight Standards Division manager indicated that the FAA had developed a plan to extend ATOS to the remaining Part 121 carriers (about 140 carriers) and new entrant carriers but that the FAA was reluctant to proceed until ATOS was fully developed and the necessary resources were available. In its report on the Fine Airlines flight 101 accident that occurred in Miami, Florida on August 7, 1997, the Safety Board expressed concern that "some operators that may benefit most from additional scrutiny were not included in the initial implementation phases of the ATOS program" and that there was already considerable surveillance at the 10 major carriers.

The Safety Board is examining the ATOS program as part of its on-going investigations of the American Airlines flight 1420 accident at Little Rock, Arkansas, and the Alaska Airlines flight 261 accident near Point Magu, California. FAA staff recently indicated that ATOS would not have detected some of the changes in the Alaska Airlines' maintenance practices for the horizontal stabilizer jackscrew assembly that may have resulted in the accelerated wear noted on the unit from the accident airplane.

We will be certain to keep the Committee advised of developments regarding the Board's review of this program.

Mr. Chairman, that completes my testimony. I would be pleased to respond to any questions you may have.

National Transportation Safety Board
Washington, D.C. 20594

Office of the Chairman

February 7, 2001

Honorable Jane F. Garvey
Administrator
Federal Aviation Administration
Washington, D.C. 20591

Dear Ms. Garvey:

We are writing to express our concern about certain provisions in the recent memorandum of understanding (MOU) signed by the Federal Aviation Administration (FAA) and the National Air Traffic Controllers Association. We understand that the FAA intends to implement a classification system based on risk assessment for air traffic control (ATC) operational errors and deviations. We generally support this concept; however, this MOU appears to compromise the FAA's quality assurance processes and may prevent the FAA from acting to address the causes of serious operational incidents.

According to the MOU, the FAA defines as a "technical violation" any operational error in which the aircraft involved pass each other with at least 80 percent of standard ATC separation, either vertically or horizontally. We are concerned that this provision does not take into account the circumstances causing such an error and could result in the classification of clearly unsafe incidents as mere "technical violations."

For example, a head-on encounter between two air carriers that was resolved by a Traffic Alert and Collision Avoidance System resolution advisory could be classified as a technical violation if the pilots reacted quickly enough to maintain 80 percent of required vertical separation. If controller performance were found to be causal, we would certainly expect the FAA to take appropriate remedial action, including retraining or disciplinary action if warranted. However, this MOU appears to preclude the FAA from doing so. This provision could result in outcomes detrimental to the investigation of serious events in numerous other scenarios.

We are also very concerned about the change in FAA policy that this provision implies. Standards that can be violated repeatedly without consequence are no longer standards. Unrestricted application of the 80 percent separation rule is tantamount to reducing separation standards to 80 percent of their present values. We are not aware of any FAA studies that demonstrate that current separation standards could be safely reduced or of any coordination with users of the ATC system, which seems remarkable since pilots and the flying public are potentially most at risk from de facto reduction of separation standards. If the FAA believes that

current standards are overly restrictive and can be safely reduced, we expect that the FAA will perform appropriate analyses and make the results available to interested parties for examination before implementation.

The Safety Board is currently investigating the circumstances of numerous operational errors. Safety Board staff have suggested that using the proposed risk assessment program's process to identify situations in which minor, non-hazardous errors have occurred and to classify these as technical violations would be more appropriate than classifying errors based solely on distance between aircraft regardless of the surrounding circumstances. Using this system to classify a limited number of non-hazardous errors as "technical violations" may be appropriate, but this should not be done without performing sufficient investigation to decide whether corrective actions are needed to prevent recurrence. Regardless of how the FAA addresses this concern, we would expect that only those errors and deviations that result from very minor misjudgments under controlled circumstances would qualify as technical violations, that the acceptable number of these violations would be strictly limited, and that such errors would not become routine during ATC operations.

The MOU also appears to preclude the FAA from revoking or suspending controller airman certificates and facility ratings as a means of addressing performance deficiencies. It is difficult to discern the safety benefit in the FAA prospectively waiving the right to suspend or revoke facility ratings or initiate a certificate action against a controller who demonstrates serious performance deficiencies. If an individual's performance is of such concern that these actions appear to be necessary, we expect that the FAA would proceed accordingly.

We also note that although the provisions contained in FAA Order 2150.3, "Compliance and Enforcement Program," mainly address pilots' and aircraft operators' compliance with regulatory and statutory requirements, the general thrust of its content can be readily applied to ATC issues as well. When considered from this point of view, there is a noticeable difference between the FAA's handling of controller errors (as reflected in the provisions of the MOU) and its handling of errors committed by other aviation personnel. We wonder if the FAA has a rationale for observing such a difference and would appreciate any information explaining it.

We consider the effectiveness of the FAA's quality assurance processes critical to the safety and reliability of the ATC system. We also believe that the FAA should place a high priority on the integrity and thoroughness of its quality assurance program, ensuring that operational errors and deviations are fully investigated, causal factors are identified, and corrective measures are applied whenever deficiencies in ATC system performance are found.

Therefore, we hope to receive further information on the implementation of this MOU, including the FAA's plans to ensure that the integrity of its ATC quality assurance process is maintained and that the causal factors of all ATC deficiencies are identified and addressed.

Sincerely,

Carol J. Carmody
Acting Chairman

John A. Hammerschmidt
Member

John J. Goglia
Member

George W. Black, Jr.
Member

CAROL J. CARMODY, VICE CHAIRMAN
NATIONAL TRANSPORTATION SAFETY BOARD

Carol J. Carmody of New Orleans was sworn in on June 5, 2000, as the 30th member of the National Transportation Safety Board, and appointed Vice Chairman by President Clinton on January 19, 2001. She served as Acting Chairman from January 22 through September 23, 2001.

Ms. Carmody brings to the job more than 20 years experience with the aviation community. Before coming to the NTSB, she worked as an independent consultant focusing on international and environmental issues. She served as the U.S. Representative to the Council of the International Civil Aviation Organization (ICAO) in Montreal from 1994 to 1999. Early in her term, she was instrumental in persuading ICAO to start a safety oversight program to assess the compliance of countries with ICAO standards. This was a first at ICAO, and the results will improve safety for the traveling public around the world.

Ms. Carmody spent from 1988 to 1994 as a professional aviation staff member of the Senate Commerce Committee. She worked on legislation to mandate inspections for aging aircraft, to improve pilot training, to phase out Stage 2 aircraft, to authorize Passenger Facility Charges, and to reform the FAA - particularly in areas of finance and procurement.

Up until 1988 when she joined the Senate Committee, she had worked for 11 years at the FAA in jobs of increasing responsibility, leading to her appointment in 1985 as Deputy Director of Congressional Services in the Office of the Administrator. Her FAA career began in the Budget Office in 1977.

Since her appointment as Board Member, Ms. Carmody has been on-scene member at several accidents, including the aircraft accident that killed Governor Carnahan in October 2000, and the Aspen, Colorado airline crash which killed 18 people.

Her career includes: managing a firm which administered Taft-Hartley pension plans; owning and managing an employment agency; serving at the Central Intelligence Agency; and working at Braniff Airlines.

Ms. Carmody has a Master's in Public Administration from American University in Washington, D.C. and a Bachelor of Arts from the University of Oklahoma.

Ms. Carmody's term as Member expires on December 31, 2004.

PASS (DEBERRY) OPENING STATEMENT

Mr. ROGERS. Thank you very much. Mr. DeBerry.

Mr. DEBERRY. Good morning, Chairman Rogers, Congressman Sabo, Members of the subcommittee. Thank you for the opportunity to appear before you today to discuss funding and safety for the FAA's Flight Standards Division. I am Keith DeBerry, a representative of the Professional Airways Systems Specialists and an aviation safety inspector in Louisville, Kentucky.

FLIGHT STANDARDS WORKFORCE

The Flight Standards work force enforces civil aviation safety regulations and standards for providing governmental oversight through daily worldwide surveillance of air carrier operations and maintenance. This monumental task can only be accomplished by ensuring Flight Standards has a sufficient number of highly trained inspectors who are provided the proper funds to accomplish our ultimate task, to ensure the continued safety of the flying public.

As a retired Air Force Chief Master Sergeant with 25 years of aircraft maintenance experience and as a past director of maintenance for the United States Air Force Thunderbirds, I understand the need for aviation safety. As an inspector, I have lived through the FAA's changes in priority, a robust budget following the ValuJet accident and the current bare bones funding.

While Congress has appropriated funds to meet the FAA's request for the Flight Standards Division, the money is being allocated for other priorities. As a result, the money for the inspectors to complete their job has decreased while aviation demand has increased significantly.

As funds have dwindled for us to conduct our jobs, the numbers of required inspections mandated by Congress has continued to grow. More than half the needed certifications, surveillance, enforcement or compliance oversight is not being accomplished due to reduced funding. Funding levels are so anemic that office managers across the country, fearing funding will be exhausted in the latter part of the year, are pushing inspectors to complete their Congressionally mandated inspections in the early part of the year. This equates to intent surveillance for the first two quarters with little or no surveillance the last two quarters of the year. Under current budget constraints, inspectors cannot conduct important surveillance if it requires travel to a site away from the inspector's home base. In a recent situation, if I could have personally witnessed the final run through for a particular aircraft that had main landing gear problems, the public's best interests could have been better served.

FLIGHT STANDARDS TRAVEL AND TRAINING

Because of a lack of travel funds, I was unable to visually inspect the aircraft. While I will review the paperwork, I still have a nagging doubt in my mind because I was not in attendance to observe the actual testing while the plane was on jacks and the gear was being ran through its paces.

Since 1998, training funds for Flights Standards has been significantly reduced. Without regular technical training, inspectors will not be able to function in this highly complex and ever changing and growing environment. How can an inspector such as myself be the front line of safety for the American flying public without regular, up-to-date training?

AIR TRANSPORTATION OVERSIGHT SYSTEM

At the request of Congress, the FAA developed a safety system approach to oversight for the air carrier industry. The air transportation oversight system, commonly referred to as ATOS, was designed to use a proactive method to identify safety trends and determine the root causes of deficiencies or problems. The current ATOS inspection system has a significant fault; the lack of framework for oversight of out sourcing by the air carriers.

Most American air carriers out source some or all of their aircraft maintenance, such as de-icing, refueling, ground handling, aircraft cleaning, and training. Until proper ATOS tools are developed and implemented to perform adequate out sourcing surveillance, this growing area will not receive the proper oversight it demands.

In conclusion, I would ask this subcommittee to send a message to the FAA that safety is its number one priority and ensure the agency does not take needed funds from its inspector staffing, training and travel budgets.

I would also like to say that I can state, and I cannot stress this enough, the aviation community would have suffered without the professionalism, dedication and the sheer tenacity of the inspector work force during this barren budget period.

Thank you for the opportunity to testify. I would be happy to answer any questions, Mr. Chairman.

[The prepared statement and biography of Keith DeBerry follows:]

FOUNDED 1977

PROFESSIONAL AIRWAYS SYSTEMS SPECIALISTS

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STATEMENT OF
KEITH D. DeBERRY
PROFESSIONAL AIRWAYS SYSTEMS SPECIALISTS (PASS)
FAA AVIATION SAFETY INSPECTOR

BEFORE THE
HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON TRANSPORTATION
MARCH 28, 2001

PASS (AFL-CIO)

Chairman Rogers, Members of the Subcommittee:

Thank you for the opportunity to appear before you today to discuss funding and safety for the Federal Aviation Administration's (FAA's) Flight Standards division. As a representative of the Professional Airways Systems Specialists (PASS), I welcome this subcommittee's interest in this issue. The Flight Standards workforce enforces civil aviation safety regulations and standards by providing governmental oversight through daily worldwide surveillance of air carrier operations and maintenance. Some 2,800 Aviation Safety Inspectors have the enormous responsibility to provide oversight for more than 7,300 commercial and 11,100 charter aircrafts, more than 184,000 active general aviation aircraft, 4,900 repair stations, more than 600 pilot training schools, 200 airframe and power plant schools, and more than 665,000 active pilots. This monumental task can only be accomplished by ensuring Flight Standards has sufficient numbers of highly trained Inspectors, who are provided the proper funds to accomplish our ultimate task: To ensure the continued safety of the flying public.

I would first like to take a moment to discuss my background. As a retired Air Force Chief Master Sergeant (E-9) with 25 years of aircraft maintenance expertise and as past Director of Maintenance for the United States Air Force Air Demonstration Team, THUNDERBIRDS, I understand the need for aviation safety. For the past four years, I have been an aviation safety Inspector in the Louisville, Ky., Flight Standards District Office (FSDO). I have served as the geographical Air Transportation Oversight System (ATOS) Inspector for Delta Airlines in the Southern Region and as a Principal Maintenance Inspector (PMI) for air carriers (FAR Part 121).

As an Aviation Inspector, I have lived through the FAA's changes in priority — a robust budget following the ValuJet accident and the current bare bones funding. While Congress has appropriated funds to meet the FAA's request for the Flight Standards division, the money is being allocated for other priorities. As a result, the money for Inspectors to complete their jobs has decreased, while aviation demand has increased significantly. According to the FAA's own predictions, the total number of domestic passengers on U.S. carriers is expected to increase from 604.1 million in 2000 to 927.4 million passengers in 2012, a 50 percent increase in about a decade. Furthermore, the nation's fleet of large air transport aircraft with 60 or more seats is expected to grow from 4,417 aircraft in 2000 to 6,313 aircraft in 2012, an annual increase of three percent. This does not even take into consideration the ever growing fleet of regional jets. The cargo fleet of large aircraft is also expected to grow from 1,073 aircraft in 2000 to 1,760 aircraft in 2012.[1]

The public and Congress has been focused on solving the flight delay problem, but improper funding and staffing for the Aviation Safety Inspector workforce causes a serious safety situation. While delays are very costly annoyances, an improperly funded Inspector workforce makes it increasingly difficult to ensure safety in the skies. FAA choices have reduced the ranks of the Aviation Safety Inspector to critical levels and stifled professional development in an arena that demands currency training. These once highly trained individuals are being kept behind a desk, instead of in the field, reducing us to mere "paper reviewers."

As funding has dwindled for Inspectors to conduct our jobs, the number of required inspections ("R" items) mandated by Congress, including enroute inspections and maintenance checks, has continued to grow with the increasing number of air agencies and air carriers. More than half of

[1]FAA Aerospace Forecasts Fiscal Years 2001-2012, March 2001

the other needed certifications, surveillance, enforcement or compliance oversight is not being accomplished due to reduced funding. This has significantly reduced the margin of safety for the flying public. Funding levels are so anemic that FSDO managers across the country, fearing funding will be exhausted by the latter part of the year, are pushing Inspectors to complete their "R" item inspections in the early part of the year. For instance, a manager at the Louisville FSDO recently sent a memo to Inspectors to "get your R items completed now while you have funding." The manager admitted in the memo that "certification and other work might suffer, but that is the way it has to be." This equates to intense surveillance for the first two quarters with little or no surveillance the last two quarters of the fiscal year. In essence, the American flying public is unknowingly allowing the FAA to make the decision to let Inspectors conduct their jobs via the telephone for half of the year.

Under current budget constraints, only those items designated as "R" items are funded for surveillance and all other needed surveillance is either not performed or performed on a limited basis. For example, Inspectors cannot conduct important surveillance on a daily basis if it requires travel to a site away from the Inspector's home base. In a recent situation, if I could have personally witnessed the final run through for a particular aircraft that had main landing gear problems, the flying public's best interest could have been better served. Without proper travel funds, I was unable to visually inspect the aircraft. While I will review the paperwork, I will have a "nagging doubt" in my mind, because I was not physically in attendance to observe the actual testing while the plane was up on jacks and the gear was run through its paces.

The FAA's lack of priority for the Inspector workforce has caused a reduction in the number of Aviation Safety Inspectors and has significantly impaired and reduced the technical development and qualifications of those who remain. The problem could be partially mitigated by hiring additional Aviation Safety Technicians (AST) to provide support. They could be preparing accident investigation and enforcement reports, answering Freedom of Information Act requests, interfacing with the public and conducting certain inspections and surveillance on their own. Inspectors would then be freed from these tasks to perform more certification and safety inspections in the field and thus spend more time on safety oversight and enforcement of regulations. Inspectors would be able, once again, to uphold our commitment by providing quality feedback to our assigned certificate holders and ensure higher levels of safety in the future. Currently, most FSDO's average one AST per facility, which helps some with the Inspector shortage, but not significantly. However, some FSDO's, such as my facility, do not have any AST's. With a proper amount of AST's at each facility, we Inspectors would not be tied to our desks as much as 70 percent of the time because of a tremendous amount of paperwork.

The current aviation arena has become highly complex and ever changing and requires regular currency training. The evolution of advanced avionics technology (glass cockpits) and highly technical aircraft systems coupled with continued operation of aging aircraft, such as the DC-9, B-727, and the B-737, demands that Inspectors receive regular, structured currency training. Since 1998, training funds for Flight Standards has been significantly reduced to levels where active Inspectors receive little or no technical training. Without regular technical training, Inspectors will not be able to function in this highly complex and ever changing and growing environment. How can an Aviation Safety Inspector, such as myself, be the front line of safety for the American flying public without regular up-to-date currency training?

At the request of Congress, the FAA developed a system-safety approach to oversight of the air carrier industry. The Air Transportation Oversight System (ATOS) was designed to use a proactive method to identify safety trends and determine the root causes of deficiencies or

problems. This was intended to ensure air carriers incorporated the safety attributes required for a properly designed transportation system. The agency has realized air carrier operations are a series of systems that must work together to ensure safe operation and has begun developing a system that examines air carriers in a very systematic manner focusing on surveillance and audits. Basically, ATOS is the segmented re-certification of air carriers on an ongoing basis. The program has the potential to be a good tool to track data when fully developed. For example, the six safety attributes — Responsibility, Authority, Procedures, Controls, Process Management, and Interface — provide a solid foundation to build a reliable safety system.

On the other hand, the current ATOS inspection system has a significant fault, the lack of a framework for oversight of outsourcing by the air carriers. Most American air carriers outsource some or all of their aircraft maintenance, such as de-icing, refueling, ground handling, aircraft cleaning and training. Until proper ATOS tools are developed and implemented to perform adequate outsourcing surveillance, this growing area will not receive the proper oversight it demands.

A fundamental problem with ATOS has been that it has completely replaced the previous method of oversight for the top 10 carriers, despite still being in development. ATOS is not expected to be fully operational in the top 10 carriers until December of this year and the summer of 2002 for the remaining Part 121 air carriers. Another problem has been the decision to create and utilize separate databases for the collection of ATOS and Safety Performance Analysis System (SPAS) data. Prior to ATOS, SPAS had been the lifeblood in the collection and analysis of surveillance data of the top-ten carriers. Now with a separate ATOS database with no tools to analyze the captured data and the SPAS system not receiving inputs on the top ten carriers, we as inspectors have no way to analyze the trend data. Without this tool, inspectors cannot be proactive in safety measures.

Another concern is that several of the needed training programs have not been created. For example, data analysts may receive ATOS data, but are yet unable to fully analyze it for trends or best practices. Further, Inspectors are not fully trained on the use of trend data when conducting surveillance. In the National Transportation Safety Board investigation hearing of the Alaska Airlines crash, Maintenance Inspectors revealed serious deficiencies. The data used to capture this was already indicating problems, but no ATOS data analyst positions had been filled to evaluate the significance of this data, a key position to the success of ATOS. These positions are just now being filled across the nation and minimal training is just now starting.

ATOS was developed and sold to the American flying public and Congress as a cure-all to air carrier accidents, while at the same time providing a conduit for the reduction of the Aviation Safety Inspector workforce. While the ATOS safety system approach has some viable points, overall it has fallen short of the mark. The large number of Safety Attribute Inspections (SAI), 46 per year, is a major drawback of ATOS. An SAI examines the air carriers' overall system to deal with an aspect of Federal Aviation Regulations compliance. With the current staffing situation, the completion of all SAI's in one fiscal year, due to their large numbers and complexity, is impossible. A major air carrier's Certificate Holding District Office (CHDO), such as the one for Delta Airlines, may only be able to complete as few as 10 SAI's per year, leaving the majority untouched.

Due to management's lack of support for ATOS, Cincinnati, Delta's second largest hub, has not had a locally assigned ATOS geographic inspector for more than a year. In fact, while I was assigned as the ATOS inspector for Delta Airlines during the 1998 and 1999 Christmas seasons, local FSDO management removed me from all Delta taskings and reassigned me to perform

surveillance on contract carriers for United Parcel Service (UPS) at its main hub in Louisville, Ky. Essentially, Delta in Cincinnati did not receive oversight/surveillance during these critical two-week peak-flying periods in 1998 and again in 1999. Were the FAA priorities in the right place? ATOS is further complicated by geographical inspectors for each of the top ten carriers being domiciled in different offices throughout the country, and reporting to local managers. However, ATOS surveillance taskings come from each of the certificate holding offices. Therefore, these Inspectors are caught in the difficult situation of pleasing two masters. If ATOS is to remain a viable approach to air carrier oversight, then staffing and funding must be increased to levels to ensure each air carrier receives adequate surveillance year round. Most importantly, FAA management priorities must be directed at improving the margin of safety for the American flying public.

Last year, after nearly four years of pressure to produce results and answer questions in regards to being seriously behind schedule, the FAA chartered the Continuous ATOS Development Core Group (CADCG) to identify major shortcomings and provide approaches to implement recommended solutions. In conjunction with PASS, the collaborative workgroup has determined the program should provide more flexibility for Inspectors, additional data analysts, better data reporting and use, management oversight and an emphasis on cooperation with industry. The Department of Transportation's Inspector General, who said it is the key to making ATOS work, is already touting the benefits of the CADCG. While the group is making progress in pinpointing problems, suggesting solutions and actually testing for feasibility, PASS is concerned that the FAA has never completed a proper needs assessment for ATOS, which may result in the lack of funding to implement the recommendations or to keep the CADCG after this fiscal year. We urge this subcommittee to have the FAA provide a report within the next 90 days with a time-line and future funding requirements for ATOS.

In conclusion, I would ask this subcommittee to send a message to the FAA that safety is its number one priority and ensure the agency does not take needed funds from its Inspector staffing, training and travel budgets. I would also like to say that I can state — and I cannot stress this enough — the aviation community would have suffered without the professionalism, dedication, and tenacity of the Aviation Safety Inspector workforce during this barren budgeting period.

Keith D. DeBerry
4400 Saratoga Hill
Louisville, KY 40299
XXXXXXX

Work History

2000 – present
Principal Maintenance Inspector (Part 121), Federal Aviation Administration (FAA), Louisville, Ky.
- Function as primary airworthiness interface between Sunworld Airlines and the FAA to assure air carrier meets Federal Aviation Regulations and establish work programs for surveillance and inspection of air carrier.

1997 – 2000
Air Transportation Oversight System (ATOS) Air Carrier Inspector, Federal Aviation Administration, Louisville, Ky.
- Functioned as the Southern Region ATOS geographic airworthiness inspector for Delta Airlines, evaluating training and certification programs for mechanics and overall maintenance program.

1995 – 1997
Director of Maintenance, Nellis Air Force Base, Nev.
- Managed complete maintenance effort of the Air Force's only active F-4G Aircraft Program that supports combat forces worldwide.

1992 – 1995
Air Force Air Demonstration Team, Thunderbirds, Director of Maintenance, Nellis Air Force Base, Nev.
- Managed production and logistics efforts for 11 F-16C/D aircraft.

1989 – 1992
Chief Enlisted Manager, Tyndall Air Force Base, Fla.
- Responsible for maintenance management of 30 F-15C/D aircraft, including a 250-member staff.

1986 – 1989
Jet Engine Intermediate Maintenance Chief, Tyndall Air Force Base, Fla.
- Supervised entire development process of 133 F100-PW-100, 66 J57-21 and 40 J-33A35 engines.

1982 – 1986
Chief Inspector, Quality Assurance, RAF Lakenheath, England
- Supervised evaluation of 84 F-111F aircraft.

1976 – 1982
Jet Engine Technician, Charleston Air Force Base, S.C.
- Performed organizational and intermediate level maintenance on various jet engines and aircraft.

PASS (KERNER) OPENING STATEMENT

Mr. ROGERS. Thank you, Mr. DeBerry. Mr. Kerner.

Mr. KERNER. Chairman Rogers, Congressman Sabo, Members of the Subcommittee, good morning. Thank you for the opportunity to appear before you today to discuss funding and safety for the FAA's Flight Standards division. I am Bob Kerner, a representative of the Professional Airways Systems Specialists and FAA principal maintenance inspector in Cleveland, Ohio. I have been involved in the aircraft maintenance industry for the past 33 years. I have held positions in maintenance, inspection, and management in both the air carrier and general aviation fields.

INSPECTOR STAFFING

Inspector staffing levels remain well below what is needed to accomplish our mission and assure that safety is not compromised. On top of that, inspectors cannot spend enough time in the field doing inspections because of all the administrative tasks. This is a serious problem. The hiring of additional aviation safety technicians could help mitigate the effects of the staffing shortage. Inspectors would then be available to adequately perform our jobs in the field where it should be.

Inadequate staffing has caused problems in other areas as well. FAA regulations require an FAA inspector to observe a pilot during the first few flights after completing initial or upgrade training. With the tremendous growth in the aviation industry, the number of requests to accomplish this task is staggering, given our current staffing.

Instead of hiring more inspectors to accommodate the influx of requests, the FAA has authorized air carriers to deviate from the FAA regulations. The FAA has authorized air carriers to perform up to half of these pilot evaluations with their own company check airmen. More than 6,000 new pilots are being allowed into the system per year without ever interfacing with an FAA inspector.

The FAA's response to staffing problems has been to authorize more designees. Originally implemented to assist in completion of simple tasks such as test administration, the FAA has expanded designees to nearly all aspects of aviation safety. Designees who are authorized to perform functions on behalf of the FAA do not work for the FAA, but are either self-employed or industry employees

By empowering the industry to police itself and relegating its own highly skilled work force to check list duties, the FAA is not fulfilling its regulatory oversight responsibility. An increase in the inspector work force to ensure these inspections are conducted appropriately and in compliance with the regulations is imperative.

EN ROUTE INSPECTIONS

In addition to staffing, some problems could be corrected with common sense changes to the agency policy. For instance, the enroute inspection. One of many functions of inspectors could be more effective if we were allowed to perform them more appropriately. These inspections require an inspector in the aircraft throughout a flight. Our mere presence generates and promotes a

focused safety conscience of the crew and provides instant real time feedback on any noted discrepancies or problems.

FAA policy severely limits the conditions under which an enroute inspection can be performed. Essentially enroute inspections are performed Monday through Friday, 8:00 to 5:00. This is in direct conflict with the recommendations from the 90 day safety review following the ValuJet crash in 1996, which found the general public is safer any time an inspector is on board an aircraft for any purpose.

In conclusion, I would ask the subcommittee to ensure that the FAA provide proper staffing levels, adequate training and internal policies that promote the highest levels of aviation safety. With your influence and the process, we can ensure that the national air system has proper oversight, and America's flying public can be assured that air travel in this country remains as safe as it can be.

Thank you for allowing me to testify. I would be happy to answer any questions.

[The prepared statement and biography of Robert Kerner follows:]

FOUNDED 1997

PROFESSIONAL AIRWAYS SYSTEMS SPECIALISTS

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STATEMENT OF
ROBERT KERNER
PROFESSIONAL AIRWAYS SYSTEMS SPECIALISTS (PASS)
FAA AVIATION SAFETY INSPECTOR

BEFORE THE
HOUSE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON TRANSPORTATION
MARCH 28, 2001

Chairman Rogers, Members of the Subcommittee:

Thank you for the opportunity to appear before you today to discuss funding and safety for the Federal Aviation Administration's (FAA) Flight Standards division. While speaking as a representative of the Professional Airways Systems Specialists (PASS), I am pleased to provide information from my standpoint as an Aviation Safety Inspector. I have been involved in the aircraft maintenance industry for the past 33 years, including positions in maintenance, inspection, and management in both air carrier and general aviation fields. For the past 15 years, I have been a Principal Maintenance Inspector in the FAA's Flight Standards division at the Cleveland, Ohio, Flight Standards District Office (FSDO). In this po sition, I serve as the primary airworthiness interface to initial and ongoing certification, surveillance, and technical administration of certificated air carriers, air agencies, airmen, designees and the FAA, within our geographical district.

At least on paper, the Flight Standards Service Performance Plan for fiscal year 2001 supports the FAA mission and goals for safety, organizational excellence and global leadership in aviation and is directly linked to the Department of Transportation's Strategic Goal of Safety contained in its 2000-2005 Strategic Plan. I am here today to inform you that FAA Inspectors need your support and influence to ensure these goals will be attained.

Our staffing levels remain well below what is needed to accomplish all our responsibilities and assure that safety is not compromised. On top of that, the Inspectors we do have can't spend enough time in the field doing inspections because of all the administrative tasks they have to complete. This is a serious problem. The hiring of additional Aviation Safety Technicians (AST) could help mitigate the effects of the staffing problem in numerous areas, such as performing research in support of investigations, certifications, inspections, and surveillance; preparing accident, incident, and enforcement reports; answering Freedom of Information Act requests; interfacing with the public; and assisting the Inspector in completion of certification, investigative, and surveillance tasks. Inspectors would be freed to adequately perform our jobs in the field, where we should be.

Inadequate staffing has caused problems in other areas as well, including the performance of crucial Initial Operation Evaluations (IOE's). FAA regulations require an FAA Operations Inspector to observe pilots, during their first few flights, after completing required initial or upgrade training to the position of Pilot in Command. This evaluation and observation requirement ensures the individuals possess the needed skills that the training was to provide, and qualifies the pilot to hold this position. With the tremendous growth in the aviation and transportation industry and the rapid need for qualified flight crews, the number of requests to accomplish this task is staggering and insurmountable given our current staffing levels. Instead of hiring more Inspectors to accommodate this influx of requests, the FAA has authorized air carriers to deviate from the FAA regulations to meet their responsibility and has authorized them to perform up to half of these pilot evaluations with their own company Check Airmen. A review of FAA's Safety Performance Analysis System (SPAS) data, from January 1998 to March of this year, indicates the FAA Inspector performed 18,812 of the more than 36,000 IOE's completed. This means that more than 6,000 new pilots are being allowed into the system per year without ever interfacing with Inspectors — the professional who ultimately must ensure that the pilots meet the minimum regulations to fly the American public. The responsibility of safety oversight on behalf of the FAA and the purpose of the regulation are seriously jeopardized and I believe will negatively impact aviation safety.

Another response to staffing problems has been to authorize more designees. Originally implemented to assist in completion of simple tasks like test administration, the FAA has expanded designees to nearly all aspects of aviation safety. Designees, who are authorized to perform functions on behalf of the FAA, do not work for the FAA, but are either self-employed or industry employees, and receive some form of compensation from industry customers. Customer satisfaction, not compliance with the regulations and aviation safety, is a primary concern of the designee. The authorizing of additional designees is spiraling out of control with more than 20,000 designees for FAA Inspectors to oversee. By empowering the industry to police itself and relegating its own highly skilled workforce to "checklist" duties, the FAA is not fulfilling its regulatory oversight responsibility and is endangering aviation safety. An increase in the Inspector workforce to ensure these inspections are conducted appropriately and in compliance with the regulations is imperative. Currently, oversight of designees is listed as one of the lowest priorities by Flight Standards management. I have performed oversight over several designees and the discrepancies I uncover are not uncommon. For example, in one inspection I performed on a Designated Mechanic Examiner (DME), the DME did not have the required equipment or knowledge to provide adequate evaluation of applicants. Additionally, two Designated Airworthiness Representatives, who are authorized to grant airworthiness certifications and approvals for aircraft, aircraft products and parts, did not understand the certification requirements and failed to ensure all the requirements had been satisfied prior to granting these approvals. With today's ratio of Inspectors to designees being so lopsided and the fact that designee oversight is a low priority, Inspectors, such as myself, are concerned about the types of discrepancies that may be going undetected by the FAA. Let's not wait for an accident before taking action. The agency should be conducting an in-depth analysis of the designee program to ensure aviation safety and make corrections or adjustments in this program to ensure compliance with the regulations.

Instead of correcting the problem, Flight Standards has chosen to add to it by developing a new process that will create an additional designee, a Maintenance-Designated Airworthiness Representative; a process generated in response to industry pressures. This representative will be authorized to grant approvals of data used to perform major aircraft alterations and repairs. While qualifications for this individual are being developed as part of the proposed FAA Field Approval Process Improvement, it's currently in the prototype phase. Lack of adequate training and low surveillance priority will result in the *inspector* being unable to perform effective oversight of this individual.

While agency decisions regarding resource allocations are hindering many Inspectors, the agency is making other decisions that further erode the envelope of aviation safety. Recently, the FAA has started the questionable and potentially dangerous practice of switching oversight responsibilities to appease the wishes of some major carriers. Despite being directly contradictory to internal handbook policy, the FAA has begun switching oversight responsibilities of repair stations from FSDO's, where the repair stations are geographically co-located and the Inspectors have the skills to conduct oversight, to an often times distant Certificate Management Office (CMO), whose primary concern is to manage the major air carrier's certificate and oversee its operations. These new carrier repair stations also provide maintenance services to other carriers, which further complicates safety oversight. The agency has recently switched repair station responsibilities from the FSDO's in Dallas and Indianapolis to the CMO's in Atlanta and San Francisco, respectively. This problem is particularly serious now that the FAA has reallocated funds for Inspector travel to other agency initiatives. While these arrangements may be convenient for the carriers, we believe added convenience should not be achieved at the cost of aviation safety. Therefore, we ask this subcommittee to ensure the FAA follows its own policies,

place the responsibility for the repair stations back under the FSDO's, and keep an eye on a similar practice now beginning with the Part 142 Pilot Training Centers.

In addition to staffing and other problems, some detrimental situations could be corrected with common sense changes to agency policy. For instance, the "enroute inspection," one of the many job functions of Inspectors, could be more effective if we were allowed to perform them more appropriately. These inspections require an Inspector in an aircraft throughout a flight. Our mere presence generates and promotes a focused and sustained safety conscience of the crews and provides instant real time feedback on any noted discrepancies or problems being experienced by the carrier. These inspections result in swift, corrective action taken by the respective CMO. Current application of FAA policy is highly subjective, creating huge obstacles that must be overcome by the inspector and restricting the effective use of this tool to ensure the safety of the traveling public. This is in direct conflict with the recommendations from the 90-day safety review following the ValuJet crash in 1996, which found "the general public is safer anytime an Inspector is on board any aircraft for any purpose." Under these current conditions, aircrews are not being inspected during some of the busiest travel times, further jeopardizing aviation safety.

Ramp inspections, which ensure aircraft are in a condition for safe operation and enable Inspectors to observe how the air carrier performs its ground operations, are a critical function. Our FAA nationally issued security badge (8000.39) is not always recognized by airport security, thus preventing the Inspector from entering the secure areas of the airport where these tasks are performed. For example, following this hearing and while I'm waiting for my flight to depart Reagan National Airport, I could do a ramp inspection with absolutely no increased cost to the FAA or the American taxpayers, but I won't because my ID might not be recognized by airport security. In order for me to conduct the inspection, I would be subjected to the hassle of obtaining the local ID from airport security to gain access to the ramp, a process that could take up to a month. Therefore, I will wait in the departure lounge with the other passengers — yet another missed opportunity for oversight. I know of Inspectors who routinely travel to the same destinations and carry a dozen or more local ID's in order to perform ramp inspections in those locations. I ask this subcommittee to help get the FAA to correct this situation and have airport security honor the Inspector's federal credentials.

As referenced in the General Accounting Office Report, issued February 1998, titled Weaknesses in *Inspection and Enforcement Limit FAA in Identifying and Responding to Risks*, the recently implemented Streamlined Administrative Action Plan has reduced paperwork and processing time to complete administrative enforcements. The legal enforcement process still remains too cumbersome. Inspectors are recommending sanctions based on current FAA sanction guidance that are being dramatically reduced at the time of case settlement. Inspectors follow guidelines to determine sanction amounts, which may result in financial hardship for a company. The company often negotiates much lower sanctions with the agency. Companies consider these reduced sanctions as simply the cost of doing business, certainly not a deterrent. Since the time expended by the Inspector on research, investigation, and report preparation is considerable, a significant reduction in the sanction leaves the individual believing the efforts were in vain. Recently, a major air carrier experienced an incident and remained reluctant to quickly address and correct a serious problem affecting a fleet of aircraft. Compliance was finally obtained, enforcement action taken and the resulting fine that was levied was pennies on the dollar from what it should have been. Numerous examples of this are apparent and available to the public. These are some of the reasons that infractions requiring legal enforcement action are being underreported. In addition, Inspectors have been removed from an assigned operator based on the amount of enforcement action that was recommended or at the desire of an operator.

In conclusion, I would ask this subcommittee to provide proper oversight of the FAA to ensure proper staffing levels, adequate training and internal policies to promote the highest levels of aviation safety. With your influence in the process, we can ensure that the National Airspace System has the proper oversight and America's flying public can be assured that air travel in this country remains the safest it can be.

Robert Kerner
5901 Park Ridge Drive
North Olmsted, Ohio 44070
XXXXXXX

Work History

1987 – present

Principal Maintenance Inspector, Federal Aviation Administration, Cleveland, Ohio.

- Function as primary airworthiness interfaces with respect to the initial and ongoing certification, surveillance and technical administration of certified air carriers, air agencies, airmen, designees and the FAA.
- Responsible for assurance that assigned organizations and airmen meet the requirements of the FAA concerning aircraft maintenance and alteration programs. This includes evaluation, approval or disapproval of assigned operators maintenance/inspection procedure manuals, record keeping systems, contract arrangements and maintenance facilities and training programs.
- Conduct enforcement investigations, reexamination and recertification of certified air carriers, air agencies and airmen.
- Currently, manage six carrier and eight air agency certificates and have performed eight air carrier and 11 air agency certifications.

1986 – 1987

Aviation Safety Inspector, Federal Aviation Administration, Cleveland, Ohio.

- Responsible for performing a variety of inspections and surveillance associated with aviation maintenance on behalf of one or more of the principal inspectors in the district office.
- Delegated specific authority to make decisions on quality of maintenance activities at different aviation facilities

1982 – 1986

Director of Maintenance, Lorain County Aviation, Elyria, Ohio.

- Supervised maintenance personnel in the performance of required repairs, inspection and servicing of General and Air Carrier Aircraft.
- Performed all final inspection and approved or disapproved major repairs and alterations on a range of aircraft from light single-engines to light twins, turbo-props and jets.
- Directed and controlled maintenance of a fleet of aircraft, which consisted of three Beechcraft Kingairs and three Cessna Citation 500's.

Mr. ROGERS. Thank you, Mr. Kerner. Mr. Fisher.

Mr. EICKENBERG. Chairman Rogers, Congressman Sabo and Members of the subcommittee, with your permission I would like to precede Mr. Fisher and let him conserve his voice.

Mr. ROGERS. That is fine. Thank you.

FEDERAL MANAGERS ASSOCIATION (EICKENBERG) OPENING STATEMENT

Mr. EICKENBERG. Good morning. My name is Arthur Eickenberg, and I am currently an air traffic manager at the Tallahassee Tower, Tallahassee, Florida. I would like to thank the subcommittee for allowing me to appear as a representative of the Federal Managers Association to offer our insight.

FAA REFORM

I have 28 years of experience as an air traffic controller, supervisor, staff specialist, including terminal, center, regional and headquarters assignments and now as an air traffic manager. We are now seeing the results of a growth in air traffic, combined with a reduction in oversight and staff support at the very point in time we are attempting to bring on new hardware, software, and traffic management issues.

The FAA failed to fulfill the intent of Congress when the agency was removed from Title 5 of the United States Code. The original goal of taking the FAA out from under Title 5 was to gain expediency in equipment procurement. Because the agency did not have a focused objective from the outset, it has squandered resources in an attempt to explore the "freedoms" that new personal management afforded.

In an August 1999, three-year status report on personnel reform in the FAA that was commissioned by Congress, the National Academy of Public Administration, NAPA stated, "The recent compensation agreement negotiated with the National Air Traffic Controllers Association (NATCA) has resulted in significant reductions in funds for training of both employees and managers. This is troubling for both its impact on the technical competence of employees and on the effectiveness of the new pay for performance system."

PAY DISPARITY

Today, we are saddled with the disparate treatment of our human capital as a result of mismanagement, coupled with a lack of leadership. This has been no more evident than in the pay inequities we are currently witnessing as a result of the actions taken by the agency leadership in October of 1998.

Referring once again to the aforementioned NAPA report: "The pay increase negotiated by the National Air Traffic Controllers Association for its members created pay disparities that may present barriers to deployment of employees because field unit positions offer the prospect of more favorable compensation than regional and headquarters positions."

The decision to exclude a segment of the air traffic work force, in particular managers, supervisors and staff specialists in regional offices and headquarters positions created a significant decrease in

morale that still exists as we speak. The victims of this exclusion were those who had diligently worked their way up from the controller ranks and had been promoted to managerial, supervisory, and staff positions.

Despite their desire to accept the greater responsibility that comes with any management position, they were arbitrarily exempted from the compensation system applied to their colleagues. In fact, it was declared air traffic managers, supervisors and specialists in regional and headquarter offices were to be compensated at a rate lower than that of the field air traffic personnel occupying the position from which they had been promoted.

When the agency recognized it would be extremely difficult to recruit personnel into the now devalued regional and headquarter positions due to the lower salaries, rules were changed to permit field personnel to retain the higher compensation levels when they accepted positions in the regions and headquarters. Subsequent rules were then promulgated which provided an additional increase in compensation for field personnel selected to regional and national headquarters positions. Again, the incumbent managers, supervisors, and staff were excluded.

The net effect of these arbitrary action is that these individuals serving in regional and headquarters air traffic positions on October 1, 1998, have been hurt with respect to both their pocketbooks and their morale. It should be noted that this exclusion from the pay increase resulted from a desire to accept positions that were identified as promotional or career enhancing.

The short-term impact in many cases, is a loss of a compensation exceeding $20,000 per year; the long-term effect include the cumulative loss in retirement benefits and thrift savings plan return, as well as lower morale created by these financial and professional disincentives for wanting to join management ranks.

All attempts to resolve this issue within the agency have been unsuccessful. The message communicated to the affected employees has been that the agency has the authority to enact arbitrary compensation programs despite an independent analysis regarding the validity of the regional and headquarters position classifications.

A vivid illustration of this pay disparity involves two individuals from the same air route traffic control center who accepted assignments in the same regional office. One was on a detail, had their detail terminated, went back to the center and was included in the pay raise. Shortly thereafter, this individual was detailed back to the regional office and brought the pay raise with him.

Meanwhile, the other individual, who was permanently assigned and was unable to return to the center, was excluded from the pay raise. The net effect was that they were now both working in the same division within the same regional office at some $20,000 per year discrepancy in pay.

In fact, Mr. Chairman, I personally have been severely impacted by the same injustice. I was a staff specialist in the ARTCC. The work I was performing had national implications, and I was brought into the regional office to give me greater latitude to perform that work.

On October 1, 1998, the date the pay effectively changed with the agreement between the FAA and the controllers' union, I was pre-

vented from returning to work at the center and thereby suffered the consequences of being in the wrong place at the wrong time.

Meanwhile, my counterparts who remained in the center benefited substantially by virtue of being in the right place at the right time, entitling them to the pay raise that should have been distributed equitably throughout the agency.

Since the passage of the reauthorization bill of 1996, which removed the FAA from Title 5, we have witnessed guidance for policy and personnel reform being implemented "on the fly" with little empirical data to justify the changes. There exists no shared vision nor a clear direction for the reform effort. The various lines of business have been unsuccessful in formulating their own individual policies. And perhaps most troublesome, there is no communication of the reform changes to the work force.

The current state of the FAA is such that managers and supervisors in the field are being increasingly hamstrung by rules made "on the fly" that reduce the tools by which to manage and hold people accountable for their actions. Accountability is the issue. To this end, the FAA must immediately address the pay inequities within the agency.

As the NAPA report accurately states: "The majority of employees, managers and executives interviewed by the NAPA team expressed concern for supervisors' ability to handle the new complexities without a significant investment in training. The impact of the financial shortage is exasperated by the fact that the number of supervisors has been significantly diminished increasing the personal management responsibility of those remaining."

Mr. Chairman, I would like to provide this committee with a copy of a briefing package that completely covers the pay issue.

This concludes my prepared statement, and I will be happy to answer any questions the committee may have at the conclusion of this discussion.

[The prepared statement and biography of Arthur Eickenberg follows:]

FMA

Federal Managers Association

Testimony
Before the Committee on Appropriations
Subcommittee on Transportation and related Agencies
United States House of Representatives

For Release on Delivery
Expected at
10:00 A.M. EST
Wednesday
March 28, 2001

Air Traffic Issues

Statement of
Mr. Arthur C. Eickenberg
Federal Managers Association
Federal Aviation Administration (FAA) Conference

1641 Prince Street • Alexandria, VA 22314 • (703) 683-8700 • FAX: (703) 683-8707 • info@fedmanagers.org www.fedmanagers.org

Chairman Rogers, Congressman Sabo, and Members of the Subcommittee:

Good morning. My name is Arthur Eickenberg, and I am currently an Air Traffic Manager at Tallahassee Tower in Tallahassee, Florida. I have 28 years of experience as an Air Traffic Controller, Supervisor, and Staff Specialist (including Regional and Headquarters assignments), and now as Air Traffic Manager.

We are now seeing the results of a growth in air traffic combined with a reduction in oversight and staff support at the very point in time we are attempting to bring on new hardware, software, and traffic management initiatives. The FAA failed to fulfill the intent of Congress when the agency was removed from Title 5 of the United States Code. The original goal of taking the FAA out from under Title 5 was to gain expediency in equipment procurement. Because the agency did not have a focused objective from the outset, it has squandered resources in an attempt to explore the "freedoms" that new personnel management afforded. Today, we are saddled with the disparate treatment of our human capital as a result of mismanagement coupled with a lack of leadership.

This has been no more evident than in the pay inequities we are currently witnessing as a result of the actions taken by agency leadership in October of 1998. In an August 1999 three-year status report on personnel reform in the FAA that was commissioned by Congress, the National Academy of Public Administration (NAPA) stated, "The pay increase negotiated by the National Air Traffic Controllers Association for its members created pay disparities that may present barriers to deployment of employees because field unit positions offer the prospect of more favorable compensation than regional and headquarters positions."[1]

The decision to exclude a segment of the air traffic workforce, in particular managers, supervisors, and staff specialists in Regional Office and Headquarters positions created a significant decrease in morale that still exists as we speak. The victims of this exclusion were those who had diligently worked their way up from the controller ranks and had been promoted to managerial, supervisory, and staff positions. Despite their desire to accept the greater

[1] The FAA requested that the National Academy of Public Administration conduct a review ("Personnel Reform in the Federal Aviation Administration") of the agency's personnel reform system as required by Congress after three years of implementation of the reforms.

responsibility that comes with any management position, they were arbitrarily exempted from the compensation system applied to their colleagues. In fact, it was declared air traffic managers, supervisors, and specialists in Regional and Headquarters offices were to be compensated at a rate lower than that of the field air traffic personnel occupying the positions from which they had been promoted.

When the agency recognized it would be extremely difficult to recruit personnel into the now devalued Regional and Headquarters positions due to the lower salaries, rules were changed to permit field personnel to retain the higher compensation levels if they accepted positions in the Regions and Headquarters. Subsequent rules were then promulgated which provided an additional increase in compensation for field personnel selected to Regional and National Headquarter positions. Again, the incumbent managers, supervisors, and staff were excluded.

The net effect of these arbitrary actions is that these individuals serving in Regional and Headquarters air traffic positions on October 1, 1998 have been hurt with respect to both their pocketbooks and morale. It should be noted that this exclusion from the pay increase resulted from a desire to accept positions that were identified as promotional or career enhancing. The short-term impact, in many cases, is a loss of compensation exceeding twenty thousand dollars ($20,000) per year; the long-term effects include the cumulative loss in retirement benefits and Thrift Savings Plan returns, as well as lower morale created by these financial and professional disincentives for wanting to join management ranks.

All attempts to resolve this issue within the agency have been unsuccessful. The message communicated to the affected employees has been that the agency has the authority to enact arbitrary compensation programs despite an independent analysis regarding the validity of the Regional and Headquarter position classifications.

A vivid illustration of this pay disparity involves two individuals from the same Air Route Traffic Control Center (ARTCC) who accepted assignments in the same Regional Office. One was on a detail, had their detail terminated, went back to the Center and was included in the pay raise. Shortly thereafter, this individual was again detailed back to the Regional Office and

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brought the pay raise with him. Meanwhile, the other individual, who was permanently assigned and was unable to return to the center, was excluded from the pay raise. The net effect was that they were now both working in the same division within the same Regional Office at some $20,000-per-year discrepancy in salary.

In fact, Mr. Chairman, I personally have been severely impacted by this same injustice. I was a staff specialist in the ARTCC. The work that I was performing had national implication and I was brought into the Regional Office to give me greater latitude to perform that work. On October 1, 1998 – the day the pay effectively changed with the agreement between the FAA and the controllers' union – I was prevented from returning to work at the Center and thereby suffered the consequences of being in the wrong place at the wrong time. Meanwhile, my counterparts who remained in the Center benefited substantially by virtue of being in the right place at the right time – entitling them to the pay raise that should have been distributed equitably throughout the agency.

Since the passage of the Reauthorization Bill of 1996, which removed the FAA from Title 5, we have witnessed guidance for policy and personnel reform being implemented in an "on-the-fly" manner, with little empirical data to justify the changes. There exists no shared vision nor a clear direction for the reform effort. The various lines of business have been unsuccessful in formulating their own individual policies. And perhaps most troublesome, there is no communication of reform changes to the workforce.

The current state of the FAA is such that managers and supervisors in the field are being increasingly hamstrung by rules made "on-the-fly" that reduce the tools by which to manage and hold people accountable for their actions, be they controllers or the senior management of the FAA.

To this end, the FAA must immediately address the pay inequities within the agency. I'd like to refer once again to the 1999 NAPA report: "The majority of employees, managers, and executives interviewed by the NAPA team expressed concern for supervisors' ability to handle the new complexities without a significant investment in training. The impact of the financial

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the new complexities without a significant investment in training. The impact of the financial shortages is exacerbated by the fact that the number of supervisors has been significantly diminished increasing the personnel management responsibilities of these remaining."

This concludes my prepared statement, and I will be happy to answer any questions the subcommittee may have at the conclusion of this discussion.

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Chronology

- On **November 15, 1995** President Clinton signed into law the FY '96 Department of Transportation Appropriations (P.L. 104-50). Under this law, the FAA has been largely exempt from government wide personnel rules contained in Title 5 U.S.C. since April 1, 1996.
- On **October 9, 1996** President Clinton signed into law the Air Traffic Management System Performance Improvement Act (P.L. 104-264). Under this law, the FAA was required to bargain with its unions and consult with other employees over the development of the new personnel management system.
- On **July 9, 1998** the FAA and NATCA signed a memorandum of agreement calling for a 30 percent reduction in supervisors in order to help finance a new pay package for union members. Some controllers' salaries will increase by as much as $30,000 between 1999 and 2001.
- On **August 28, 1998** the FAA and NATCA signed a comprehensive five-year labor agreement that is projected to cost nearly $1 billion over the next five years.
- **September 30, 1999.** The conference report (H.Rpt. 106-355) accompanying the FY 2000 Department of Transportation Appropriations, P.L. 106-69, deferred for one year any further reductions in air traffic control supervisory staffing.
- **October 13, 2000.** The DOT IG issues a memorandum to the FAA Administrator expressing serious concerns regarding the implementation of the CIC program.
- **January 18, 2001.** Inspector General Kenneth Mead issues a memorandum in response to a request to identify the top-priority management challenges in the Department of Transportation. The memorandum identified the reduction of supervisors and the failure to realize productivity gains by NATCA as a top management challenge facing the DOT and FAA.

Background

- The FAA, pursuant to a July 1998 memorandum of agreement with the National Air Traffic Controllers Association, will increase the number of controllers by 680 between June 20, 1998 and FY 2003. At the same time the FAA plans to eliminate approximately 700 supervisory positions and approximately 200 staff positions.

- The DOT IG has "found that the function of air traffic control supervisors is essential in providing successful air traffic operations." The FAA does not plan to eliminate the air traffic supervisor functions but instead hopes to compensate for the loss of supervisors by expanding and enhancing the current practice of using "controllers-in-charge" (CICs).

- CICs are currently utilized mainly when supervisors take short breaks and when operations are slow. Expanding the use of CICs would require their use when the operational tempo is high. While the expansion and enhancement of the CIC role has just taken place, controllers have been paid a 10% pay differential for performing CIC work since October 1, 1998.

- The FAA is anxious for the CIC initiative to move forward rapidly because it would like to respond to criticism that the agency has received little in return for agreeing to a generous and expensive pay package. The FAA is calling the CIC initiative a "productivity gain" despite by FMA's estimate that this will cost more than $40 million.

- Past experience supports the contention that supervisory reductions negatively impact safety. In the last 5 years operational errors have risen 58% and continue to rise.

Mr. Arthur C. Eickenberg
Federal Managers Association
FAA Conference

Air Traffic Manager: Tallahassee, Florida ATC-7, Combined Facility, Tower and Tracon

Aviation Safety Counselor under Flight Standards District Office Tampa, Florida

Special Project Specialist: Staffing and Cost Analysis Tools and Cost Accounting System

Atlanta Air Route Traffic Control Center Staff Specialist: Plans, Programs & Security Staff

Acting Assistant Manager: Plans, Programs & Security Staff

Operational Supervisor: Air Traffic Control Tower / Tracon, Columbus, Georgia

Evaluations Specialist: Systems Effectiveness Office (Currently Air Traffic Evaluations & Investigations)

Regional Office Quality Assurance & Evaluations Specialist: Atlanta, Georgia

Plans and Procedures Specialists & Full Performance Level Controller: Atlanta Air Traffic Control Tower, Atlanta, Georgia

Plans and Procedures Specialists & Full Performance Level Controller: Tampa Air Traffic Control Tower, Tampa, Florida

Operations Supervisor: St. Petersburg/Clearwater Tower, Clearwater, Florida

Full Performance Level Controller: St. Petersburg/Clearwater Tower, Clearwater, Florida

Certified for Numerous Special Events including Air Shows Operations, and temporary towers.

Licensed Commercial Single & Multi-Engine, Instrument Rated Airplane, Commercial Rotorcraft/Helicopter.

Compensation Inequities Impacting Federal Aviation Administration Air Traffic Controllers

Guide to Presentations (source documents)

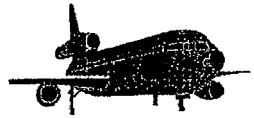
1. **What Congress was told. [1/98]**
   - Congressional briefing provided to both committees (authorization & appropriation), both houses and both sides of the aisle detailing agency plans and soliciting support
   - Page 11: Executive Alliance identified as "outside expertise to assist in compensation planning and negotiations support". (Executive Alliance supported the inclusion of Regional and Headquarters Air Traffic personnel in the MSS system.)
   - Page 12: MSS plans discussed (consistent with internal agency documents reflecting the inclusion of Regional and Headquarters personnel).

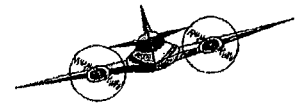
2. **What the FAA Administrator was briefed (and approved). [3/98]**
   - FAA Administrator briefing is a detailed briefing on the Air Traffic Compensation Plans, including MSS construct
   - Page 5: MSS payment based on level of responsibility
   - Pages 14 thru 14: Specific, detailed breakdown of MSS compensation schema for regional and headquarters Air Traffic employees. No objections made by administrator.

3. **What employees were told. [9/98]**
   - Air Traffic Compensation Plan (MSS) briefing provided as a part of training session for regional personnel to disseminate to field facilities regarding the planned system. Again, references regarding MSS are consistent with the earlier information and there is no discussion of any exclusion. (An additional, earlier briefing package for employees was distributed 3/11/98 and contains the same information as this later version. Copies of it are also available, if requested.)
   - Page 3: MSS based on level of responsibility with the intent of fairness across Air Traffic.
   - Page 4: The reason for the new classification system is to respond to lower level position compensation exceeding that of the higher levels. (Compensation inversion)
   - Page 6: Compensation described consistent with Administrator's briefing – based on level of responsibility. Specifically includes Regional and Headquarters personnel and the integrated ATC career path.
   - Page 7: Coverage in the new compensation system explicitly identified as covering "all 2152's"
   - Pages 8 – 12: Provide specific background of agency compensation plans for Air Traffic and impacts on career path progression. Regional and Headquarters personnel are included.

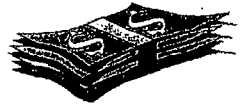
4. **What action the FAA Administrator took. [10/98]**
   - FAA Administrator's Memo (10/1/98) – Memorandum from the administrator advising she had decided to exclude Regional and Headquarters Air Traffic Employees pending the outcome of a classification analysis.

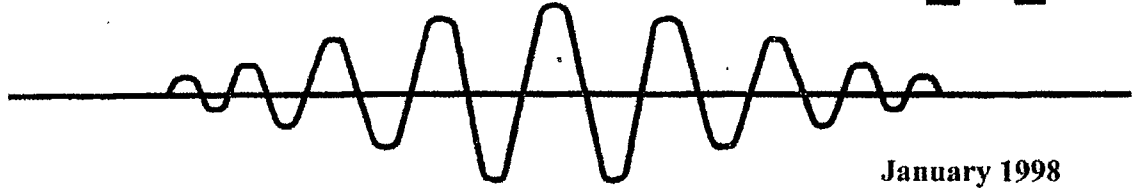
5. **What action the FAA Administrator took. [3/99]**
   - FAA Administrator's Memo (3/5/99) – This memorandum details the administrator's decision, despite the outcome of the independent analysis she directed, to permanently exclude Regional and Headquarters Air Traffic employees from the MSS compensation system.





Air Traffic Control Compensation





January 1998

Contents

- Purpose
- Background
- Fiscal environment
- Negotiation activity
- FAA ATC compensation strategy
- Union's compensation proposal
- Comparison of proposals
- Issues

Purpose

- ✈ INFORMATIONAL: Describe the current situation concerning Air Traffic Control (ATC) compensation.

Background

- An overall Agency "Compensation Plan" is being developed as a result of "Personnel Reform":
  - Implementation in FY-99 or later.
  - Establishes framework for specialized pay systems.

- Legislation requires the FAA to negotiate pay of bargaining unit employees with their unions:
  - Base pay limits - no greater than AOA-1 ($136,700).
  - No decrease in base pay through 1999.
  - Negotiations with major unions beginning in conjunction with contract renewal negotiations.

Background (con't)

- 1998 FEPCA pay increases being provided to all FAA employees as an interim measure while the new compensation plan and union contracts are completed.
  - Unions agreed.

- Traffic growth has resulted in ATC classification standards no longer reflecting the variances in workload that exist between many facilities.

Background (con't)

- Classification is the basis for determining grade levels:
  - All domestic Air Route Traffic Control Centers, a wide variety of Terminals (e.g., DFW, IAD, SCT, SLC) are the same grade, but workload varies significantly.
  - Current grade structure results in large pay differences between facilities near pay grade "break points" although workload difference may be small.
  - Reclassification of ATC facilities is in-process:
    - More time needed to implement.
    - Pay for levels needs to be determined and agreed on.

Fiscal Environment

- FAA's current budget does not provide any additional $'s to support reclassification or ATCS pay increases above government wide increase (FEPCA).

- Budget does not support all current needs; e.g. year 2000 computer fixes, etc.

- Unfunded increases in pay will compromise FAA mission.

NATCA Contract Activity

- FAA activities in advance of the union contract with NATCA expiring on 7/31/97:
  - Negotiating teams identified on 12/31/96
  - Official notification to amend contract on 4/18/97
  - "Interest based bargaining" training conducted jointly for both FAA and NATCA negotiating teams
- FAA/NATCA exchanged contract proposals - 6/2/97:
  - 120 articles
  - Compensation areas deferred or not fully included
- First negotiation sessions - 7/14-25/97
- Although 1993 Agreement expired on 7/31/97, terms remain effective until negotiations are completed.

NATCA Contract Activity (con't)

- Second negotiation session: 8/18-29/97.
  - Agreement reached on 12 of 120 articles.
  - Reached agreement on 11/4/97 concerning process for negotiating compensation-related provisions.
- Compensation proposals exchanged on 11/14/97.
  - Clarifying discussions on 11/20/97.
- Third negotiation session: 12/4-12/97
  - Focused on compensation articles
  - Reached agreement on 5 additional articles
- Fourth negotiation session: 1/7-16/98
  - Focused on compensation discussions.
- Fifth negotiation session: 1/27-2/6/98

321

NATCA Contract Activity (con't)

- Compensation issues resolution procedures:
  - Compensation articles not agreed upon will be sent to NATCA President and the Director of Air Traffic for resolution.
  - Outstanding compensation articles will be submitted to the Federal Mediation and Conciliation Service for assistance in resolving them.
  - Should agreement not be reached, unresolved compensation articles will be submitted to the Federal Service Impasse Panel or the U.S. Congress, as appropriate.

322

FAA ATC Compensation Strategy and Proposal

- Obtain outside expertise to assist in compensation planning and negotiations support:
  - Executive Alliance - compensation
  - Tony Herman, of Covington and Burling - negotiations
- Provide Government-wide (FEPCA) increase to all personnel.
- As an interim measure until reclassification is implemented, address classification inequities through lump-sum payment to busiest facilities.
  - above specified facility traffic density (activity) thresholds.

FAA ATC Compensation Strategy and Proposal (con't)

- Ensure no further derogation of career path and resource availability for Mgr., Sup., Staff positions by including in lump sum payments.
- Fund lump sum payments through jointly identified cost savings.
- Phase in new facility reclassification and compensation systems:

FAA Strategy and Proposal - Analysis

- "Fair" compensation in comparison to:
  - Other FAA/Federal employees.
  - Other unions in FAA.
  - "Highly skilled - technical" workforces in industry.
- Recognizes shortfalls in the current ATC classification system and provides mechanism to additionally compensate busiest facilities.
- Is fiscally affordable within current budget:
  - 2.8 average FEPCA increase was budgeted for.
  - additional compensation to come from jointly identified cost savings.

FAA Strategy and Proposal - Analysis (con't)

- Views productivity increases and work rule "buy backs" as means to manage future activity and cost growth.
- Phased in approach provides adequate time to complete work on reclassification.

Union's Compensation Proposal

- Establishes a unique pay table for NATCA Bargaining Unit employees:
  - Based on reclassification of ATC facilities.
  - Base pay ranges for FPL controllers: $47,441 - $152,353.
  - Incorporates ATRA (5%) into base pay.
  - Incorporates 5.42% (rest of U.S.) locality adjustment into base pay.
- Retains differentials/premium add-ons to base; e.g., Sunday, Night, Training Instructor, Holiday, etc.
- COLA's for high cost of living areas.
- Conversion:
  - Grade as defined by reclassification
  - Step in grade - same ATC step as current FG step

Union's Compensation Proposal (con't)

- NATCA cost estimate - $400M.
  - actual costs may be higher
- Suggests undefined potential for offsetting cost saving of $100M.

Union's Proposal - Analysis

- "Across the board" base pay increase, effectively for all:
  - Between $6.9* for current FG-11, step 1 to $37.1K* for current FG-14, step 10.
    * based on adding ATRA and 5.42% locality to FG rates
  - Potential of $63.6K* addition if facilities grow into unused levels.
    * based on adding ATRA and 5.42% locality to FG rates
- Exceeds legislative constrained base pay limits.
- Base pay increases result in corresponding greater costs for differentials, premiums and benefits:
  - An approximate additional 39% to base pay.

Unions Compensation Proposal - Analysis (con't)

- Contract proposal includes increases to benefits which would substantially increase costs and staffing needs, e.g.:
  - Sick Leave increases of up to 100% (8 hrs./ pp.).
  - Annual Leave increases of up to 50% (12 hrs. / pp.).
  - Additional excused absences.
  - Additional differentials; e.g., Controller-in-charge pay.
- Does not identify how productivity would improve or where cost savings would come from.
- Is not affordable within current budget.

Comparison of Proposals (con't)

Current ATC Classification			ATC Reclassification Grade (Predominant)	NATCA Proposed Pay Ranges***	Equivalent Pay Grade Ranges for NATCA Proposed Pay Levels
Facility Levels	FG Grade	Pay Range CY-98**			
Terminal - 1	10/Contract				
Terminal - 2	11	$36,609 - $47,589	5 - 6	$47,441 - $64,993	FG-12 -- FG-12+
Terminal - 3	12	$43,876 - $57043	7 - 8	$57,285 - $84,087	FG-13.5 -- FG-14+
Terminal - 4	13	$52,176 - $67,827	9 - 10	$72,502 - $104,059	FG-15 -- FX-2
Terminal - 5/Center	14	$61,656 - $80,151	11 - 12	$87,727 - $125,909	SL-1 -- FX-5
Future			13 - 14	$106,150 - $152,352	FX-2.5 -- Exec-1+

**Base rate - doe not include Locality or 5% ATRA ***Includes 5.42% RUS Locality and 5% ATRA

NOTE: S-1 Pay = Exec 1 ($151,800)
Congress Pay = ($136,700)
AOA-1 Pay = Exec 2 ($136,700)
AOA-2 Pay = Exec 4 ($118,400)

Issues

- Meeting controller compensation expectations:
  - NATCA proposal set very high expectations.
- Managing the operations environment if the workforce perceives that they are not adequately compensated.
- Managing potential concerns from other employees about compensation fairness in comparison to the Air Traffic organization.
- Reaching agreement within budget constraints.

Air Traffic Compensation Plan

333

Briefing to the Administrator
March 6, 1998

Briefing Outline

- Describe Background and Objectives
- Outline Compensation Plan
  - For Air Traffic Workforce - Including Controllers
  - For Managers, Supervisors, and Staff (MSS)
- Request Endorsement

Why We're Negotiating Pay

Legislative Requirement to Negotiate Pay

- Contained in 1996 Authorization Legislation
- Base pay limits - no greater than AOA-1 ($136,700)
- No decrease in base pay through 1999

ATC Reclassification

- Current standards do not reflect workload variances
  - Traffic growth resulted in a variety of facilities at highest level
- Redesign Efforts Well Underway
  - Affects most of AAT: NATCA, NAATS and M,S,S workforces
  - Joint Union / Management activities - Tower/Center and FSS
  - Multi-Year efforts - NATCA has over 5 years invested.
  - Focus: Adding complexity factors and more pay levels
  - Conceptual and many specific agreements reached - NATCA
- Working on policies and implementation
  - More time needed

Air Traffic Plan - Foundation Concepts

- Base on ATC facility reclassification levels
- Developmental pay based on training completion
- MSS pay based on level of responsibility
- Fairness across Air Traffic
  - Regardless of bargaining unit or classification series
- Fairness with rest of FAA to extent practical
  - Considering LOB and mission objectives
- Maximize consistency with "Core Plan"
- Tie to budget process
  - Pay increases not in FY-98 or 99 submissions.

NATCA Bargaining Unit Plan - Pay Rates

- *Separate pay bands for each level facility*
  - *10 ATC bands (3-12) replace 5 FG grades (10-14)*
    - *Pay bands without steps, 40% wide*
    - *1/2 grade increments between ATC levels*
    - *2 additional "expansion" levels*
  - *Match point phased in: ATC-12 will ultimately = FG-15*

Year 2:	*ATC-10 = FG-13*		*ATC-12 = 14*	
Year 3:	*"*	*= FG-13.5*	*"*	*= 14.5*
Year 4:	*"*	*= FG-14*	*"*	*= 15*

- *First year - distribute "cost savings" in "lump sum" payments to selected facilities*
  - *Potential for funds to expire on 9/30*

NATCA Personnel Distribution (Preliminary)

Current Classification		Reclassification (ATC Level)											
Level / Grade	# of FCC's	14	13	12	11	10	9	8	7	6	5	4	3
Terminal													
I (FG-10)	112								10	12	33	51	6
II (FG-11)	1038							91	450	365	122	10	
III (FG-12)	2136						222	1,023	834	29	13	15	
IV (FG-13)	1281					435	725	121					
V (FG-14)*	2021			871	618	459	73						
Center/CERAP													
(FG-10) KWA*, TUT*	10										10		
I (FG-12) ZUA*	9								9				
II (FG-13) ZAN*, ZHN*	144						144						
III (FG-14) ZJU*	5480			2,501	1,821	1,130	28						
Total	12,231	0	0	3,372	2,439	2,024	1,192	1,235	1,303	406	178	76	6

* Unique situation

NAATS Bargaining Unit Plan - Pay Rates (Preliminary)

- *Plan being formulated*
- *Separate pay bands for each level facility*
  - *3 FSS bands (1-3) replace 3 FG grades (10-12)*
    - *Pay ranges without steps*
    - *1/2 grade increments between ATC levels*
    - *2 additional "expansion" levels*
  - *Match point phased in: FSS-3 will ultimately = FG-13*

Year 2:	*FSS-1*	*= FG-11*	*FSS-3*	*= 12*
Year 3:	*"*	*= FG-11.5*	*"*	*= 12.5*
Year 4:	*"*	*= FG-12*	*"*	*= 13*

Annual Pay Change

- **Organizational Success Increase (OSI)**
  - Same as rest of Agency, except:
    - Minimum - Equivalent to GI + 1/2 "step pool"
  - Bands increase by OSI - min. and max.
- **SCI**
  - Goal: recognize quality and productivity contributions
    - Facility level application vs. individual
  - Phase in
    - Year 1 - develop potential metrics - % distribution to all
    - Year 2 - quality (MSS only) - % distribution (unions)
    - Year 3 - quality and productivity (MSS only) - % dist. (unions)
    - Year 4 - quality (all) - metrics & criteria to be mutually agreed
    - Year 5 - quality and productivity (all) - " " " " "

Developmentals and New Hires

Developmental pay

- Linked to training stage completion
  - 1-3 training stages based on facility category and complexity
- Set pay as % of minimum fully certified controller (FCC) pay
  - Stage 1 - 55%
  - Stage 2 - 70%
  - Stage 3 - 85%

New Hires

- ATC -1A (Basic) = 60% ATC-3
- ATC - 1B (Specialized) = 75% ATC-3
- ATC - 2 (Completion of Academy) = 85% ATC-3

Mgr., Sups. & Staff

- Base MSS pay on level of responsibility
  - 7 MSS levels
  - Defined on ATC Career Level Chart
- Set pay as % over facility controller pay
  - Range: 5% - 45%

ATC Career Level Chart

Air Traffic Job Family Levels - Promotion Step Table (Non - Executive Positions)				
		Types of Positions		
Career Level	Pay rate	Field	Region	Headquarters
M, S, S - 7	45% above FCC		Div. Mgr. (1)	Asst. Prgm. Dir. (1)
M, S, S - 6	40% above FCC		Asst. Div. Mgr. (7)	Div. / Asst. Div. Mgr. (12)
M, S, S - 5	35% above FCC		Branch Mgr. (45)	Branch Mgr. (23)
M, S, S - 4	30% above FCC	Mgr. / Asst. Mgr. (312)	Staff Mgr./ Spl. Asst. (10)	Staff Mgr./ Spcl. Asst. (14)
M, S, S - 3	25% above FCC	2nd Line Sup / Staff Mgr. (341)		
M, S, S - 2	20% above FCC	1st Line Supervisor (2,215)	Staff Specialist (216)	Staff Specialist (246)
M, S, S - 1	5% above FCC	Staff Specialist (1,289)		
FCC	ATC Level Band	Fully Certified Cont. (13,387)		
Developmental - 3	85% of FCC	Developmental - 3 (625)		
Developmental -2	70% of FCC	Developmental - 2 (330)		
Developmental - 1	55% of FCC	Developmental - 1 (129)		
Academy Completion	85% of ATC-3	Academy Graduate (260)		
New Hire (Spec'l) - 1B	75% of ATC-3	Initial Entry (Special qual.) (3)		
New Hire (Basic) - 1A	60% of ATC-3	Initial Entry (Basic qual.)		

Related Policy Changes

- **Promotion**
  - Increase in "Career Level"
  - Movement to higher level facility at same career level is a transfer (not a promotion), but increases pay
  - Analogous to Airlines; e.g:
    - 1st officer to Captain is a promotion
    - Moving to bigger aircraft (MD-80 to B-767) is not, but pays more
  - Why change?
    - Increased number of levels would more than double promotion potentials with a corresponding increase to PCS costs
- **Demotion - a decrease in "Career Level"**

What it Looks Like

Transfers
ATC Level

Demotion /Promotion
Career Level

Career Level	ATC Level														
	Facility Level										R.O.				HQ.
	3	4	5	6	7	8	9	10	11	12	9	10	11	12	12
M, S, S - 7											45%				45%
M, S, S - 6											40%	40%	40%	40%	40%
M, S, S - 5											35%	35%	35%	35%	35%
M, S, S - 4	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
M, S, S - 3								25%	25%	25%					
M, S, S - 2			20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%
M, S, S - 1					5%	5%	5%	5%	5%	5%					
FCC	ATC Level	ATC Level	ATC Level	ATC Level	ATC Level	ATC Level	ATC Level	ATC Level	ATC Level	ATC Level					
Developmental - 3	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%					
Developmental -2				70%	70%	70%	70%	70%	70%	70%					
Developmental - 1							55%	55%	55%	55%					
Academy Completion	85%														
New Hire (Spec'l) - 1B	75%														
New Hire (Basic) - 1A	60%														

Premium Pay Changes

- *Simplify to extent practical*
  - *Challenging without quantifable savings*
- *"Roll" a portion of the ATRA "Operational Differential" into base pay*
  - *Rationale: eliminates a controversial pay component*
  -

Other Pay Design Elements

- **Retain:**
  - Locality Pay Program
  - COLA Program
  - Priority consideration to previous level
- **Adopt Core Plan Provisions for:**
  - Temporary Promotion
- **Develop:**
  - New Position Descriptions
    - One for each of 8 facility categories
    - Drafts completed

5 Year "Phase in"

Year	NATCA BU Pay Basis			M,S,S Pay Basis			
		Annual Increase			Annual Increase		
	Base Pay	OSI	SCI	Base Pay	OSI	SCI	Rationale
1	Lump Sum Payments of "Cost Savings" to Top Portion of all Levels (49 Facilities)	FNPCA GI	Distribute to Grade Funds at same % to all	Lump-Sum Payments to Top Portion of all Levels (49 Facilities)	FNPCA GI	Distribute to Grade Funds at same % to all	Address fairness principle of more levels with time to implement Reclass
2	Implement Reclass - "Low Match" / same position in band	OSI no less than GI + 1/2 Step Pool	SCI no less than 1/2 step pool for BU distributed at same % to all	Implement M,S,S Reclass - "Low Match" / same position in band	OSI no less than GI + 1/2 Step Pool	SCI to 10% highest contributing facilities for quality	Reclass and associated M,S,S Conversion SCI first implementation linked to metrics - M,S,S only as trial for quality
3	Increase 1/2 grade - "Mid Match"	No Change	No Change	Increase 1/2 grade - "Mid Match"	No Change	SCI to 10% highest contributing facilities for quality and highest 10% for productivity	Add productivity to M,S,S SCI criteria / metrics
4	Increase 1/2 grade - "High Match"	No Change	SCI to 10% highest contributing facilities for quality	Increase 1/2 grade - "High Match"	No Change	No Change	First SCI implementation tied to metrics for bargaining unit - quality first
5	No change	No Change	SCI to 10% highest contributing facilities for quality and highest 10% for productivity	No change	No Change	No Change	Add productivity to bargaining unit SCI metrics.

What This Means For Employees - NATCA

Current					Year 2				Year 3				Year 4			
Facility Type	Facility Level	FG Grade	Head count	Current Base + Locality	New Base + Locality	Pct Change in Base + Locality	Avg change	Pct Receiving Pay Increase	New Base + Locality	Pct Change in Base + Locality	Avg change	Pct Receiving Pay Increase	New Base + Locality	Pct Change in Base + Locality	Avg change	Pct Receiving Pay Increase
Terminal	1	10	144	$45,229	$47,305	4.39%	$2,076	49%	$49,707	9.01%	$4,478	87%	$53,393	15.29%	$8,163	97%
	2	11	1339	$45,498	$48,104	5.73%	$2,605	50%	$51,806	13.86%	$6,308	82%	$56,350	23.85%	$10,851	95%
	3	12	2691	$53,177	$53,671	0.93%	$494	20%	$56,402	6.07%	$3,226	65%	$61,089	14.88%	$7,912	93%
	4	13	1526	$63,071	$63,080	0.01%	$9	1%	$64,590	2.41%	$1,519	30%	$68,937	9.30%	$5,866	79%
	5	14	2519	$73,697	$73,709	0.00%	$2	1%	$76,338	3.58%	$2,641	40%	$80,895	9.77%	$7,198	70%
Summary			8219	$59,913	$60,538	1.04%	$625	16%	$63,167	5.43%	$3,254	54%	$67,710	13.01%	$7,797	84%
Center	1	12	13	$55,849	$55,849	0.00%	$0	0%	$56,118	0.48%	$269	15%	$58,511	4.77%	$2,662	62%
	2	13	160	$59,513	$59,832	0.54%	$319	3%	$59,991	0.80%	$478	4%	$65,021	9.26%	$5,508	95%
	3	14	6342	$74,261	$74,266	0.01%	$5	1%	$77,161	3.90%	$2,900	44%	$82,198	10.69%	$7,937	76%
Summary			6515	$73,962	$73,875	0.02%	$13	1%	$76,697	3.84%	$2,835	43%	$81,729	10.65%	$7,867	76%
Overall Summary			14734	$66,081	$66,435	0.54%	$354	9%	$69,149	4.64%	$3,069	49%	$73,909	11.85%	$7,828	81%

FY -97 Salaries without annual increases applied

What Happens at Selected Facilities - Terminal / Centers

Current					Year 2				Year 3				Year 4			
Fac. ID	Level	FG Grade	ATC Grade	Current Base + Locality	New Base + Locality	Pct Change in Base + Locality	Avg. change	Pct Receiving Pay Increase	New Base + Locality	Pct Change in Base + Locality	Avg. change	Pct Receiving Pay Increase	New Base + Locality	Pct CHange in Base + Locality	Avg. change	Pct Receiving Pay Increase
CXY	T-I	10	4	$48,632	$48,632	0.00%	$0	0%	$49,558	1.90%	$925	80%	$51,335	5.56%	$2,705	80%
ACK	T-I	10	7	$43,272	$50,438	16.56%	$7,166	100%	$54,994	27.09%	$11,722	100%	$60,193	39.10%	$16,921	100%
CPR	T-II	11	5	$46,634	$46,634	0.00%	$0	0%	$46,634	0.00%	$0	0%	$51,263	9.92%	$4,628	100%
FRO	T-II	11	7	$48,735	$53,182	9.12%	$4,447	91%	$57,632	18.26%	$8,897	91%	$62,858	28.98%	$14,122	100%
PIE	T-II	11	8	$45,955	$55,079	19.85%	$9,124	100%	$60,287	31.19%	$14,331	100%	$65,494	42.52%	$19,539	100%
TEB	T-III	12	7	$50,769	$50,769	0.00%	$0	0%	$50,769	0.00%	$0	17%	$54,988	8.31%	$4,219	89%
RIC	T-III	12	8	$53,175	$53,303	0.00%	$0	15%	$57,862	8.55%	$4,559	90%	$54,988	8.31%	$4,219	41%
ABE	T-III	12	9	$54,904	$60,123	9.46%	$5,191	100%	$65,316	18.91%	$10,387	100%	$71,250	29.71%	$16,321	100%
MCI	T-IV	13	9	$62,051	$61,904	0.00%	$0	0%	$61,926	0.04%	$22	4%	$67,218	8.58%	$5,314	93%
MEM	T-IV	13	10	$61,278	$61,181	0.00%	$0	0%	$66,374	8.36%	$5,193	91%	$71,632	17.00%	$10,451	95%
DEN	T-V	14	10	$73,924	$73,924	0.00%	$0	0%	$73,924	0.00%	$0	0%	$73,924	0.00%	$0	0%
N90	T-V	14	12	$70,866	$70,709	0.01%	$4	2%	$76,260	7.63%	$5,551	86%	$82,088	16.10%	$11,364	86%
ZSE	C-III	14	10	$75,885	$75,783	0.00%	$0	0%	$75,783	0.00%	$0	0%	$75,783	0.00%	$0	0%
ZKC	C-III	14	11	$74,212	$74,325	0.00%	$0	0%	$74,334	0.01%	$10	2%	$80,708	8.79%	$6,383	97%
ZDC	C-III	14	12	$72,416	$72,416	0.01%	$5	2%	$78,303	8.14%	$5,892	91%	$84,390	16.54%	$11,979	93%

"Phase In" Costs - (without FSS)

	Increased Costs (Base Pay only)* - Compared to CY-97			
Year	NATCA	MSS	Total	% Increase over FY-97
1	Cost Savings (20M?)	34% in addition to NATCA	Cost Savings + 34%	
2	7.8M	9.0M	16.8M	1.2%
3	67.3M	29.4M	96.7M	7.1%
4	171.7M	63.5M	235.3M	17.3%
5	171.7M	63.5M	235.3M	17.3%

*Note: Other PC&B costs appox. 43.73% of Base Pay

Progress with unions

NATCA

- Good working relationship within Reclass. Workgroup
- Fundamental agreements:
  - Developmental pay relationships to Fully Certified Controller
  - Pay structure, inc. OSI / SCI
  - Transfer, promotion and demotion policies
  - FG to ATC conversion policies
  - Misc. pay policies
  -

NAATS

- Initial discussions for adopting similar workgroup process

Challenges to overcome

- Funding?
- Administration / Congressional commitment
- Fairness perceptions
- Pay Relationships NATCA, MSS, SES
- Modifying personnel and pay automation
- Magnitude of FAA Order / Notice revisions
-

Endorsement?

- *Do we need to change anything?*

Next Steps

- Complete compensation discussions with unions
- Reach formal union / FAA agreement
- Develop out year budget increase requests
- Advise senior Administration and Congress
- Complete reclassification implementation
- Modify personnel and pay systems
- Inform and train on new policies

Back-up Material

Plan Details / Agreement Status

Air Traffic Compensation Plan				Union Status	
Policy	Comparison to Core Compensation Plan	Objective / Rationale	Costs Impacts	NATCA	NAATS
Coverage - Technical, supervisory and management personnel within Air Traffic, except as modified as part of a collective bargaining agreement or specialized pay plan. Administrative and Clerical personnel will be covered by core plan	Identical for administrative and clerical personnel. Unique for others - specialized pay systems	Ensure fairness for the Manager, Supervisor and Staff (M,S,S) workforce in relation to the bargaining units with which they are associated. Ensure fairness among the organization's employees doing similar work. Improve career incentives. Administrative and clerical work more closely linked to other similar employees.	Linked to bargaining unit compensation		
Pay Structure (Base pay) - Tower and Center Facilities 12 pay bands, 30% in range. FSS facilities - 5 pay bands. Developmental - a % of FPL pay based on completion of training stages. M,S,S, including region and headquarters, - a % addition based on M,S,S level and highest FPL level in geographical spectrum.	Similar - both have pay bands without steps. Number of bands greater than core plan to match number of facility levels	Consistency with core principles, for bands vs. steps	N/A.		
Annual Increase - Utilize the FAA wide Organizational Success Increase (OSI) for all employees. Use the Superior Contribution Increase (SCI) to recognize best performing facilities for productivity and for quality, e.g.: employees in top 10% of facilities for productivity (operations per specialist) for each major category Tower, Tower w/TRACON or TRACON, and Center/Combined facility, receives an SCI if their operational error rate does not effectively increase. Employees in facilities with the 10% lowest operational error rate in each major category receives a SCI if that rate was also equal or less than the previous year and the productivity does not effectively decrease. SCI for region and Hq uses FAA SCI indicators. FSS SCI TBD	Similar.	Consistency with core plan principles recognizing performance for increases within a band.	OSI determined by the Agency. SCI pool the same percentage as rest of Agency.		
Geographical pay - Utilize existing FEPCA locality rates to adjust pay for locality variances. Retain COLA for non-conus locations consistent with OPM rules.	Identical.	Consistency with core plan. Simplicity and low cost to administer.	No change.		

Plan Details / Status (con't)

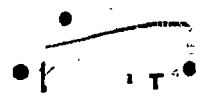
Air Traffic Compensation Plan				Union Status	
Policy	Comparison to Core Compensation Plan	Objective / Rationale	Costs Impacts	NATCA	NAATS
Promotion - Increases in career status defined on the job family level chart. Movement to a higher facility level within the same career level are not promotions. Pay rate determined by career level with a minimum (6 7)% raise, but limited by top of band.	Similar.	Increased fairness by eliminating FPL pay for personnel transferred in that are not yet FPL. Eliminates "automatic" benefits associated with transfers to higher level facilities, such as PCS. Abate cost potential associated with 2.4 times expansion in number of facility levels.	Cost avoidance. Reduced cost associated with transfers and paying people FPL pay prior to FPL status.		
Temporary promotion - Same rules as above except upon returning to lower status position reverts to previous rate with any OSI amount that would have been received while in temporary status.	Adopts core plan.	Consistency with core plan for simplicity and ease to administer.	Cost savings.		
Demotion - Decrease in status as defined on job family level chart. Transfers from Facility staff to FCC positions are not considered as demotions; they are treated as transfers.	Identical.	Consistency with core plan for simplicity and ease to administer.			
Demotion (voluntary) - Employee pay is at same rate as in current band unless it exceeds the highest rate of the band to which they are transferring, in that case it is set to top of new band.	Similar. Elimination of discretion to set lower.	Consistency with core plan for simplicity and ease to administer.			
Demotion (involuntary for cause) - Pay at same % of band as percent in band they were demoted from.	Identical.	Consistency with core plan for simplicity and ease to administer.			
Demotion (involuntary for good of Agency) - Pay retention even if over top of band.	Identical.	Consistency with core plan for simplicity and ease to administer.			
Repromotion and rehire - ATS draft PRIB procedures for highest previous rate.	Identical.	Consistency with core plan for simplicity and ease to administer.			

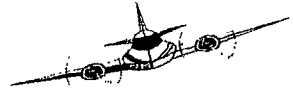
Plan Details / Status (con't)

Air Traffic Compensation Plan				Union Status	
Policy	Comparison to Core Compensation Plan	Objective / Rationale	Costs Impacts	NATCA	NAATS
Transfer without promotion to higher level facility - For FPL's - employee receives an increase to minimum of the new facility pay band or a minimum (6.7)% raise, whichever is greater Upon reporting to the new facility the employee recieves 50% of the increase; upon reaching the FCC level the employee receives the remaining increase raise. Developmental employees receive the same percentage increase as defined above upon reporting with future pay increases in accordance with the developmental level that they are at M,S,S employees not requiring certification receive the full increase upon reporting.	Similar - modified implementation.	Incentivizing obtaining FPL status.	Cost reduction and avoidance.		
Transfer without promotion/demotion to lower level facility - Employee pay is at same rate as in current band unless it exceeds the highest rate of the band to which they are transferring, in that case it is set to top of new band	Similar - modified implementation.	Fairness in compensation.			
PCS entitlement - All promotions. Transfers at management's discretion prior to advertising the position. Generally based on anticipated candidate interest and qualification needs. Same % of PCS to Bargaining unit as currently used	No core policy exists.	Cost avoidance and flexibility. PCS not need to fill positions at many facilities.	Cost avoidance and reduction.		
Filling vacancies - Management discretion to fill from within M,S,S ranks. Positions to be filled from bargaining unit ranks will be advertised to all facilities within a geographical area of consideration defined by management. Management selects.	Not addressed.	Simplify process.	N/A.		

Plan Details / Status (con't)

Air Traffic Compensation Plan				Union Status	
Policy	Comparison to Core Compensation Plan	Objective / Rationale	Costs Impacts	NATCA	NAATS
Job documentation - For facilities, utilize a single sheet Developmental/FPL job family description for each category facility with a general reference to "at facility's ATC classification level" For M,S,S utilize a single sheet job family description for each category facility, for regions and for headquarters.	Similar - modified implementation.	Consistency with core plan principles for simplification and improved clarity.	Administrative cost avoidance.		
Premiums and differentials - Replace the current Night, Sunday, OJT and missed meal differentials with a 3% "shift work" differential for all employees who have a job description that requires them to work shifts.	Unique.	Reduce incentive for most senior people to work some of least busiest times. Simplify administration. Increase predictability of PC&B actual costs.	Reduced. For NATCA bargaining unit they are approximately 3.24 % of BU PC&B. Cost avoidance in admin and system procurement.		
Operational differentials - Replace current 5% differential with 3.9% increase to base pay band.	Unique.	Makes ops differential permanent. Increases retirement benefit.	Approximately equivalent Total PC&B cost. Neutral point = 4.1%		
Pay table - For NATCA BU facilities at FPL level, adopt high point match of ATC grades to FG pay bands. ATC 10 = FG-xx, with 1/2 grade increments from that for each ATC grade difference Phase in match point (low, med, high) over 3 years, 1/2 a grade each year.	Unique.	Simplicity. Career incentives and appropriate pay for increasing levels of responsibility.	TBD		
Conversion from FG to ATC pay tables - same position in band or same salary, which ever is greater. If over band, retained pay status M,S,S converted based on associated FPL pay and then M,S,S %'s applied	N/A	Cost avoidance and fairness.	Slight increase to raise to min of band.		





Air Traffic Compensation Plan

Manager, Supervisor and Staff (MSS)

September, 1998

362

Briefing Outline

- *Background and Objectives*
- *ATC Reclassification*
- *MSS Plan*
- *Discussion*

Air Traffic Plan - Foundation Concepts

- ***Base on ATC facility reclassification levels***
- ***Base developmental pay on training completion***
- ***Base MSS pay on level of responsibility***
  - *MSS - Manager, Supervisor and Staff*
- ***Fairness across Air Traffic***
  - *Regardless of bargaining unit or classification series*
- ***Fairness with rest of FAA to extent practical***
  - *Considering LOB and mission objectives*
- ***Consistency with "Core Plan", where practical***

Why ATC Reclassification?

General

- *Current ATC classification standards do not adequately reflect workload variances*
- *Increase incentive to move to busier and more complex facilities*

Manager, Supervisors and Staff (MSS)

- *Implementation of a new classification and compensation systems for "related" bargaining unit controllers*
- *Total compensation of many controllers and lower level supervisors exceeds higher level positions*
- *Many career levels have same pay - increase incentive to advance*
  - *Facilities: up to 4 levels in a facility at FG-15*
    - *Mgrs. reporting to RO or Hub mgr., also at FG-15*
  - *RO's: Branch Mgr., Asst. Div., and Div. (AAL) at FG-15*
  - *HQ: Branch Mgr., Asst. Div., most Div. and 1 Asst. Prgm. at FG-15*

Why Reclassification? (con't)

MSS (con't)

- *Need for a career progression system that prepares employees for key positions with financial incentives to progress*
  - *To attract highest quality personnel*
- *Increase incentive to manage a larger facility*
  - *Lower level facilities greater % above controller than major ones*
    - *AFSS and some hub managers - appox. 65%*
    - *Level 1-4 Terminal - appox. 40%*
    - *Level 5 Terminal and Level III Centers - 17.63%*
- *"Career enhancing downgrade" not viewed as most appropriate method to compensate personnel advancing through their career*
  - *Historically, a "work around" to rigid GS/FG structure*
  - *Flexibility to use other approaches afforded through personnel reform*

MSS Reclassification and Compensation Concepts

- **MSS level based on responsibility level**
  - 7 career levels - full range of 2152 MSS non executive positions
    - Facilities, RO's and HQ
- **Linkages to ATC grades**
  - Pay set in relation to ATC level
    - Field Facility - MSS bands based on facility ATC grades
    - RO/HQ - Core bands with pay set based on highest ATC grades in "area of responsibility"
  - Accommodate common movement: CPC to MSS-1 to CPC
- **Integrated career path**
  - RO/HQ positions are integral steps in ATC career path
    - RO/HQ MSS-2 target applicants: major facility sup. / med. fac. ATM
    - " " MSS-5 " " " " ATM
- **Treat MSS-7 as executive positions**
  - AAL-500 & ATX-2

Compensation Concepts (con't)

- **Ensure appropriate relationship to legislative pay caps and executive compensation**
  - Set MSS bands at appropriate pay levels and cap as necessary
- **Ensure pay relationships are maintained over time**
  - MSS to controller and among MSS levels
  - Growth into ATC-13/14
- **Performance based pay component**
  - Base SCI on quantifiable quality and productivity measures
    - MSS in field based on facility performance
    - MSS in RO/HQ on region/national performance
- **Coverage - all 2152's**
  - Others in "Core System" - "cross cutting" occupations
  - Position review to determine positions not in career path or that do not require ATC knowledge, understanding and experience
    - Incumbents in reclassified position - offered 2152 position

ATC Career Level Chart

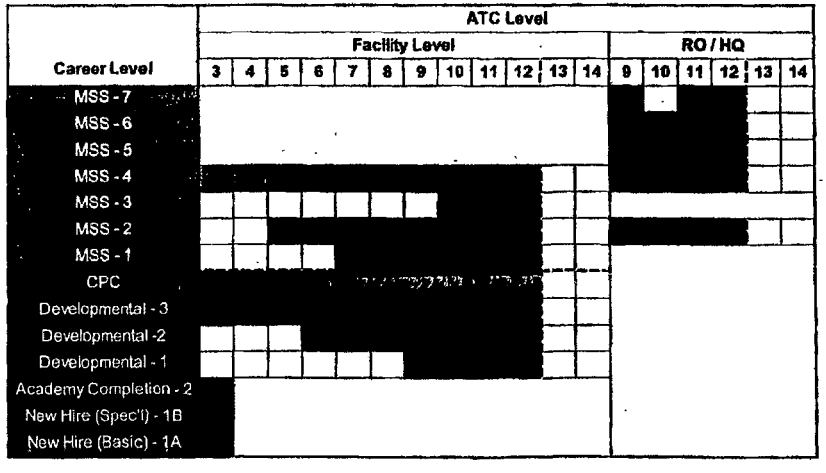
Air Traffic Job Family Levels - Promotion Step Table (Non - Executive Positions)				
	Types of Positions			
Career Level	Field	Headquarters Facility	Region	Headquarters
MSS - 7			Div. Mgr. (1)	Asst. Prgm. Dir. (1)
MSS - 6		Div. / Asst. Div. Mgr. (2)	Asst. Div. Mgr. (7)	Div. / Asst. Div. Mgr. (7)
MSS - 5		Branch/Asst. Mgr. (8)	Branch Mgr. (45)	Branch Mgr. (11)
MSS - 4	Mgr. / Asst. Mgr. (312)		Senior Specialist (9)*	Senior Specialist (6)*
MSS - 3	2nd Line Sup / Staff Mgr. (349)	2nd Line Sup / Staff Mgr. (8)		
MSS - 2	1st Line Supervisor (2,225)	1st Line Supervisor (8)	Staff Specialist (218)	Staff Specialist (58)
MSS - 1	Staff Specialist (1,368)	Staff Specialist (141)		
CPC	Certified Professional Controller (13,443)			
Developmental - 3	Developmental - 3 (571)			
Developmental -2	Developmental - 2 (327)			
Developmental - 1	Developmental - 1 (123)			
Academy Completion - ATC-2	Academy Graduate (267)			
New Hire (Spec'l) - ATC-1B	Initial Entry (Special qual.) (3)			
New Hire (Basic) - ATC-1A	Initial Entry (Basic qual.)			

* Some positions may be reassigned to other MSS levels after position review

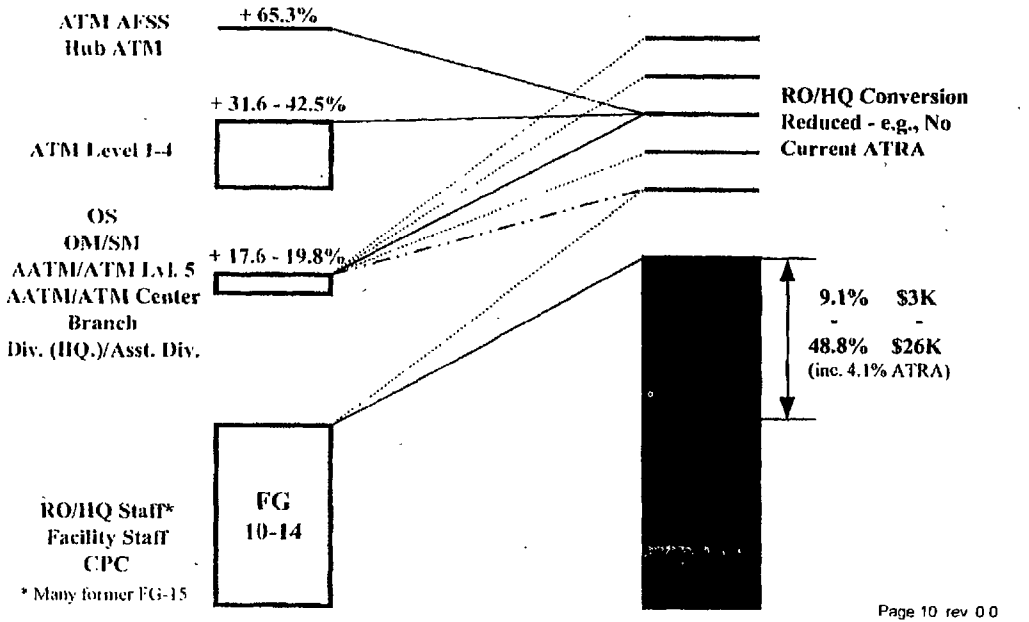
What the Plan Looks Like - ?

Transfers
← ATC Level →

Demotion /Promotion
← Career Level →



FG Base Pay Relationships & MSS Pay Setting - ?



Pay Table Example:

ATC Level 12									
Career Level	October 1998			October 1999			October 2000		
	Min	Mid	Max	Min	Mid	Max	Min	Mid	Max
MSS-7									
MSS-6									
MSS-5									
MSS-4 RO/HQ									
MSS-4 Field									
MSS-3									
MSS-2 RO/HQ									
MSS-2 Field									
MSS-1									
CPC									
Dev-3									
Dev-2									
Dev-1									
ATC-2									
ATC-1B									
ATC-1A									

ATC Major Career Paths
RO/HQ
EXEC.
DIV. (HQ) ASST. DIV
BRANCH
SENIOR STAFF
RO/HQ STAFF
Preferred
Secondary
As needed
Field Facilities
Small
Medium
Major
ATM
ATM
ATM/AATM
OS
OS
OS
STAFF
CPC
STAFF
CPC
STAFF
CPC

MSS Compensation TBD

Impacts "If" MSS Not Adopted

General

- A high number of requests to return to bargaining unit
- Difficulty in staffing positions with qualified air traffic control specialists that understand the more complex operational environments
- Immediate negative impact of being able to recruit top performing specialists
- Release of folks to go back to the bargaining unit would need to be restricted, impacting morale and quality
- Reduced job performance/involvement in the system operation
- Alignment with bargaining unit vs. management team
- Aggressive enforcement of work rules and policy
- Tension within operational environment (bargaining unit members have been known to brag about their new pay status)
- Tension between facility union representatives and air traffic management
- Increased numbers of grievances and LMR problems
- Increased complaints (Hotline, Congressional Inquiry, Employee Organizations) based on "broken promises" and "fairness"
- Slipping of deadlines and reporting requirements
- Increased request for compensatory time for work done outside of normal hours
- Increased use of sick leave

Impacts (con't)

Traffic Management

- New efforts to include national and facility traffic management coordinators in the NATCA bargaining unit (approximately three years ago NATCA's effort to represent them was voted down)
- Difficulty in enacting routings and facilitating alternatives around severe weather or areas of traffic saturation
- Difficulty in staffing traffic management positions throughout the system
- Deterioration of the relationship between the users and operational personnel

Airspace Management

- Increased time to implement NAS changes
- Significant revisions and corrections to airspace designs and procedures when they are introduced into the operational environment
- Increased potential for operational incidents
- Decreased user satisfaction

Impacts (con't)

Quality Assurance

- **Reduced support for transcript completion; search and rescue assistance, accident and incident support and evaluation**
- **Reduced capability to develop and implement initiatives to reduce operational errors**
- **Reduced capability to determine causal factors in error investigations and reduced ability to tailor training initiatives to combat identified trends.**
- **Inability to properly assist AGC and the DOJ attorneys in the litigation process (litigation support in over one hundred cases representing claims against the United States in excess of $19.5 billion)**
- **Reduction in ability to investigate and respond to congressional, media and NTSB inquiries**
- **Reduced capability to conduct the required facility evaluations currently approximately 300 per year**

Impacts (con't)

Training

- Difficulty in staffing training positions with qualified air traffic control specialists that understand the operational environment
- Lower quality training with increased time to complete training
- More critical review of individual performance during position certification
- Increased time to develop and administer training for new programs and systems
- Poorer record keeping impacting defending personnel decisions and incidents
- Reduced support and motivation for assisting people in reaching full potential

Operational Supervision

- Reduced incentive for controllers and staff to bid on supervisor positions
- Supervisors unwilling to aspire to other management positions and responsibilities
- Additional labor/management difficulties and increasing the cost of resolution
- Reduced influence on controller performance
- Erosion of operational authority
- Lack of support for implementing management initiatives

Impacts (con't)

Air Traffic System Management

- The potential for increased retirements or movement into other positions that will leave critical openings unfilled within the air traffic system possibly leaving smaller facilities without a management presence
- A reduced incentive for operational personnel to move into these positions
- An erosion of the intellectual capital and innovation necessary to move the organization forward by recruitment of experienced personnel
- A reduction in support of agency policy and initiatives
- A reduction in the frequency and quality of interaction between agency personnel and system user groups, other government organizations (e.g. Department of Defense, NTSB), and civilian airport management
- More focus on individual job requirements, less on overall agency mission
- Reduction in system knowledge as pool of interested personnel migrates towards those from lower level facilities where a financial incentive for movement to the regions and headquarters exists
- A reduction in loyalty to the FAA and air traffic organization.

Discussion

Subject: MESSAGE FROM THE ADMINISTRATOR
Author: Broadcast Message Box at AWA-CENTRAL
Date: 10/1/98 3:10 PM

October 1, 1998

Dear Fellow Employees:

For several years the FAA has been working on pay classification systems that would correct the inequities in the current FAA pay schedules. The personnel reform flexibility that was given to the FAA has allowed us to develop pay systems that appropriately recognize the relative complexity of various jobs. With the successful negotiation of a new contract with NATCA we will now implement a new pay system in air traffic that recognizes the relative complexity of jobs, creates career progression incentives, reduces current pay compression problems and provides for productivity and efficiency improvements. As we negotiate other contracts, these same objectives will be included in the contract discussions.

As you know, we have also begun a test of the FAA's Core Compensation System in the Research and Acquisition organization (ARA). The core system is intended to apply to most of the occupations in the agency which are not associated with negotiated agreements. This includes most of the managerial and staff positions in the regional offices and headquarters. The pay bands in this pilot give more flexibility to link pay to performance and organizational outcomes than we have ever had before. The ARA pilot test will be complete in February 2000.

I know that a new compensation system for managers, supervisors, and staff in the Air Traffic organization has been a concern for many of you since completion of the NATCA agreement. It has also been the topic of many discussions during the last several weeks by the Associate and Assistant Administrators on the Compensation Committee, and by Monte and myself. There are many complex and competing issues associated with this topic.

We have made a commitment to equitable treatment of the entire FAA workforce as we implement changes to the agency's compensation system. There are clear linkages among the air traffic controller workforce and field facility managers, supervisors, and staff. There are also linkages between facility personnel and regional office and headquarters staff. This means that we must balance pay equity issues within the air traffic line of business as well as across organizational lines.

We knew when we began the development of a new compensation system which allowed elements to be tailored to individual needs of a specific line of business, we would face the potential ramifications of having more variances in pay among FAA employees than we have historically had in the traditional federal pay system. How and when we implement those differences is critical. We have been careful in how we implement the compensation piece of personnel reform by relying on the ARA pilot to test the new system. We need to be just as careful and thoughtful in how we apply the NATCA agreement beyond the bargaining unit.

Because of the day to day interaction and interdependence of air traffic controllers, managers, supervisors, and staff at field facilities, we have decided to extend the NATCA agreement to those managers, supervisors, and staff in field facilities. These managers, supervisors, and staff are directly linked to the productivity and efficiencies agreed to in the NATCA contract. This includes the Air Traffic Control Systems Command Center, which is an integral part of the daily operation of the air traffic control system.

We have decided not to include regional office and headquarters personnel in a new compensation system at this time. The core compensation system was designed to include the managerial and staff positions in the regional offices and headquarters across the lines of business. This system was designed to provide a great deal of flexibility in the way we attract, reward and retain staff, and I am confident that the application of this system in the future will greatly benefit our employees and the agency. Before we implement any pay changes in the regional or headquarters offices we must review the productivity, efficiency, and pay compression issues for all agency jobs. We must also ensure that regional office and headquarters jobs in air traffic are properly classified to require 2152 expertise. In the next few months we will focus on these issues in the regional offices and headquarters and make a decision about pay changes for air traffic employees in regional offices and headquarters by February 1999.

I know that this decision will create some challenges within the air traffic organization until the core plan can be implemented. However, I believe that at the regional office and headquarters we must consider all jobs and the impact on the entire agency before we implement any changes. I have confidence in our collective ability to implement personnel reform initiatives, including pay reform, in a way that will make the FAA a model for the government.

The details of the compensation system for the air traffic field facilities will be provided by the Director of Air Traffic Services (AAT) and the Assistant Administrator for Human Resource Management (AHR).

Sincerely,

Jane F. Garvey
Administrator

U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: INFORMATION: Air Traffic Regional Office/Headquarters Compensation

Date: March 5, 1999

From: Administrator

Reply to Attn. of:

To: Air Traffic Headquarters and Regional Office Employees
2152 Employees in non-Air Traffic Organizations

Last October, I wrote to you regarding many of the concerns and issues around implementation of compensation changes for regional office and headquarters personnel. At that time, I promised to get back with you early this year with a decision about possible changes.

Since October, we have examined many complex issues related to this decision. One of the more significant concerns was whether all positions in the 2152 series were properly assigned to that series. As an agency, I think it is appropriate every now and then to reexamine our classification structure and ask ourselves if this structure adequately reflects what is an evolving and changing organization. With that in mind, I asked that an independent study be conducted to review our 2152 positions to determine if they were correctly placed in the 2152 series.

The study findings indicate that almost all of the positions appear to be correctly classified as 2152's. In those few instances where it does not appear that positions should be in the 2152 series, I have decided to allow current employees to retain the 2152 series until the position becomes vacant. However, I have also asked that when we establish and fill positions, we use sound position management concepts to match the proper mix of skills and competencies required in each organization and position with the appropriate series assignment. In other words, we need to ensure that while a work unit may need some 2152's

and the air traffic technical expertise they bring, it may also need some staff that have skills other than those of 2152's. To support this objective, we will establish a position management committee that will provide overall philosophy and guidance in the structuring of organizations and positions to ensure that our position management objectives are achieved.

Concurrent with the 2152 study, we have also been discussing and examining proposals and alternatives for compensation changes for air traffic regional office and headquarters positions. Without a doubt, this is an extraordinarily difficult issue. On the one hand, there is the need for career advancement and retention of personnel within the air traffic organization, which I know is a very real issue for air traffic. But there is also the larger agency issue of equity and fairness for those employees from other lines of business, many of whom work side by side with air traffic managers and staff, often performing similar functions. We must balance the goals and needs of the air traffic organization with corporate objectives and issues facing FAA as a whole.

In addition, it is essential that before approving any pay changes, we identify significant productivity and efficiency improvements through re-engineered processes or other means. For example, the recently signed NATCA agreement included substantial productivity gains. As we move forward as an agency, identification and achievement of these types of improvements must be one of our guiding principles.

While we have made some progress in this area, we still have a way to go before we are in a position to make such significant changes in our current pay systems. As compelling as the air traffic issues are, to deal with them in isolation would be a mistake for the agency as a whole. Therefore, I have decided not to implement any pay changes at this time. I realize this decision is not what you were hoping for. However, I believe it is the right decision at this point, and ask for your support as we continue our efforts to develop and implement our new personnel systems.

Jane F. Garvey

FEDERAL MANAGERS ASSOCIATION (FISHER) OPENING STATEMENT

Mr. ROGERS. Mr. Fisher.

Mr. FISHER. Chairman Rogers, Congressman Sabo, and Members of the subcommittee, believe it or not, this is not my real voice. It will be back in December they tell me.

FAA MANAGEMENT AND SUPERVISOR OVERSIGHT

My name is John Fisher, and as president of the FAA Conference of the Federal Managers Association I am here today to represent the interests of managers, supervisors and support staff specialists throughout FAA. Our critical role in the Air Traffic Control (ATC) organization is to oversee the day to day operations at the field level.

I come to you with more than 39 years of experience in the ATC field as a controller and operations supervisor. In essence, I have almost 40 years of experience pushing airplanes around. I have devoted two-thirds of my life to the FAA because I love what I do, but more importantly, because I believe in the importance of this agency's mission to ensure the safety of the flying public.

It gives me tremendous grief and heartache to come to you today to discuss several issues that could compromise the margin of safety my colleagues and I protect every single day. But I ask you to bear with me for a few minutes because I feel so passionately about our concerns that not even my voice, or lack thereof, could prevent me from sharing with you what FMA believes to be several areas of serious concern for the FAA.

What scares me is seeing in the field today that we simply do not have—do not have—sufficient management and supervisory oversight. The agency continues to reduce the number of supervisors and support staff in an effort to reach an arbitrarily determined ratio of ten to one.

We supervisors are responsible for certifying that controllers are qualified to direct live traffic, while support staff personnel plan and provide training and ensure quality assurance. We serve as mentors by providing air traffic expertise and assistance to develop the members of the controller work force. During the training process we provide critical feedback to the trainee, the training team, as well as management. We are also certified to direct live traffic.

We do not perform what you might consider to be the typical supervisory duties such as sitting behind a desk and watching from afar. To the contrary, we are "plugged in". I wear a headset. We supervisors in fact serve as a liaison between safety and efficiency in the operational environment.

During events affected by equipment or system outages, heavy traffic situations or severe weather conditions, we supervisors are responsible for implementing traffic flow procedures to ensure safe and efficient movement of aircraft. We serve as the highly trained stabilizing element to assist controllers in effectively gauging and controlling these usual occurrences.

Supervisors and managers play an essential role in bringing a systems view to traffic management that alleviates congestion between facilities. That is why we at FMA know the missing ingre-

dient in the safety dilemma confronting the agency to be supervisory oversight.

SUPERVISOR RATIO

Since 1995, the FAA has embarked on an initiative to improve the agency's efficiency following the recommendations of the former Vice President's National Performance Review, subsequently known as the National Partnership for Reinventing Government, to move to a 15 to one employee to supervisor ratio throughout the federal government.

The FAA, in an attempt to comply with this initiative, began reducing management oversight and staff support in its air traffic facilities. The increase in negative safety indicator, as well as aircraft delays can be attributed to the FAA's goal of meeting an arbitrary figure of ten to one. This continuing decrease in operational oversight and staff support has a comprehensive and detrimental effect on operations, including increases in delays, as well as safety factors, such as runway incursions, surface incidents, operational deviations and operational errors.

FAA MANAGEMENT AND SUPERVISOR OVERSIGHT

Training initiatives on changes to existing procedures and practices, safety trends and recurrent training suffer without proper oversight and staff support. Also, eagerness to act aggressively and accordingly to determine a new plan to accommodate changing weather conditions, and the willingness to take the time necessary to make on the spot corrections, however minor, are lost without this oversight.

We have been down this path before. In 1996, the FAA reorganized its ATC management structure and removed the majority of its second level managers. The first level supervisor was forced thereby to absorb these duties and thus be pulled "off the operations" floor. This took the first level supervisors away from their primary responsibilities of: managing traffic flow; ensuring equipment needed for separation of aircraft is operating at peak effectiveness; and providing the necessary oversight to provide and ensure all facets of the air traffic system are operating at optimal efficiency.

The FAA has not taken into account lessons learned from past efforts to implement policy before careful examination. According to FAA statistics, for example, in 1994 a reduction of operational supervisors at the Houston air traffic control center resulted in a 14 percent increase in operational errors. In the face of those rising errors, the FAA halted supervisory reductions, added back the supervisors, and this produced an immediate decrease in the error rate.

It is no surprise that since 1996 operational errors have once again been on the rise. According to the DOT Inspector General, operational errors have risen 51 percent from fiscal year 1996 to fiscal year 2000. In 1999, the FAA experienced a record high in operational errors; in 2000, that record was broken; so far in 2001 the FAA is already ahead of last year's record pace. Runway incursions are occurring with unprecedented frequency, and delays to

aircraft are angering passengers and severely affecting the aviation economy. Yet the FAA is again reducing its supervisory oversight.

The DOT IG has "found" that the function of air traffic control supervisors is essential in providing successful air traffic operations. The FAA does not plan to eliminate the air traffic supervisor function but instead hopes to compensate for the loss of supervisors by expanding and enhancing the current practice of using "controllers in charge" or CICs. CICs have historically been utilized mainly when supervisors take short breaks and when operations are slow. However, beginning January 1 of this year the CIC program has been expanded to allow CICs to perform supervisory functions during periods of high traffic.

CONTROLLER-IN-CHARGE

It is interesting to note that air traffic controllers have been paid a ten percent pay differential for performing the CIC work since October 1, 1998, even though the expanded CIC program went into effect this past January. It is due to this ten percent differential that: one, 100 percent of controllers are currently being designated as CICs in many facilities and are eventually expected to be in all facilities; and, two, that the CIC duties must be distributed equitably among these controllers.

We at FMA have raised serious concerns about such an entitlement, which does not give management the right to select only the best qualified controllers to perform CIC duties. The DOT IG has expressed similar concerns. Moreover, the rotation of the CICs designed so that all controllers receive the ten percent differential, does not allow for consistent performance nor enhancement of the skill base required to fulfill the demanding responsibilities of a supervisor, all of which could lead to safety being compromised.

OPERATIONAL ERRORS

An area that is jeopardizing the safety net that the FAA has successfully created is the recent agreement between FAA and NATCA involving the increased leniency toward controllers who commit operational errors. Ms. Carmody has already commented on that.

The NTSB posed a similar question about the methodology employed, saying that it does not know of any FAA studies showing that airplanes can be safely brought closer together, "which seems remarkable since pilots and the flying public are potentially most at risk from de facto reduction of separation standards."

The FAA standard is and has for many years been additional training or possible reassignment to a person who commits these errors. Typically that person is transferred to a less complex or less busy facility. Frankly, it is not in the interest of the FAA to put people out of work when so much time and resources have been invested in the training and development of that individual.

FMA RECOMMENDATIONS

Our recommendations. FMA firmly believes that the "next steps" need to be taken are Number one: reinstate supervisory, management, and support staff in air traffic facilities to 1994 levels, just before the onset of a now exponential growth in negative safety in-

dicators. Two, hire 900 entry level technicians in the Airways Facilities branch of FAA. These are the individuals that maintain our radar, navigational and communications systems. Because management oversight has also been stripped from the AF branch, along with the necessary dollars to fund training—both initial and recurring—critical systems cannot be immediately brought on line when something goes wrong. Three, fully fund the FAA operations budget. We have cut every corner imaginable. When we broaden the picture to include the systems we now wish to modernize, as well as the training needed to keep our agency a world leader, you can begin to realize the magnitude of this shortfall. Four, develop strategies to move quickly on all proposed runway construction at pacer airports so that it may be completed in the next four years. Five, the Federal Managers Association requests a position on the FAA's Management Advisory Council so that we may represent the field management perspective as part of the decision making process.

In closing, Mr. Chairman, it is critical that we do everything within our power to remove any contributor to the degradation of the safety of the American flying public. Right now, we just do not have the adequate supervisory and management levels to provide oversight, yet the reduction of this oversight continues. It is with great concern that we approach the subject of negative impacts on the safety of the flying public.

This concludes my prepared statement. We at the Federal Managers Association look forward to working with the FAA, Congress, and all interested stakeholders to ensure the safety of the flying public.

I might add, Mr. Chairman, when you opened the meeting you talked about the fabulous six. I would like to make it a magnificent seven and include the FMA.

Thank you, sir.

[The prepared statement and biography of John Fisher follows:]

FMA

Federal Managers Association

Testimony
Before the Committee on Appropriations
Subcommittee on Transportation and related Agencies
United States House of Representatives

For Release on Delivery
Expected at
10:00 A.M. EST
Wednesday
March 28, 2001

Air Traffic Issues

Statement of
Mr. John P. Fisher
President, Federal Aviation Administration (FAA) Conference
Federal Managers Association

Chairman Rogers, Congressman Sabo, and Members of the Subcommittee:

Good morning. My name is John Fisher, and as President of the FAA Conference of the Federal Managers Association, I am here today to represent the interests of managers, supervisors, and support staff specialists throughout the FAA. Our critical role in the Air Traffic Control (ATC) organization is to oversee the day-to-day operations at the field level. I come to you with more than thirty-nine years of experience in the ATC field as a Controller, Area Supervisor, and currently as an Operations Supervisor. In essence, I have almost forty years' worth of experience pushing airplanes around. I have devoted two-thirds of my life to the FAA because I love what I do, but more importantly, because I believe in the importance of this agency's mission: to ensure the safety of the flying public.

It gives me tremendous grief and heartache to come before you today to discuss several issues that could compromise the margin of safety my colleagues and I protect every single day. As you can tell by my voice, I am probably not the ideal person to be speaking to you – and the grimaces on your faces since I started have only confirmed my suspicions. But I ask you to bear with me for just a few minutes, because I feel so passionately about our concerns that not even my voice, or lack thereof, could prevent me from sharing with you what FMA believes to be several areas of serious concern for the FAA.

What scares me when I go to work is seeing that in the field today we simply do not have sufficient management and supervisory oversight. The agency continues to reduce the number of supervisors and support staff in an effort to reach an arbitrarily determined supervisory ratio of 10-1. Supervisors are responsible for certifying that controllers are qualified to direct live traffic, while support staff personnel plan and provide training and ensure quality assurance. We serve as mentors by providing air traffic expertise to assist and develop members of the controller workforce. During the training process, we provide critical feedback to the trainee, the training team, as well as management.

We do not perform what you might consider to be typical supervisory duties, such as sitting behind a desk and watching from afar. To the contrary, we are "plugged in" and in fact serve as

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the liaison between safety and efficiency in the operational environment. During events affected by equipment or system outages, heavy traffic situations or severe weather conditions, we are responsible for implementing traffic flow procedures to ensure safe and efficient movement of aircraft. We serve as the highly trained stabilizing element to assist controllers in effectively gauging and controlling these usual occurrences. Supervisors and managers play an essential role in bringing a systems view to traffic management that alleviates congestion between facilities.

That is why we at FMA know the missing ingredient in the safety dilemmas confronting the agency to be supervisory oversight. Since 1995, the FAA has embarked on an initiative to improve the agency's efficiency, following the recommendations of the former Vice President's *National Performance Review* (subsequently known as *the National Partnership for Reinventing Government*) to move to a 15-to-1 employee-to-supervisor ratio throughout the federal government. The FAA, in an attempt to comply with this initiative, began reducing management oversight and staff support in its Air Traffic facilities. The increase in negative safety indicators as well as aircraft delays can be attributed to the FAA's goal of meeting an arbitrary ratio of 10-1.

This continuing decrease in operational oversight and staff support has a comprehensive and detrimental effect on operations, including increases in delays, as well as safety factors such as Runway Incursions[1], Surface Incidents[2], Operational Deviations[3], and Operational Errors[4]. Training initiatives on changes to existing procedures/practices, safety trends, and recurrent training suffer without proper oversight and staff support. Also, the eagerness to act aggressively and accordingly to determine a new plan to accommodate changing weather conditions, and the

[1] A Runway Incursion is defined as any occurrence at an airport that involves an aircraft, vehicle, person, or object on the ground that creates a collision hazard or results in a loss of separation with an aircraft taking off, intending to take off, landing, or intending to land.
[2] A Surface Incident is defined as any event unauthorized, or an unapproved movement occurring within the movement area, or an occurrence in the movement area associated with one operation of an aircraft that affects or could affect the safety of flight. Surface incidents result from pilot deviations, vehicle or pedestrian deviations, or operational errors/deviations.
[3] An Operational Deviation is defined as: 1) Less than applicable separation between an aircraft and protected airspace or airspace delegated to another facility or position without approval; 2) An aircraft, vehicle, equipment, or personnel encroached upon a landing area that is delegated to another position of operation without prior coordination and approval.
[4] An Operational Error is defined as an occurrence attributable to an element of the air traffic control system. 1) Results in less than the applicable separation minima between two or more aircraft, or between an aircraft and terrain or obstacles and obstructions, 2) An aircraft lands or departs on a runway closed to aircraft operations after receiving air traffic authorization.

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willingness to take the time necessary to make on-the-spot corrections – however minor – are lost without this oversight.

We have been down this dangerous path before. In 1996, the FAA reorganized its ATC management structure and removed the majority of its second-level area managers – the second level of operational supervision. The first-level supervisor was subsequently forced to absorb these duties and thus be pulled "off the floor" of the operations in order to tend to the administrative functions that belonged to the area manager. This took the first-level supervisors away from their primary responsibilities of: managing aircraft flow; ensuring equipment needed for separation of aircraft is operating at peak effectiveness; and providing the necessary oversight to ensure all facets of the air traffic system are operating at optimal efficiency.

The FAA has not taken into account lessons learned from past efforts to implement policy before careful examination. According to FAA statistics, for example, in 1994 a reduction of Operational Supervisors at Houston Center resulted in a 14-percent increase in Operational Errors. In the face of those rising errors, the FAA halted supervisory reductions at that facility and added back Air Traffic Control supervisors. This action produced an immediate decrease in the error rate.

It is no surprise that since 1996 Operational Errors have once again been on the rise. According to the Department of Transportation's Inspector General (DOT IG), Operational Errors have increased by 51 percent from FY 1996 to FY 2000. In 1999, the FAA experienced a record high in Operational Errors; in 2000, that record was broken; so far in 2001, the FAA is already ahead of last year's record pace. Runway Incursions are occurring with unprecedented frequency, and delays to aircraft are angering passengers and severely affecting the aviation economy. Yet the FAA is again reducing its supervisory oversight.

We at FMA have encouraged the FAA for the last 18 months to conduct a "needs-based assessment" of each ATC facility to determine appropriate supervisory and support staffing levels. The current agency staffing plan calls for a 10-to-1 employee-to-supervisor ratio. While that may be an appropriate ratio for a Monday through Friday, 8 A.M. to 5 P.M. non-safety

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related workforce, we believe it is not what the Office of Personnel Management (OPM) and the NPR originally had in mind. The studies OPM and NPR conducted in trying to reach the proper ratio were based on workforce samples of Johnson Sausage and Ford Motor Company that bear no relevance to our workforce which is, at any given moment, responsible for the safe and expeditious movement of travelers. In its own 1993 Air Traffic Evaluations Study, the FAA indicated that a 6.4-to-1 supervisory ratio in Air Traffic Control towers was the optimal ratio, yet the agency continues to push ahead toward a goal of a 10-to-1.

The DOT IG has "found that the function of air traffic control supervisors is essential in providing successful air traffic operations." The FAA does not plan to eliminate the air traffic supervisor function but instead hopes to compensate for the loss of supervisors by expanding and enhancing the current practice of using "controllers-in-charge" (CICs). CICs have historically been utilized mainly when supervisors take short breaks and when operations are slow. However, beginning January 1, 2001, the CIC program has been expanded in allow CICs to perform supervisory functions during periods of high traffic. It is interesting note that air traffic controllers have been paid a 10 percent pay differential for performing CIC work since October 1, 1998 even though the expanded CIC program only went into effect this past January.

It is due to this 10 percent differential that 1) 100 percent of controllers are currently being designated as CICs in many facilities, and are eventually expected to be in all facilities; and. 2) CIC duties must be distributed equitably among these controllers. We at FMA have raised serious concerns about such an entitlement, which does not give management the right to select only the best qualified controllers to perform CIC duties. The DOT IG has expressed similar reproach. Moreover, the rotation of CICs – designed so that all controllers receive the 10 percent differential – does not allow for consistent performance nor enhancement of the skill base required to fulfill the demanding responsibilities of a supervisor, all of which could lead to safety being compromised. In light of the growing number of safety concerns facing the FAA, we must not continue with a flawed CIC program and simply hope that CICs will be able to replace supervisors.

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An area that is jeopardizing the safety net that the FAA has successfully created is the recent agreement between the FAA and NATCA involving increased leniency toward controllers who commit Operational Errors. Operational Errors occur when an air traffic controller does not ensure that FAA separation standards are maintained between airplanes[5]. According to the Department of Transportation's Inspector General, "Operational Errors, which mostly occur in the air, can pose a very serious safety risk."[6] The IG went on to say that the "FAA has been ineffective and has not shown a sense of urgency in reducing Operational Errors."

On January 17, 2001 the FAA and the National Air Traffic Controllers Association (NATCA) signed a Memorandum of Understanding (MOU) creating a new category of Operational Errors, called "Technical Violations," for all Operational Errors that maintain 80 percent separation either vertical or horizontal. Furthermore, the MOU states that "after 12 months, any information, which could lead to the identification of an employee either causal or contributory to a technical violation, shall be discarded. No controller will be decertified or required to complete remedial training for a Technical Violation." We at FMA find it difficult to understand why the agency would want to take away management's ability to retrain or decertify if necessary and further diminish what few flexibilities we still have in the critical area of performance management.

FMA had sought to be included in agency discussions concerning the issue of Operational Errors that became the basis for this MOU. In a Jan. 22, 2001 letter to the FAA Administrator, we at FMA listed several areas that were not addressed in the MOU, including: an organizational goal to address the growing problem of Operational Errors; an orderly methodology to create the new standard; a limit on the number of Operational Errors and Deviations; and a penalty system for not maintaining the standard.

In a Feb. 7, 2001 letter to the FAA Administrator, the National Transportation Safety Board (NTSB) expressed concerns about several provisions in the MOU: "The NTSB is "concerned

[5] Standard separation is 5 miles laterally and 1,000 feet vertically up to 29,000 feet and 2,000 feet vertically above 29,000 feet in the en route environment. Lateral separation in the terminal environment is generally between 3 and 5 miles depending on the type of airplane and terminal facilities

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that this provision does not take into account the circumstances causing such an error and could result in the classification of clearly unsafe incidents as mere 'technical violations.'"

The NTSB posed a similar question about the methodology employed, saying that it does not know of any FAA studies showing that planes can be safely brought closer together, "[...] which seems remarkable since pilots and the flying public are potentially most at risk from de facto reduction of separation standards." The NTSB went on to say: "Standards that can be violated repeatedly without consequence are no longer standards. [...] we would expect that [...] the acceptable number of these violations would be strictly limited, and that such errors would not become routine [...]" The FAA standard is – and has been for many years – possible dismissal, but generally, reassignment, if a person commits three operational errors within a 2-½ year period. Typically, that person is transferred to a less complex or less busy facility. Frankly, it is not in the FAA's best interest to put people out of work when so much time and resources have been invested in the training and development of that individual. The agency and NATCA have coined the term "decriminalization" in an attempt to invoke passion. We at FMA believe that with all of the difficulties facing the aviation system, we can't afford to take chances with the safety of America's flying public by implementing changes that have not undergone prior rigorous analysis nor thorough consultation with management at the field level. This MOU does not take into account either prerequisite.

One recent potential disaster clearly shows the holes in this MOU. On February 16, a Miami air route traffic control center controller was responsible for letting two aircraft get too close to each other, but will not be punished because the incident is being classified as a "Technical Violation" instead of an Operational Error. One FAA source said the aircraft were separated by only 50 feet of airspace.

According to the FAA's Southern Region, the controller involved will undergo "refresher training." FAA said that because the incident was an "Operational Deviation, it was classified as a Technical Violation, not an Operational Error." Operational Deviations under the new MOU

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[6] U S Department of Transportation Office of Inspector General Report, "Actions to Reduce Operational Errors and Deviations Have Not Been Effective," December 15, 2000.

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are classified as Technical Violations. Another FAA source said that "the MOU is so poorly written and so loosely interpreted that the agency cannot take any action against a careless controller in Miami ARTCC whose actions resulted in a near midair collision."

We at FMA are prepared to work with agency, the NTSB, NATCA, and any other affected parties on a consensus surrounding the issue of separation standards. However, in doing so, we must conduct the necessary studies and gather the empirical data that will support any reduction – and not move forward with implementation without careful analysis.

It is also important to note that the costs associated with Operational Errors are alarming. In a recent FAA questionnaire sent to Regional 505 Branches for distribution to field facilities, more than 80 responses were received of which 70% were for ATC facilities levels 10-12[7] (level 12 being the busiest). The results captured 79% of ATC level 10-12 facilities, and Regional 505 Branches validated the data submitted. Using the number of Operational Errors in fiscal year 2000 as a basis, the total cost of all Operational Errors was a staggering $14.2 million. This does not include costs incurred by Regional or Headquarters Staff or the potential costs of Office of Workers' Compensation Program (OWCP) claims associated with Operational Errors.

Including OWCP claims, the costs associated with Operational Errors will easily exceed $16 million based on 1,154 Operational Errors in FY2000. Referring once again to the FAA's own Air Traffic Evaluations Study, the report states: "The operational error rate while the supervisor is engaged in direct or general supervision is 2.9 times lower than when the supervisor is engaged in other non-supervisory activity." It is clear that with the proper management and supervisory oversight, the number of Operational Errors would decrease significantly, ensuring both safety and efficiency. Below is a chart elaborating on the costs associated with Operational Errors.

[7] ATC Facilities are rated by traffic volume and complexity into ATC Levels 5 through 12. ATC Level 12 being the most voluminous and complex.

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Air Traffic Costs Associated with Operational Errors

➢Level	Avg Cost Per	# of OE's	Cost by Level
➢ 12	$ 14,509.85	585	$ 8,487,795
➢ 11	$ 11,367.88	253	$ 2,876,075
➢ 10	$ 12,759.79	136	$ 1,735,332
➢ 9	$ 8,447.54	63	$ 532,195
➢ 8	$ 8,932.10	43	$ 384,080
➢ 7	$ 3,755.80	49	$ 184,034
➢ 6	$ 3,090.20	12	$ 37,082
➢ 5	$ 1,566.12	3	$ 4,698

➢Total System Cost for FY00: $ 14,241,291

- **Examples of costs:**
- **ATC Level 12 Errors average $14,509.05 but can be as high as $40,335.00 when 45 days OWCP is claimed.**
- **ATC Level 11 Errors average $11,367.88 but can be as high as $35,963.89 when 45 days OWCP is claimed.**

  ATC Level 10 Errors average $12,759.79 but can be as high as $36,128.83.

RECOMMENDATIONS

FMA believes that there are some "next steps" that can be taken in order to address the concerns we have discussed today:

1. Reinstate supervisory, management, and support staff in the air traffic facilities to 1994 levels, just before the onset of a now-exponential growth in negative safety indicators. This will ensure proper management oversight and support for the technological advancements that are upon us now and for those in the future. The management oversight in the operational arena is the valve that regulates safety and efficiency. Without that oversight the flow of work and resources is unregulated. The needs of every facility are different. The FAA needs to develop a method for monitoring the operational impact of supervisory reductions on a facility-by-facility basis and give regional and facility managers the flexibility to make corrections where needed. The FAA should follow FMA's

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recommendation to develop a supervisory needs-based formula for each of its facilities. This formula would ensure the appropriate number of supervisors necessary to continue safe and efficient operations.

2. Hire 900 entry-level technicians in the Airway Facilities (AF) branch of the FAA. These are the individuals that maintain our radar, navigational, and communication systems. Because management oversight has also been stripped from the AF branch, along with necessary dollars to fund training – both initial and recurring – critical radar systems cannot be immediately brought on line when something goes wrong. Our facilities are unable to keep qualified technicians in our facilities 24 hours a day. Many times when technicians are available, they have not had the necessary training and are not certified on critical systems. It takes approximately three years from the point of hiring to have a certified technician available. Taking into consideration the projected retirements in the next two to three years, we must begin the hiring/training process now. We will be unable to keep up with fast-paced technological improvements if we are not prepared to maintain them. Appropriate management and supervisory oversight with adequate staff support is imperative in maintaining the safety of the National Airspace System. The AF Branch is already experiencing the negative impacts of the lack of performance management due to the logistical difficulties that exist within AF.

3. Fully fund the FAA Operations budget. For years, the FAA did not manage its resources well. Congress wisely recognized this and began reducing funding. However, we are now at a breaking point. We have cut every corner imaginable. In fact, Mr. Chairman, at my facility, I have a $600 per year stipend for all my facility's needs. When we broaden the picture to include the systems we need to modernize, as well as the training needed to keep our agency a world leader in providing air traffic services, you can begin to realize the magnitude of this shortfall.

4. Develop strategies to move quickly on all proposed runway construction at pacer airports so that it may be completed in the next 4 years. Delays and congestion continue to mount as

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does air travel. Taking 10 years to create airport capacity will not solve our problems of today.

5. The Federal Managers Association also requests a position on the FAA's Management Advisory Council so that we may represent the field management perspective as part of the decision making-process. If we are not at the discussion table, we cannot use our knowledge and first hand experience to assist our agency in meeting its goals.

In closing, Mr. Chairman, it is critical that we do everything within our power to remove any possible contributor to the degradation of the safety of the flying public which further serves to undermine the economic feasibility of air transportation. We as managers and supervisors are responsible for the safe, orderly, and expeditious movement of air travelers. We must be included in the decision-making process so that we may provide the agency with input on improving the operational effectiveness and efficiency of the agency. A new MOU was recently signed on March 16 between the FAA and NATCA concerning National Airspace Redesign. Yet once again, the management perspective in the field represented by the Federal Managers Association has not been asked to participate on an issue of great magnitude to the stakeholders of our aviation system. The Consultative Relationship that the FAA and FMA forged two years ago calls for FMA to be an active part of discussions affecting the agency. It is through this ongoing dialogue that the agency and the American public can truly benefit from the overall knowledge and expertise inherent within our organization.

Right now, we just do not have the adequate levels of supervisory and management oversight in our agency, yet the reduction of this oversight continues. It is with great concern that we approach the subject of negative impacts on the safety of the flying public. When planes begin to back up, the system becomes tense. The potential for mistakes greatly increases as the system burgeons and planes are forced into areas that are out of standard procedure. That is why increased – not decreased – oversight is key to maintaining operational integrity and system efficiency.

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In fact, in a November 10, 1999 letter to then-Chairman Wolf of this subcommittee, the president of the Air Transport Association, said, "[...] based upon the FAA's acknowledgement that inadequate management controls contributed greatly to the record level of ATC delays in recent months, this further loss of management perspective and oversight seems, at best, poorly timed [...] Candidly, the airline industry's own past experience with the blurring of management authority through the elimination of supervisory positions only serves to heighten our very real concerns."

One final example underscores the need to restore the proper levels of managers, supervisors, and support staff. On January 28, 1998 an Operational Error occurred involving the Presidential aircraft, Air Force One.[8] In its recommendation to the FAA Administrator, the NTSB stated:

> "In May 1998, the FAA reported that four additional, temporary supervisors had been authorized as a result of the Safety Board's investigation of this incident; this brought the supervisor total to 14. However, in May 1999, the FAA reported that the temporary positions were no longer authorized and, as of January 1, 2000, DCA will again have 10 supervisors.
>
> "The Board notes, however, that issues requiring a supervisor's attention may arise while a Presidential operation is being monitored and that it may be necessary to have more than one supervisor on duty. Therefore, the Safety Board believes that the FAA should increase the supervisor staffing level at the DCA ATCT to ensure adequate supervisory monitoring of Presidential aircraft as required by FAA Order 7210.3, 'Facility Operation and Administration," Paragraph 5-1-2, "Monitoring the Presidential Aircraft Flight," regardless of other supervisory duties."

Mr. Chairman, if adequate supervisory oversight is good enough for the president, dare I say that it ought to be good enough for the flying public.

This concludes my prepared statement. We at the Federal Managers Association look forward to working with the FAA, Congress, and all interested parties to ensure the safety of the flying public, to optimize the efficiency of the FAA, and to maximize the return to the American taxpayer. Thank you again for allowing FMA to offer our insight, and Mr. Eickenberg and myself will be glad to answer any questions the subcommittee may have.

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[8] National Transportation Safety Board Safety Recommendation to FAA Administrator Jane F. Garvey, February 8, 2000

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Legislative History

- On **November 15, 1995** President Clinton signed into law the FY '96 Department of Transportation Appropriations (P.L. 104-50). Under this law, the FAA has been largely exempt from government wide personnel rules contained in Title 5 U.S.C. since April 1, 1996.
- On **October 9, 1996** President Clinton signed into law the Air Traffic Management System Performance Improvement Act (P.L. 104-264). Under this law, the FAA was required to bargain with its unions and consult with other employees over the development of the new personnel management system.
- On **July 9, 1998** the FAA and NATCA signed a memorandum of agreement calling for a 30 percent reduction in supervisors in order to help finance a new pay package for union members. Some controllers' salaries will increase by as much as $30,000 between 1999 and 2001.
- On **August 28, 1998** the FAA and NATCA signed a comprehensive five-year labor agreement that is projected to cost nearly $1 billion over the next five years.
- **September 30, 1999.** The conference report (H.Rpt. 106-355) accompanying the FY 2000 Department of Transportation Appropriations, P.L. 106-69, deferred for one year any further reductions in air traffic control supervisory staffing.
- **October 13, 2000.** The DOT IG issues a memorandum to the FAA Administrator expressing serious concerns regarding the implementation of the CIC program.
- **January 18, 2001.** Inspector General Kenneth Mead issues a memorandum in response to a request to identify the top-priority management challenges in the Department of Transportation. The memorandum identified the reduction of supervisors and the failure to realize productivity gains by NATCA as a top management challenge facing the DOT and FAA.

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Background

- The FAA, pursuant to a July 1998 memorandum of agreement with the National Air Traffic Controllers Association, will increase the number of controllers by 680 between June 20, 1998 and FY 2003. At the same time the FAA plans to eliminate approximately 700 supervisory positions and approximately 200 staff positions.

- The DOT IG has "found that the function of air traffic control supervisors is essential in providing successful air traffic operations." The FAA does not plan to eliminate the air traffic supervisor functions but instead hopes to compensate for the loss of supervisors by expanding and enhancing the current practice of using "controllers-in-charge" (CICs).

- CICs are currently utilized mainly when supervisors take short breaks and when operations are slow. Expanding the use of CICs would require their use when the operational tempo is high. While the expansion and enhancement of the CIC role has just taken place, controllers have been paid a 10% pay differential for performing CIC work since October 1, 1998.

- The FAA is anxious for the CIC initiative to move forward rapidly because it would like to respond to criticism that the agency has received little in return for agreeing to a generous and expensive pay package. The FAA is calling the CIC initiative a "productivity gain" despite by FMA's estimate that this will cost more than $40 million.

- Past experience supports the contention that supervisory reductions negatively impact safety. In the last 5 years operational errors have risen 58% and continue to rise.

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FMA

FEDERAL MANAGERS ASSOCIATION

Mr. John P. Fisher
Federal Managers Association
President, FAA Conference

Operations Supervisor: Jacksonville, FL. ATC-9 Combined Facility, Tower and Tracon
- *1998- Present:* Federal Aviation Administration (FAA) National Partnership Council (NPC) member
- *1998-Present:* Department of Transportation (DOT) Executive Leadership Conference attendee
- *1997-Present:* Certified Cadre Instructor for operations supervisors' workshops (OSW)

Area Supervisor: Palm Beach, FL. Level 3 (ATC 8)
Combined Facility, Tower and Tracon

Full Performance Level Controller: Atlanta Air Traffic Control Tower: Atlanta, GA
Combined Level 5 (ATC-12) Facility, Tower and Tracon

Full Performance Level Controller: Birmingham Air Traffic Control Tower: Birmingham, AL
Combined Level 3 (ATC 8) Facility, Tower and Tracon

USAF: Air Traffic Control Supervisor and controller

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DEFINITION OF DELAYS

Mr. ROGERS. You got a deal.

Thank you all for your statements. We are going to try to abbreviate our questions because of the shortage of time, so we hope that we can get through the questions here briskly.

Ms. Garvey, you told us two weeks ago at this hearing when we had the group of six here that you would have a standard definition of delay by the time of today's hearing. This has been studied and task forced to death for the last decade, I guess, between the industry, the FAA and all the elements of the airline industry. Puzzling to me, no one could agree what delay meant.

You promised two weeks ago that you would tell us today officially that the government has decided to define delay. Do you have a definition?

Ms. GARVEY. I do, Mr. Chairman, and I will say, as we talked about at the last hearing, there has always been a difference between what the FAA reports and what the Bureau of Transportation Statistics (BTS) reports, but we have arrived at a simple and I think very straightforward definition, which is, our definition is considered delayed if it arrives at the destination gate 15 minutes or more after its scheduled arrival time.

We have focused on the arrival time because that, according to consumers and business groups, is really what people care about. Will I get to my meeting on time? Will I be able to be picked up on time?

In addition, and I spoke with the Inspector General about this yesterday. It is important, though, to note that is the simple, straightforward definition, but we will continue to track the delays at any point of the flight so that we can understand better what to do about it.

AIR CARRIER REPORTING PILOT PROGRAM

We have four airlines now as a result, frankly, of the hearing a couple of weeks ago who have stepped forward and said that they will act as a pilot program to collect the data so that we can divide it into the causes. We have three basic causes. They are going to begin to collect that data. I believe two of them have reported already to BTS. We are asking the other two to do that. Once we understand the data better, once we make sure we are collecting it in the right possible way, then we will expand it it to the other airlines. Again, a flight would be considered delayed if it arrives at its destination 15 minutes or more after its scheduled arrival time.

Mr. ROGERS. Let me be the first to award you a star for answering the first of the commitments that each of these people have made. This is a big achievement, ladies and gentlemen. The government has defined delay.

Given the difficulty that we have gone through with the industry having their definition of it, the controllers have a different definition, the pilots have a different definition, the maintenance people have a different definition, whatever, all now have agreed.

Ms. GARVEY. They have agreed. Some a little bit reluctantly, but they have agreed.

Mr. ROGERS. And so we have earned our first star.

Ms. GARVEY. Excellent.
[Applause.]

CAUSES OF DELAY

Mr. ROGERS. We are trying to find a more suitable symbol, maybe a plane going up to indicate good, a plane going down to indicate bad, and a plane crashing means you crashed out, but suffice it to say for the moment we will use stars.

Now, what do you mean you are going to now start determining the causes of delays?

Ms. GARVEY. Well, there are three, and, frankly, I think this is going to be the most challenging part. There are three main categories of causes, if you will. One is circumstances under the air carrier's control, and that would be something like crew availability or a maintenance problem, something that the air carrier can actually control themselves. The second, of course, is weather, which is one we are all familiar with, and current or forecasted weather conditions. That would be a second cause.

The third would be conditions in the national aviation system, and that is certainly those that are much more under the FAA's control or the airport's control. The airport might have a runway out of use for maintenance or whatever. We might be putting in some equipment that might affect some delays.

Those would be the three categories, so those conditions under the air carrier's control, weather conditions and then finally conditions in the aviation system. We are asking the carriers, those four pilot programs, if you will, to collect the causes based on those three categories. We will take a look at it during the summer months to make sure we are collecting it in the right categories. There may be some fine tuning within those categories. We may expand it to the other carriers as well.

Mr. ROGERS. When a plane has been delayed, that is to say it arrives 15 minutes later than it was scheduled to, you are going to be asking—let me get this straight—the airlines to tell us why they were late?

Ms. GARVEY. Well, they will be, first of all, reporting its delay, and that is the information BTS has, and that is the information they will be releasing to consumers so consumers can help make their own judgement.Then secondly, in order to understand it, we are asking the airlines to collect the data in those three categories. For example, if we find out that—well, let me just focus on our own since that is what we would be responsible for.

If we find out they are putting in some equipment in Cleveland, for example, as did happen actually last year with Display System Replacement (DSR), if we find that we are putting it in at a time that we are creating unnecessary delays or difficult delays, we might take a look at it and say is there a better way to transition? Can we do this at a different time of the day? Are there some things that we can do?

If an airport, for example, finds out that it is doing its maintenance activities on a runway at a particular time, we can perhaps communicate that that is creating some real problems for the systems, and then they can take the appropriate action.

As the Inspector General has pointed out, and I think rightly so, the definition is the first step, but then really understanding the causes and respond appropriately. We may find out, and I know that sometimes the carriers do not like to hear this, but we may find out that some are within the air carriers' control, for example, some of the scheduling issues, the over scheduling. Well, what some might call over scheduling is creating some delays. They can then respond.

We need the right data, which I think gets to one of the comments I made in the opening statement that we really need data to help determine these decisions.

ACCURACY OF DELAY DATA

Mr. ROGERS. I am somewhat concerned about the accuracy of the data that you are going to collect because we are depending on the airlines to classify these.

Ms. GARVEY. I do understand that, and we will be working with them very closely. I will tell you that this group that we are working with, we will be looking at this with them as well. Of course, we will be reporting some things, the conditions in the national aviation system, but I will go back and double check if there is a way to determine how comfortable we are with getting the right and the most accurate information. I do recognize that concern.

Mr. ROGERS. I mean, we have all experienced this, but I remember recently I was to have a connecting flight at the Pittsburgh Airport from Lexington and then catch another plane out of Pittsburgh for Washington. I waited there three or four hours for that plane, and I was told the problem was weather. It was beautiful outside. It was beautiful in Washington. It was a weather related problem they said. I just do not believe that. How can we trust the airlines to tell us the truth when the record is not too good in the past?

Ms. GARVEY. I think in the case, for example, Mr. Chairman of weather we can track that pretty well ourselves, and we can go back and look at that. I want to be sure that folks are agreeing with me. We can go back, and in fact we will make sure we do go back and check all of those.

We certainly have had some questions on some of the data that we have seen reported. I will be honest. They probably have some questions on some things that we might be reporting as well, so we will keep good track of that.

DATA VALIDATION

Mr. ROGERS. What I am looking for and I think what we are looking for is a way to rate airlines based on delays. With one in four planes being delayed today or canceled, I think the consumer is entitled to know which airline has the best record at not having delays, cancellations. Which has the worse. In addition to the price that they charge for the ticket, I think part of the consideration the consumer goes through when they purchase or make their arrangements is how reliable that air carrier really is, so it is to the air carrier's benefit, is it not, to classify any problem as not their problem? It was the weather. God interfered here. Or it was because the airport does not have enough runways, or it was because the

controllers would not let us land, or it was because the maintenance people were too picky, and the NTSB said we have to do so and so. It is always somebody else's fault.

How can we now turn to these people and say hey, tell us what you think. Classify these reasons for our delays. We think most of them were weather. How are you going to police that?

Ms. GARVEY. Well, I think you are asking the fundamental question. How are we going to validate the information that we get? I would like to if I could, and I promise you I will get back by the end of the day. I have people back in the office who are hooked into this hearing by Internet with the express purpose of taking every IOU so we can get started on them before the hearing is over.

Mr. ROGERS. Let us say then hello everybody.

Ms. GARVEY. I would like to check with my colleagues at BTS because it really is the Secretary's Office that does collect that and then finally releases it at the end of the month. I will ask them if there is a way that we can provide some technical assistance and ask the question how can we validate the information we receive, so we will get back to you on that. Fair question.

RANKING AIRLINES

Mr. ROGERS. Do you agree that one of the biggest reasons for having this definition of delay is now we can begin to rank the airlines saying this airline has ten percent delay, this one has 33 percent and so on? Is that not a good reason for having the——

Ms. GARVEY. Well, I think that is something the consumers do want. They want to know what is the track record. I know that BTS and the Consumer's Office and the Secretary's Office collect a great deal of that information now.

I think that our challenge, and I speak really for the Secretary's Office, has been in getting that information out in a way that people really understand. I think a simple, clear definition is the first step in that.

Mr. ROGERS. Well, one of these days soon I want to have another chart up here that we will keep in this room for lack of a better place that ranks the airlines' delay performance so that anybody can come in here or if they are watching a hearing see what airlines are doing their job well and who are not.

If that is what it takes to make them feel more responsible about being on time, then so be it. As I said in the earlier hearing, I have nothing to lose because my service is so bad it could not get any worse. You know, I am the kamikaze pilot here. Congratulations on the definition. I am a little bit nervous about who you are turning to to provide the——

Ms. GARVEY. I understand, Mr. Chairman.

Mr. ROGERS [continuing]. Data to you. I have to be really reassured that you are going to keep on top of how they classify their delays so that we do not get faulty information out of the airlines as we so often have in the past.

DATA VALIDATION

Ms. GARVEY. I do know that as part of the pilot program this group that has been meeting will be coming back and taking a look at all of the information as it is coming in, so there will be a chance

for all of us both to challenge each other, frankly, in the accuracy of the data. So that is the short term, but I think the real question is long term how would we validate the information as it is coming in, and we will get an answer for that.

[The information follows:]

We have the same actual flight time data that the carriers have. We can audit or review specific flights or specific airports. The air carrier reporting will permit the FAA and the carriers to work with each other's databases on a daily basis to increase confidence in the reports. The reporting can be audited after the fact. (This is the number one action item of the Inspector General from this March 15 hearing.)

CHOKE POINT INITIATIVES

Mr. ROGERS. All right. Good. Before I turn you over to others, on your set of promises on the big board here you have a star beside your name now on defining delay. Can you tell us anything else about your chores?

Ms. GARVEY. I will now go through them very, very quickly.

The choke point initiatives. Actually, one of the issues was to open up some new sectors, and we opened up four new sectors in the last couple of weeks working again very closely with the controllers. I think we had 21 initiatives. Eleven we completed several months ago. Opening up the new sectors was the next important initiative, and we have good progress on the remaining choke points.

On capacity benchmarks, we are finishing our last few visits to the airports this week to make sure that they are comfortable with the numbers. I hope that the Secretary is going to be able to announce those very soon, so again I think it is interesting information and some good work going on there.

Free Flight Phase 1 and Free Flight Phase 2 thanks to the Congress and the support we have gotten, are very much on track. I have a couple of questions on Phase 2, but that is still in the early phases, and we will stay focused on that.

We are working hard on the National Operation Evolution Plan with the airlines. We have what I think is an excellent draft in place and completed a meeting with the airlines last week to look at the latest draft. Our goal is to have that in place within several weeks. Actually sooner than that, I hope.

Then streamlining the approval procedures for airport capacity projects, something that I guess also Chip Barclay is doing or working with us on. We have a report that is due to Congress. I have seen one draft, had a few questions on it, but we will make that goal of getting it to Congress in April, and then we will continue to monitor and work on the issue of delays.

Mr. ROGERS. Well, we are going to have you and the other five gang of six back up here in maybe a month or so, and we will check off all of these items by everybody. We would expect that you would have made significant progress by that time.

Ms. GARVEY. I am sure we will, Mr. Chairman. I am sure the people sitting behind me know how important it is and will deliver as well.

Mr. ROGERS. After all, you have earned the first star.

Ms. GARVEY. I did note I am going to talk to my friend Ken Mead because he gets to monitor a lot of what we do, so that sounds good. I want to get that job.

WEATHER DELAYS

Mr. ROGERS. Mr. Sabo.

Mr. SABO. Thank you, Mr. Chairman. I have two or three questions.

I am just curious on the weather cause. Do we subdivide that between weather at the airport they are departing from, weather at the arriving airport and weather enroute?

Ms. GARVEY. We do, Mr. Sabo, and in fact I think one of the challenges, again in particular, communicating this to consumers is that very often it is not the weather at the airport. It may not even be at your destination. It may be someplace in between.

One of the issues I mentioned to the Chairman is that we are working with the airport channel and also with American Association of Airport Executives with Chip Barclay and his airport team to see if there is a way that we can hook into the airport channels, which would show what is on our website, what is on the FAA website, which essentially identifies the ground delays at whatever airport has a ground delay and then would give that kind of weather information.

Sometimes I think it is very confusing to consumers. As the Chairman said, you know, the weather looks fine here. It is fine at the other end. Where is the problem? We would like to be able to show as much of that as we can to the customer, and we do divide it that way, as you have suggested.

Mr. SABO. I noticed the Secretary suggested yesterday that we be more accommodating in letting pilots fly around weather rather than simply wait for it to change.

Ms. GARVEY. That, Congressman, really has been an issue, the issue about whether or not we are being too conservative. I think actually the Secretary spoke about some of the new technology. I think at his speech he pointed out well, I wonder if that is making us a little more conservative. We are getting a little more cautious about some things.

We have worked really hard over the last year. I am glad also to see one of the controllers who has been working on this very, hard is in the audience. We have been working very hard on a training program that really essentially I think clarifies the role even more, gives the pilot and the dispatcher much more flexibility, as the Secretary talked about, in making those decisions.

Ultimately if there is very severe weather and there really is a safety issue that the Command Center or the controller sees, he is going to communicate that to the dispatcher. If it has a real effect on the system, clearly the controller has to step in and let the dispatcher know that.

That issue about giving the pilot and the dispatcher as much flexibility and responsibility as we can has really been a cornerstone of this whole training we have done leading up to the spring/summer plan. That is why it was so important to have the airlines engaged in that training with us. I think the training has been

very helpful and I think it will go a long way in addressing some of those issues through this spring/summer.

You know, I have to always say, I mean, I heard Dr. Arnie Barnett last week from MIT, and he talked about this summer. He said you know, as difficult as it was in terms of congestion and delays, we should always remember that the risk to safety last summer was zero, and we must, of course, as you have all said and as some of the panelists have said, never lose sight of the safety mandate that we have.

RUNWAY INCURSIONS

Mr. SABO. I am curious on the runway incursion. Do most of them involve an arriving plane and a departing plane, one of them waiting, or do most of them involve planes that are taxiing across runways to get to either their arrival destination or where they want to eventually take off from?

Ms. CARMODY. Most of them involve general aviation aircraft. I believe I have seen statistics that about 62 percent have to do with crossing a taxiway improperly, whether it is landing or taking off, so the majority would be that. Another 22 percent involved misunderstood instructions on the part of the air traffic controller and the pilot, miscommunications.

Mr. SABO. What is the ratio of the general aviation to the——

Ms. CARMODY. I do not know the ratio, Mr. Sabo. It is by far the majority, and then there are others that involve general aviation and air carrier, and then there are some that are two air carriers.

Mr. SABO. All right.

Ms. CARMODY. We certainly have that available if I could——

Mr. SABO. Are they at the major airports, or are they mainly——

Ms. CARMODY. They are all over.

Mr. SABO [continuing]. At reliever airports?

Ms. CARMODY. The number one airport for runway incursions is a general aviation airport in Las Vegas, which is all general aviation traffic, but there are incursions at all of the major airports. Certainly Los Angeles has had their share, Chicago. They are all over. That is why we are so concerned about it.

Ms. GARVEY. If I could just add a couple of comments? I think Chairman Carmody has explained it very, well. General aviation is a big player in this.

We have asked Phil Boyer to serve on an internal FAA team because we know the sort of network that Aircraft Owners and Pilots Association (AOPA) has in getting out to its members. They have been extraordinarily helpful in both identifying some very good education tools that we can use. They have a wonderful website that they have put up a lot of maps of the most critical airports, so AOPA, to their great credit, has put a tremendous amount of effort into educating the general aviation pilot.

I would also go back to something that was said earlier, and that is the work that MIT and Mitre and NASA did for us I think really responds to the issues that Carol Carmody has raised, which is we really have to focus on the ones where there are the greatest risks. Some of the general aviation ones, certainly they are significant and we always want to see those numbers going down, but we real-

ly want to focus on the ones where there are the greatest risk for fatality, so I think that work is going to be enormously helpful.

I happened to be in Reno not long ago, and the airport there, a wonderful airport director and the head of the tower, hosted an all day session of training for pilots to deal with some of the issues that are, as Ms. Carmody said, unique in Nevada.

In those places where we have gone in and done the SWAT teams or the airport teams like Los Angeles we are beginning to see some numbers going down. You know, we obviously are concerned about it.

We took on ten initiatives last year. They are all in play. They are all pretty much on schedule. Three I am concerned about, but seven very much on schedule. I also think the help from this committee in allowing us to hire runway experts in each one of the regions is really our greatest hope.

What we are finding out is there is no national initiative you can do. You really have to get it at the local level and look at the unique characteristics at each one of those airports. That has been extraordinarily important. Again, thanks to this committee we will have about 100 of those evaluations at those top airports this year.

Mr. SABO. I am curious then at the commercial airports that involve large carriers. Again, is that primarily across one runway versus miscommunication on takeoff and landing?

Ms. CARMODY. I think the answer would be yes. It is primarily having to do with runways and cross taxiways with improper clearances and instructions or misunderstood instructions.

Mr. SABO. Okay. Thank you, Mr. Chairman.

ALABAMA AIRPORT PROJECTS

Mr. ROGERS. Thank you, Mr. Sabo. Chairman Callahan.

Mr. CALLAHAN. Thank you, Mr. Chairman. I am going to leave these technical questions on the national problems to the experts, either you or Mr. Sabo. I think you are doing both a good job in all of these hearings.

I showed up to tell you, Mrs. Garvey, that I have my own chart in my office. All of my concerns are parochial in nature for authorized and appropriated projects. There are ten of them in my district. You already have three stars, and I showed up just to remind your colleagues and you and those watching you on television back in your office that I am a member of the panel that determines the economic destiny of your agency and that I am anxiously looking forward to filling in the blanks of my own chart in my own office.

Ms. GARVEY. Mr. Callahan, I learned a lesson very early on in Boston, and that is that all politics is local. I understand that, and we will take a look at those projects as soon as we get back.

Mr. CALLAHAN. Yes. I understand that. I want those ten stars before we vote on the final appropriation number. Thank you, Mr. Chairman.

Mr. ROGERS. Chairman Wolf, do you have anything you would like to——

Mr. WOLF. No. I will wait.

AIR TRAFFIC GROWTH PROJECTIONS

Mr. ROGERS. Okay. Mr. Olver.

Mr. OLVER. Thank you, Mr. Chairman.

Ms. Garvey, looking at the whole of the commercial aviation system, air traffic seems to go up by leaps and bounds pretty much every year, and the projections of that traffic growth also continue to seem to go up very substantially. Who does the traffic projections? Are those under a set of standards? Is there a standardized system for that? Who is in control of that?

Ms. GARVEY. Congressman, there is. We put out forecasts every year, and that really is the basis for the projection, but in addition individual airports often do their own projections as well that are much more specific to the airport. We do put out the national forecast both for commercial aviation, as well as for cargo, and we have begun in the last couple of years to also take a look at general aviation as well.

Mr. OLVER. Do we have large discrepancies between your what sound like standardized and what might be the local sense of what those projections are likely or should be over a time?

Ms. GARVEY. We do not see, Congressman, many discrepancies. I mean, occasionally there might be one or two. Memphis, for example, I remember last year took just a huge jump, about 20 percent, in the month of April. That was because of some additional cargo operations. That may not have been quite as reflective in some of the work we had done, but generally it is the same.

The only time I think where we run into some differences is if you have something obviously unanticipated like the Gulf War or a recession that none of us were anticipating. You might see some dips in those irregularities.

Mr. OLVER. The Memphis case. Is that one where the airport had much larger numbers than the agency was able to keep up with?

Ms. GARVEY. I am not sure that the airport actually had different numbers from ours. I think there were some additional operations in that month that no one expected—FedEx added some additional operations that we had not anticipated.

Mr. OLVER. I am sort of curious. If you would care to, if you might suggest what are maybe three of the most problematic locations for a discrepancy between these traffic growth projections, which do seem to continue to rise rather substantially, and the capacity to accommodate that growth where the capacity I think involves runways, new runways?

It might involve the age or upkeep of the present facilities and the equipment and so forth and maybe has measures that include such things as the delays and the record of safety and so on. That gives one an overall picture of where that gap between growth projections and capacity to accommodate would occur and then a sense of who really controls the development of that capacity to accommodate the growth.

There are probably some of those features that you have control of, some that only the state has control of and so on. That is a pretty obtuse question, I suspect.

Ms. GARVEY. Well, let me give it a try. First of all, I think in terms of the discrepancies I do think we are pretty consistent, so that is sort of the good news. We do know what we can anticipate. We do know in many cases what is ahead, although I will add one caveat, and that is the regional jets. I think universally everyone

has said that even with the forecasting that we have done, which is pretty sophisticated, I am not sure any of us really anticipated the popularity and growth of regional jets, so that is one caveat. On balance, I think it is pretty close to being accurate.

One of the questions, and this certainly came up last week as well, is, are there some critical airports, as you have suggested, where there is a real gap between what the demand is and what the capacity of the system is.

I think the work we are doing in benchmarks is going to help us really frame that issue even more precisely and clearly than we have done it in the past. I think all of us sort of have a pretty clear sense that a place like LaGuardia and the airports in New York are very crowded, straining the system in ways that are quite extraordinary.

Certainly looking at a place like LaGuardia and figuring out with the airport and the airlines what are the right solutions both in the short-term and the long-term, that goes a long way I think in really determining what the right solutions would be.

You said or you asked where does the responsibility in a sense lie. In some ways I think it is the same answer that we gave last week, which is we all have a piece of it. For example, any airport project, any runway, has to really be initiated at the local level, so you have to have tremendous local support for a runway to occur. We cannot simply go in and say we want a runway here. That would preempt the local decision making.

What we can do, though, is what we will do with the benchmarks, which is to say here is what the projected growth is. Here is what we are seeing the demand to be, and here is what we believe the capacity of this airport is, and here are some potential solutions. We still have to have a local decision making, but I think we can provide a useful part of the debate, if you will, on that.

On technology, it is clearly our responsibility, along with the airlines, to make sure that the technology moves ahead and is deployed, so in a sense both we and the airports own a piece of it. Of course, the airlines themselves, where they schedule and how often they schedule, that is really I think a piece as well.

AIRPORT GROWTH VERSUS PROJECTIONS

Mr. OLVER. Do you have a tool kit of carrots and sticks that you can apply to the places where you see a major discrepancy between growth potential or growth projection and capacity to accommodate?

Ms. GARVEY. That is really a good question. I mean, we certainly have discretionary grant money. With working with Congress, I mean, that certainly is a wonderful carrot, too. I think the direction of giving more of that money to small and mid-sized airports, which is a Congressional directive, is absolutely right on target. That certainly is a carrot, if you will, which is very, useful.

I do find that most of the airports want to figure it out. It is sometimes so enormously difficult. It is not even so much that we do not have a stick, if you will. I think they want to get there. Some of the local issues are just, as you know from our own experience in Massachusetts, so hard.

Mr. ROGERS. Mr. Tiahrt.

DEFINITION OF DELAYS

Mr. TIAHRT. Thank you, Mr. Chairman. First of all, Administrator Garvey, I want to comment on how you passed the eye test and were able to read that chart from the distance you are sitting. I also wanted to ask about these delays. I was not sure on our definition of a delay now. It is a 15 minute delay from the time you walk off an airplane, or is it wheels down? What is the actual——

Ms. GARVEY. From the arrival time at the gate.

Mr. TIAHRT. At the gate.

Ms. GARVEY. At the gate.

Mr. TIAHRT. In that delay is there different classifications for weather or for mechanical? Some routes do have more weather related problems than others.

Ms. GARVEY. Yes. That is exactly right, Congressman. There are three specific categories, one having to do with the air carrier's control, the second having to do with weather, which is the issue that you just referred to, and the third would be conditions in the national airspace system, so the causes would be broken down into those three categories.

Again, as I mentioned, we have four airlines that are willing to and are stepping to the plate to be a pilot in this. We will see if we are getting the right data and if it is giving us the information that we need. That activity will take place over the next couple months. I must say, I know the Secretary cares about this, and I am sure that he is putting his team in place and he will put one of his very senior key members on to head this task force when his team is in place.

AIRLINE PARTICIPATION IN PILOT PROGRAM

Mr. ROGERS. Mr. Tiahrt, would you briefly yield?

Mr. TIAHRT. Yes, I would be glad to yield.

Mr. ROGERS. Tell us what airlines are stepping forward to participate now and maybe earning a star in their column.

Ms. GARVEY. That is true. They should get good credit here. American Airlines, Delta, Southwest and United. Those are the four, and they are obviously a good mix I think of carriers.

Mr. ROGERS. Have any of the airlines refused?

Ms. GARVEY. I think we asked for volunteers so I do not know that any airlines have refused. I am not aware of any who have refused.

Mr. ROGERS. So some of the others are considering it?

Ms. GARVEY. They may be. I think we all agreed it was probably good to start with four. I must say, I was not at the most recent meeting, but I think we all agreed it was good to start with a smaller group, make sure we were collecting the right information. I give them a lot of credit. Russ Chew in particular at American is at these meetings all the time and has been very, supportive, as well as the other representatives from these four.

Mr. ROGERS. Thank you, ma'am.

RUNWAY INCURSIONS

Mr. TIAHRT. Thank you, Mr. Chairman. I want to emphasize the need for certification on new aircraft and new technology. I think

that this is very important for safety, and I know the inspectors here, Mr. DeBerry and Mr. Kerner, are very concerned about having adequate resources, and so am I.

I think one of the ways we get more safety involved in air travel is making sure that new certification happens quickly so as to not delay things that are potential safety issues. I want to encourage you to continue your efforts to make sure that we have those resources along those lines.

I have some questions on incursions. Perhaps it is Chairman Carmody that can give me a little better idea. Now, not all incursions are from aircraft. Sometimes incursions are fuel trucks or buses moving passengers.

Is that classified separately than from say a private aircraft or commercial aircraft when you look at incursions?

Ms. CARMODY. I believe it is, yes.

Mr. TIAHRT. So we could tell then how much? I just do not want to get——

Ms. CARMODY. We could tell if it involves another vehicle on the runway or if it involves another aircraft and what kind of aircraft. Yes.

Mr. TIAHRT. I want to make sure that we have clear classifications between, you know, some of these.

Ms. CARMODY. Correct. An incursion does include any vehicle on the runway, be it a truck or a van. It is classified as an incursion, but we do know what those incursions involve, whether it is another aircraft or not.

ENGLISH LANGUAGE PROFICIENCY

Mr. TIAHRT. I notice in reading your testimony that there is some question about whether we are using consistent phrasing in the way we are receiving directions. I know also I listen to the air traffic controllers when I travel occasionally. Not all the time. I know there are different accents. You know, it is different in Atlanta than it is in Chicago, and New York is different from Los Angeles Of course, in Wichita we are always the same. We are very consistent there.

Ms. CARMODY. Very.

Mr. TIAHRT. Is there some effort that we know of for air traffic controllers to have a consistent phraseology and also trying to talk with a—I do not know how to address this, but without an accent like a newscaster or something?

Ms. CARMODY. Let me start with that, and then I know Ms. Garvey wants to respond as well. What we intended with our recommendation was to recommend that the FAA adopt what we call the ICAO phraseology. ICAO is the International Civil Aviation Organization, which is a United Nations body in Montreal. They set standards internationally for aviation.

The beauty of ICAO phraseology is it is in English. It is understandable all around the world. It is clearly and immediately comprehensible to a pilot whose first language is not English.

You are right about the different accents. Sometimes it is hard in your own native language to understand, so if you imagine you are not speaking your native tongue and you hear different phrases

that are not those phrases used in other countries, it contributes to the confusion.

We have recommended that the FAA adopt the ICAO standard. The FAA I believe has responded. They are looking into that. They have a work group, and I am going to let Ms. Garvey address that.

Ms. GARVEY. Chairman Carmody is absolutely right. That has been a big issue. As a matter of fact, that was one of the initiatives that was identified last summer at the national conference that we had on runway safety.

I happened just by chance to meet the young woman who was working on this last Saturday. She was telling me that they have done a tremendous amount of work. They have found some wonderful software that can be used in the training and are looking at an implementation in August of this year. That was the schedule we had set and it looks like they are going to meet it, so I think that is going to be a big help.

AIR TAXI OPERATIONS REPORT

Mr. TIAHRT. I speak two languages. I speak English and bad English. I just want to make sure they do not use my second language.

In AIR–21 there was a report that was supposed to be due, and I know you do not have the answer here, but I would like to know. It is Section 735 of H.R. 1000 entitled Operations of Air Taxi Industry. This Part 135 air taxi industry has a report that was due. I believe it is supposed to be done in the last part of the summer, which is several months after the law takes effect. I just would like you to check on the status and get back to me——

Ms. GARVEY. I will, Congressman.

[The information follows:]

The study on the air taxi industry has begun. FAA is working with concerned aviation industry groups to provide a comprehensive picture of the industry. Although due one year after AIR–21, we anticipate final completion of the report by September 30, 2001.

SUPERVISOR RATIO

Mr. TIAHRT [continuing]. On how that is going.

I had one other question for Mr. Fisher. I know your voice is coming back. Maybe Mr. Eickenberg can answer this.

In the ratios that you talked about, ten to one supervision to air traffic controllers, what would your recommendation be on the ratio? In most of industry it is 17 to one for ratios of supervision. That is the ideal, 17 to one. In government we have reduced that to 15 to one. I am not sure what that reduction was. What would your recommendation be, and why is ten to one not sufficient?

Mr. FISHER. Thanks for asking something I may be able to answer. The FAA put out a study in I believe it was 1993 that indicated the ratio in towers should be 6.4 to one. Further, in that same study it indicated that when a supervisor was on duty and not doing other than giving general supervision, it was 2.9 times more likely not to have operational errors than without supervision in the tower, so that would be the base.

Mr. TIAHRT. Somewhere between six to seven to one is what you are recommending?

Mr. FISHER. That is correct. My whole career has pretty much been in the seven to one ratio prior to 1995.

Mr. TIAHRT. We are eventually going to have new hardware for air traffic controllers. The sooner the better. What impact will that new hardware have on this ratio of six or seven to one that you would recommend?

Mr. FISHER. Well, I have to go back. I started my FAA career in Birmingham, Alabama, Mr. Tiahrt, and then I went to Atlanta tower. We had ASDE in 1971 in Atlanta tower, and it worked. We got it from Chicago. We stole it from Chicago.

That was the piece of equipment then that worked in the tower as we were moving the airplanes then. It is a tool. Somebody mentioned a tool in your toolbox. That is what it is, but it does not replace the supervisors in the towers, who provide the oversight. It is a tool. The new tools we cannot wait for. If it can be an improvement on the ASDE, which is almost 30 years old, we welcome that.

Mr. TIAHRT. I wondered what was causing the delay in Chicago. You said it goes back 30 years now. It is going to catch up. Thank you for your time, Mr. Chairman.

Mr. ROGERS. Mr. Pastor.

AIRLINE SCHEDULES

Mr. PASTOR. Thank you, Mr. Chairman, and I thank the panel members.

Administrator Garvey, after the last hearing that we had, and we talked about delays and the cause of delays, and now we have a definition. One of the reasons or one of the factors for these delays is that all the airlines want to leave at a certain time because the passengers are requesting to leave at 8:00 in the morning and maybe get back at 4:00 in the afternoon.

I know that airlines cannot get together and talk about scheduling because of the antitrust, but an idea that I had, and maybe you can look at it and let us know what barriers there are. Is it possible that maybe every quarter in the two or three choke points that we have that possibly the major carriers who are scheduling be able to come under your guidance and meet and maybe work out the situation where not as many planes are leaving at the same time?

That might begin solving I guess some of the problems that you might have with delays in that the airlines themselves may decide what is reasonable and not in competition with each other, but they can accommodate each other.

You might get back to me, because I thought that might be a way to do it.

Ms. GARVEY. We will take a look at that. Thank you very much, Congressman.

JOINT INDUSTRY/GOVERNMENT MEETINGS ON AIRLINE SCHEDULES

Mr. PASTOR. Also give us the barriers involved in doing such a meeting or series of meetings.

[The information follows:]

The issue of airline collaboration on operations in the choke points above what is being done through the FAA Command Center must be carefully considered. Important federal antitrust laws administered by the Department of Justice may be

the principle barrier to airline discussions of this nature in the absence of the type of exemption authority provided in pending House and Senate legislation. There are a variety of effective ways to counter congestion apart from FAA and airline operational initiatives. The Administration is therefore assessing all options for reducing airspace congestion effectively while preserving competition and consumer choice.

FREE FLIGHT

Mr. PASTOR. Also, I noticed that the Free Flight is something that you are looking at, Phase 1 and Phase 2. Very recently a concern in Arizona was because of the airport spaces we have that the military zones be protected. There was some concern whether or not this Free Flight would cause the military zones to be lessened or somehow there will be greater safety issues if we reduce the military zones, especially where we have Air Force bases.

[The information follows:]

Free Flight will not impact the airspace of military installations. Although Free Flight provides for the safe and efficient operation under instrument flight rules and allows operators the freedom to select their path and air speed in real time, flight in military airspace is prohibited unless the Department of Defense gives permission to fly in that airspace.

Free Flight provides more widespread and dynamic sharing of special use airspace current and future status. Free Flight does not change the status of military airspace. It alerts pilots to when those areas are "hot" and "cold," (in use or not in use by the military). By logging onto the Internet, pilots can see whether or not special use airspace—usually off-limits because of military use—is available during the time of their flight. This initiative may save time, money, and fuel.

INSPECTOR TRAVEL AND TRAINING

Mr. PASTOR. I wanted to talk to you about two things. One is the inspectors', both gentlemen, lack of funding. The resources are not there for additional inspectors, training, lack of training and the inability to do enroute inspection and also to inspect out sourcing. Would you care to address those points so we have an idea of what your problems are?

Ms. GARVEY. Thank you very much, Congressman. Certainly I think some of the issues that the inspectors raised are issues that we have been very concerned about, and we are working hard with Mike Fanfalone and others on those issues. Again, with a lot of help from Congress we got a supplemental last year, so we are in the process now of addressing those issues. For example, the safety and the training issues, which the inspectors referred to. They were absolutely right. A couple of years ago with some of the constraints that we had, some of that training did not occur, and with the help from the supplemental budget we are able to both do some of the additional hiring that we had wanted to do and also do the training that we had wanted to do.

I want to go back and take another look at the travel money because while I know that has been an issue for all of us across the agency, not just with the inspectors, my understanding is that we had walled off the travel money for the inspectors to make sure they could do the kind of inspections that they need to. It sounds like I need to look at that again, and I will. I want to give, though, a lot of credit to people like Mike Fanfalone who have also come forward to say let us think about a different way that we can do training not just for some of the technologies, but in all of the areas. I think the union itself is coming forward with some very ef-

ficient ideas; still training, but being done in ways that are more efficient.

It is always a challenge with an operation that is the size of the FAA with the growth that we are seeing in the industry to try to use the resources in the best possible way. I do not pretend I have all the answers, and it is something I think we have to just keep focused on. Good news from Congress though with the supplemental to allow us to do more of the training and to hire some of the inspectors that we have not been able to.

On the enroute, I will tell you it is a bit of a challenge. I understand exactly what the inspectors are saying about the need to get out there and really sort of do a one on one. There is nothing that substitutes for that.

The Inspector General did raise some questions a couple of years ago with our controller program in the Familiarization Training Program and suggested some guidelines about not wanting to have that linked to sort of personal travel. Maybe we are being a little too conscientious in following those guidelines. We will go back and look at that again as well.

[The information follows:]

The Regulation and Certification Service sustained budget reductions in fiscal year 1999 and fiscal year 2000, due to internal agency priorities, which constrained the travel and training. The fiscal year 2001 plan reflects increases approved by Congress in the fiscal year 2001 Department of Transportation Appropriations Act for Flight Standards training and travel and for training for Aircraft Certification staff. The table below reflects the expenditures of travel and training in the organizations that have aviation safety inspectors.

(Dollars in Thousands)

Travel	FY 1999 Actual	FY 2000 Actual	FY 2001 Plan
Flight Standards	$20,249	$17,907	$26,127
Aircraft Certification	6,936	6,914	8,530
Total	27,185	24,821	34,657
Training			
Flight Standards	28,260	23,991	39,484
Aircraft Certification	5,857	5,336	6,723
Total	$34,117	$29,327	$46,207

Aviation Safety Inspectors conduct en route inspections in conjunction with their responsibilities for aviation safety surveillance and oversight. En routes are conducted only in support of an inspector's official duties and may be performed outside the normal workday timeframe. FAA inspectors conduct en route inspections during normal duty hours as well as off hours. An average of over 42,000 en routes were conducted for fiscal year 1999 through fiscal year 2001 (as of March 29, 2001), with 8 percent of those being off-hour en route surveillances. Regardless of the time of day when an en route is conducted, it is compensated as official duty time.

In 1996, the Office of the Inspector General audited the use of en routes and found some FAA personnel had used their credentials to obtain airline transportation for personal gain. FAA instituted increased management controls to ensure that en route inspections are:

1. Authorized by a supervisor or manager.
2. Performed in accordance with official duties.
3. Performed to accomplish assigned work.
4. Used for travel to or from agency-directed training, only if they accomplish special projects or other assigned temporary duty.

To permit the use of en routes, contrary to policy requirements, could potentially be viewed as a means to obtain free travel constituting a conflict of interest.

OUTSOURCING

Mr. PASTOR. Okay. Also the issue of out sourcing. You have some of the airlines doing out sourcing.

Ms. GARVEY. That is a very——

Mr. PASTOR. Is that a problem?

Ms. GARVEY. Well, that is a difficult one, Congressman, because I remember when I was coming into the FAA reading an editorial that was in the Washington Post at the time, and the editorial writer was making the point that, we all have to own safety. Again, with the growth that we are seeing, with the kind of system integration, the complexity of the system, we all have to own it. Airlines have to own it, the FAA. We have had some success with the designated program where, for example, even with Boeing they have the designated inspectors on board. I, frankly, think we have to do some of that. We just cannot have and we will never have enough people to look at every aircraft. I hear what they are saying. You want to strike the right balance between having enough inspectors so that we are still doing our job and taking care of oversight. I understand that issue. It is a constant question we have to ask ourselves, but I think there is a balance, and I think there is a way that we can use some of the designees and use them effectively. We have to hold them to the highest standard. That is the key.

CONTROLLER SUPERVISOR RATIO

Mr. PASTOR. I have one more question. Basically, it seems like the air traffic controllers worked out a better deal in terms of their salaries and benefits, and I guess you cannot blame them for doing that. I guess the managers needed probably better representation at the table when they were negotiating.

This issue of the ratio. What do you think is the appropriate ratio? We talked about, and I wrote down one, rules on the fly. Do you want to comment on rules on the fly?

Ms. GARVEY. Well, I will comment actually on both. First of all, in terms of the controller ratio, and I notice that Congressman Tiahrt mentioned what is occurring in industry and so forth. Frankly, that has been an issue for us that we have been trying to reduce the number of supervisors.

John referred to a study that was done in the early 1990s. To be quite honest, I think there are a number of questions about the validity of that study, but I think there is a point that John made, and I want to go back to it because I think it is important.

The role and the job of the supervisor is very important. We are going at this very slowly. We are going at a reduction of supervisors very slowly, and in fact before we make those decisions we really involve the managers and make sure that we are not certainly in any case where we think there is a safety issue, where the facility just seems to be having some particular difficulty. We would not make that. We would not reduce the number of supervisors.

We have a very, smart work force. We have very talented managers. We have very talented supervisors. Believe me, we have very talented controllers. They are eager to take on some additional re-

sponsibilities, and I think giving the manager the right flexibility to make the decision, they will make the right decision.

I am not interested at all in obviously short changing safety in any way. I think we need to continue to ask ourselves hard questions, but I think we are on the right track, and I think we are doing the right thing.

Mr. PASTOR. Thank you, Mr. Chairman.

DEPARTMENT OF TRANSPORTATION PAY

Mr. ROGERS. Thank you.

To back up one of the things the gentleman has been pointing to is the pay at DOT. I am told that DOT has the highest paid personnel in the government of any Cabinet agency, and what is driving that is FAA. You can see in this chart here in yellow the average pay of the government wide pay and in blue is the FAA pay, and in red is the air controllers' pay after the increase of 1997, so you can see what is driving the cost of DOT, and I am wondering whether we are getting our money's worth, to be frank with you.

Mr. Aderholt.

DEFINITION OF DELAY

Mr. ADERHOLT. Thank you, Mr. Chairman.

I think a couple of the questions that I had have already been answered in relation to your definition, Ms. Garvey, of delay.

One small clarification. When you say at the gate, I would assume that would mean the passengers being able to disembark from the aircraft.

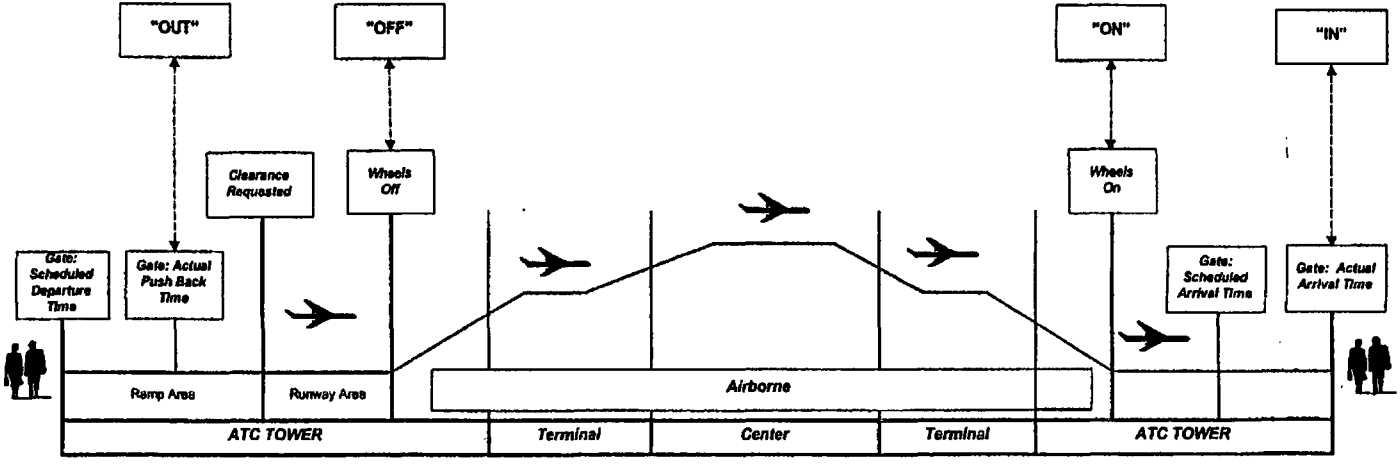
Ms. GARVEY. I think it actually means at the gate, but I will clarify that. In other words, that they are exiting once the——

[The information follows:]

The arrival definition is based upon the time the aircraft arrives at the gate. The definition is based on "Recommendations of the Air Carrier On-Time Reporting Advisory Committee," U.S. Department of Transportation, November 2000. The following Exhibit A is an excerpt from the report.

EXHIBIT A

"OOOI" DATA



Mr. ADERHOLT. Right. Exactly.

Also, you said that when you were coming together to try to define this definition or to define what delay was there was some reluctance on it. You do not have to use initially any names, but what were some of the reluctant comments that were made as far as not agreeing with that definition totally?

Ms. GARVEY. Well, I should actually be a little clearer. I am not sure there is as much disagreement around the definition as it is around the causes. When I referred to the three categories, I think there is always going to be some perhaps, and the Chairman referred to this. There may be perhaps some difference of opinion as to whether something is an airline controlled delay or, for example, an air traffic delay. I think it really does get to the point that airlines, and we all recognize we have a degree of accountability, so you want to be very clear on where you are putting that cause. So I think it is probably more appropriate to say around the causes.

The discussions that occurred also were do you also count departures, so there were some disagreements on that. The committee felt or the task force felt that really, and, frankly, we listened to people like Kevin Mitchell and the folks from the consumer groups who were saying look, people are focused on when they get there. They are focused on am I going to get there in time for my meeting? Am I going to get there in time for my family to pick me up? So that is really why we ended up with that particular definition.

Mr. ADERHOLT. Okay. Thank you for being here before the committee today.

Thank you, Mr. Chairman.

CAUSES OF DELAY

Mr. ROGERS. Thank you, Mr. Aderholt.

Along that line, how would this be categorized in your three categories? As I understand it, a pilot and his plane has their route for the day, and they stay with that route regardless of whatever else happens.

Now, if that plane and pilot are late out of San Francisco, they are to pick up and stop and exchange passengers in let us say St. Louis, and they are late in St. Louis. The airline does not have another plane to pick up those passengers to go on their leg of the trip. They wait until that plane from San Francisco gets there. Is that not correct?

Ms. GARVEY. That is correct, Mr. Chairman.

Mr. ROGERS. And then it goes on to say Washington, D.C.

Suppose the weather was bad in San Francisco, and the plane was an hour late leaving San Francisco. They get to St. Louis an hour late, and the passengers waiting to catch their flight to Washington are sitting there waiting an hour for this plane to get there from San Francisco.

The plane gets to D.C., of course, more than 15 minutes late. Therefore a delay, correct?

Ms. GARVEY. Correct.

Mr. ROGERS. Under your categories who is at fault there, the weather?

Ms. GARVEY. It sounds to me as though it would be weather, but again I think when we put it into the causes one would hope that some of the issues that you talked about would be also revealed.

You know, if I could go back to your delay? I just happened to be a little bit concerned about that. It happened I think the day before the last hearing. We did just take a look at it. I know that when you arrived in Cincinnati, for example, a plane had not arrived from Orlando—is that correct—because of weather in Orlando I am told?

Mr. ROGERS. That is correct.

Ms. GARVEY. So would that have been a weather delay? I want to make sure I am doing this correctly.

Mr. ROGERS. What I did is I switched airlines to US Air and flew to Pittsburgh, but that plane was late in getting there.

Ms. GARVEY. All I can say is I just hope it was not an air traffic issue. That is all. It would have been a weather delay.

AIRLINE OPERATIONS

Mr. ROGERS. Well, why can the traveling public not expect that on the scenario I mentioned, a plane from San Francisco bound for St. Louis and they are in the hub mixing with flights all over the country and they switch their flight there to D.C., they could care less which particular pilot or which particular plane is flying them to D.C. out of St. Louis. These are people who flew to St. Louis from all over creation, and they are hubbing there. Some are catching this flight to D.C. Why should they worry about that pilot and that plane who has determined by golly, that is going to be my route for the day come heck or high water. I am going to stay with it. I do not care how many people it inconveniences along the way.

Why can we not expect that that airline would have available some spare planes to pick up those people on time and deliver them on time to D.C., even though their plane from San Francisco may have been an hour late? They could care less about that. How can we get over that hurdle?

Ms. GARVEY. That is a really good—I have to say. This is airlines operations, which I am not as familiar with, but I know that the consumer group here in Washington has made that same point, wondering if there ought to be a way to have some sort of a backup for the airlines. I have no idea what——

CAUSES OF DELAY

Mr. ROGERS. Well, under your three categories, carrier problems, the crew arrives late, the plane needs repair or whatever, or weather or something wrong with the system like the air controllers have a problem or the runway is shut down or whatever, I can imagine that somewhere in this country right this minute there is a terrible storm going on, or it is snowing, or there is some weather nominally happening that is preventing some planes from taking off. That is going to happen every day.

Ms. GARVEY. Sure.

Mr. ROGERS. Under your categorization, I can imagine the airlines blaming every single delay they have on bad weather somewhere in the country, and they could probably make some reasonable argument to justify that, so are we really anywhere yet with

this definition of delay when we are going to allow the carriers to blame everything on the weather?

Ms. GARVEY. Well, here is what I hope we could get to, and again this is going to need more work. This is exactly why we want to have the pilot programs. If, for example, we were seeing a large number that were attributed to weather and they were occurring at particular hubs, the next questions might be well, all right. Can we do something about this? Is there something the airlines can do? One would hope that in these discussions it would raise the question because once you know the cause then you have to figure out the right answer. I am hopeful that in those discussions with all of us in the room, including the Inspector General, we are saying look, if it is the weather and it is happening at these hubs where the connections occur and where they are relying on aircraft coming from other places, is there something that the airlines can do? Is there something that government should do to really make sure that some sort of system really is working? Maybe it is partly what Congressman Pastor mentioned. Maybe in some of those cases there is much more sort of allowing of airline tickets to be used for other carriers. I do not know. I think that is a very good question, though, and one we are going to have to look at.

Mr. ROGERS. Mr. Wolf. Chairman Wolf.

Mr. WOLF. I am going to defer to others who were here before me. I am going to come back. They were here before me.

Mr. ROGERS. All right. Ms. Emerson.

CONTROLLER-IN-CHARGE PROGRAM

Mrs. EMERSON. Thank you, Mr. Chairman.

I have a couple of questions about air traffic controllers. Mr. Fisher, I hate to burden your voice, but I do have a couple of questions I would like to ask you just because, first of all, I will state that I fly every week, but I do not like to fly. I just am a nervous flyer.

I also recently, as a result of our last meeting here, got some of the software, the Flight Explorer software, so that I could actually now track all the flights myself and figure out where everything is. I am fascinated with it, and I actually have had fun playing with it, but it scares me to death to see all those airlines, all those planes flying at the same time.

That brings me to the question of air traffic controllers, who I greatly admire. I mean, I cannot imagine doing that job. That has to be the most high stress job in America. I would be very much in favor of lowering the threshold of supervisors to air traffic controllers even as one who has worked in the private sector and understands very well the ratio situation just because of the nature of that job.

In moving to this new system of controller in charge, if you will, how is there any kind of consistency of direction from your standpoint first, Mr. Fisher, and then perhaps from Administrator Garvey? How is there a consistency of direction when you have a different supervisor every day or an acting controller in charge, a different person doing this job every day?

Mr. FISHER. Well, there is no consistency. When I started as a supervisor 27 years ago, I did it 40 hours a week. I was mentored and coached.

In today's environment, since January, 2001, with the expanded CIC program, a controller is rotated, so he or she may come in and work the position as CIC supervising the floor and may not do that again for the rest of the week because contractually they have to rotate the assignment to make it equitable among the controllers.

Mrs. EMERSON. Okay.

Mr. FISHER. Therefore, we get limited expertise because there is no significant experience gained by the controller.

CONTROLLER-IN-CHARGE TRAINING

Mrs. EMERSON. Right, but has that controller had the same training and certification that you had when you assumed your supervisory position?

Mr. FISHER. No. Very limited training. The Inspector General spoke to this in one of his latest remarks about the fact that the FAA had to meet four recommendations prior to the implementation of the CIC program. The FAA has not met those.

Mrs. EMERSON. So if, for example, you have someone in charge for the day or the week or however you do it who has not had the training that other supervisors have had and if there is the need for some sort of a disciplinary action, if you will, I mean how can a subordinate actually know?

I mean, if you are an air traffic controller without supervisory responsibilities but you assume those, you know, every day or one day a week or what have you, I mean, how does that supervisor discipline, if that is necessary, those colleagues with whom he or she has a regular relationship when they are not acting in a supervisory role I guess is the best way to put it?

Mr. FISHER. Our opinion and what we see today is they will not because tomorrow that person that they might give that on the spot direction to will be the one doing the supervising, so their roles will change.

Mrs. EMERSON. Administrator Garvey, will you address that for me for a moment?

Ms. GARVEY. I guess I would see it slightly differently. First of all, we have always had controller in charge. That is particularly the case in the small facilities where everybody does everything. Everyone pitches in. We have always had controller in charge in some fashion in the agency.

I actually believe that we have racheted up the training considerably. I think it is a much better program now. The training is more formal. John is right that the Inspector General raised some issues around the training. We addressed those. The feedback we have gotten from individual managers, the feedback we have gotten from supervisors and controllers is very positive on the training.

I will add one point, and this is a very important point. It is the manager who really is calling the shots for this. I mean, the manager is making the determination whether or not he or she wants to use the controller in charge. I will also add one more thing. We are doing a pretty intensive evaluation of the controller-in-charge program in June. I am looking forward to that. I think it has been

very good. I always think when you put a new program in place you can make some improvements. I expect the evaluation will reveal some of those improvements that we can make, but I believe the training is much better. Again, I get back to the point that we have a very talented work force. We ought to use them. They are professional. They are smart. They are bright. They are willing to take on more responsibilities. I would like to break down some of the barriers between the managers and the controllers.

Mrs. EMERSON. Well, most of the supervisors or managers I guess have been controllers themselves anyway, and, as I said earlier in my remarks, I mean, I admire anybody who does that job, which I think is far more difficult than the jobs that we do or you do or probably anybody in this room short of the controllers.

RECESS

Mr. ROGERS. Mrs. Emerson, I have to interrupt. We have a vote in about three minutes on the Floor. We will have to resume when we return. It is the lunch hour, so I suggest we recess until 2:00 for the lunch hour. We can go vote, and you can resume at that time.

Mrs. EMERSON. Thank you, Mr. Chairman.

Mr. ROGERS. Thank you very much.

CONTROLLER-IN-CHARGE TRAINING

Mr. ROGERS. The committee will be in order.

Mrs. Emerson, you were in the process of asking a question.

Mrs. EMERSON. Thank you, Mr. Chairman. I believe we were talking about the training of CICs and, Mr. Fisher, it looked like you had your hand up. You were going to respond, I believe. So let me—if you will—equivalency and that sort of thing. Please.

Mr. FISHER. Okay. I think Ms. Garvey was commenting on differing from my opinion about the training as being sufficient.

Ms. GARVEY. With respect, though, John.

Mr. FISHER. Yes. With respect. And in the field, we do not see that as being true. There is minimal training—there are no quality assurance baselines and Ms. Garvey, I believe, indicated there were some assurances by the IG that these were being worked on as well as the entitlement piece. We, however, have seen nothing to verify that that has been in place.

Mrs. EMERSON. So in other words, when you were trained to be a supervisor, did you have to go through a certain number of classes, spend a certain number of hours learning to be a supervisor? Since you started as an air traffic controller or is the training different, a hands-on type of training?

Mr. FISHER. Well, it is on-the-job training (OJT). It is the mentoring by others. And it is a continuous duty that you would perform that is absent in today's environment with the new CIC program. So I worked at it and worked with people who could help me craft what I do. In addition, we went to different schools. Then, it was in Lawton, Oklahoma. Currently, it is in a nice place in Florida.

Mrs. EMERSON. So in other words, the current—in your opinion, the current air traffic controllers who are now taking on supervisory roles have not been trained as well as those of you who ei-

ther are supervisors or have been let go as supervisors, through attrition or who have retired.

Mr. FISHER. Yes, it is through attrition, that is true. What I can tell you, Congresswoman, is that in Federal Managers Association's (FMA) opinion, the CIC program is flawed and it needs to be scrapped. We need to get supervisors back to supervising. There has to be a balance between the ingredients that make a cake rise to be the best it can be. I heard that time and time again from my mom, who was a dietician. We need the best ingredients.

Mrs. EMERSON. Well, and I know, having been a manager in the private sector. When you are a line employee, it is hard to supervise your colleagues and then report if there are some problems.

Mr. FISHER. We see that in the field today. That is correct.

SUPERVISOR RATIO

Mrs. EMERSON. Ms. Garvey, let me ask you a question, then, to follow up on that because I read in one of these background pieces that the safety analysis figures since 1995 indicate a degradation in air traffic operation, including delays and I wonder, do you think, is there any kind of a correlation between the supervisor/staff reductions and the continuing trend toward degradation?

Ms. GARVEY. Congresswoman, I believe that is the report and I hope I am answering this correctly. We do not see a correlation between the two. In fact, if you look at some of the numbers over the last couple of years, that becomes very clear and we would be happy to provide that to you.

I think when you try to determine the cause of either operational errors or runway errors, you have to really look at multiple factors. There is not a one-to-one correlation.

And I want to continue to get back to a point that I made a little bit earlier, which is ultimately what we are doing is giving the manager the kind of flexibility that he or she needs in the field to make the determination about a CIC. So I really do not want to lose sight of that. In other words, if a manager feels that the controllers he or she has under their management supervision, if they feel they are not up to it, then they are certainly not going to put them in the CIC position. But, again, I want to stress these are very talented, very good people who are very willing to take on additional responsibility. I would again say that I think that the training—we certainly need to always look at it, but I think the training is very solid, very good, better than it has been in the past.

[The information follows:]

There are no current studies that correlate, nor do the fiscal year 2000 data appear to show a correlation or direct tie between the number of supervisors and operational errors, runway incursions, and other safety indicators.

A review of fiscal year 2000 operational error data indicates that operational errors occur and are reported when either a supervisor or controller-in-charge (CIC) is on duty. Supervisors were on duty in 1,033 of the 1,145 operational errors reported and a CIC was on duty in 112 of the 1,145 operational errors.

SUPERVISOR MANAGEMENT RISK FACTORS

Mrs. EMERSON. I have no doubt that they are all very talented. I think it is hard as a line person when you are having to supervise your equals, the people who are your equals at other times during

the week, it is very hard, in my opinion, having been in those positions in the past, to do the appropriate supervisory type roles, but let me ask you, then, back to the other question with regard to the degradation of air traffic operation.

Have you all done studies, then, that would determine the role that supervisory management oversight might have on delays or operational errors or the incursions on runways? Has the FAA actually done those types of studies?

Ms. GARVEY. The studies that we have done, primarily those in the last, say, six or eight months focus on the risk factors. I think I mentioned that a little bit earlier, taking a look, for example, at the surface incidents, the runway incursions, taking a look at the operational—well, let me start with the runway incursions and breaking them down by various risk factors.

The issue about the direct relationship between the number of supervisors and the controllers, we have not done a recent study per se. If that is a suggestion, it is probably a good one and we will certainly take a look at that.

Mrs. EMERSON. And I think to make us all feel better, we want to be sure that the American public is flying under the most safe possible conditions and so I appreciate that. So I appreciate that.

SUPERVISOR RATIO

Mr. ROGERS. Thank very much. We have to move on to others. Whose chart is this?

Mr. FISHER. Mine, sir.

Mr. ROGERS. Good. I saw it sitting down here and it was not being visible. Would you mind explaining what this is?

Mr. FISHER. What that chart indicates is from 1995 up to this last year and you can see we use the agency's figures to show the increases in all the categories depicted.

In 1996, when we went through a restructuring, we lost our second-level managers. There was sort of an even keel right there and as a result the supervisors were forced to come off the floor and sit behind a desk. So their duties are now stretched to where they cannot actively be on the floor and actively participate as they would like to because of so many other duties. So now you can see the 1998, 1999 and 2000 jump in all categories that affect the safety record of the agency. Operational errors this year are already ahead of where they were at this time last year. That is appalling to us.

Ms. Garvey was referring, I think, to a yet-to-be-done study about the reduction of supervisors or a current study about the reduction of supervisors as it pertains to the errors. Our graph that we can bring to the committee shows that when we cross-reference all of these categories with the spikes we have now seen with the reduction of supervisors it is clear that the lack of oversight greatly contributes to the increase in these four categories.

Mr. ROGERS. Ms. Garvey, you need to respond, do you not, to that?

Ms. GARVEY. I guess I just would simply say I do not think the data does show that. I do not think you can make a one-to-one correlation. I think you have to really look at it very carefully. In fact, if you look at the numbers over the last couple of years, it would

be clear that the vast number of operational errors occur when the supervisor is in charge.

And, believe me, when I say that, I am not—I am even hesitant to say it because I am not trying to cast any aspersions on the supervisors for whom I have great, great respect. I simply want to caution that we not jump to an immediate conclusion and say the cause for the increase in operational errors or the cause for the increase in runway incursions is because there has been any reduction in supervisors.

Mr. ROGERS. Is it a part of the problem?

Ms. GARVEY. I think that is a fair question. I think that is part of what we have to look at. Now that we have the risks in place, let us look at that. I agree with you. And we do have some——

Mr. ROGERS. What do you think?

Ms. GARVEY. I do not think you can make a one-to-one correlation. I just do not think you can do it.

Mr. ROGERS. Well, Mr. Fisher a moment ago said we should get rid of the CIC, the controller of the day, sort of, that gets a big bonus for doing that.

Ms. GARVEY. Controller in charge.

CONTROLLER-IN-CHARGE PROGRAM

Mr. ROGERS. Controller in charge. What do you say about that?

Ms. GARVEY. I think it is a very good program. As I pointed out earlier, I think it is a program that has been used in small facilities for a long time at the FAA. I think the real question is—and these are legitimate questions—are we implementing it in the best possible way, are there any improvements that we can make to it.

Mr. ROGERS. Is it limited just to small airports?

Ms. GARVEY. No, it is not, Mr. Chairman. I said it was used originally in small airports, but it has been expanded under the contract.

Mr. ROGERS. Is it a good thing in the big airports?

Ms. GARVEY. To use some of them for controller in charge, I think it is good.

Mr. ROGERS. I asked you when we were here before two weeks about Kansas City, where I am told—or you told us, I think, there was one controller who was making $174,000. Was that the Kansas City operation we were talking about?

Ms. GARVEY. Actually, I think it was Mr. Mead, Mr. Chairman, who raised this at the hearing that he was at and we did look at that. It was actually a controller in Washington center and, as you know, that is one of our busiest facilities.

That particular controller has been a controller for 30 years, worked every bit of overtime, every bit of premium that he could. In fact, we broke down his schedule and it looked like he added a shift every week. So that was the rationale and we provided that to the Inspector General.

Mr. ROGERS. Well, on the CICs—is that what you said?

Ms. GARVEY. CIC.

Mr. ROGERS. Controller in charge.

Ms. GARVEY. Controller in charge.

Mr. ROGERS. He is a regular controller who takes over one day a week to supervise the others. Do you plan to continue that?

Ms. GARVEY. Well, we have an evaluation in June. We do plan to continue it, but we will evaluate it in June and see what we learn, see how it is going, what recommendations we make for either changing or strengthening the program.

Mr. FISHER. Mr. Rogers, could I comment, sir?

Mr. ROGERS. Please.

Mr. FISHER. Thank you. Ms. Garvey is indicating, and I would like to say that it would be so, that the managers at each facility have the right to say it is not working in our facility because the operational errors and runway incursions are so high. To my knowledge, there is not a manager out there who has said that.

In fact, in the terminal facilities throughout the country, they have all embraced the CIC. They have embraced the fact that all controllers will be CICs because they have no choice but to. That is a concern because now management does not have the right to select. That is one of the problems that we see with the program.

Mr. ROGERS. Do they pick the CICs regardless of experience?

Mr. FISHER. Affirmative.

Mr. ROGERS. That is a yes?

Mr. FISHER. Yes, it is.

Mr. ROGERS. So a controller that has one year or less of experience could be controlling or supervising the balance of the controllers in the tower?

Mr. FISHER. That is correct. That can be done.

Mr. ROGERS. Because they rotate this every day, so that everybody gets to be a controller at some point in time. Is that correct?

Mr. FISHER. Yes.

Mr. EICKENBERG. If I may, Mr. Chairman?

Mr. SABO. Mr. Chairman, I notice folks in the audience shaking their heads.

Mr. ROGERS. We have to have a little order here.

Some folks say that is not true. What do you say to that?

Mr. EICKENBERG. I would have to say that—I come from a facility, I manage a small facility, and we use CICs and CICs have been used for years. The role, though, was different. The role of the CIC in the past was an adjunct to the supervisor. If the supervisor took a break, went out to have a cigarette, went to have lunch, he/she placed the controller in charge and said, If you run into a problem, you know where to find me. The controller in charge was able to monitor the operation and, if things were easy enough to handle, handled them. If it became very serious, the controller knew where to reach the next level of supervision to get the assistance that he/she needed.

Today, we are talking about replacing the supervisor with the CIC. Now the CIC has to make the determination what to do. And, in my facility, while it does work at times, as the issues get more serious, it does not work. The CIC does not make the decisions that are the same as a supervisor would make.

And I would have to say that in my case, we have had to allow all the controllers to become CICs because of a staffing situation. If we do not certify all of them, due to the limited staffing nature and the rotational shifts, we will operate with an opening one morning where if we only designate a limited number, I can conceivably have the facility open without someone qualified to be ei-

ther the controller in charge or the supervisor because I am having to work whole days and whole shifts without a supervisor present.

So at that point, if I do not have everyone certified, I do not have the tools by which to keep supervision in the facility, both upstairs and downstairs.

CONTROLLER-IN-CHARGE EXPERIENCE

Mr. ROGERS. So I think I hear you saying that theoretically an inexperienced controller would be the controller in charge for a period of time. In theory. But in practice, is that true?

Mr. EICKENBERG. In practice, it happens. It happens on an everyday basis that you have to rotate the responsibility amongst the people that you have available and there are days when there are not as many experienced controllers available, so we would then use whoever is available. We will attempt to make the choice of the best available, but there is still going to be some very inexperienced people.

Mr. ROGERS. Well, Ms. Garvey, it is in your records, I think. You would have records on this, would you not?

Ms. GARVEY. Absolutely, Mr. Chairman.

Mr. ROGERS. Would you furnish that for us?

Ms. GARVEY. We certainly will.

Mr. ROGERS. So that we can settle the question once and for all by the records.

Ms. GARVEY. I would be very happy to do that, Mr. Chairman.

Mr. ROGERS. All right. And we will file that as part of the hearing record.

[The information follows:]

Prior to the changes we have made to the program, all persons with technical certification would have been eligible to perform as controllers-in-charge. Today, approximately 62 percent of terminal and en route air traffic control specialists are "eligible" to be assigned CIC duties. Eligibility is defined as being selected for additional training, completing the training, and being certified as capable of performing the full range of the duties for the position by their supervisor/manager. This group was selected from a population that had previously performed a majority of these duties. A facility manager will validate the employee's skill level after prerequisite for additional training is completed.

Ms. GARVEY. Thank you.

Mr. ROGERS. Mr. Sweeney, you have been waiting long and patiently.

AIRPORT IMPROVEMENT PROGRAM OBLIGATIONS

Mr. SWEENEY. Thank you, Mr. Chairman.

Let me welcome the panelists. I have a number of technical questions, but to dovetail a little bit on Mr. Callahan's subtle question earlier, someone once said imitation is the sincerest form of flattery but more to establish a relationship with Sonny I think I already have, let me say that we warmly welcome you and I have the Albany Airport, I have, I think, nine regional county airports, I have Stewart that services us, we are all keeping lists for back at the office, Administrator Garvey.

I will start with one of those questions. In last year's hearing report on pages 525 and 526, there is a list of AIP projects for which obligations incurred more than two years ago no dollars and expenditures have been made. Three of those airports are in New

York, I think LaGuardia is one, I know Stewart is one, Stewart is a $7.5 million figure, and for Stewart Airport, given what we want to do there, you know one of my ideas and plans along with a lot of other folks is to try to use Stewart as an offset to some of the congestion in the New York metropolitan area. Can you give me an update, Administrator? I do not need it today, but by the end of the week at least, in terms of what the status is?

Ms. GARVEY. Certainly, Congressman. I believe it is pretty good news.

[The information follows:]

LaGuardia Airport, Flushing, NY, $1,216,000.

On January 10, 2001, an initial payment of $772,622 was made for the soundproofing of public school number 146B, Bronx, New York, Phase 2. The remaining $443,378 for this project will be used to complete the soundproofing project.

Stewart Airport, Newburgh, NY, $5,097,277.

The $5,097,277 grant used funds from the Military Airport Program for the relocation of an airfield lighting control vault. The vault will house FAA navigational aid equipment including those used for approach lighting, Instrument Landing System, Precision Approach Path Indicator, and Visual Approach Slope Indicator. The grant will also fund the relocation of Taxilane C. The project design is currently 90 percent complete. It is scheduled for bid September 2001. On February 28, 2001, an initial payment was made for $67,249. The FAA expects that the remaining funds will be applied toward the work identified above.

Stewart Airport, Newburgh, NY, $1,174,081.

The $1,174,081 grant was used for the expansion of the Northwest cargo apron (Phase 4). On February 21, 2001, a final payment was made in the amount of $936,796 and the grant was closed. A recovery of Federal funds was made for $237,285.

E. 34th Street, New York, NY, $488,099.

The $488,099, grant was used for the development of a New York City helicopter study. On November 25, 2000, a final payment was made in the amount of $298,237 and the grant was closed. A recovery of federal funds was made for $189,862.

AIRSPACE REDESIGN

Mr. SWEENEY. And to get a little more specific, in some of your earlier questioning, in response to what you said, there is no national runway system and you have made the point that those systems need to be localized in many respects.

Confusing air space design along the eastern seaboard is something at the prior hearing we held we talked an awful lot about and how it contributes to the choke points and it increases delays, it causes controllers huge problems in the need to continually transfer authority of planes.

It convulses the system in many respects nationwide, so it is kind of a significant place and point to kind of look at.

Have you got a plan there? Is there an update on the status of the development of such planning? Is there a redesign in place? Where are we with that?

Ms. GARVEY. In terms of LaGuardia specifically, you are absolutely right. An airport like that contributes significantly to the system. When you look at delays at LaGuardia and, as I guess at your hearing two weeks ago, Mr. Chairman, I think one of the afternoon panelists laid out very well the impact that LaGuardia has on the rest of the system. I think we have to think of it almost in two ways, the short-term and the longer term. For the short-term, as you know, Congressman, we have had the lottery in place. Yesterday, the Port Authority was in to talk about sort of what steps beyond the lottery might make sense. I have not yet been

briefed on that, but I understand it was a very good meeting. I suspect that they came forward with a couple of ideas on demand management that we would like to put in the Federal Register and get some comments. The concern we continue to have, as I mentioned before, is the access to small communities which are certainly the communities that you care about. In addition, we are looking at a number of procedural changes. Some of the controllers that are here today are working very hard to make some changes to the procedures as you are going in and out of New York's very crowded air space so we can make more efficient use of it. And some of the technologies, Departure Sequencing Program, a spacing tool that the controllers can use, those are some of the shorter term strategies as well that we are undertaking.And then finally, as you have indicated, the larger issue about redesigning the air space is, very challenging. I know you live it with your communities, every time you move the air space to another area, you create different environmental issues.

We are focused on the high altitudes first where there are not so much of the environmental issues, but certainly that area in New York is a real high focus for us for redesigning that air space.

Mr. SWEENEY. The Port Authority folks have contacted me. They are coming in as well.

Ms. GARVEY. Oh, good.

Mr. SWEENEY. I would like to meet with you privately or with staff at least to "talk" a little bit about some planning.

Ms. GARVEY. I would like to do that very much. Thank you.

FAA ORGANIZATION

Mr. SWEENEY. Every hugely successful CEO in the world talks about the layers and the levels of management that are required for a successful organization, whether it is Jack Welch or Buffett or any of those folks, and they say essentially there ought to be six levels. And so I am kind of approaching it from a real broad perspective. The chairman provided a chart earlier that looked at the cost of DOT. What levels of management exist at the FAA? How many?

Ms. GARVEY. Too many is probably the short answer. I think I mentioned earlier we are really attempting to sort of change the way we do business, to approach things very differently, to do some reorganization. As I know you have heard from some of the panel members, there are different points of view about that, but I think certainly when you think about a bureaucracy as large as the FAA is, you have to ask yourself if there are different ways that we can organize, if there are different ways that we can approach some of these issues.

I will tell you one thing we are doing that I think holds a lot of promise and that is creating what is called the terminal business unit. We have a tendency to think in terms of programs and not in terms of services. In response to some issues we have heard from Congress, some issues we have heard from some of our customers, we are pulling our folks together who are working on all of the terminal activities in the terminal area and organizing them that way, so we are focused on the service, not on the project.

Mr. SWEENEY. I do not mean to pick on you, but I still am not certain how many levels of management we have. And maybe you could help direct us at some point, but in earlier questioning, I think it was in response to some things that Mr. Fisher asked, you were asked the question what ratio you would recommend, supervisors to controllers. I do not think I heard an answer. Do you have one? Are you developing one? Is there a study on one?

Ms. GARVEY. We think that the ratio ten to one is a very achievable ratio. As Congressman Tiahrt pointed out, business and even in government, the reduction has been to reduce those levels. Having said that, I want to be very clear that I do agree with John Fisher and with Art when they talk about also being concerned about safety. As we do this, we are doing it very slowly and there are some facilities where that will never happen. It just simply will not happen. The managers will say this is not the right number here, we need more here for the following reasons and we will respect that.

Mr. SWEENEY. And I want to make two quick points. One, the CICs are collectively bargaining, correct?

AIRPORT MOVEMENT AREA SAFETY SYSTEM

Ms. GARVEY. That is correct, Congressman.

Mr. SWEENEY. Just for my own thinking. And Chairwoman Carmody, I have one brief question. I have others, but I will wait and come back to them.

The NTSB does not believe that AMASS, the FAA's solution for runway incursion, as it is currently designed meets the safety goals of the original planning and the original system ten years ago. The project is now $92 million over budget and a year late, correct? Any ideas?

Ms. CARMODY. First of all, with respect to AMASS, it was the FAA that said it did not meet the design that FAA originally had set forth. The parameters did not allow adequate response time on the part of controllers or flight crews to react to an event. It would prevent collisions, but not incursions.

In terms of any ideas, our recommendation, which the board put forth this summer, for a ground-based system was one which would put an alert not only in the tower, but to the flight crew. In other words, the cockpit and the tower both need to be alerted to what is going on on the runway. And AMASS as currently envisioned does not include that capability.

Mr. SWEENEY. So what do we do about AMASS?

Ms. CARMODY. I will ask Ms. Garvey to answer that. We are concerned that AMASS is not there yet. It is being tested in San Francisco now and, as I said earlier, apparently that test has not been successful and it does not include the capability for alerting flight crews, so it is not responsive to what the recommendation of the board was.

Ms. GARVEY. Just a word on AMASS. We need to get to the Board and brief them because I do think that the more recent testing is very positive. We are still scheduled for June and we are going to stay with that. In terms of accountability, Steve Zaidman, who I think is still here, actually has his bonus which you referred to earlier, Mr. Chairman, his is tied to delivering eight AMASS sys-

tems by September. So that would be Steve Z-a-i-d-m-a-n. Carol is absolutely right when she said it did not—the technology is just not advanced to do some of the things that the NTSB is talking about. It is a still a good technology. It is, as someone said earlier, really a good tool. The challenges that we have had with AMASS is that it has given some false alerts and that has really been the technology challenge that we have had. It has created too many false alerts. And if you have that kind of a situation, controllers are not going to pay attention to the tool. I saw the AMASS program director this morning in the elevator and asked are we still going to make that June deadline? He said, yes, the latest test was very good, we are going to get initial operating capacity this month, April, in San Francisco, commissioning in June. And Steve will deliver the others by September. So I think it is a good tool. I think in Ms. Carmody's testimony she also refers to some very promising technologies that NASA is working on and we are working very closely with them. So I think we are always going to be evolving with runway incursions.

Mr. SWEENEY. All right. I will yield back.

PERFORMANCE AND ACCOUNTABILITY

Mr. ROGERS. Thank you, Mr. Sweeney.

Let us talk a bit about accountability. When the IG appeared before the subcommittee three weeks ago, he said if the FAA could take only one action to improve its management he would recommend holding managers and other employees accountable for their performance and that echoes a 1996 letter from the then-IG, a different one, which said there is a common thread in FAA management abuses. That thread is the mind set within FAA that mangers are not held accountable for decisions that reflect poor judgment. He says "Until senior FAA management is willing to send a different message, I suspect the pattern of abuse we identified will, unfortunately, continue." And in committee testimony, she, the then-IG, said "The FAA tolerates poor judgment and protects bad management." What do you say about that?

Ms. GARVEY. Mr. Chairman, I am only going to speak about the three years I have been there at the FAA and certainly I think for all of us in government, it is not an easy issue. I made a note of your comment this morning and I would disagree with the IG and he is someone I am professionally very close to and spend a lot of time with. I think in the three years that we have been there that if you look at the programs that were trouble, you will find that we have new managers there, so I think in every one of those programs we have made some significant changes. As I mentioned to you yesterday, I think one of the great challenges for anybody in government—actually, it is anybody in any management position—is to sometimes determine whether someone just is not doing their job or whether or not they are in the wrong fit.

NATIONAL PERFORMANCE REVIEW SURVEY

Mr. ROGERS. Well, if we do not believe the IG, let us talk to the employees and according to FAA surveys, when employees were asked in a national performance review survey whether "corrective actions are taken when employees do not meet performance stand-

ards" only 22 percent agreed, one in five; 51 percent disagreed, saying in effect that corrective actions are not taken when employees do not meet performance standards. Similar results were seen in the annual employee survey. But in the NPR survey, when your own employees were asked "Are you clear about how good performance is defined in your organization" only 20 percent agreed, one in five agreed with that, even less than what was reported by the INS, 25 percent over there.

And you know my feelings about the INS.

Ms. GARVEY. I do, Mr. Chairman.

Mr. ROGERS. And far below the government-wide average of 31 percent.

Now, do you want to talk about that?

Ms. GARVEY. Absolutely. In fact, I was just going to get to that point. First of all, I was very concerned when we saw both the NPR and then our own survey, which was very similar, which I think was probably much broader. We peeled that away a little bit. I will tell you that I think when you get into the employee survey what you find is that the closer the supervisor is to the employee the more accountable they think they are. In other words, if we peel it back, there becomes more and more dissatisfaction on the employee's part as they go up the management chain. They probably, quite honestly, have a lot less sense of accountability with the further they get away from their own management chain. First line supervisors do pretty well with the employees. But I will tell you there are two action items following that, and actually, one really significant action item. We looked at that, we talked to the employees even more. One of the things that was mentioned earlier, the National Public Managers (NPM) Report that we had done on personnel reform a couple of years ago. One of the suggestions from the NPR Report was to do the 360 evaluation, where the employees get to evaluate the managers as well. We are right now doing the kind of training, doing the kind of work we need to do to prepare for that. But one last comment, Mr. Chairman, and then I promise you I will stop. I think I have always got to ask myself if I am holding people accountable enough and I think your challenge to us has been very clear. I think we have made some progress. I do not in any way want to suggest that we are fully there yet, and I will keep working on it.

PERSONNEL REFORM

Mr. ROGERS. Well, I do not want this to be taken as personal criticism. It is not that at all. I am really criticizing the system, which I think allows an unaccountable employee to get by. In April of 1996 at congressional direction, FAA was allowed to develop its own personnel and payroll systems so that you would have more flexibility and you could keep pace with the fast growing industry, a rapidly growing aviation industry. DOT argued that the agency needed to be more nimble and fleet footed in order to pay people what the job required and then to move them where the work was needed, so we gave FAA really wide latitude.

Five years after that time, after that personnel reform began, there is a good deal of evidence that it has been a total failure. The IG said two weeks ago that the lasting legacy of reform was little

more than a huge pay raise for air traffic controllers, certainly not what was intended by the legislation in 1996. An independent study by the National Academy of Public Administration, NAPA, says that FAA has not met many of the key goals of personnel reform.

Here are some results from the FAA's own employee surveys about the success of personnel reform: Nine percent agreed that "Personnel reform has been successful in eliminating excessive bureaucracy," less than one in ten agreed with that. "Personnel reform is helping my organization accomplish its mission," 9 percent, one in ten. "In the past two years, I have seen positive change in the emphasis that FAA places on managing people," 17 percent agreed, 55 percent disagreed. "Creativity and innovation are rewarded," 17 percent agreed and that is even below INS, which was at 26 percent, the government-wide average of 31 percent. Given the information from that study and your own survey, would you say that you have met your goals or even come close to them in personnel reform?

Ms. GARVEY. I think personnel reform is a mixed bag from our perspective, from how well we have done. I think it has given us the flexibility to hire some outside people and I think we have been successful in doing that. The hardest part about personnel reform is, in my view, moving from a tenured pay system to a pay for performance. It is change, it is hard, it is tough. The National Academy study that you referred to said something, though, that was also very important. It said this is the right track, you have to stay the course. They made a series of recommendations to us, a couple of years ago. We have been able to move on some of them. I think we still have a long way to go in terms of training, both training for our managers and training for our employees. It is very tough, but I do think we have made some progress.

BONUSES

Mr. ROGERS. At the same time, the head of personnel was given a large performance bonus, correct?

Ms. GARVEY. The head of my personnel office? I am sorry? Is that—OPM or——

Mr. ROGERS. Your personnel head.

Ms. GARVEY. Let me go back and look at that number.

Mr. ROGERS. Yes. An executive bonus to the head of human resources. She got a big bonus and I do not know what for. Can you help me with that?

Ms. GARVEY. Well, I think actually the work that has been done in personnel reform and I am trying, you know, to be realistic about this, has also been very significant as well. I think we have done a lot of work in this area. I think we have been able to recruit some additional people that we would not have otherwise. I think we have been able to streamline the processes. We have brought people on faster than we ever have before, particularly in the headquarters, people from outside the agency. So I think there is a lot.

Mr. ROGERS. If all that is true, then you have certainly fooled the IG and most of the employees.

Ms. GARVEY. I would like to follow up a little bit more with the IG on that and I certainly will.

Mr. ROGERS. Well, the IG is not your problem. I hate to say it, but we are worse than he is and we will be writing the checks and I am not happy with reform. The only thing that has resulted that I have seen and we can find evidence of is higher salaries, but as far as getting the work done and stopping these delays and doing all of the myriad of things we have heard about, it is just not happening.

We have another vote on the floor. We will have to recess for a few minutes and we shall return briefly.

Ms. GARVEY. Thank you.

Mr. ROGERS. Thank you.

[Recess.]

REGULATION AND CERTIFICATION

Mr. ROGERS. The committee will be in order. Let me get into some of the oversight questions by the field reps. Ms. Garvey, your field inspectors got together last summer and had some very frank discussions about problems in their surveillance and oversight of industry. The head of flight standards, Mr. Nick Lacey, began the meeting by saying "We are here because we are in big trouble. Jane Garvey is in big trouble. All of us. It is about the fundamentals of how we perform our job." What is he talking about?

Ms. GARVEY. Mr. Chairman, that was a meeting that was held in Washington, bringing in all the division managers, and it was actually after the Alaska Air accident. I think any time you have a terrible accident like that you have to ask yourself are we doing everything we can? Should we be refocusing our efforts and I think that was really the head of our Regulation and Certification Office, Mr. McSweeny's effort to do just as you are suggesting. We have to stay focused, we have to be accountable, we have to pay attention to what we are doing. It was a very frank and open discussion, and I do not imagine Mr. McSweeny ever expected the minutes to be made public.

Mr. ROGERS. He also talked about a number of performance failures in the organization. Do you know what he was referring to?

Ms. GARVEY. Mr. Chairman, I would have to go back and talk with Mr. McSweeny. I do not remember those specifically.

AIR TRANSPORTATION OVERSIGHT SYSTEM

Mr. ROGERS. Well, field personnel were especially critical, saying that current surveillance techniques, and what we are talking about here is the surveillance of manufacturers of planes, repairs of planes, maintenance of planes and the like, the things that the two gentlemen to your left are involved in, the field personnel were saying that current surveillance techniques were not working and that the Director of Flight Standards does not return the phone calls or e-mails of his field staff. Can you refute that?

Ms. GARVEY. The conversation or the discussion was focused on the ATOS program, as you indicated, the surveillance program, and a number of questions were raised about whether or not it was being implemented quite as well as we would like. Since that time, I want to stress this again and again, in terms of the ATOS program we are meeting every other week on that program, working with both the unions and our inspectors, because of some issues

that they have raised. They are good issues. We agree with a lot of them. We have made a number of changes, recommendations to the program. It is a brand new program for us. That is, we are really moving from a traditional way of inspecting to much more of a systems approach and, quite honestly, it is like a lot of things we are doing there. It is different, it is a change. We are learning every single day, and we are making the changes as we go along. So it was really focused on ATOS. The inspectors, the division managers and subsequently the inspectors have come up with some very constructive recommendations for changes and implementing those changes.

BONUSES

Mr. ROGERS. My question was why does he not return his phone calls?

Ms. GARVEY. I am sorry. I was focused on the ATOS.

Some of the division managers raised with Mr. Lacey the problem of his getting back to them and he acknowledged that and my understanding is he has really been doing much better on that. What else can I say?

Mr. ROGERS. He must be because only five minutes after that meeting you gave him a bonus. The head of regulatory affairs at FAA Mr. McSweeny and his deputy, Ms. Gilligan, each received executive bonuses of $8000; the Head of Flight Standards, Mr. Lacey, a $6300 bonus; at or above the FAA-wide average award. They deserve that, obviously?

Ms. GARVEY. They do a lot of very good work, Mr. Chairman.

Mr. ROGERS. What do you all say about that, Mr. DeBerry, Mr. Kerner? Be frank with us, now. No one is listening.

Mr. KERNER. It is difficult to comment on that.

Mr. ROGERS. Why? Why is it difficult?

Mr. KERNER. It is always difficult to comment on your superiors, but I would say everybody in the FAA tries to do the best job that is possible. I think we could possibly do a better job.

Mr. ROGERS. Well, is that a good job? One in four flights delayed or canceled and all the ills and problems we have heard before this subcommittee about service that airlines and air fleet in the country is performing? Are we not right to ask questions about can we not improve upon the service and the safety? Safety, thank God, has been good, but service is another thing.

Mr. KERNER. There is always room for improvement.

Mr. ROGERS. All right. Mr. DeBerry?

Mr. DEBERRY. Mr. Chairman, I am speaking from the perspective of a mere foot soldier out in the field. I can tell you that from my perspective there is a lack of communication from the regional level to the office manager.

My perspective is that we are told to complete the R items and that is the emphasis and as the situation changes from my perspective, the emphasis is not placed on that change.

Mr. ROGERS. The emphasis is not placed on what?

Mr. DEBERRY. Well, the aviation environment or arena is ever changing and it requires redirection of forces, money, manpower and I do not think necessarily that emphasis is placed on that change.

So what I am saying is I think there is a lack of communication of acceptable goals and behaviors from the regional level down to the office manager.

FAA AND INDUSTRY RELATIONS

Mr. ROGERS. Well, you are in a funny place because you are inspecting airlines' equipment and you are the regulatory body over airlines and yet the FAA has been accused by some of being too cozy with industry. Do you feel like you are too cozy with industry as you do your inspections out there?

Mr. KERNER. If you would read my testimony, sir, I am a principal maintenance inspector for a part 121 carrier and I would invite you to call him and ask them if I am very cozy. They will tell you that I am absolutely not. I am referred to as the bad cop and if it is wrong, it is wrong. I do not go into the gray areas. Either they meet it or they do not. If they do not, I take action. I am not saying that action always comes to fruition, I am just saying that I take action and I document the findings that I discover.

CIVIL PENALTY VIOLATIONS

Mr. ROGERS. Have you ever seen an instance or know of an instance where inspectors were told to back off of taking some enforcement action by management because of complaints or pressure from an airline or other part of the industry to back off? Do you know of such an instance?

Mr. DEBERRY. I would say to you, Mr. Chairman, that you may or may not know that any civil penalty over $50,000 is reportable to the American public. In some instances after we apply what our handbook says to each one of the civil penalties, say for example if an aircraft was flying not in compliance with an Airworthiness Directive, it flew 150 flights, we would apply $11,000 times 150 flights times the number of ADs and in some instances once it reaches legal that penalty is adjudicated down.

Mr. ROGERS. What do you mean?

Mr. DEBERRY. Well, we may ask for the maximum penalty according to the handbook. Say, for example, $11,000 per violation. Once it reaches legal, we may get calls back from the legal office to say basically, you know, we think that, say, instead of a $184,000 fine we think maybe a $75,000 or $85,000 fine would be more appropriate in this circumstance based upon the criticality of the incident in their opinion.

Mr. ROGERS. Have you had a problem with any of those that you have seen so-called watered down in that fashion?

Mr. DEBERRY. Personally, I have not, but there are instances out there, yes.

Mr. ROGERS. Instances of what?

Mr. DEBERRY. Well, for example, inspectors—I have personal knowledge of inspectors that have written violations that, say, for example, override an airworthiness directive, a required inspection and because maybe the legal did not understand it, maybe because of the inspectors when they put it together did not put it together exactly correct, the civil penalty would be lessened or reduced.

Mr. ROGERS. Are you saying that it was done to cozy up to the industry or just that there was some flaw in the paperwork or something that required——

Mr. DEBERRY. It could have been a flaw in the paperwork. I am not saying that there—in no way, shape or form am I saying that legal or the regional office or the administrator is cozy with the industry, I am just saying that there could have been a flaw in the paperwork.

Mr. ROGERS. I see. Mr. Kerner, in your statement, you say that FAA frequently "waters down" recommended fines to a fraction of the amount recommended by the inspector. Would you mind explaining that for us? What do you mean?

Mr. KERNER. Based on my experience, Mr. Chairman, one case that I know of per se, based on our guidelines and the infraction and the efforts that were taken to obtain compliance, as Mr. DeBerry alluded to, sometimes the fine would have well exceeded the ability of the carrier to be able to sustain that fine, so the fine was reduced to a considerably lesser dollar amount.

Mr. ROGERS. Do you see anything wrong with the way it was handled or done?

Mr. KERNER. Just that it is tough—sometimes it is very difficult to be able to determine a sanction and make sure you appropriately weigh the sanction as compared to what the infraction was and to use that as a means to obtain compliance. Obviously compliance is our main goal, it is to get the carrier or the airman or the agency into compliance.

Mr. ROGERS. Was this a serious violation?

Mr. KERNER. Yes, it was.

Mr. ROGERS. What was it?

Mr. KERNER. It had to do with non-conformity on an aircraft.

Mr. ROGERS. What do you mean?

Mr. KERNER. There was a non-conformity that had to deal with the stall strip, which is on the wing boot. And this specific—what the specific infraction was was the actual location of the stall strip on the wing de-ice boot was in the incorrect location and had been installed improperly.

Mr. ROGERS. Is that dangerous?

Mr. KERNER. Yes, it was very dangerous because it determines the stall speed of the aircraft and it is specifically critical when the aircraft has to—it has a dramatic effect on the single engine operation of the aircraft if an engine was lost.

Mr. ROGERS. And the airline had failed to correct it?

Mr. KERNER. It took some time to get them to correct it.

Mr. ROGERS. Some time? How long?

Mr. KERNER. I would have to check the file to be exact, to give you an exact date, but I would——

Mr. ROGERS. Minutes or days?

Mr. KERNER. Days.

Mr. ROGERS. Days. In the meantime, the plane was flying?

Mr. KERNER. Yes. They failed to take action.

Mr. ROGERS. I am sorry?

Mr. KERNER. They failed to take action.

Mr. ROGERS. But in the meantime, the plane was flying.

Mr. KERNER. Yes, sir.

Mr. ROGERS. With this condition that you considered dangerous.
Mr. KERNER. Yes, sir.
Mr. ROGERS. And the fine was—well, I guess they were cited by the inspectors for a violation and do you set a dollar figure? Who sets the fine figure?
Mr. KERNER. Through the recommendation in our report, the dollar figure was exorbitant following the FAA guidelines that we are held to.
Mr. ROGERS. And how much was the charge that was initially made?
Mr. KERNER. I cannot give you an exact quote, but I would say it was well over $51 million.
Mr. ROGERS. $51 million?
Mr. KERNER. Yes, sir.
Mr. ROGERS. And what was it finally settled out for?
Mr. KERNER. I believe it was $90,000.
Mr. ROGERS. $90,000?
Mr. KERNER. Yes, sir.
Mr. ROGERS. I am not asking you for the name, perhaps it is privileged, I do not know about legal proceedings here, but is this a major carrier?
Mr. KERNER. No, it is a major regional carrier.
Mr. ROGERS. When did this take place?
Mr. KERNER. I believe December of 1999.
Mr. ROGERS. And do you know of other similar instances where this type of thing has taken place?
Mr. KERNER. Not of any other specific instances or nonconformities.
Mr. ROGERS. Who specifically reduced the fine to $90,000?
Mr. KERNER. I think that was the fine that was finally agreed to in settlement.
Mr. ROGERS. By whom?
Mr. KERNER. I believe the legal department.
Mr. ROGERS. Out of where?
Mr. KERNER. The regional level.
Mr. ROGERS. Where is that?
Mr. KERNER. Our Great Lakes region.
Mr. ROGERS. Where is that?
Mr. KERNER. In Chicago. FAA flight center in Chicago.
Mr. ROGERS. This was in 1999?
Mr. KERNER. I believe 1999, sir. Yes.
Mr. ROGERS. Did they explain to you that you were mistaken or this was not as big as we thought it was or something? Did you get an explanation of what happened?
Mr. KERNER. It was not specifically my case. I am aware of it, but I was not involved.
Mr. ROGERS. Well, were you aware—did they later come along and explain to somebody that this was the reason for the reduction?
Mr. KERNER. I think so.
Mr. ROGERS. What was it?
Mr. KERNER. Because of the amount of the fine and based on the fact that we finally did get compliance, compliance was obtained, that it was an adequate fine.

Mr. ROGERS. But the reasoning was that the fine that was originally leveled would have broken the airline financially?

Mr. KERNER. Yes.

FAA MANAGEMENT OF STARS PROGRAM

Mr. ROGERS. Do you have any questions, Mr. Sabo?

Mr. SABO. Thank you, Mr. Chairman. I think I should indicate for the record to Mr. Eickenberg and Mr. Fisher to say that while you were describing the CIC program, the air traffic controllers present today were vehemently shaking their heads in disagreement and we will have to get their view of how that program works also, but obviously there is disagreement.

I am curious about the whole question of management within the FAA. I recall the problem we had with the Standard Terminal Automation Replacement System (STARS) program where we had major problems and it was only after this committee intervened that we got the controllers involved in looking at how the consoles worked and the whole planning process had gone on and there was not a desire to talk to the people who actually delivered the service. And I am just curious from some of the other discussion I have heard, it sounds somewhat similar.

And I find that happens quite often throughout the federal government that there are folks on one level and they rarely talk to the people who actually deliver service or produce goods, there is sort of the status or something that interferes.

To what degree is that a problem and is the type of problem we had with STARS typical of other problems in relationship between managers and line people? Or was that an aberration?

Ms. GARVEY. I think, Congressman, any time you have an agency as large as the FAA it is an issue. You have to be aware of it. And I am sure it is true in the private sector as well. Are you communicating what you need to communicate, are you involving the people you need to involve, I think that is absolutely critical.

I remember the concerns with STARS well. I had just come on board in August and I remember it was my first hearing, I think. As I said earlier, and I really mean it, I think every place we have been successful in the last three years is when we have involved the workforce, whether it is STARS or any of the other technologies. We have turned that around. They are on every single one of those programs, which I think is critical.

The inspectors mentioned some of the issues around ATOS and I think you are right, it has some of the same elements. In other words, you really have to involve the people who are on the field and working it. So what we are doing with ATOS is a very similar approach, which is bringing in some of the past inspectors and also the union leadership to our meetings every other week.And I have to say that some of the recommendations that have come out of that, because they are on the front line, are much more practical, useful and I think really get to the point. And we are implementing those. So we have to look for all of those opportunities to do it. You always wonder if you are doing it enough. I listened to Keith's comments about some of the regional communication from that level and it sounds like we need to continue to focus and work on that. So we will continue to do it. It is a big challenge and a big job.

ENVIRONMENTAL STREAMLINING

Mr. SABO. One of the other issues that concerns me, and I am not sure what the agency has in mind, is environmental streamlining. I hear all the push for building more runways and I understand that and I understand the need for building capacity, but it also strikes me that the problems that are associated with building that capacity, particularly as it relates to noise, are immense and the type of noise that impacts communities who are discovering it is more diverse than simply overhead noise. My understanding is that increased air traffic also has impact on air pollution to a certain significant degree. I am just curious as you move to this streamlining process, how are you going to make sure that some of these very import environmental concerns to neighborhoods, the surrounding neighborhoods, are not lengthened? Because I discovered the process today is not quite—in dealing with some of the concerns that relate to noise and other pollution, questions that relate to airport expansion.

Ms. GARVEY. Mr. Sabo, I thought you were—you certainly again have lived with this issue along with, I know, a number of the communities that you represent.

Mr. SABO. Daily.

Ms. GARVEY. And I will go back to something the Secretary has said, which is in streamlining the process we do not want to shortchange the process in any way. There is no substitute for creating the kind of local consensus and dealing with some of the community issues that you need to deal with. And I think the National Environmental Policy Act (NEPA), the NEPA process, really does respect that. I think what we are focused on some of the administrative changes that we might be able to make, do some work simultaneously rather than sequentially. Is there better coordination at the federal level? In Seattle, for example, the airport director has run into a real issue very late in the process with another federal agency. There is a legitimate question about whether or not that coordination, particularly among the federal agencies, could happen in a more orchestrated way and perhaps happen earlier in the process. But certainly the issues about noise, the issues about community concerns are very real and as we move through with these projects and as we look at what some of the streamlining has to be, we cannot lose sight of that. I said the other day and it is true from my perspective, I have been around public works projects since 1983. I have never seen a public works project succeed without some sort of a critical local support and that often means working very closely with those neighborhoods to make sure that the right mitigation is put in place. That is a big issue.

Mr. SABO. Frankly, streamlining so that we get some decisions on mitigation more quickly would be helpful.

Ms. GARVEY. Absolutely.

Mr. SABO. And what I am fearful of is that there are other aspects that will be streamlined and that process will be as slow as ever.

Ms. GARVEY. Good point and I think that is a good caution. Some have suggested, too, that as we look at mitigation we might want to think about expanding what some of the airport dollars could be

used for communities and mitigation. I think that is probably a legitimate issue to look at.

Mr. ROGERS. Thank you.

Mr. Tiahrt?

CONTROLLER PAY

Mr. TIAHRT. Thank you, Mr. Chairman.

Earlier today, we talked about an air traffic controller that made $175,000 and I think you made the comment that you went back and reviewed it and that he was working an extra shift a week. Did I hear that right?

Ms. GARVEY. I believe that is right. Yes, Mr. Tiahrt.

Mr. TIAHRT. So a normal shift is 40 hours a week, so he is working 80 hours a week? Is that the way I would understand that?

Ms. GARVEY. It is not that long and I am going to have to turn to one of the experts. It is an extra eight hours, so that would bring it to 48.

Mr. TIAHRT. So it is like 48 hours.

Ms. GARVEY. Yes. I am sorry.

Mr. TIAHRT. Okay. Well, I am fearless and that kind of scared me.

Ms. GARVEY. Okay. Great. All right. I am glad we clarified that.

Mr. TIAHRT. What is the standard week for air traffic controllers? Do we know? Is it like 44 hours a week? Is it a 40-hour week?

Ms. GARVEY. I am going to turn to one of the experts.

Mr. TIAHRT. Forty hours a week? Okay. The record shows 40 from the air traffic controllers who do the job. I guess that is good enough for me.

RUNWAY INCURSION SURFACE INCIDENTS

Mr. TIAHRT Mr. Fisher, I know you are trying to preserve your voice and I apologize for asking so many questions. I am looking at your chart and I went through your testimony to try to make some correlation.

I assumed that the reason for the chart was that we are making an argument that we need to have somewhere between six and seven employees for each supervisor and so I was sort of relating to your chart. Maybe I have gotten off on the wrong track, but if I look at the air carrier delays, that would include delays from weather, from mechanical delays. I guess I do not know which definition of delays you are using in your chart. We just established one definition today. Is it similar to the one that we established today?

Mr. FISHER. Yes, sir. I believe so. And that would be on the air carrier delays, but the other three graphs indicate what we are doing now.

Mr. TIAHRT. Okay. So if we look at service incidents, a service incident is when you have somebody in the path of an airplane or some place where they should not be, it could be a baggage handler, it could be a fuel truck, it could be a private aircraft, so it could be some people that are not in contact with the control tower. Is that true?

Mr. FISHER. Well, if they are not, they should be. Airport rules would require them if they are going to be on a taxiway or runway to have two-way communication.

Mr. TIAHRT. But it could be outside the direct contact—could it be outside the direct contact of an air traffic controller?

Mr. FISHER. No, it should not be.

Mr. TIAHRT. Should not be?

Mr. FISHER. They should have contact with a ground control position.

Mr. TIAHRT. When I see these baggage handlers driving around these carts, they have earmuffs on. I do not think those are radios. How do they keep in touch with the tower?

Mr. FISHER. They do not, sir. They have lanes and they have agreements with the airport as to where they will go on the runway, on the apron, on the tarmac.

Mr. TIAHRT. And it is the same with the passenger carriers at some airports like Dulles? They have certain paths they are supposed to follow?

Mr. FISHER. They are going to follow the yellow line, sir.

Mr. TIAHRT. Okay. So I guess you could make the argument, though, that there are some service incidents that would be outside the control of an air traffic controller, just people are going to do things that are wrong.

Mr. FISHER. That is correct.

Mr. TIAHRT. Okay. Well, the runway incursions is sort of related to the surface incidents, are they not? I mean, they could be interrelated, they could be—a surface incident could be a runway incursion.

Mr. FISHER. Could be.

OPERATIONAL ERRORS

Mr. TIAHRT. Okay. Well, I guess—I am not sure I can use any of that data. Now, the operational data seems like it could be directly involved.

Mr. FISHER. The runway incursion data you can use because when we talk about the recent runway incursions or near misses that we have had in the last couple of months, one example is Seattle where an American Airlines aircraft flew over a TWA as it crossed the runway.

Mr. TIAHRT. I think Chairman Carmody, I think you had that in your report, did you not, that you submitted? Yes?

Mr. FISHER. And an additional recent one in Fort Lauderdale where an air carrier passed over the top of another one in landing.

Mr. TIAHRT. I think that that would be in the operation errors category. I think your chart—I was reading through your report here, your testimony that you submitted today for the record and there are four categories in here, there is really nothing about delays, but there are four categories in here, one of them is operational deviation, which seemed like it would be a good category to measure, but it is not on your chart, but maybe that is related to operation errors, which is also footnoted in your report.

Mr. FISHER. That is correct, sir.

Mr. TIAHRT. The operational error would be results less than applicable separation, minima between two or more aircraft or be-

tween aircraft and terrain or obstacles and instructions. In other words, the planes are too close together.

Mr. FISHER. Correct.

Mr. TIAHRT. Okay. And then the second portion of operational error would be aircraft lands or departs on a runway closed to aircraft operations after receiving air traffic authorization.

Mr. FISHER. That would be landing on a closed runway.

Mr. TIAHRT. Does that happen a lot? I remember recently we had a plane try to take off on a closed runway and hit a piece of construction equipment. When a runway is closed, does that mean it is under construction or is it just not currently being used?

Mr. FISHER. Both of those are correct, sir. The airport authority who controls the airport will shut the runway down for maintenance or it might be closed for some construction, replacing of lights, and they close them for certain periods of time during the day, normally non-busy air traffic periods. So the controllers know that the runway is closed.

Mr. TIAHRT. So some pilot comes in, he goes to the wrong runway basically?

Mr. FISHER. That could happen, but our controllers most assuredly do not want that to happen and ensure that does not happen.

Mr. TIAHRT. So it could be pilot problems as well as air traffic control problems.

Mr. FISHER. It could be.

SUPERVISOR RATIO

Mr. TIAHRT. Okay. Well, I do not know that I can relate that data to the number of air traffic controllers and supervisors, but I think the point is probably made that it would be nice to have somebody overseeing it, but I just cannot attribute any of the data directly to this ratio. Is there something I am overlooking?

Mr. FISHER. Well, if I get back to Ms. Garvey and what she indicated, that she cannot see a one-to-one correlation, I am not saying that it is a one-to-one correlation. I am just saying that oversight is a major part of the problem?

OPERATIONAL ERRORS

Mr. TIAHRT. I see.

Mr. FISHER. And if we are going to be part of the problem, FMA wants to be part of the solution.

Mr. TIAHRT. Well, in your argument, being part of the problem, you said that—in, again, your report, using the number of operational errors in fiscal year 2000 as a basis, the total cost of all operational errors was $14.2 million. But I am not sure where the $14.2 million came from.

There is a chart that talks about air traffic costs associated with operational errors and you have level 12 down to level 5 and then an average cost and then a number of operational errors and then a cost by level. How did you establish the cost by level in your report on page 8?

Mr. FISHER. That was a piece that the FAA did and that was sent out to the regional people. It is a chart that they came up with.

Mr. TIAHRT. This is not replacing damaged property, this is not a workman's compensation OWCP claim where they have an operational error and they throw their back out so they have to be off time. I am just not sure where these costs are coming from. What is an operational error cost? How is it derived?

Mr. FISHER. The time spent, okay? With either people off, not working.

Mr. TIAHRT. Investigation?

Mr. FISHER. Yes. Investigation, Training, and all of those sorts of things. OWCP comes in when a traumatic injury is claimed and the people involved would claim up to 45 days. That is the additional difference between the $14 and $16 million.

Mr. TIAHRT. I am sorry to strain your voice, but what happens when there is an operational error? What happens to the operator? Is there a review process? Does he have to fill out some paperwork? Is there some kind of something that is documented that you can say, well, this was a $2 million error, this is a $1 million error? What is the difference between—I am sure they do not all cost the same. What is the process?

Mr. FISHER. No, they do not. The process for an operational error is that the person will be taken off the position and it will be investigated. If training is going to be required, and in today's environment, if it is going to be for something other than a technical violation, the supervisor of that individual will get together with the individual, make up tests, conduct training, et cetera, go through a process whereby that person would be given a skill check or what have you and then be reinstated to work traffic again.

Mr. ROGERS. Mr. Pastor.

ENVIRONMENTAL STREAMLINING

Mr. PASTOR. Thank you, Mr. Chairman. I want to go back to the streamlining. Last week, we had the Federal Highway Administrator and TEA–21 authorized some pilot projects in which they would try to streamline the process, not to do away with the NEPA requirements, not to mitigate or not to lessen them, but how is it that federal agencies can work together so the process can move faster. And the authorization was given two years ago and two years ago two pilot projects were funded.

We were told at the hearing that there is about 40 statutes that deal with the environmental issue and anywhere from 12 to 15 federal agencies that one time or the other can get involved. And they found it, I think, fairly difficult in terms of getting the federal agencies just to cooperate with each other in terms of developing a process that would lessen the amount of time. My question is have you had that type of authorization at least where you can have some pilot projects so you can streamline the process and, if not, is that something that they would want to consider?

Ms. GARVEY. Congressman, first of all, we have been in close contact with the Federal Highway Administration learning from their experience because I know that was two years ago. The report that we are submitting to Congress will include administrative steps we can take as well as whether or not we need any regulatory or legislative changes that we would recommend. A couple of points. There are the 40 kind of agencies that Federal Highway——

Mr. PASTOR. Statutes.

Ms. GARVEY. Statutes, rather, that Federal Highways has talked about. We think there may be some duplication. We have talked with Federal Highway about including, where there is duplication eliminating that and actually including that in our report to Congress. So that is certainly one place that we are looking at. Right now, I do not know that I can say we actually need authorization to do pilot programs, but I would like to wait to see what the final report to Congress in April would be.

There are still a number of issues around the early planning stages where it is very important to get all the federal agencies in early, perhaps sign a memorandum of understanding. That is being considered. The secretary himself has said that he would be willing to intervene wherever it is necessary at the highest levels to get his colleagues at the cabinet level to look at this in a coordinated and concerted way. Just to go back to the example in Seattle, when talking to the airport director there, it is not that she does not want to deal with the issue. What she is asking for is can I know what the issue is early enough so I can deal with it early in the process rather than at the tail end of the process. I think the Secretary can play a key role in that.

Mr. PASTOR. But what happens in some cases, one federal agency comes when you are three-fourths of the way down.

Ms. GARVEY. Right.

INSPECTOR STAFFING

Mr. PASTOR. And that causes you then to go back to try to work the process again and then time becomes a factor and you begin to overrun the project, the cost goes up and then people start saying, well, you know, is it worth doing.

So I believe that streamlining is something we as federal agencies should strive for and it is just a matter of what is the best way of getting it done because pouring concrete for the highways and the airports is very important to minimize some of this delay problem, at least in the long run.

The second question I had, the second question dealt with the inspectors who are requesting more staff. Now, have you looked at the budget and is there room for that? Or are you anticipating more staff for inspectors?

Ms. GARVEY. Two quick answers, if I could, Congressman. One is the supplemental budget that Congress passed last summer is very helpful. We are able to hire some additional people because of the supplemental. We put some additional funding for this staffing into the budget that will be talked about in more detail, I know, when the President releases that, so we will look for your support during those discussions as well. That will allow us to do some additional hiring.

Mr. PASTOR. Because getting on a plane every weekend and every Monday, it is very important to have that safety.

Ms. GARVEY. That is right. I understand.

Mr. PASTOR. It is a personal concern. I want to make sure that whether they are outsourced or not, that we have the inspectors because it is for my own safety.

Ms. GARVEY. I agree.

CONTROLLER-IN-CHARGE PROGRAM

Mr. PASTOR. And the third question is when I went back to the office during one of the breaks, I received an e-mail and there were three basic questions or three facts. Fact number one is that the CICs, is it not true they are required to be fully certified on all operational positions, whereas supervisors have no such requirement?

Ms. GARVEY. Well, it is true that they have to be fully certified. I am not sure about the supervisors. It is true that the CICs do have to be fully certified and if we were not clear on that, we should be.

Mr. PASTOR. So they are certified.

Ms. GARVEY. That is correct, Congressman.

Mr. PASTOR. So they have the training and all the——

Ms. GARVEY. Yes.

Mr. PASTOR. Well, at least the training that a supervisor would have. Now, who determines the number of CICs at an FAA facility? Is it not someone from management that would make that determination?

Ms. GARVEY. It is, Congressman. And, again, we are trying to give our managers as much flexibility to make those determinations as possible. It is the managers. It is the manager's ultimate call.

Mr. PASTOR. So it is the manager who decides how many CICs are going to be working and learning how to become supervisors, so basically it is the manager who makes that determination.

Ms. GARVEY. That is correct, Congressman.

CIC RELATIONSHIP TO OPERATIONAL ERRORS

Mr. PASTOR. It is not coming from you or from someone else outside of that.

Ms. GARVEY. That is correct.

Mr. PASTOR. And the third fact that I got is just basically is it true that 92 percent of the time when an operational error occurs a supervisor is in charge?

Ms. GARVEY. I have seen that number, Congressman. And, you know, again, I want to underscore that I have great respect for the supervisors, too. I think it gets to the point and it may be a point that Congressman Tiahrt was making, too, it is difficult to come to a solid conclusion that the reason for an operational error, the reason for a runway incursion, is related to the number of supervisors. I think you have to look at it much more carefully. Obviously an issue, obviously something you want to consider, and you do not want to reduce supervisors in those places where you have real problems.

Mr. PASTOR. Thank you. Thank you, Mr. Chairman.

Mr. ROGERS. Mr. Sweeney.

SAFETY OVERSIGHT

Mr. SWEENEY. Thank you, Mr. Chairman. We have had a couple of weeks of testimony, we have actually had a couple of years of testimony. We know we have competition problems, we know we have customer service and geographic service problems. The safety

record always seemed to be the thing we could fall back on and say, well, something is working. And today, we look at Mr. Fisher's charts and listen to some of the other testimony and there are some pretty disconcerting pictures being drawn here and there is chaos out there.

There are delays in all major acquisitions and programs at the FAA, or substantial numbers of them. The cost accounting system is four years behind, which I think beyond safety ought to be next high priority. There are too many planes trying to get into too few spots. Everyone believes the system is either broken or just not working well.

And God forbid the next time we have a safety problem or incursion and people are going to look back at the testimony that we have accumulated here, they are going to hold us accountable and they are going to hold each of you accountable and others.

And I guess I would ask that somebody tell me at the end of the day, the controllers do not go home each day just simply happy that they have gotten through another day without a major catastrophe. And whether it is oversight or procedural problems or inspection ratios, we better get our act together pretty quickly.

Mr. Kerner, under questioning from the chairman, you spoke of a specific example of a case in which there was a mitigation, a fine, and the adjudication process and my simple question is why would not the inspector simply ground that plane?

Mr. KERNER. Congressman, there were efforts to try to bring the non-conformance to the carrier and once it was determined that it would take additional effort to do it, to my understanding all efforts were taken and their compliance was obtained.

Mr. SWEENEY. What is the process? I mean, if you see something—if you are out there and you see something like that and you said to the chairman that you thought that was a very serious safety issue.

Mr. KERNER. It was a serious safety non-conformance and every effort to bring the carrier and the aircraft in compliance was taken. There are vehicles that we have.

Mr. SWEENEY. Was it brought within compliance?

Mr. KERNER. Yes, it was.

Mr. SWEENEY. Okay. I misunderstood that. I assumed that——

Mr. KERNER. Compliance was obtained, it was just slow to get it into compliance.

REGULATION AND CERTIFICATION STAFFING

Mr. SWEENEY. Mr. Pastor just touched on it a little bit, Mr. DeBerry, and you say in your testimony that you recognize Congress has appropriated the funds to meet the FAA's requests for the Flight Standard Division and then you outline some pretty serious problems that exist out there.

Actually, I am going to as Administrator Garvey. Develop me some perspective here. What priorities are supplanting this? Where is the money going?

Ms. GARVEY. Well, fortunately, because of the supplemental and because of the budget request for next fiscal year, I think we are going to be able to meet those. I think there is always a concern from the inspectors about the need to hire more. We try to balance

hiring new inspectors with hiring new controllers and other priorities that affect the safety of the system.

Mr. SWEENEY. Are we at the ten-to-one ratio?

Ms. GARVEY. Not at all. Not even close to that, to be honest with you. We are moving slowly on that.

Mr. SWEENEY. Is there sufficient funding or was there sufficient funding in last year's appropriation piece to hire those?

Ms. GARVEY. With the supplemental, we got the sufficient funding.

Mr. SWEENEY. So where did the money go?

Ms. GARVEY. With the supplemental, no, we are hiring them. I am sorry. We are hiring.

Mr. SWEENEY. But are we at ten-to-one? You had earlier said that a ten-to-one ratio was the attainable goal.

Ms. GARVEY. That was the long-term goal that we have. To go to a ten-to-one supervisory ratio. Maybe I misunderstood your question. I thought it was about what did we think was a sensible ratio and I think we can live with and we feel that ten-to-one is the right one in many facilities. I will not say in all facilities. And then that is separate from hiring the inspectors, which thanks to the supplemental budget and to, I believe, this year's President's Budget, again, with a lot of help from Congress, we will be able to hire the numbers that the inspectors are talking about.

AIRWORTHINESS DIRECTIVES

Mr. SWEENEY. I have two quick questions. One is again to you about Mr. Kerner's testimony in which he said that the FAA is ignoring its own internal policy handbook by switching the oversight responsibilities of repair stations from Flight Standards District Offices to CMOs, certificate management offices, which are not in geographically close locations to do that. Can you address that concern and tell me what the rationale is in the policy?

Ms. GARVEY. Yes, I can, Congressman. Again, this is an issue that we talked to Mr. Fanfalone about. For us, from the FAA management perspective, one of the challenges and one of the ways that we think the oversight should be addressed is to bring our oversight as close as we can to the carrier so we have made some changes based on that operational need, if you will. The union, Mr. Fanfalone, and some of the inspectors have raised some concerns that they have about how it affects the workplace, and how it affects the workforce. They are issues we are looking at and working with. It is a fairly new issue at least in terms of my attention to it, but I know Mr. McSweeny is also looking at it as well. Again, trying to balance out the right kind of issues for the workplace but then also trying to deal with the operational need to have the oversight as close as we can. But I look forward to also talking to the inspectors about that.

Mr. SWEENEY. Mr. Kerner, do you want to comment on that at all?

Mr. KERNER. Congressman, basically my position is it is difficult for personnel in a CMO or an air carrier office that manages a major air carrier to be able to satisfy the daily needs and stay on top of the issues at a repair station that is located halfway across the country.

Mr. SWEENEY. So in your opinion, it does present a risk.

Mr. KERNER. It does present a risk and it is hard to stay on top of issues.

EMORY FREIGHT FLIGHT 17 CRASH

Mr. SWEENEY. I just have one final—it is really not a question, it is a request to Chairwoman Carmody. On February 16, 2000, Emory Freight Flight 17 from Rancho Cordova, California crashed while attempting emergency return to the airport. I guess it has been established that the problem was cargo had shifted and it has caused similar kinds of problems.

The family of the captain of that plane is from my district and, as you can imagine, that loss has been greatly felt and they are quite distraught and have talked to me repeatedly.

More than nine months after the accident, the NTSB scheduled a hearing on the accident and canceled the hearing, so what I would like from you by next week's end, by the end of this month, is if you could provide me a detailed account of the Emory Flight 17 accident so that I could at least correspond some knowledge to my constituents.

Ms. CARMODY. Thank you. I am glad to do that now, I have some information. First of all, there are strong indications that have recently come to the attention of our team that it was not a loading accident, it looks more like a maintenance issue.

Mr. SWEENEY. How long ago did you establish that? Because we have been asking for quite some time.

Ms. CARMODY. It has been quite recently. I just had a meeting on it in my office. And the second issue is that we have decided to have a hearing. The date is as yet undetermined, but probably June, late June or July and we will get you that date as soon as we establish it.

Mr. SWEENEY. I would appreciate next time those kinds of things occur that there be—because we have been in regular contact with your office on this.

Ms. CARMODY. Well, I am sorry to hear that. It was just yesterday morning that I had a meeting and we discussed this very issue and decided to go forward with the hearing.

[The information follows:]

National Transportation Safety Board
Washington, D.C. 20594

Office of the Chairman

March 30, 2001

Honorable John E. Sweeney
House of Representatives
Washington, D. C. 20515

Dear Congressman Sweeney:

This is reference to your comments at the hearing held March 28, 2001, regarding the aviation accident involving Emery Worldwide that occurred February 16, 2000. As you will recall, the aircraft crashed shortly after takeoff from Mather Field, in Rancho Cordova, California, killing the three crew members.

The Members of the National Transportation Safety Board voted to hold a public hearing regarding this accident. However, as John Boling of your staff was advised by telephone earlier this month, examination of the accident aircraft has not indicated a weight and balance problem, but rather a possible mechanical problem. Because of these new developments, the Board's public hearing will not be held until some time this summer at our Washington, D. C. headquarters. The public docket, containing all investigative factual information, will also be opened at that time. As soon as a date is known, we will contact you.

Should family members have questions regarding this accident, Erik Grosof with the Board's Office of Family Affairs will be happy to be of assistance. Mr. Grosof may be reached at 1-800-683-9369 or 202-314-6189.

If you have additional questions regarding this or any other matter, please do not hesitate to contact us.

Sincerely,

Carol J. Carmody

Carol Carmody
Acting Chairman

GROUND RADAR AT REAGAN NATIONAL

Mr. ROGERS. All right. Thank you, Mr. Sweeney. We are going to wrap this up. We have exhausted the subject. We have exhausted the panel and the audience, I think. But let me ask a couple of questions for other members before we close down, for Chairman Wolf, who had to leave for another hearing from our hearing.

He wanted me to ask you, Administrator, about the Washington Post story yesterday about the ground radar at Reagan National that is apparently inoperative, apparently unable to track planes on the ground. Is that correct?

Ms. GARVEY. That is correct. And the article, I think, really accurately described the issue. A design issue, a problem that no one had anticipated. Very unusual situation. We have this radar in lots of places. We are looking at shortening the schedule to get it replaced. We have some real siting challenges at National and we also have some environmental issues with the National Capital Planning Commission, but we have a call in to them to see if we can resolve some of those very quickly.

Mr. ROGERS. But contrary to the Post article, you do not have a problem with money to fix it.

Ms. GARVEY. Well, that was pointed out yesterday and that is absolutely right. Yes.

Mr. ROGERS. In fact, we put in $4 million in the current fiscal year to fix that particular problem.

Ms. GARVEY. And thank you very much.

Mr. ROGERS. It is available for three years, right or wrong.

Ms. GARVEY. That is correct. Thank you.

CAPITAL CITY AIRPORT, LANSING, MICHIGAN

Mr. ROGERS. Thank you very much. Now, for Mike Rogers from Michigan, he wants to know why you are considering shutting down the midnight shift of the ATC tower at the Capital City Airport in Lansing, Michigan.

Ms. GARVEY. I do not know the answer to that. Congressman Rogers did stop me just before the afternoon session began and we are going to look at that. We will get back to him and let you know as well, Mr. Chairman.

Mr. ROGERS. He points out that if it is closed that the people flying in and out between 11 p.m. and 6 a.m. would be without service and that United Parcel Service (UPS) operates a gateway at the Capital City Airport and employs more than 100 people and a lot of their planes would be flying in and out of that airport during those proposed closing hours. That would be a problem, would it not?

Ms. GARVEY. It certainly sounds that way and we will look into it.

Mr. ROGERS. He has been hounding me to hound you, so I have hounded you.

Ms. GARVEY. Thank you.

[The information follows:]

QUESTIONS FOR THE RECORD FOR FEDERAL AVIATION ADMINISTRATION FROM CHAIRMAN ROGERS ON BEHALF OF REPRESENTATIVE MIKE ROGERS

CAPITAL CITY AIRPORT LANSING MICHIGAN

Mr. M. Rogers. Why is the FAA considering shutting down the midnight shift of the Air Traffic Control Tower at the Capital City Airport in Lansing, Michigan?

[The information follows:]

A study was commissioned by Lansing, Michigan, Air Traffic Control Tower (ATCT) to determine the costs of air traffic service and aviation activity at Capital City Airport during the overnight hours. The goal of this study was to determine the cost versus benefit of maintaining a 24-hour control tower at Lansing.

This study analyzed aircraft operations for calendar year 2000 on a monthly basis. The results of this study indicate that the hourly average of operations for the midnight to 5 a.m. time period is 3.37 operations per hour averaged over the entire 5-hour period. The average for several individual hourly periods is shown to be below 3.0 operations per hour, with the lowest being 2.17 operations per hour during the month of January 2000.

The study characterized the activity as cargo, United Parcel Service (UPS) B757 and B727's, commercial, a COMAIR regional jet flight, and commuter-type aircraft that utilize Lansing for training activities. The study also reports light general aviation activity such as training and practice approaches.

The study indicated that the number of controllers could be reduced from the current level of 26 to 24 with the attendant cost savings. In addition, overtime could be reduced by $4,000 per year if 24-hour operation was not required.

However, offsetting the savings noted above, reducing the operating hours of Lansing ATCT would have several impacts on aviation. On a direct cost basis, the study finds that a total of $12,799 would be needed for various communications and telecommunications (telco) equipment at the airport and Cleveland Center, as well as a $313.09 monthly charge for leased telco lines. Aside from these direct costs, there are also a number of other impacts:

1. Lansing is the primary reliever airport for Detroit Metro in the State of Michigan.

2. Cleveland Air Route Traffic Control Center (ARTCC) would inherit responsibility for guiding all flights not controlled by Lansing. This includes arrivals, departures, and overflight traffic. The study concluded that radar coverage from Cleveland ARTCC is adequate only down to 4,000 feet in the vicinity of Lansing.

3. Training activity at Lansing for both general aviation and commuter users would be curtailed.

4. Pilot-controlled lighting would need to be installed.

5. A remote communication air-to-ground facility would have to be installed so that Cleveland ARTCC could have direct communication with aircraft.

Based upon the preliminary results of this study, the FAA has decided to continue a 24-hour operation at Capital City Airport.

Mr. M. Rogers. Have you considered the safety factors that such a decision could have on those flying in and out of the airport during the hours of 11 p.m. to 6 a.m. (proposed hours of closure)? How could an alternative tower located in another city and state have the visibility to see snow removal crews on the runway?

[The information follows:]

A study was commissioned by Lansing, Michigan, ATCT to determine the costs of air traffic service and aviation activity at Capital City Airport during the overnight hours. The goal of this study was to determine the cost versus benefit of maintaining a 24-hour control tower at Lansing. This study analyzed aircraft operations and types of activity at Lansing and the cost savings associated with reducing the operation. However, there would be a number of impacts on aviation and based upon the preliminary results of this study, the FAA decided to continue a 24-hour operation at Capital City Airport.

Mr. M. Rogers. United Parcel Service operates a gateway at the Capital City Airport and employs more than 100 individuals. A large amount of their planes fly in and out during the hours in question. Have you considered the economic impact such a decision could have on the airport and the entire capital city of Lansing should UPS decide to leave?

[The information follows:]

Based upon the preliminary results of the ATCT study, the FAA decided to continue a 24-hour operation at Capital City Airport.

Mr. M. Rogers. Capital City Airport has been experiencing a rough economic time with the recent loss of two carriers. However, they are in strong contention to acquire a new carrier and are continuously striving to improve themselves. The airport has fostered strong partnerships with the State of Michigan's Economic Development office, the City of Lansing, neighboring townships, Michigan State University as well as the business sector. At a time when the Capital City Airport is at such a critical stage, why would the FAA want to further cripple their economic viability through closure of their tower during the midnight shift?

[The information follows:]

Based upon the preliminary results of the ATCT study, the FAA decided to continue a 24-hour operation at Capital City Airport.

Mr. ROGERS. Anyone else before we close?
Mr. Sabo.
Mr. SABO. No, thank you.

CLOSING REMARKS

Mr. ROGERS. I thank you for spending a long day with us. I apologize for making two sessions out of this, but you are doing such important work it required that we take some time.

You know what the problems are, much, much more than we do, but we are charged with the public responsibility to oversee the funding for FAA and the NTSB and many of the aspects of this business of traveling. And we are hearing complaints from our constituents out there in very, very loud and vociferous ways and that means we have to pass this along. This is, after all, a republic and we are republishing what we are hearing out there.

So we are expecting that we get answers and solutions. The funding that we will be passing through this subcommittee this year will, I assure you, go to those who are a part of the solution; they will not go to those who are a part of the problem and we are trying to sift through now and see who is on which side.

We expect the FAA to be the great professional organization that it is and was designed to be. You are carrying heavier responsibilities than you ever have, the number of people flying continues to increase by the millions. That is not going to let up. You face some very short-term problems with the anticipated work shortages that are apparently in place or coming up this summer and the overwhelming numbers of new travelers this summer during the holiday season.

So I expect the noises will get louder that we hear and so we are going to have to ask you to redouble your efforts and be sure that the directives of this Administrator and staff go to the very ends of the earth, go to the very bottom of the organization and we expect that and we are going to keep track of that. And, believe me, we will find ways to know who is the problem. And if the Administrator does not have the authority to effect discipline there, believe me, we do and we will exercise that authority.

We expect results. We know we have professional people here and we know we have some experienced people that know what they are doing. There are a few, I think, though, that are in the way. And we want to move them out of the way.

Thank you very much.
Ms. GARVEY. Thank you, Mr. Chairman.
Mr. ROGERS. The hearing is adjourned.

QUESTIONS FOR THE RECORD FOR FEDERAL AVIATION ADMINISTRATION FROM REPRESENTATIVE FRANK R. WOLF

GROUND RADAR AT REAGAN NATIONAL

Mr. Wolf. As you know, the front page of yesterday's Washington Post had a story entitled "Ground Radar Removed from Reagan National" and states, "Without the ground-control radar, tower controllers at one of the nation's busiest airports continue to work the way they have since the dawn of aviation, relying on memory and radio contact to keep track of planes on runways and taxiways at night and in foul weather." Would you comment on this situation?

[The information follows:]

A ground radar was installed at Reagan National Airport. The installation was hindered by the impact of airport structures on the radar data display. When different technical solutions to overcome these hindrances resulted in limited improvements, it was decided that the best course of action to overcome the limitations caused by the airport environment was to relocate the ground radar to a remote location, away from the influence of the terminal buildings on the radar presentation.

None of the airports currently equipped with ground radar have aircraft data tags displayed at this time. Programs are in place for airports with ground radar that will provide controllers with surface traffic data tags.

Controllers are assisted in their tracking of ground traffic by other air traffic control automation tools, including arriving aircraft data tags on the tower airport surveillance radar displays, which in conjunction with flight progress strips and procedural restrictions used during periods of restricted visibility, provide for a safe operational airport environment.

Mr. Wolf. There is another matter regarding this missing radar system which also concerns me and that involves the timetable for fixing this problem. The Post article goes on to say that Washington is one of only three airports among the nation's 34 busiest that does not have a radar system operating to track planes on the ground.

You and I have had countless discussions about how we should go about improving the serious problem involving runway incursions. The problem just seems to get worse, and worse and now Reagan National is missing the radar system designed to prevent these problems. The article says it will take at least two years to commission and install the new radar

system once a suitable location is found. What exactly is the timetable for addressing this situation and what progress are you making in finding a site?

[The information follows:]

The Airport Surface Detection Equipment Model 3 (ASDE-3) was installed on the top of the tower cab at Ronald Reagan Washington National Airport (DCA) and completed its operational readiness demonstration (ORD) in May 1998. Generally, commissioning of a system is completed within 90 days after a system completes its ORD. However, the DCA system displayed "false" targets to the tower controllers that were determined to be caused by multipath, that is, reflections off various airport surfaces of the ASDE-3 ground radar signal.

The FAA has evaluated numerous alternatives for eliminating, or reducing the effect of the multipath to a level acceptable to the controllers. During the summer of 2000, the agency concluded that the only alternative for reducing the effects of multipath was the relocation of the ASDE-3. The preliminary cost estimate to relocate the ASDE-3 (to a new remote tower location on the airport) was $2 million.

The agency has been diligently working with the Metropolitan Washington Airport Authority (MWAA) and the National Capital Planning Commission (NCPC) to identify a location that could satisfy technological, aesthetic, and historical concerns. Using photo simulations of several on-airport locations that met engineering constraints, the FAA, MWAA, and NCPC orally agreed to a remote tower location. FAA is formalizing the site-selection oral agreement plans and will request from the MWAA and NCPC written approval for the site. If approved, the new site will require: (1) a new environmental site assessment; (2) the design and fabrication of a non-standard height remote tower; and (3) a new duct bank for cabling to be bored under the runways, which will add to the cost of the preliminary estimate. In the short term, in addition to formalizing an agreement on the remote site selection, the FAA is commencing the environmental assessment, finalizing the cost estimate, and establishing a schedule that will lead to the commissioning of the ASDE-3 at DCA. Assuming a formal agreement on the new site is executed by May of 2001, a new DCA ORD is planned for October 2002.

OPERATIONAL ERRORS AT DULLES

Mr. Wolf. I have been informed that operational errors at Dulles are some of the highest in the nation, and that the FAA has not fulfilled its

commitments with respect to staffing needs at the airport. Would you be kind enough to look into this and get back to me?

[The information follows:]

Dulles (IAD ATCT) had four operational errors so far this fiscal year with 350,168 operations. This puts IAD ATCT at number 3 in top terminal errors behind Philadelphia ATCT and Miami ATCT. The error rate is ahead of the IAD ATCT fiscal year 2000 pace, but behind the fiscal year 1999 pace.

The FAA has more than fulfilled its commitment to IAD staffing. Based on the staffing standard, IAD is authorized to hire 76 air traffic control specialists (ATCS's). However, given the level of air traffic, IAD ATCT has been allowed to hire an additional eight ATCS's. The number of certified professional controllers versus developmental is steadily on the rise.

BUDGET ALLOCATION FOR THE DULLES TOWER

Mr. Wolf. During 1999 and during the first 10 months of 2000, the Dulles Tower handled more aircraft movements than any other tower in the FAA's Eastern Region. Does the budget allocation for the Dulles Tower reflect this priority?

[The information follows:]

The funding provided to all facilities is based on staffing numbers that are allocated through the application of Article 94 in the Collective Bargaining Agreement (CBA) between the National Air Traffic Controllers Association (NATCA) and the FAA. Distribution of bargaining unit positions among regions is determined through annual negotiations between NATCA and the FAA at the national level and distribution of bargaining unit positions among facilities is determined through annual negotiations between NATCA and the FAA at the regional level.

The budget allocation for Dulles does reflect the level of ATC activity. As mentioned in the previous response, we have increased staffing at IAD above the level in the staffing standard from 76 to 84 ATCS's.

EASTERN REGION TOWERS

Mr. Wolf. What is the budget allocation for each of the towers in the Eastern Region?

[The information follows:]

The FAA budgets the salaries of air traffic control specialists at the regional level instead of individual towers. Staffing numbers are allocated through the application of Article 94 in the CBA between the NATCA and the FAA.

The chart below reflects the on-board staffing, for fiscal years 1999, 2000, and as of March 23 for fiscal year 2001, in the top 10 scheduled service airports in the Eastern Region, and the personnel, compensation, and benefits (PC&B) dollar figures for fiscal year 2000.

Facility	FY 1999 On-Board Staffing	FY 2000 On-Board Staffing	FY 2000 PC&B ($000)	FY 2001 On-Board Staffing
Dulles	70	83	$15,003.8	84
Philadelphia	72	79	$14,184.3	79
Pittsburgh	74	76	$13,585.5	76
Baltimore	59	62	$10,277.9	63
Washington Reagan National	73	64	$11,350.3	62
Kennedy	36	36	$ 6,506.5	36
Newark	36	36	$ 6,288.0	36
LaGuardia	37	35	$ 6,535.6	35
Teterboro	20	18	$ 2,722.1	20
White Plains	15	17	$ 2,087.9	15

STAFFING FOR BUSIEST EASTERN REGION TOWERS

Mr. Wolf. What is the staffing for each of the towers for the top 10 scheduled service airports in the Eastern Region? How many positions are 1) authorized, 2) filled, and what is the experience level for each? How long have the controllers been in those positions?

[The information follows:]

As of March 23, the table below reflects the staffing for the top 10 scheduled service airports in the Eastern Region:

Facility	Authorized* ATCS	On-Board ATCS	Certified Professional Controllers	Developmentals
Dulles	76	84	65	19
Philadelphia	79	79	67	12
Pittsburgh	76	76	71	5
Baltimore	65	63	43	20
Washington Reagan National	70	62	47	15
Kennedy	35	36	33	3
Newark	37	36	27	9
LaGuardia	35	35	26	9
Teterboro	22	20	14	6
White Plains	16	15	12	3
Total	511	506	405	101

*Based on staffing standard

POTOMAC TRACON

Mr. Wolf. Is the development of the Potomac TRACON proceeding on time?

-To be commissioned in May 2002 and to have replaced the four existing TRACONS one year later?

[The information follows:]

Yes, the FAA is on schedule with the development of the Potomac Terminal Radar Approach Control (TRACON). The Potomac TRACON is scheduled for commissioned in fiscal year 2002, with Washington-Dulles

International Airport being the first facility integrated. There will be five TRACONS incorporated: Ronald Reagan Washington National Airport, Washington-Dulles International Airport, Baltimore-Washington International Airport, Andrews Air Force Base, and Richmond International Airport. The consolidation is scheduled for completed by June 2003.

IMPROVEMENTS TO DULLES AIR TRAFFIC CONTROL

Mr. Wolf. In March 2000, the Eastern Region promised to "reap any low hanging fruit" from the airspace redesign involved with the Potomac TRACON. What improvement to Dulles ATC capacity have been made and what can we expect in the short term from the Potomac airspace redesign?

[The information follows:]

The Eastern Region has worked with the New York Air Route Traffic Control Center to develop a new arrival procedure from the north and has worked with Atlantic Coast Airlines to develop special Area Navigation (RNAV) arrival procedures. These initiatives were taken to create tactical opportunities to increase capacity at Dulles Airport. United Airlines is also slated to participate in this special procedure that will improve operations and capacity at Dulles for approximately 80 percent of its operations. The FAA is working with its Flight Standards office to resolve aircraft operating procedures to convert the RNAV arrival procedure from a special to a public procedure. Converting this procedure to a public one will enable more Flight Management System equipped aircraft to fly the approach and will create increased capacity in the Dulles TRACON airspace. There is no current timeframe for this conversion.

The FAA has completed redesign work on three airspace alternatives for the Potomac TRACON airspace that are currently undergoing the required environmental review process. FAA anticipates a Record of Decision on the environmental process in April 2002. There are no identified capacity gains within the redesign that can be implemented prior to concluding the environmental process.

The Potomac TRACON redesign team has attempted to identify any capacity increasing initiatives that can be changed quickly when it begins work in the new building. One of these is the ability to implement an arrival segment from the north, on the east side of Dulles Airport that would allow for simultaneous arrival and departure flows when in a north flow configuration. This change would create efficiencies to the airspace that would lead to a capacity increase at Dulles Airport. The Potomac TRACON

timeline indicates that this could be accomplished by August 2002. Recent efforts between the FAA and the NATCA could enable this change to occur sooner.

GEORGE WASHINGTON AND GEORGE MASON AVIATION INSTITUTE

Mr. Wolf. In the fiscal year 2001 report, we included language, which established an aviation institute for public policy. The institute was established to help prepare the future workforce for careers in aviation safety and security management. Would you be kind enough to look into the program and respond back to me?

[The information follows:]

The FAA has instituted a competitive bidding process to establish the consortium. The FAA is currently developing a statement of work to provide an international aviation safety management certificate program for civil aviation personnel to assist in raising their country's safety level. It is anticipated that the initial public request for proposals for the establishment of such a consortium will take place during the spring of 2001. The contract award should occur before October 2001.

THURSDAY, MAY 3, 2001.

AIRLINE DELAYS AND AVIATION SYSTEM CAPACITY

WITNESSES

JANE F. GARVEY, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION

KENNETH M. MEAD, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION

EDWARD A. MERLIS, SENIOR VICE-PRESIDENT, LEGISLATIVE AND INTERNATIONAL AFFAIRS, AIR TRANSPORT ASSOCIATION

CHARLES BARCLAY, PRESIDENT, AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES

CAPTAIN DUANE E. WOERTH, PRESIDENT, AIR LINE PILOTSASSOCIATION

JOHN S. CARR, PRESIDENT, NATIONAL AIR TRAFFIC CONTROLLERSASSOCIATION

OPENING REMARKS

Mr. ROGERS. Good afternoon to all of you. This afternoon we have before us once again the infamous gang of six, the aviation professionals who had the misfortune of appearing before this Subcommittee on March 15th, to address the airline-delay problem. During that hearing I asked each of them to commit to five concrete and measurable things they would personally do to help address the airline-delay problem. Frankly, over the past couple of years there have been a lot of hearings, a lot of public statements about the delay problem, but there has been more finger pointing than real progress. It makes one think that this is a dysfunctional family.

Well, I say we have had enough finger pointing and enough bland statements. So during our March 15th hearing we secured specific commitments from the government and from elements of the industry. We put those commitments on a big board, which you see displayed behind us here on the desk. You will notice there are blanks on this list of commitments under the areas marked "progress." And that is what we are here to address today, what specific progress has been made by each of you over the past seven weeks on the five commitments you made to us at that time.

Consider this your first grading period. We want to give each of you a report card today on your progress. And I intend to have you up here again and perhaps again and again because we will continue working to resolve this problem until we have firm, documented progress from each of you.

Consider this like the "Survivor" television show. You are each on an island with me, and I am putting you through your paces. We are holding your feet to the fire, and as you meet your commitments, you will get off the island. And I know none of you want

to be the last survivor here with me because I am not going away. This Subcommittee is not going away.

The airline-delay problem is one of most serious problems facing our nation today, affecting millions of our people each day. One in every four commercial-airline flights was delayed last year, and the average delay has now increased to almost 50 minutes. Flight cancellations have increased sevenfold in the past five years, and the FAA has now documented that airlines regularly schedule more flights during rush hours at busy airports than can possibly take off. They are planning on delays and cancellations as part of their "business model." With aircraft over 70 percent full, it is impossible to rebook those passengers on the next flight. The overreliance on moving thousands of passengers during peak hours through a small number of major hub airports has created a system which is not serving the American public well.

We have boiled a lot of good ideas down to the list behind me, and we will focus on that list today. But all of you need to know and carry the message back to your respective industries or organizations that we are deadly serious that we will have concrete actions, concrete solutions to this problem or there will be consequences. Not vague promises, but we want hard and fast commitments and solutions, and the evaluation begins today.

So I appreciate the fact that you have returned today. We await your progress reports. We will enter your written statement in the record without objection, but first let me recognize my colleague, Mr. Sabo.

Mr. SABO. Thank you, Mr. Chairman. It is good to see all of you again, and I look forward to hearing from you.

COMMITMENTS TO SOLVE THE DELAY PROBLEM

Mr. ROGERS. The Secretary testified two days ago. We have extracted five promises out of the Secretary, and you will see that the board has been modified to include the Secretary of Transportation.

[The information follows:]

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEM Commitments Made March 15 and April 25, 2001	PROGRESS		
Norman Y. Mineta, Secretary, U.S. Department of Transportation			
1. Work to establish process to balance flight schedules with airport capacity			
2. Speed up airport construction and permitting process			
3. Address airway choke points			
4. Work with airports to disperse flights off peak hours & to underused airports			
5. Develop incentives/disincentives for airlines & airports to disperse flights			
Jane F. Garvey, Administrator, Federal Aviation Administration			
1. Complete choke point initiative and measure results			
2. Use capacity benchmarks to determine action plan at top 10 airports			
3. Keep free flight phase 1 and phase 2 on track			
4. Reach agreement with airlines on national operations plan			
5. Streamline approval procedures for airport capacity projects			
6. Develop standard definition of delays	★3-28-01		
Kenneth M. Mead, Inspector General, U.S. Department of Transportation			
1. Monitor progress of causal tracking system for delays			
2. Track dispersal of flights from hubs to smaller airports			
3. Monitor runway construction cost and schedule status			
4. Monitor FAA's progress in meeting its 6 commitments			
5. Analyze options for demand management changes in short term			
Edward A. Merlis, Senior Vice President, Air Transport Association of America			
1. Better utilize FAA's daily conference call at flow control facility			
2. Put in place recommendations of Delay Reporting Advisory Committee			
3. Transfer aircraft position and delay data directly to gate agents			
4. Identify airport capacity projects and ways to implement them			
5. Petition DOT to change the denied boarding compensation rules			

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEM Commitments Made March 15 and April 25, 2001	PROGRESS		
Charles Barclay, President, American Association of Airport Executives			
1. Advocate streamlining of runway construction process			
2. Advocate FAA's ability to provide support staff to airports			
3. Advocate lifting the cap on passenger facility charges (PFCs)			
4. Advocate flexibility for off-airport environmental remediation			
5. Get better information to airport customers			
6. Become involved in coordination of air traffic control operations			
Captain Duane E. Woerth, President, Air Line Pilots Association			
1. Develop a single list of aviation needs from aviation industry			
2. Develop stronger alliance with NATCA			
3. Bring airline dispatchers into that alliance			
4. Standardize flight and duty time industry wide			
5. Work to improve airport capacity where possible			
John Carr, President, National Air Traffic Controllers Association			
1. Monitor other ideas for safety impact			
2. Request more controller staffing			
3. Reach agreement with FAA on airspace redesign			
4. Study, with others, ability to reduce separation standards			
5. Fill the labor seat on the MAC with a NATCA representative			

KEY: ★ COMPLETED; ☺ PROGRESS; ⊗ FAILED TO ACT

FAA OPENING STATEMENT

Mr. ROGERS. We will go according to the chart behind me in that order, and you are recognized, Ms. Garvey, Administrator for the FAA.

Ms. GARVEY. Thank you very much, Mr. Chairman, Mr. Sabo, members of the committee. I am very pleased to be here this afternoon.

CHOKE POINTS

In front of you is a package which outlines the commitments that I made at our last hearing, the milestones we have set, the progress we have made, and the benefits that have accrued. At a recent budget hearing, I reported to you that we were successful in reaching a standard definition of delays, so I would like to turn to the five remaining items, and I will begin with the choke points. Together with the airlines, we have identified 21 initiatives to relieve choke points. Those are areas in the system that generate significant constraints.

The most critical area, as you may remember, is that triangle from Chicago to Boston and Washington. The 21 initiatives focus on changes to gain greater efficiency in the airspace, and we do this by changing air-traffic procedures, by establishing new sectors, and by creating new routes.

We have completed work on 11 of the initiatives. Those specifically address the congested airspace in and around the New York-New Jersey area. As a result, we can say that the westbound and northbound departures out of the New York area are experiencing fewer delays. And just this week we opened three new sectors in the Cleveland Center, which is really the busiest center in the country. We are currently testing some new routes between 300 city pairs, which will allow aircraft between these points to fly at lower altitudes, and we believe by separating the traffic we can maintain greater efficiency.

Additional initiatives, as you will see from the chart, will be completed by December. Five are longer in their implementation phase, and some might even involve international agreements, but our time frame is to complete all of these by July 2002.

CAPACITY BENCHMARKS

On the second issue, capacity benchmark, we issued our Capacity Benchmark Report on April 25th. We established both an optimum and a reduced number of hourly takeoffs and landings that can be safely accommodated at the top 31 airports. The two numbers, we believe, describe a realistic expectation of performance for each airport. The report confirms what you as frequent fliers know intuitively, and that is that there are a handful of airports where demand is either at capacity or exceeds capacity and where in adverse conditions the resulting delays have impacts throughout the system.

The report shows that there are eight airports that have high delays and that have a disproportionate effect on the National Airspace System. Each airport presents a unique set of challenges,

and each airport requires a specific set of solutions. We think the report is a good starting point.

Our emphasis, which includes the government, airlines, and the airports, is to quickly shift to solutions. We have taken a first cut at potential solutions for each of these eight airports. The actions include new technology. It includes air traffic control procedural changes, in some instances new runways, and a review of airline scheduling.

What you will see in the charts before you are those items for which the FAA has direct responsibility. We recognize that our actions alone will not be sufficient to deal with the projected demands at these airports, so in the action plans that are included in the report we have included recommendations for airports and airlines. We will certainly work very closely with them to implement the right set of exclusions.

FREE FLIGHT PHASE 1 AND 2

With Free Flight there are essentially five automation tools, five software programs, to be used by the controllers. We are glad to say that the program is on track. We have had enough experience to date to begin to measure the benefits. And incidentally, the benefits that we are seeing are those benefits that the airlines tell us about themselves. One tool, for example, is saving airlines $1.5 million per month in Indianapolis and Memphis. Another tool is able to increase arrival rates at Dallas/Fort Worth by about five percent.

Our challenge now is really to maintain the momentum and to have it carry on into Free Flight Phase 2.

Some of the National Airspace Evolution Plan initiatives that I have spoken about are really short term in nature, and the choke points are a good example of that. But we have also recognized that we need a 10-year view of where we are headed, and that is really where the National Airspace Evolution Plan comes in. It lays out a 10-year commitment for the FAA for the airlines and for the airports. It includes runways, and it includes technologies and procedural improvements.

Simply put, this plan sets forth the blueprint to move us toward satellite navigation and to move us as an industry, with the supporting procedural changes and airspace redesign. We are working very closely with industry and airports, and we intend to issue the final plan in June. We have the draft up on the Web. We are hearing from airlines daily, and their comments are very helpful.

ENVIRONMENTAL STREAMLINING

The next item, streamlining approval for airport capacity project. As you know, AIR–21 required the FAA to report primarily on the environmental-review process and streamlining efforts as well. Our report is essentially complete. I am very pleased to say that OMB signed off on that earlier this week, and we expect to get it to Congress very shortly. I hope within the next day.

We have already undertaken some steps at the FAA, such as establishing dedicated environmental-review teams for the major runway projects. Four such teams are now in place. We are also working to increase staff for environmental review and working with our airport sponsors on reimbursable agreements to dedicate

staff to major runway projects. There are some encouraging developments. We have about 18 new runways that are proposed between now and 2010. Nine of those projects have completed the environmental-review process. We will work very closely with the Inspector General to keep a careful eye on all of those projects.

Mr. Chairman, we know of your commitment and this committee's commitment to finding solutions. We also recognize that it will take the efforts of each of the groups represented here this afternoon. I will simply end by saying that you have my personal commitment and deep resolve to do our part.

Thank you very much. That concludes my testimony. I would be happy to answer questions.

[The prepared statement of Jane Garvey follows:]

STATEMENT OF

THE HONORABLE JANE F. GARVEY

FEDERAL AVIATION ADMINISTRATOR

before the

HOUSE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES

CONCERNING AIR TRAFFIC CONTROL DELAYS AND CAPACITY

MAY 3, 2001

Chairman Rogers, Congressman Sabo, Members of the Subcommittee:

Thank you for the opportunity to appear before you today to follow-up on the hearing of March 15 and to discuss the FAA's progress on our actions to help mitigate aviation delays and capacity problems. I am pleased to report that we have made significant progress on the items that I outlined for you at our last hearing.

The status of our initiatives is as follows:

Develop standard definition for delays

As I testified on March 28, we developed a standard definition for aviation delays. This definition is that a flight is considered delayed if it arrives at the destination gate 15 minutes or more after its scheduled arrival time. The Department of Transportation's (DOT) pilot program to test this approach is continuing with four airlines and I will keep the subcommittee informed of our progress. These airlines are working with the DOT

Bureau of Transportation Statistics (BTS) in a voluntary program to provide information on the causes for cancellations and delays so that the consumer will have more and better information. We are supporting BTS in this effort.

Streamline approval procedures for airport capacity projects

The FAA is aggressively moving major new runway projects through the environmental review pipeline. Our most critical airports are the large hub primary airports that combined enplane about 70 percent of U.S. air passengers. At these airports, 18 new runways are currently proposed to come on line between now and 2010. We have completed FAA's environmental review on 9 of these 18 runways and are more than halfway through the environmental process on four more and are in an early environmental impact statement (EIS) stage on one more runway. That leaves 4 runways out of 18 that have not advanced sufficiently in local planning for the airport proprietors to submit them to FAA for environmental review.

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21), required that DOT report to Congress on the environmental review of airport improvement projects. In the draft report, FAA has identified environmental-related delays, as well as initiatives to reduce such delays. The report will be delivered to the Congress shortly.

At the same time we have worked on this detailed analysis of the Federal environmental review process for airports, we have taken steps to expedite the FAA's part of this

complex process. Our goal is to reduce unnecessary delays while maintaining the integrity of the environmental process and complying with all environmental protection requirements. To that end, we have taken the following steps:

- Established an EIS team of experts for four current major EISs and will establish a team for each new EIS for a major runway project at a large hub primary airport. We are strengthening existing and new teams by adding more FAA and airport members, as well as consultants.

- Reallocate FAA staff resources to environmental reviews. We are converting five positions in FAA's Airports Office to environmental specialist positions—one in headquarters and one in each of the regions where the bulk of the environmental review is conducted. We will also make more use of consultant resources through existing EIS contracts.

- Some airports have expressed interest in paying for additional FAA environmental staff resources for expedited EIS reviews through a reimbursable agreement. We are in the process of implementing a reimbursable agreement at our first location.

Moreover, we are streamlining the environmental process to use more categorical exclusions and have been working with the Council on Environmental Quality (CEQ) to revise FAA's environmental orders. We are also working to shorten and streamline

environmental impact statements and environmental assessments/findings of no significant impact to reduce paperwork and delays. We are addressing Federal interagency environmental coordination at national, regional, and project levels, and have entered into an agreement with the National Association of State Aviation Organizations to improve Federal/State coordination. A guide to best practices for EIS management and preparation is nearly completed and will be posted on FAA's Web site in early summer.

Keep Free Flight Phase 1 and 2 on track

Our initiatives for Free Flight Phase 1 and 2 are on track. We are on time and on budget for Free Flight Phase 1 activities and intend to do the same for Phase 2. Free Flight Phase 1 is the development and installation of automation tools for controllers to provide greater efficiency and capacity within the National Airspace System (NAS). Free Flight has been built in tandem with industry to achieve increased system capacity and efficiency. And most important, the benefits of these automation tools are measured directly by the airlines. Two of the Free Flight Phase 1 projects already are complete. Our Free Flight Phase 1 successes also include:

- We completed the delivery of the Traffic Management Advisor (TMA) application to our Dallas/Fort Worth, Los Angeles, Minneapolis, and Atlanta Air Route Traffic Control Centers (ARTCC) this fiscal year, helping to improve the efficiency of traffic flows into these airports. At DFW and Minneapolis, the FAA

has seen a five percent increase in the acceptance rates. The FAA is on track to deliver TMA to Miami next month and to Oakland this June.

- We completed the installation of the Passive Final Approach Spacing Tool (pFAST) at Los Angeles, which helps controllers balance arriving traffic for maximum use of runway capacity. Early indications for this tool are promising. pFAST adds about five to eight operations per rush through the eight rushes per day at DFW.

- In Memphis and Indianapolis airspace, airlines already are saving $1.5 million per month as a result of the user request evaluation tool. The increased direct routings spurred by the use of this tool allow airlines to burn less fuel, which has a positive benefit for the environment as well.

The FAA will continue Free Flight Phase 1 through this summer, and on into next year with the funding provided in the President's FY 2002 budget request.

Use capacity benchmarks to determine action plan at eight airports with highest delay rates

On April 25th we released our capacity benchmarks report. Simply stated, an airport's capacity benchmark represents the maximum number of flights it can routinely handle in an hour. Our analysis establishes capacity benchmarks for the top 30 major airports. The

31st airport in the report, Memphis, was included for its importance to the air cargo industry. This data will be used to better understand the relationship between airline demand and airport runway capacity. Our hope is that this report will provide valuable data that will be used to assist the FAA, airports, airlines, and other systems users in making informed decisions and investments that can ultimately help better manage the increasing demand for capacity, while at the same time minimizing unavoidable delays.

The benchmark report documents that we are faced with very challenging capacity issues at 8 of the 31 airports. One measure of how well airports are able to accommodate demand is the delay rate. Using the number of delays per 1,000 operations from the FAA's Operations Network (OPSNET) as the selection criterion, we have developed plans to improve operational efficiency at the eight airports with the highest delay rates (Atlanta, Boston, Chicago O'Hare, Newark, New York Kennedy, New York LaGuardia, Philadelphia, and San Francisco). Each of the plans indicates the expected gains that can be anticipated from runway construction, and procedural, airspace, and technological improvements.

The capacity benchmarks and action plans represent starting points for the aviation community to work together in solving the capacity problems at these specific airports. There has been some movement in this direction. We have an on-going effort at Newark meeting quarterly with Continental Airlines to take measured steps to alleviate congestion and delays. In addition, recent actions by both American (at Chicago) and Delta (at Atlanta) to address their operations may prove to be helpful.

Reach agreement with airlines on national operations plan

For a longer-term solution to our capacity and delay problems, we have been working on an Operational Evolution Plan (OEP). The FAA is committed to achieving full consensus with the aviation industry in the development of the OEP. This represents the industry's commitment to meet the air transportation needs of the United States over the next decade. The plan focuses on increasing capacity, managing delays, and maintaining the excellent safety record of the system.

Agreement among the airlines, other system users, and airports is critical to the success of the OEP. To that end, we made significant progress over the past month in reaching out to the airlines, the pilots, the controllers, and airports to involve them and gain support for the plan.

This plan has been developed through an open dialogue with the aviation community. We held two "Industry Days" and one-on-one sessions to discuss the plan in detail. We incorporated comments and issues raised by the industry and will address these issues as we build consensus on this plan. This is a public process and we invite all interested parties to review our plan and provide comments. We have posted the OEP on the web for public review.

We are confident that we will reach an agreement on the OEP because it provides solutions that benefit everyone. The solutions will not be easy to implement. Airlines, in

particular, will have to make significant investments in avionics equipage and pilot training for this effort in expanding system capacity and improving efficiency.

Complete chokepoint initiative and measure results

We identified tactical measures to alleviate the chokepoints, or bottlenecks, in the National Airspace System (NAS). These are all in the "triangle" between Chicago, Washington, D.C., and Boston. Our chokepoints initiative focuses on the creation of new procedures and changes to existing programs in order to gain greater efficiency from our current airspace.

Twenty-one initiatives have been identified to make procedural changes to more efficiently use airspace. Eleven are completed and are being measured and evaluated for effectiveness. Five are mid-term initiatives ranging with completion dates from June to December 2001. The remaining five are longer-term actions requiring phased implementation or involve international agreements.

We are in the process of establishing fourteen new sectors to ease congestion and speed traffic flows through the Great Lakes corridor (Chicago area air traffic) and into New York. Our target date for completion is the end of this year. In addition, the FAA has taken the following actions on chokepoints:

- Negotiated an agreement with NavCanada to route air traffic through Canadian airspace when US domestic routes are impacted by weather.

- Conducted a test of radar automation interface between the Cleveland ARTCC and NavCanada's Toronto Center.

- Developed advanced area navigation routes (RNAV) at the Chicago ARTCC and TRACON. These provide greater efficiency by separating aircraft routed to different destinations and give alternative flight plans for pilots around congestion and weather without the need for the controller to provide navigational guidance.

As a result of our initiative so far, we have experienced 25 percent fewer unplanned ground stops for flights going west out of the New York area. We have similarly reduced ground stops for flights flowing north out of the New York area by 37 percent.

But ultimately, Mr. Chairman, everything we have discussed today comes down to people. Passengers are entitled to the most complete information possible about the status of their flights so they can make the best travel decisions for their families, for themselves, and for their business interest.

We are committed to:

- An easily understood and straightforward definition of the problem,
- Keeping new tools for controllers on track,
- Benchmarking airport capacity and creating action plans to solve the problems, address growing demand, and minimize delays,

- Alleviating bottlenecks in the system, and
- Working with the aviation community to plan for aviation needs over the next decade and follow through on implementation.

I hope the airline passengers who have experienced delays – and there have been far too many – who are listening have a better understanding of how – working together – we will resolve these issues with honest resolve and their best interest at heart. They deserve our firm commitment and constant collaboration across the aviation community.

Mr. Chairman, that completes my testimony. I would be pleased to respond to any questions you may have.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

1. *Complete Choke Point Initiatives And Measure Results*

*Choke points are airspace areas that generate significant constraints in the system. The **seven** choke points are located in the highly traveled airspace between Chicago-Washington, D.C.-Boston. **Twenty-one** initiatives have been identified, which focus on procedural changes to gain greater efficiency in the airspace.*

ACTIONS	*BENEFITS*
➢ **11 of the 21 initiatives have addressed reduction in delays in the New York/New Jersey metropolitan area and are completed such as:** – New routes through Canada help avoid convective weather and reduce congestion. – New traffic management procedures are used tactically to adjust flows **To ease flow restrictions at the choke points, 19 new sectors have been identified to segment airspace and reduce bottlenecks.** ♦ *7 are completed. They are:* • Pike, at Indianapolis Center • Waterloo, at Chicago Center • Lake, Geneseo, & Crosby, at Cleveland Center • Lincoln & Omaha, at Minneapolis Center	- New York departures westbound have experienced 25% fewer unplanned ground stops. - Reduced congestion for flights north out of New York airports, thus reducing ground stops by 37%.
➢ **5 of the remaining 10 are mid-term initiatives (to be completed by December 2001), such as:** – To increase the traffic flow rate into the New York/New Jersey metropolitan area and reduce the need to hold arrival traffic. – The Tactical Altitude Assignment Program, which keeps flights between 300 city pairs at lower altitudes, and out of busy high altitude airways (being tested until June 22). – Traffic management procedures to smooth traffic in the Great Lakes sectors. ♦ *An additional 7 sectors will be implemented by December 2001:* • Madison & Batesville, at Indianapolis Center • Geauga, at Cleveland Center • 2 at Philadelphia TRACON • 2 at New York TRACON	– Anticipated benefits from mid-term initiatives will be reductions in miles-in-trail restrictions
➢ **The remaining 5 are longer-term requiring phased implementation or involving international agreements (to be completed by June 2002) such as:** – Addition of new communication equipment at remote sites – Improvements in Canadian automation and area navigation routes (RNAV) routes at Chicago Center. ♦ *The final 5 sectors, to be delivered by June 2002, are:* • Yankee/Fenway, Boston Center • Clarksburg, Cleveland Center • Springfield, Indianapolis Center • Ocean 1 & Ocean 2 at New York Center	– Anticipated benefits from longer-term initiatives will be reductions in miles-in-trail restrictions.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

2. *Use Capacity Benchmarks to Determine Action Plan at Top 10 (8) Airports.*

On April 25, FAA published a study that established benchmarks for 31 of the nation's busiest airports. Benchmarks established an optimal operational number that an airport can accommodate in visual flight rules (VFR) and under instrument flight rules (IFR) conditions. In addition, we have developed action plans for 8 of the most congested airports.

The actions listed are the responsibility of the FAA. These alone will not be sufficient to satisfy projected demand.

ACTIONS	*BENEFITS*
➢ **Website implemented: www.faa.gov/events/benchmarks/** ➢ **The action plans highlighted potential capacity gains derived from FAA procedural changes and equipment installations.** – Atlanta • Traffic Management Advisor (TMA) delivered to Atlanta ARTCC (completed) • Passive Final Approach Spacing Tool. (pFAST) delivered to the new Atlanta TRACON (March 2001). • New Instrument Approach Procedures (2002). • New Departure Procedures (2002-2005).	– Atlanta – Procedures, airspace & technology improvements are expected to increase good weather capacity by 6% and adverse weather capacity by 6% over the next ten years.
– Boston • New Departure Procedures (2001-2004). • New Instrument Approach Procedures (2003).	– Boston – Procedures, airspace & technology improvements are expected to increase good and adverse weather capacity by 4% over the next 10 years.
– Chicago-O'Hare • New Sector (Geneseo) operational (completed). • Madison and Batesville sectors scheduled to be operational (August 25, 2001). • New Sector (Geauga) scheduled to be operational (October 10, 2001) • New Departure Procedures (2002). • New Instrument Approach Procedures (2002). • New Standard Terminal Arrival Routes (2002).	– Chicago – Improvements are expected to increase good weather capacity by 6% and adverse weather capacity by 12% over the next 10 years.
– Newark • New Departure Procedures (April 22, 2001) • New Instrument Approach Procedures (2002). • The redesign effort in the NY/NJ/Phil area to be implemented (December 2005).	– Newark – Improvements are expected to increase good weather capacity by 10% and adverse weather capacity by 7% over the next 10 years.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

2. *Use Capacity Benchmarks to Determine Action Plan at Top 10 (8) Airports.*

On April 25, FAA published a study that established benchmarks for 31 of the nation's busiest airports. Benchmarks established an optimal operational number that an airport can accommodate in visual flight rules (VFR) and under instrument flight rules (IFR) conditions. In addition, we have developed action plans for 8 of the most congested airports. **The actions listed are the responsibility of the FAA. These alone will not be sufficient to satisfy projected demand.**

ACTIONS (cont'd)	*BENEFITS*
– JFK • New Instrument Approach Procedures (2001). • New PRM (2002) • New Standard Terminal Arrival Routes (2002). • New Departure Procedures (2003). • The redesign effort in the NY/NJ/Phil area scheduled to be implemented (December 2005).	– JFK - Improvements are expected to increase good weather capacity by 2% and adverse weather capacity by 3% over the next 10 years.
– LaGuardia • New Instrument Approach Procedure (2001). • New Standard Terminal Arrival Route (2002). • New Departure Procedures (2003) • The redesign effort in the NY/NJ/Phil area to be implemented (December 2005).	– LaGuardia – Improvements are expected to increase good weather capacity by 10% and adverse weather capacity by 3% over the next 10 years.
– Philadelphia • New Standard Terminal Arrival Route (2002). • New Instrument Approach Procedure (2003). • The redesign effort in the NY/NJ/Phil area to be implemented (December 2005).	– Philadelphia – Improvements are expected to increase good weather capacity by 17% and adverse weather capacity by 11% over the next 10 years
– San Francisco • TMA delivery to Oakland ARTCC --begin initial daily use (September 2001). • New Standard Terminal Arrival Routes (2001). • New Departure Procedures (2003) • New Instrument Approach Procedures (2003). • New PRM (2002)	– San Francisco –Improvements are not expected to increase good weather capacity but expected to improve adverse weather capacity by 6% over the next 10 years.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

3. *Keep Free Flight Phase 1 (FFP1) and Phase 2 (FFP2) on Track.*

FFP1 consists of deploying five software programs: Surface Movement Advisor (SMA); Collaborative Decision Making (CDM); Passive Final Approach Spacing Tool (pFAST); User Request Evaluation Tool (URET); and Traffic Management Advisor (TMA). FFP2 calls for defining which Phase 1 capabilities to further deploy and to which locations.

ACTIONS	BENEFITS
➢ **SMA** – Philadelphia (December 1998) – Detroit (December 1998) – Chicago (December 1999) – Dallas/Fort Worth (December 1999) – Newark (December 1999) – Teterboro (December 1999)	– Airline precise touchdown times. – Avoids 3-5 costly airline diversions per week in bad weather.
➢ **CDM** – Is run collectively by the agency and the airlines from the FAA's Air Traffic Control System Command Center in Herndon, VA.	– Provides common data including weather to plan efficient utilization of enroute airspace.
➢ **pFAST** – Dallas/Fort Worth (February 2000) – Los Angeles (February 2001) – Minneapolis (June 2001) – St. Louis (October 2001)	– Adds about eight arrivals/departures per rush through each of the eight rushes per day at DFW.
➢ **URET** – Memphis (November 2001) – Indianapolis (December 2001) – Kansas City (December 2001)	– Increase in direct routings saves airlines approximately $1M per month in Indianapolis airspace and approximately $500,000 in Memphis airspace.
➢ **TMA** – Dallas/Fort Worth (February 2000) – Minneapolis (June 2000) – Denver (September 2000) – Los Angeles (November 2000) – Atlanta (February 2001) – Miami (May 2001) – Oakland (September 2001)	– At Dallas/Fort Worth and Minneapolis, the FAA has seen a 5 percent increase in the airport acceptance rates.
➢ **Complete research management plan May 31, 2001.** ➢ **Monitor research initiatives that may be implemented during 2003-2005.**	

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

4. Reach Agreement With Airlines on National Air Space (NAS) Operations Evolution Plan (OEP).

FAA worked in partnership with industry and other Federal agencies to develop the NAS OEP. OEP integrates and aligns the FAA's activities with those of industry. The plan focuses on key areas, such as new runways; technology, procedure, and airspace changes; as well as airlines' investment in avionics, equipment, and pilot training

ACTIONS	BENEFITS
➢ **Held two Industry Days:** – December 30, 2000 • Delivered the first edition of the plan and solicited industry comments (due January 2001). – April 23, 2001	
➢ **Posted the OEP on the web (April 20, 2001), www.mitrecaasd.com**	
➢ **Final OEP (June 2001).**	
➢ **Execute the Plan's goals:** – 2 near-term goals (2001) • Execute choke point initiatives. • Spring 2001 collaboration and information sharing. – 4 mid-term goals (2002-2004) • Optimize airspace design • Widespread use of Free Flight tools • Reduced vertical separation • Enhanced navigation procedures – 3 long-term goals (2005-2010) • Data link communications • Satellite navigation • Enhanced surveillance	– 14 new runways at the nations top 31airports: provide capacity gains depending on locations Normal increases range from 30 to 60%. – Technology: 5-15% capacity increase depending on airport locations. – Reduce en route congestion. – Improve strategies for dealing with severe weather to reduce delays.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

5. Streamline Approval Procedures for Airport Capacity Projects.

Key actions include identification of environmental delays and expediting Environmental Impact Statements (EIS) for new runways at busiest airports

ACTIONS	BENEFITS
➢ **Report to Congress on Environmental Review of Airport Improvement Projects. Report completed.** ➢ **18 new runways proposed to date (between now and 2010):** – Nine EISs done; four 50% complete; one underway; four projects not yet submitted to FAA for EIS. ➢ **Four EIS teams in place for major runway projects. New team for each new major EIS.** ➢ **Increase environmental resources:** – New hires by end of FY 2001 – Reimbursable agreements – Amend EIS third-party contracts for more support ➢ **Improve Federal interagency coordination.** – DOT-level meeting May 4 to engage Council on Environmental Quality (CEQ). ➢ **Memorandum of Understanding between FAA and National Association of State Aviation Officials to address Federal/State coordination.** – MOU signed April 2001; effort to take 1 year. – Identify individual State requirements that delay project and recommend solutions. ➢ **Reduce environmental documentation with CEQ support.** – First in series of working meetings with CEQ April 26. – Groundwork laid with CEQ to reduce environmental assessment/finding of no significant impact(s). ➢ **Issue best practices guide early summer.** – Consultant selection. Project management, scheduling EIS analyses, public involvement, interagency coordination, and use of technology.	– Solutions appropriately targeted to identified problems. – Bring new runways on line at busiest airports with capacity problems.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

6. Develop standard definition of delays.

On March 28, 2001, FAA reported to that House Transportation Subcommittee on agreement with industry that a delay is "arrival of a plane at its destination gate 15 minutes or more beyond the scheduled arrival time." This action also includes implementing a pilot program to evaluate new delay data, and forming a task force to review the data from the pilot program.

ACTIONS	BENEFITS
➢ **The Pilot Program effort kicked off in January 2001.**	
➢ **To support the Department of Transportation Bureau of Transportation Statistics in evaluating February data received from 4 airlines, American, United, Delta and Southwest (classified by cause).**	– Provide better information to flying public to assist in their decision making. – Determine causes of cancellations and delays experienced by air travelers.
➢ **Support review of data on ongoing basis.**	– Uniform method for tracking delays.

INSPECTOR GENERAL OPENING STATEMENT

Mr. ROGERS. Thank you, Ms. Garvey. We are analyzing the statement. Mr. Mead, the Inspector General.

Mr. MEAD. Thank you, Mr. Chairman. Consistent with our oversight role, I would like to provide an update on each of our commitments. We have submitted a fairly lengthy statement for the record. I would just like to touch on the highlights, if that is permissible.

DEFINITION OF FLIGHT DELAYS

Mr. ROGERS. That is fine.

Mr. MEAD. I am pleased to report that progress has been made on most of the DOT and FAA action items that we committed to monitoring since the March hearing. The most progress has occurred on developing a standard DOT definition of flight delays, of which you are already aware, and establishing a system for tracking the causes of flight delays and cancellations. That system has been established, Mr. Chairman. Now it must be implemented, and there is an important distinction between those two.

OTHER DELAY INITIATIVES

Developing capacity benchmarks for the 31 major airports, which show the number of flight operations that these airports can accommodate in both good and poor weather; now they need to be used. Developing the national operational evolution plan, which is really a set of FAA initiatives and milestones for expanding capacity in the air traffic control system; I have personally been briefed on this plan, and I think it is impressive. Now it needs to be agreed to, polished, refined with the airlines and then implemented. Progress is also being made on the remaining 10, so-called "chokepoint items," including the establishment of several new, air traffic control sectors. I do want to say, though, that even with the progress to date, significant work remains in a number of areas. And on each of the items that have been committed to by FAA and the airlines the key is going to lie in their implementation.

DELAY TRACKING

And I would like to refer now, if I might, to some graphics that I believe you have in front of you. If you look at the Figures 1 through 3 there, you can see that delays this year through March are closely tracking those of last year, which was a record year for delays. FAA's own tracking of delays, of delays for which the air traffic control system is responsible, would show that for the month of March there were fewer delays, but, in fact, when you consider delays for all reasons, including maintenance delays by the airlines and so forth, you will see that they are tracking so far just where we were last year.

[The graphics follow:]

Figure 1: 10 Major Airlines - Arrival Delays (1999, 2000, and 2001)

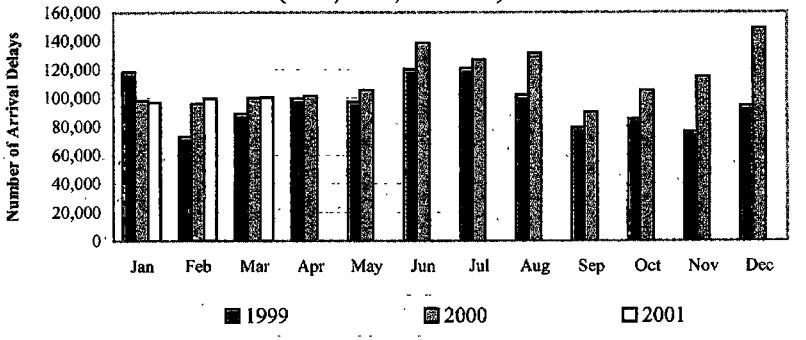


Figure 2: 10 Major Airlines - Cancellations (1999, 2000, and 2001)

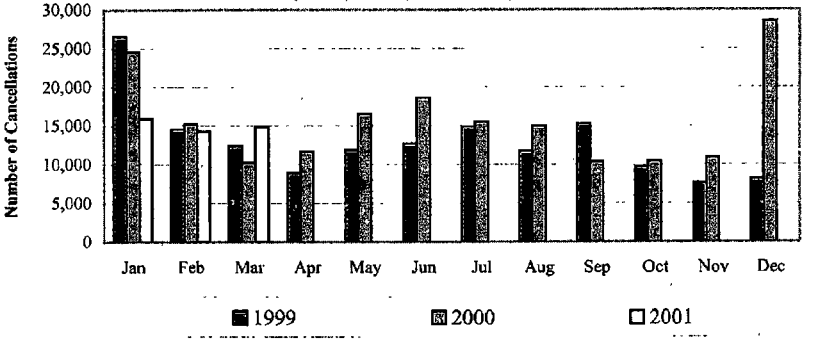
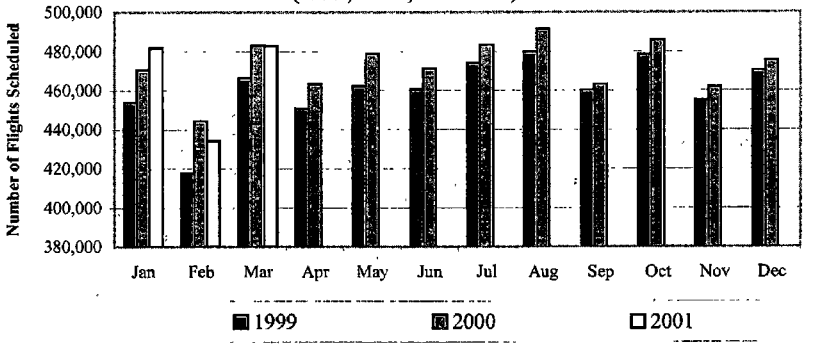


Figure 3: 10 Major Airlines - Scheduled Flights (1999, 2000, and 2001)



Mr. MEAD. Unfortunately, few of the items that DOT and FAA have committed to are likely to provide material relief this summer, but they are a real good starting in providing relief over the next several years. I do think that the initiative of FAA and the airlines to work cooperatively in sharing information this summer is going to provide system relief. I also think the opening up of several new air sectors will provide some relief. But the actions most likely to materially reduce delays this summer are going to be voluntary ones taken by airlines to revamp their schedules at their hubs and efforts to disperse traffic away from these congested areas to other airports where it is economically feasible to do so.

AIRLINE VOLUNTARY ACTIONS TO REDUCE CONGESTION

I would like to refer now to the second of my graphics. Here I would like to refer to actions taken both by American Airlines and Delta Airlines. American reduced the size of peak operations at Dallas-Fort Worth. That is on the second page there, Mr. Chairman, members of the subcommittee.

The red peaks are last year's schedule, and the yellow peaks are this year's schedule. The result is, as shown in Figure 5, that there are only a few times in a day when total arrivals now exceed the capacity rate that is reflected in FAA's capacity benchmarks, and the capacity rate is the blue line.

And you can see a similar effect in Figures 6 and 7 for Delta Airlines' actions in Atlanta. Delta increased the number of what are known as arrival and departure banks, and that reduced the operating peaks for most of the day below the blue capacity line. I think those are good actions, and we are encouraged by the efforts of these two airlines at those two airports in the scheduling area. For airlines that have yet to take action at their hub airports, now is the time to do so on an independent and voluntary basis.

And, of course, in addition to these voluntary efforts, there are other factors that are going to affect this summer. They are including the resolution of the airline new labor negotiations, severe weather, and the performance of the economy, and the demand for business travel.

[The graphic follows:]

Figure 4: American's Scheduled Arrivals at Dallas (4/10/00 vs. 4/9/01)

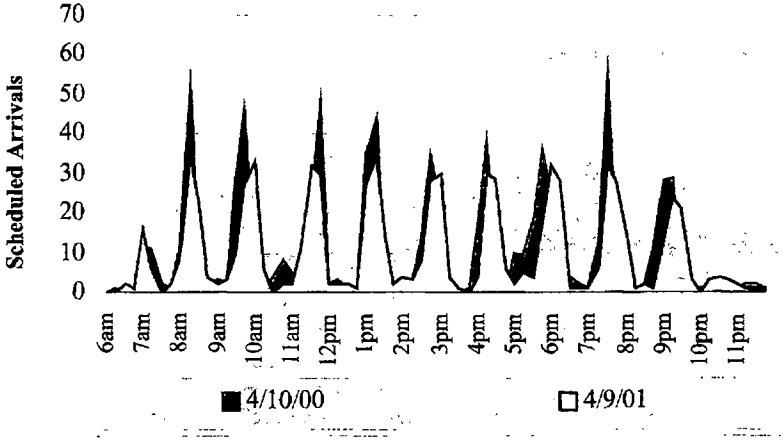


Figure 5: All Airlines Scheduled Arrivals at Dallas (4/10/00 vs. 4/9/01)

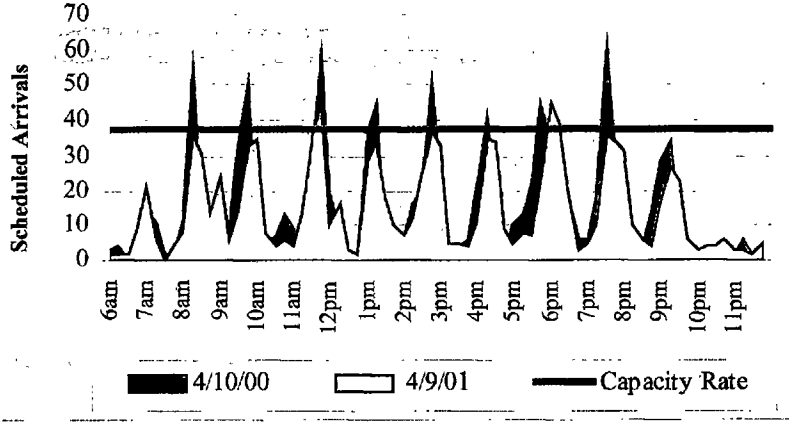


Figure 6: Delta's Scheduled Departures at Atlanta (4/10/00 vs. 4/9/01)

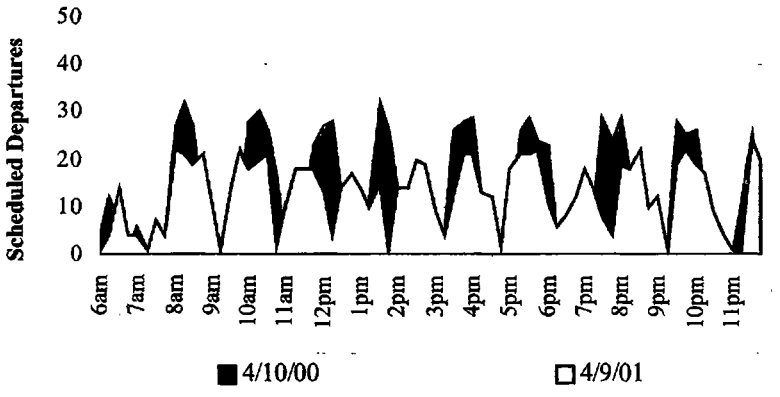
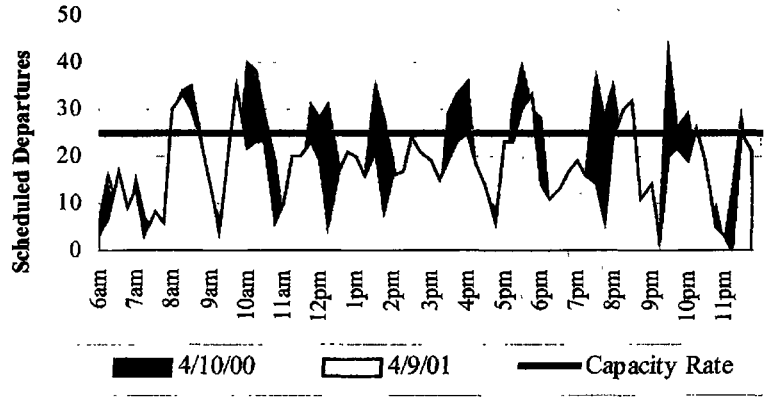


Figure 7: All Airlines Scheduled Departures at Atlanta (4/10/00 vs. 4/9/01)



FLIGHT DELAY PUBLIC DISCLOSURE

Mr. MEAD. I would like to move now, Mr. Chairman, to some key remaining actions. One is to complete the remaining actions on the 10 choke points. A second, and this is probably an area where I am most disappointed, is the airlines ought to be telling their customers, before they buy tickets and without being asked, that the flight they are about to book is either canceled or late 40 percent of the time or more. I think that is only fair business practice that tells people right up front what it is they are buying. Based on everything I have seen so far, Mr. Chairman, I do not believe the airlines will do this voluntarily.

SCHEDULE COMPARISON

Another action item: DOT needs to start right away to compare schedules between 2000 and 2001 at the airlines' hub airports so that they can evaluate the effect of voluntary actions on flight delays on a regular basis. We can do that in the Inspector General's office for a couple of months, but I think, as a matter of routine, the Department ought to pick up on that and do it as a regular practice.

RUNWAY CONSTRUCTION

We have completed a baseline of the 14 currently proposed runway projects, including their completion date, their estimated cost, and the current status. Of the eight most-congested airports only one has completed a runway in the last 10 years—that is Philadelphia in 1999—and only two more of the eight, Boston and Atlanta, plan runways over the next seven years. That tends to put where the new runway construction is going to be in context.

PEAK DEMANDS

We think in this area, too, as Ms. Garvey alluded, that after we get this baseline established, we would like to pass it off to FAA and have them regularly maintain it as part of their own operation of the airport grants program. We have not completed our study of administrative- and market-based options for managing excess demand at congested airports. That needs a lot of careful review and analysis. We have identified them, but it is going to take some time to analyze them. We expect to be done with that towards the end of the summer. I do not think that you would be able to put these things in place in the next month or two anyway. They are things like new lotteries, peak-hour-congestion pricing. That is something that is going to take some time.

CONCLUSION

I wanted to close, Mr. Chairman, with a comment about an item that is not on our list to monitor, but I think it is a strong plus. You will recall when we testified in March, we pointed out that when people think about delays and cancellations, they usually think about inconvenience, the cost to them of their lost time, and so forth. But, there were safety issues. You will recall, I mentioned, there were runway incursions and there were operational errors.

The operational errors, of course, usually occur in the sky—there are planes coming too close together—and in this past year we had a record year for them. We issued a report containing a number of recommendations. I think FAA and the controllers in the last month have really moved out to take some corrective action in that area.

A likely result is going to be, in the near term, a more accurate reporting of operational errors, so the numbers are going to go up. I think it is incumbent on all of us to recognize that for what it is. It is not necessarily an actual increase in the operational errors as much as it is a reflection of a more accurate system of reporting and analyzing the severity of the operational error in relationship to those that are less severe. Thank you, sir.

[The prepared statement of Ken Mead follows:]

**Before the Committee on Appropriations,
Subcommittee on Transportation and Related Agencies,
United States House of Representatives**

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Flight Delays and Cancellations
Federal Aviation Administration

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

Mr. Chairman and Members of the Committee:

At your March 15, 2001, hearing on aviation delays, you asked each of the panelists to list five actions they would take to help reduce the growing number of flight delays and cancellations. We appreciate the opportunity today to provide an update on our actions, and those of the Department of Transportation (DOT) and the Federal Aviation Administration (FAA). Consistent with our oversight role, we committed to monitoring a number of important actions being taken by DOT and FAA to address the growing problem of flight delays and cancellations.

Progress has been made on most of the action items since the March hearing. The most progress has occurred on: developing a standard DOT definition of flight delays, establishing a system for tracking the causes of flight delays and cancellations, developing capacity benchmarks for the 31 major airports, and developing the National Operational Evolution Plan (a set of initiatives and milestones for expanding capacity in the air traffic control system). While progress has been made on these items, the key for each of them is implementation and execution.

As Figures 1-3 on page eight show, delays, cancellations, and flight operations are closely tracking those of last year, a record year for delays and cancellations. However, few of these action items are likely to provide much relief to delays and cancellations in time for this summer. Nevertheless, they are a good start in providing relief in the next several years. Actions most likely to reduce delays this summer are voluntary ones taken by some airlines to revamp their schedules at their hub airports and efforts to disperse traffic away from congested hubs where economically feasible. The initiative of the FAA and the airlines to work cooperatively in sharing information and managing disruptions under the auspices of the Spring/Summer 2001 program and work on the seven choke points should provide benefits this summer as well.[1] Other factors not on our list or FAA's that can affect delays this summer include: the resolution of airline labor negotiations, the level of severe weather, and the performance of the economy and the demand for business travel.

In addition to monitoring actions by FAA and DOT, we committed to three additional actions. Since the last hearing, we have developed a baseline of the 14 currently proposed runway projects, examined the voluntary actions some airlines have taken to reduce delays, and developed a list of demand management options that we are reviewing. We will monitor airport schedules for further voluntary airline actions (if any) taken in response to the release of the capacity benchmarks last week. Runway construction and demand management actions,

[1] These are seven points in the airway system that have become overloaded in recent years, particularly in bad weather, and tend to be the nexus for delays that can spread through the air traffic control system.

however, are unlikely to provide much relief this summer. Each of these commitments will be fully examined in longer-term analysis and review, and will result in two reports on airline delays that we will issue this summer: the first two commitments in a report in July, and the third commitment in a report in September.

The following includes a brief summary of each action item and any progress that has occurred since the March 15, 2001 hearing.

1. **Monitor DOT's progress in establishing a uniform system for tracking the causes of flight delays and cancellations.**

Done:

- On March 28, 2001, Administrator Garvey announced before this Committee that FAA would adopt the Department's current definition of a delayed flight—as one arriving 15 minutes or more after the scheduled arrival time.
- Three of the four air carriers that volunteered to participate in the delay reporting pilot program have submitted causal data for flight delays occurring in February 2001 and all four carriers have submitted cancellation data for the same month. The fourth carrier is expected to submit its delay data within the next week.
- The Bureau of Transportation Statistics (BTS) and FAA are analyzing the submitted data to resolve discrepancies between the airline-reported causes for delayed flights and FAA's information on those flights.

Actions Needed:

- Resolve these reporting discrepancies within the next 2 weeks and put in place the refinements needed to fix them.
- Extend the causal reporting methodology to the other airlines in DOT's delay reporting system as soon as sufficient confidence in the approach is achieved.
- Begin voluntary reporting by the airlines. This can be done on a pilot basis (without release to the public) if data validation and verification are required to ensure the accuracy of the data and their consistency across all of the carriers.
- Begin an expedited rulemaking to require mandatory reporting of the causal data.
- Airlines should notify air travelers before they book their flights if they are purchasing a ticket on a chronically delayed or cancelled flight, that is, one that has been cancelled and/or delayed at least 40 percent of the time in the prior month.

2. **Track airline voluntary actions, such as dispersal of flights from hubs to smaller airports, to help reduce flight congestion and delays.**

   Done:
   - American reduced the size of peak operations periods at Dallas/Fort Worth by slowing its arrival and departure rates and providing more connecting time between flights. (See Figures 4 and 5 on page nine.)
   - Delta reduced the size of peak operations periods at Atlanta by increasing the number of departure and arrival banks from 10 to 12. Banks are the clustering of arriving and departing flights into narrow periods of time (e.g., scheduling 15 departures at 7:00 to 7:15 am). This was done without reducing flight opportunities to its customers because the total number of flights per day has remained the same. (See Figures 6 and 7 on page nine.)
   - American and Northwest reduced the number of scheduled flights at some of their major hub airports in April.

   Action Needed:
   - Rescheduling at hub airports by airlines that have not done so on an independent and voluntary basis.
   - DOT compare 2001 and 2000 flight schedules of airlines at their hubs to gauge the effects of the airlines' voluntary actions on flight delays and cancellations.

3. **Monitor runway construction at the major airports, including costs and schedule status, to ensure additional capacity is produced within established milestones.**

   Done:
   - OIG developed an initial baseline of the 14, currently proposed, runway projects, including completion dates, current status, estimated costs, and major challenges to completing runways on time. (See Table 1 on page 10 for the baseline schedule.) Within the next 3 years (by January 2004), seven of the runway projects are to be completed. The remaining seven will be completed between May 2005 and September 2007.

   Actions Needed:
   - Full development of this baseline by OIG and publishing of the results this summer.
   - Continuous tracking of this baseline by FAA and prompt action to keep runway projects on schedule as risks to meeting planned completion dates are identified.

4. Analyze administrative and market-based options as short-term measures for managing excess demand at congested airports.

Done:

- OIG developed a list of demand management options that are currently being examined as part of an ongoing study. These options range from administrative actions, such as slot lotteries and anti-trust immunity for scheduling, to market-based solutions, such as congestion pricing and flat landing fees.

Actions Needed:

- Complete the OIG study and publish our findings this summer regarding the pros and cons of each demand management option including who benefits and who bears the cost of each option.
- FAA and the Port Authority of New York and New Jersey develop a system for allocating capacity at LaGuardia before September 15, 2001 when the temporary allocation of slots by lottery expires. (See Figure 8 on page nine for the effect of the slot lottery that began in February 2001.)

5. Monitor FAA's progress towards meeting its six commitments.

Commitment 1: Complete action items pertaining to seven major airspace choke points and measure results.

Done:

- FAA has completed 11 of the 21 action items designed to reduce the effect on air traffic of the seven major airspace choke points, all of which are east of the Mississippi River. Several new air traffic control sectors have been established and more are planned.
- FAA has entered into a memorandum of agreement with the controllers' union regarding airspace redesign. The agreement outlines the general ground rules for working through airspace redesign issues and safeguards controller pay from changes if the airspace redesign effort lowers a facility's traffic level.

Actions Needed:

- Complete the following items by the planned date of December 31, 2001, and incorporate the completion dates in the performance standards of the accountable FAA managers.
  1. Flip flop the "Yardley" and "Robbinsville" sectors to increase the flow rate for traffic that affects the New York Center.
  2. Assess military airspace for its ability to accommodate traffic through Canada.
  3. Smooth traffic flows in the Great Lakes Corridor.

4. Conduct and evaluate the Tactical Altitude Assignment Program Test. This program will keep flights flying at lower altitudes for longer periods after takeoff.
5. Reduce the window for the expected Departure Clearance Time during Ground Delay Programs with the goal to minimize the use of multiple restrictions on the same flight.

- Complete these remaining action items by the planned date of July 30, 2002, and incorporate the completion dates in the performance standards of the accountable FAA managers.
  1. Establish a Traffic Coordinator position in the "Liberty West" sector to help coordinate traffic flows in the New York area.
  2. Create a new sector to relieve the busy "Elmira" high sector in the New York Center.
  3. Create an automation interface for radar data between the Cleveland and Toronto Centers.
  4. Design and establish nine new sectors at various locations.
  5. Develop new procedures for the Chicago tower, TRACON, and Center that provide alternate flight paths around bad weather and congestion without controller guidance.

Commitment 2: Use capacity benchmarks to identify areas for improvement (i.e., action plan) at the 10 most delayed airports.

Done:
- FAA completed capacity benchmarks for 31 major airports.
- FAA developed action plans for the eight most delayed airports, which accounted for 75 percent of FAA-tracked delays in 2000.

Actions Needed:
- FAA, the airlines, and the airports need to ensure that milestones are established for the vital capacity enhancement projects at the eight most delayed airports and that those milestones are met.
- These eight airports, with the exception of Atlanta, project insufficient capacity growth to keep up with the projected growth in demand over the next 10 years; therefore, delays are apt to grow at these airports rather than decrease. (See Table 2 on page 11.) FAA, the airlines, and the airports need to devise additional capacity-enhancing projects for these airports to avoid the need to employ demand management techniques.
- DOT and FAA need to determine what administrative and/or market-based options are appropriate and economically efficient for managing excess demand at those airports experiencing high levels of congestion and delays and for which capacity-enhancing projects are unlikely to satisfy current or projected demand (e.g., LaGuardia).

Commitment 3: Ensure air traffic control modernization efforts under Free Flight Phase 1 (FFP1) and Free Flight Phase 2 (FFP2) remain on schedule.

Done:

- FAA has made progress in implementing elements of FFP1. New information-exchange systems (Collaborative Decision Making and Surface Movement Advisor) are largely in place, and new automated controller tools—User Request Evaluation Tool and Center-TRACON Automation System—are in use at a small number of air traffic control facilities.
- Preliminary results indicate that FFP1 will provide modest improvements in capacity, though the benefits will vary by location.

Actions Needed:

- FAA has significant work remaining to complete the development and deployment of the new automated controller tools, which account for over 80 percent of the FFP1 investment.
- FAA needs to complete the FFP2 plan, which includes conducting human factors assessments, completing research management plans, developing a risk mitigation strategy, and finalizing costs for Data Link.

Commitment 4: Reach agreement with airlines and airports on near-term, mid-term, and long-term actions for increasing capacity in the National Airspace System (NAS), as outlined in the National Operational Evolution Plan.

Done:

- FAA presented the draft Operational Evolution Plan on April 23, 2001 to airline and airport officials for their comment. Included in the plan was a summary of proposed responsibilities and required actions to be taken by the FAA, airlines, and airports in the near-term, mid-term, and long-term.

Actions Needed:

- Obtain and analyze the industry's comments on the draft Operational Evolution Plan.
- Reach agreement among all parties by July 2001 on specific activities and milestones to be included in the final plan.
- Implement and execute the plan and hold FAA managers accountable for meeting the plan's milestones in their performance standards.

Commitment 5: Streamline Federal, state, and local procedures for approving enhancements to airport capacity.

Done:

- FAA has begun implementing initiatives to improve the timeliness of environmental reviews. These include increased staffing on expert teams to expedite certain environmental impact statements (EIS), improved Federal and state interagency coordination during environmental reviews, and increased use of categorical exclusions from detailed environmental reviews for projects that have historically resulted in no significant impacts. Such projects include construction of aprons, reconstruction of runways, and marking or grooving runways.

Actions Needed:

- Issue FAA's overdue report to Congress on Federal environmental requirements related to the planning and approval of airport improvement projects.
- Issue the best practices guide for EIS management and preparation and evaluate the effectiveness of the streamlining initiatives currently being put in place.

Commitment 6: Develop standard DOT definition for tracking and reporting flight delays.

Done:

- DOT and FAA have agreed upon a standard definition for a flight delay.

Actions Needed:

- Set a deadline for publishing information on the growth in schedule times for flights between the largest airports on the BTS web site.
- Set a deadline for completing the work on a set of measures to gauge and track the inefficiencies of the air traffic system already built into airline schedules.

Figure 1: 10 Major Airlines - Arrival Delays (1999, 2000, and 2001)

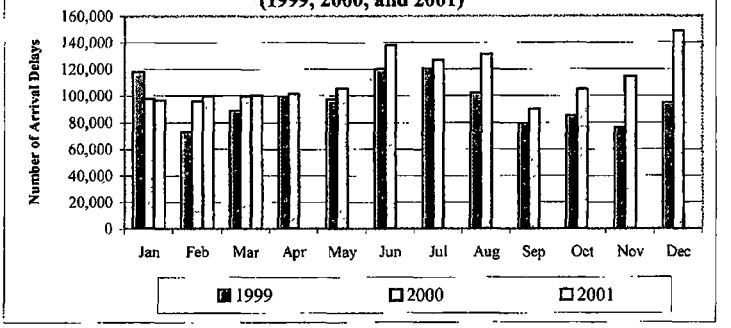


Figure 2: 10 Major Airlines - Cancellations (1999, 2000, and 2001)

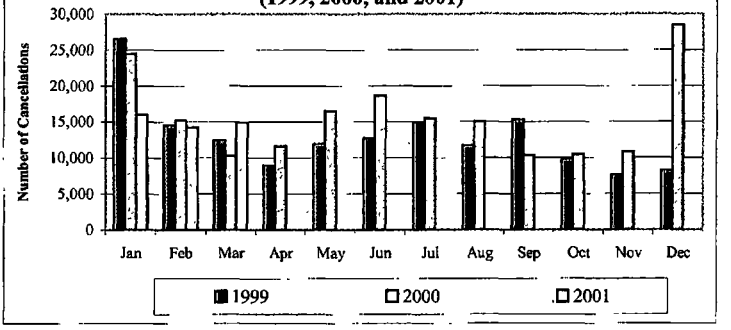
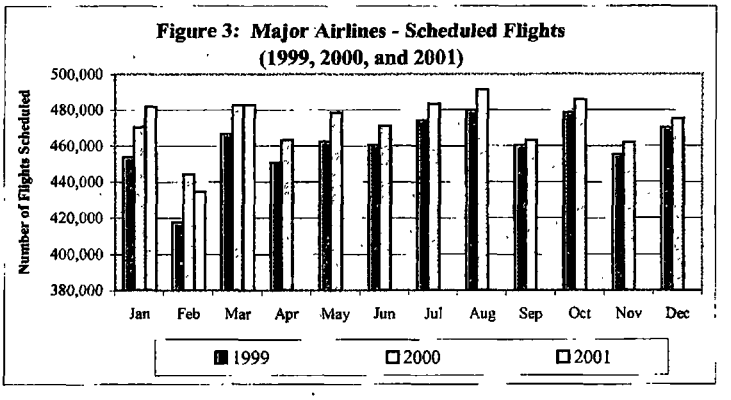


Figure 3: Major Airlines - Scheduled Flights (1999, 2000, and 2001)



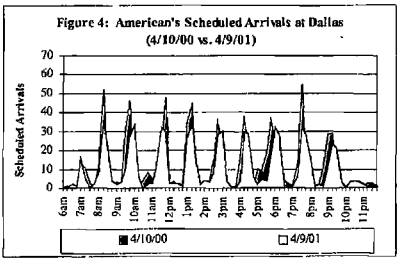


Figure 4: American's Scheduled Arrivals at Dallas
(4/10/00 vs. 4/9/01)
Scheduled Arrivals
4/10/00
4/9/01

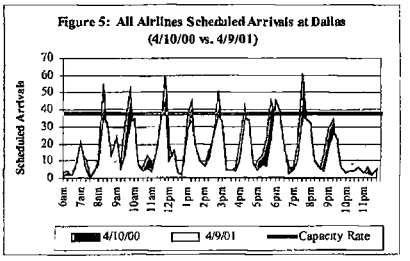


Figure 5: All Airlines Scheduled Arrivals at Dallas
(4/10/00 vs. 4/9/01)
Scheduled Arrivals
4/10/00
4/9/01
Capacity Rate

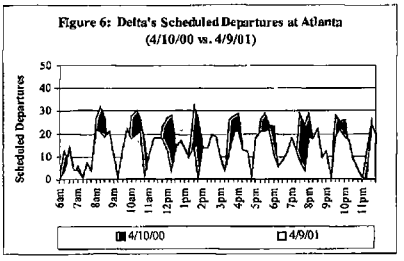


Figure 6: Delta's Scheduled Departures at Atlanta
(4/10/00 vs. 4/9/01)
Scheduled Departures
4/10/00
4/9/01

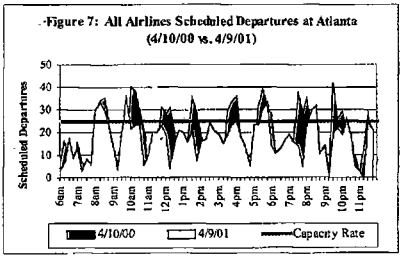


Figure 7: All Airlines Scheduled Departures at Atlanta
(4/10/00 vs. 4/9/01)
Scheduled Departures
4/10/00
4/9/01
Capacity Rate

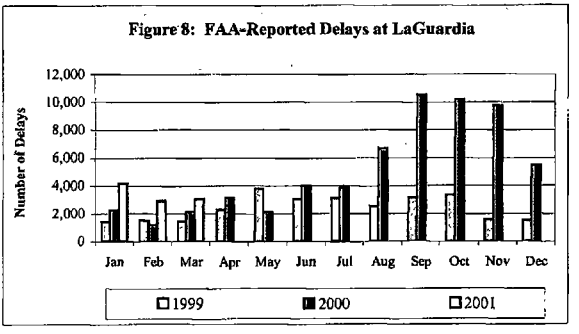


Figure 8: FAA-Reported Delays at LaGuardia
Number of Delays
12,000
10,000
8,000
6,000
4,000
2,000
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
1999
2000
2001

Table 1: Preliminary Results of OIG Survey of New Runway Projects

Airport	Projected Completion Date	Current Status	Estimated Cost ($ in Millions)	Major Challenges to Completing Runway On Time
Detroit	11/01	Started construction on April 2000.	225	Installation of Navaids.
Miami	5/03	Started construction on April 2001	213	Coordination between New Northside runway and adjacent projects.
Orlando	7/03	Design completed on May 2001.	203	None noted.
Houston	9/03	Section 404 Permit received in February 2001.	205	Obtaining environmental approvals including air quality and the Section 404 Wetlands Permit. Installation of Navaids.
Denver	11/03	Under construction.	150	Timely receipt of required Federal funding.
Minneapolis	12/03	Started construction on October 1998.	600	Permits, Navaids, coordination with FAA, tenant relocations, and weather.
Charlotte	1/04	Design to be started in August 2001.	160	Multiple legal sufficiency reviews for EIS and adequate FAA funding.
Atlanta	5/05	Completing EIS.	1,000	Transportation and placement of 27 million cubic yards of dirt, building a runway and taxiway structure over I-285.
Boston	8/05	Completing EIS.	76	Environmental review process, litigation, and local community/ political opposition.
Cincinnati	12/05	Completing EIS.	220	Approval of EIS and property acquisitions.
St. Louis	5/06	First construction contract to be bid on April 24, 2001.	1,156	Utility relocations, intra-agency reviews, permitting, and property acquisition.
Seattle	12/06	Under construction but awaiting U.S. Army Corps of Engineers Section 404 permit to fill wetlands.	773	Pressure from local jurisdictions and uncertain permitting process.
Dulles	5/07	Design Phase Selection in May 2001.	217	FAA environmental staff appears insufficient compared to workload.
Dallas/Ft. Worth	9/07	Capacity planning complete on July 2001.	350	Timely review of environmental documentation.

Table 2: FAA's Projected Increases in Capacity and Operations At the Eight Most Delayed Airports (Next 10 Years)

No.	Airport	Percentage Change in Capacity	Percentage Change in Flight Operations	Net Difference
1	Atlanta	37	28	+9
2	Boston	4	6	-2
3	Kennedy	2	18	-16
4	LaGuardia	10	17	-7
5	Newark	10	20	-10
6	O'Hare	6	18	-12
7	Philadelphia	17	23	-6
8	San Francisco	0	18	-18

I will now address each of our commitments in more detail.

MONITOR DOT'S PROGRESS IN ESTABLISHING A UNIFORM SYSTEM FOR TRACKING THE CAUSES OF FLIGHT DELAYS AND CANCELLATIONS.

DOT's ability to address delays and cancellations is significantly hampered by the lack of a uniform system for tracking delays, cancellations, and their causes. Congress highlighted the need for good causal data over a year ago, as part of The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century or AIR-21 (dated April 5, 2000). This Act directed the Secretary of Transportation to modify existing regulations governing the air carrier data submissions to DOT "to disclose more fully to the public the nature and source of delays and cancellations experienced by air travelers."

In response to this requirement, the Department established the Air Carrier On-Time Reporting Advisory Committee (Task Force). The Task Force issued its interim report to Secretary Slater on November 29, 2000. The report made a number of recommendations, including causal categories for both delays and cancellations and the establishment of a pilot program with selected airlines. The recommended causal categories for both flight delays and cancellations are: (1) circumstances within the air carrier's control, (2) current or forecasted extreme weather, and (3) conditions in the National Aviation System (NAS). FAA will assign delay cause to flights reported by the air carriers as NAS-related delays. These NAS categories are closed runways or taxiways at an airport, air traffic

control equipment problems, normal but disruptive weather patterns, and the volume of traffic in the system.

Over the last 6 weeks, DOT has made substantial progress on the pilot program. However, the timetable for actually beginning to report causal data to the public is not clear at this time. The non-pilot reporting air carriers will need some time to implement and test the new reporting system. Thereafter, if all the reporting airlines agree to begin voluntarily reporting causal data, such reporting is possible sometime this summer. However, if a rulemaking is required to make the new causal reporting mandatory, it is unlikely that the new system would be in place before the start of 2002.

Done:

- On March 28, 2001, Administrator Garvey announced before this Committee that FAA would adopt the Department's current definition of a delayed flight—as one arriving 15 minutes or more after the scheduled arrival time.

- Three of the four air carriers that volunteered to participate in the delay reporting pilot program have submitted causal data for flight delays occurring in February 2001 and all four carriers have submitted cancellation data for the same month. The fourth carrier is expected to submit its delay data within the next week.

- The Bureau of Transportation Statistics (BTS) and FAA are analyzing the submitted data to resolve discrepancies between the airline-reported causes for delayed flights and FAA's information on those flights.

Actions Needed:

- Resolve these reporting discrepancies within the next two weeks and put in place the refinements needed to fix them.

- Extend the causal reporting methodology to the other airlines in DOT's delay reporting system as soon as sufficient confidence in the approach is achieved.

- Begin voluntary reporting by the airlines. This can be done on a pilot basis (without release to the public) if data validation and verification are required to ensure the accuracy of the data and their consistency across all of the carriers.

- Begin an expedited rulemaking to require mandatory reporting of the causal data.

- Airlines should notify air travelers before they book their flights if they are purchasing a ticket on a chronically delayed or cancelled flight, that is, one that has been cancelled and/or delayed at least 40 percent of the time in the prior month.

If the airlines are reluctant to report voluntarily this summer, the BTS is exploring whether it has authority to require reporting under the new system through its "Special Report" authority as defined in 14 Code of Federal Regulations 385.19(e). In such a case, these monthly "special reports" would continue until the rulemaking is completed. BTS should not have to exercise this authority. Once the bugs have been worked out of the new approach and it is extended to all reporting airlines, those airlines should report voluntarily to the Department. The information such causal reporting will provide is crucial to understanding the delay problems in the aviation system and it should not be held hostage to the completion of a rulemaking.

TRACK AIRLINE VOLUNTARY ACTIONS, SUCH AS DISPERSAL OF FLIGHTS FROM HUBS TO SMALLER AIRPORTS, TO HELP REDUCE FLIGHT CONGESTION AND DELAYS.

For the coming summer travel season, voluntary schedule changes by the airlines offer the greatest opportunity for reducing delays. As we testified in March, FAA's airport capacity benchmarks will provide an important baseline for tracking the dispersal of flights from the main hub airports to smaller airports, and for gauging the success of the airlines' other voluntary actions to adjust demand on airport capacity. Voluntary hub rescheduling will prove critical in the short-term,

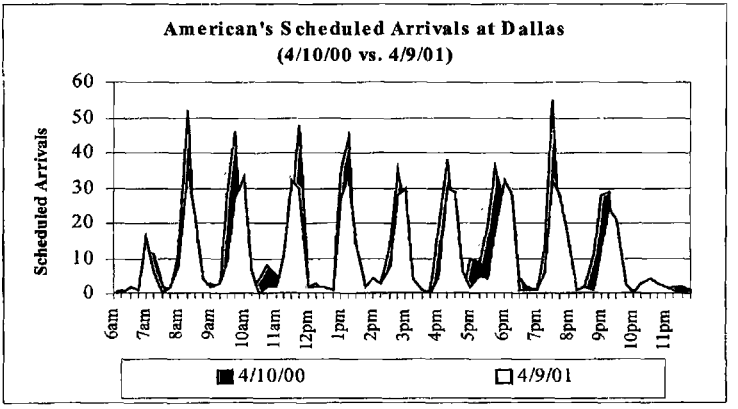
particularly this summer, and dispersal away from hubs, where economically justified, may prove significant over the long term in helping reduce airport congestion and flight delays.[2] The benchmarks were issued last week. Now is the time for each airline to look at what it can do individually and independently to adjust its flight schedules voluntarily.

We are aware of at least two airlines that have taken steps to reschedule flights at their main hubs. Last year, American announced two initiatives to address its delay problems. One was the "isolation" of American's Chicago hub and the other, a retiming of flights into and out of Dallas/Fort Worth. Under the first initiative, American "isolated" some markets, with flights now going back and forth between Chicago O'Hare and endpoint airports, rather than going on to a third airport. This approach is designed to isolate weather–induced delays at O'Hare only to flights that involve travel to or from Chicago. Therefore, flight delays will not ripple out to other markets that are unaffected by the weather problems at O'Hare.

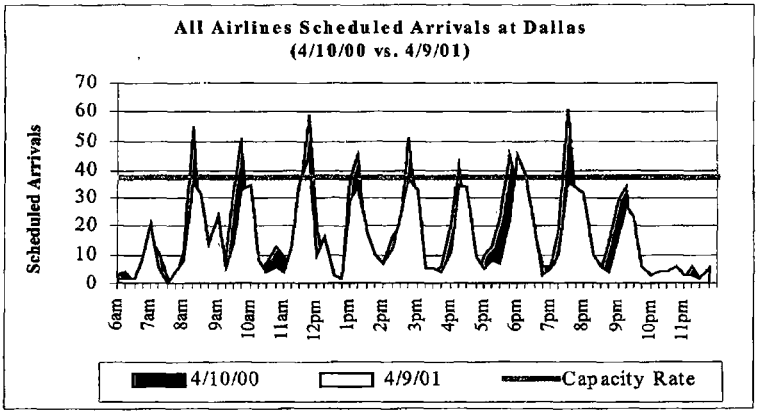
Under the second initiative, American expanded the connecting time between flights, thereby spreading the number of arrivals to and departures from Dallas/Fort Worth over longer time periods. According to American, this latter

[2] A recent study, dated April 11, 2001, by Salomon Smith Barney suggests that the growth of hub dominance within the U.S. airline industry has peaked. In 2000, the hub and spoke airlines grew faster in non-hub markets than in their hubs for the first time since 1992. Furthermore, the percentage of connecting passengers declined due to an increased bypassing of the hub through direct flights.

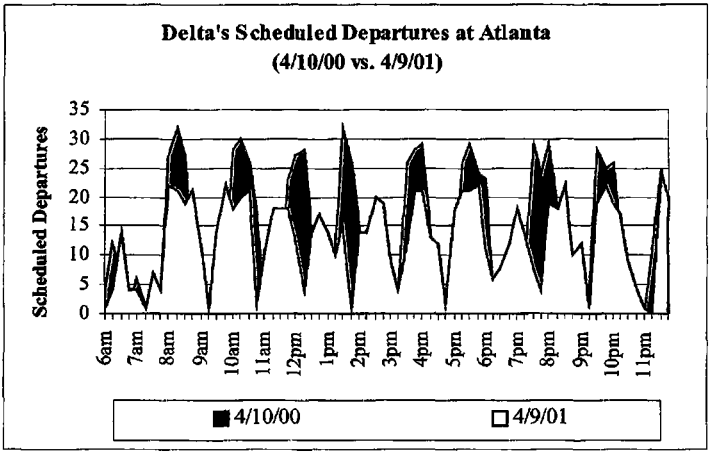
effort aimed to eliminate the bunching of flights into the airport at peak times. This point is supported by our analysis of American's scheduled arrivals at Dallas/Ft. Worth (see following figure).



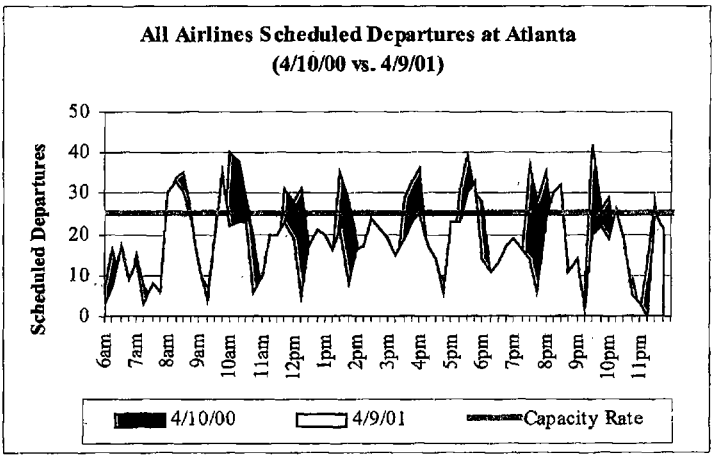
Moreover, American (which comprises nearly 70 percent of scheduled flights at Dallas/Ft. Worth) succeeded in moving many of the airport's arrival peaks below FAA's capacity benchmark, as illustrated by the next figure.



In a similar vein, Delta recently increased the number of departure and arrival banks at Atlanta Hartsfield airport from 10 to 12. According to Delta, the goal of this rescheduling is to disperse flights from peak periods of demand to less congested periods. This point is supported by our analysis of Delta's scheduled departures at Atlanta (see following figure).



Moreover, Delta (which comprises over 70 percent of scheduled flights at Atlanta) succeeded in moving many of the airport's departure peaks below FAA's capacity benchmark, as illustrated by the next figure.



Whether by increasing connecting times or the number of departure banks, such voluntary actions should help to reduce congestion and, in turn, flight delays. Whether the airlines' voluntary efforts continue into the busy summer travel season remains to be seen. The Department needs to closely evaluate such actions to determine their effect on flight congestion and delays this year. As part of our ongoing audit in this area, we will be measuring the impact of these recent initiatives as well as any others undertaken by the major airlines.[3]

[3] At the request of the Senate Commerce, Science, and Transportation Committee, OIG is assessing the extent to which growing flight volume, airline scheduling practices, and ground infrastructure constraints have led to increases in flight delays and cancellations. We anticipate issuing our report this summer.

Done:

- American reduced the size of peak operations periods at Dallas/Fort Worth by slowing its arrival and departure rates and providing more connecting time between flights.

- Delta reduced size of peak operations periods at Atlanta by increasing the number of departure and arrival banks from 10 to 12.[4] This was done without reducing flight opportunities to its customers because the total number of flights per day has remained the same.

- American and Northwest reduced the number of scheduled flights at some of their major hub airports in April.

Action Needed:

- Rescheduling of hub airports by airlines that have not done so on an independent and voluntary basis.

- DOT compare 2001 and 2000 flight schedules of airlines at their hubs to gauge the effects of airlines' voluntary actions on flight delays and cancellations.

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[4] Banks are the clustering of arriving and departing flights into narrow periods of time (e.g., scheduling 15 departures at 7:00 to 7:15 am).

MONITOR RUNWAY CONSTRUCTION AT THE MAJOR AIRPORTS, INCLUDING COSTS AND SCHEDULE STATUS, TO ENSURE ADDITIONAL CAPACITY IS PRODUCED WITHIN ESTABLISHED MILESTONES.

Over the last decade, only 6 of the 30 largest airports have built new runways. However, another 14 airports are in various stages of adding new runways, with completion dates ranging from 2001 to 2007. According to our analysis of FAA's capacity benchmarks, these 14 runways (as well as one completed late last year at Phoenix) will increase capacity at these airports approximately 22 percent under good weather conditions, and nearly 27 percent under adverse weather conditions. Given the significant capacity generated by these new runways, it is paramount that these projects stay on track.

Based on initial survey work, we have assembled a baseline of the 14 proposed runway projects, including completion dates, current status, estimated costs, and major challenges to completing these runways on time. (See Table 1 on page 10.) Some of the challenges cited by the airports to completing these runways on time include: property acquisition; environmental studies and permits, opposition from local jurisdictions, and coordination between FAA and airport officials on installing needed navigational equipment.

The milestones established by the airport authorities are matters of importance that need to be carefully monitored. FAA's intervention to assist airport authorities in keeping projects on track may be necessary as risks to meeting the planned completion dates are identified. While these are local projects that will have to address local concerns, the projects do benefit the national interest and would benefit from continuous oversight and assistance from the FAA.

Done:

- OIG developed an initial baseline of the 14, currently proposed, runway projects, including completion dates, current status, estimated costs, and major challenges to completing runways on time. Within the next 3 years (by January 2004), seven of the runway projects are to be completed. The remaining seven will be completed between May 2005 and September 2007.

Actions Needed:

- Full development of this baseline by OIG and publishing of the results this summer.

- Continuous tracking of this baseline by FAA and prompt action to keep runway projects on schedule as risks to meeting planned completion dates are identified.

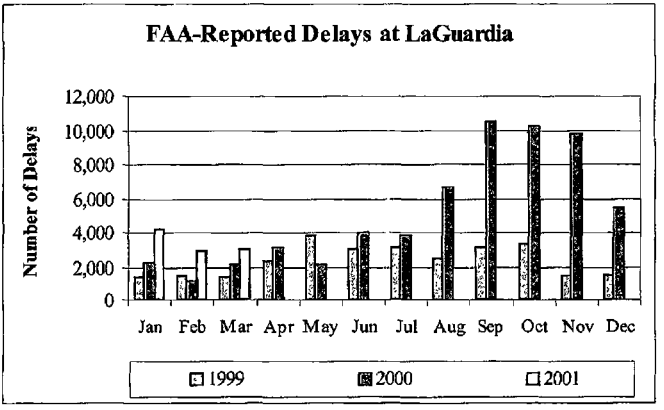
ANALYZE ADMINISTRATIVE AND MARKET-BASED OPTIONS AS A SHORT-TERM MEASURE FOR MANAGING EXCESS DEMAND AT CONGESTED AIRPORTS.

A variety of options are being considered by Congress, DOT, and airport operators to manage growing flight demand at some of the more congested airports. Among the administrative and market-based options being considered are: congestion pricing, flat landing fees, slot lotteries and auctions, anti-trust immunity for scheduling purposes, and various operational restrictions (e.g., aircraft size and perimeter rules). While each of these options has the potential to help curb flight congestion, and, in turn, reduce delays, various concerns have been raised as to their impact on new entrant and regional airlines, service to smaller communities, and airfares. Of particular importance are answers to who benefits from each option and who bears the cost.

The most recent example of an administrative approach is the use of a lottery program at LaGuardia. LaGuardia is a slot-controlled airport. AIR-21 permitted exemptions to the slot controls for new entrant airlines and for airplanes with fewer than 71 seats—typically used for service to small communities. After the exemption took effect, LaGuardia experienced more than a 26-percent increase in the number of daily scheduled flights, and with this increase an even larger percentage growth in flight delays as tracked by FAA. For example, delays were

up more then 525 percent in November 2000 as compared to the same period in 1999.

As a result, FAA conducted a lottery to cut the number of new flights to 159 more than under the prior slot controls, with many of these flights being reserved for new entrants and regional jet operators. As the following figure illustrates, the number of reported delays dropped noticeably once the lottery went into effect in late January 2001, with FAA's February and March 2001 delay statistics more closely matching those of previous years. Nevertheless, delays are still greater than in 2000.



FAA's lottery program, however, is only a temporary measure for easing congestion at LaGuardia and is due to expire on September 15, 2001. FAA is currently exploring various administrative and market-based options for managing

air traffic demand at LaGuardia in the long-term and will seek public comments via a Federal notice to be issued in May 2001.

Done:

- OIG developed a list of demand management options (i.e., administrative and market-based) that are currently being examined as part of an ongoing study. These options rage from administrative actions, such as slot lotteries and anti-trust immunity for scheduling, to market-based solutions, such as congestion pricing and flat landing fees.

Actions Needed:

- Complete the OIG study and publish our findings this summer regarding the pros and cons of each demand management option including who benefits and who bears the cost of each option.

- FAA and the Port Authority of New York and New Jersey develop a system for allocating capacity at LaGuardia before September 15, 2001 when the temporary allocation of slots by lottery expires.

MONITOR FAA'S PROGRESS TOWARDS MEETING ITS SIX COMMITMENTS:

We found that FAA had made progress in meeting most of its six commitments to the Committee. The following summarizes our assessment of each commitment.

Commitment 1: ***Complete action items pertaining to seven major airspace choke points and measure results.***

Since we testified in March, the status of key short-term action items remains unchanged—11 of 21 planned actions have been completed. FAA expects 5 of the remaining 10 action items to be completed by December 2001. These items include increasing the flow rate for traffic to New York airports from Washington Center airspace by balancing traffic to Newark and LaGuardia (which must pass through narrow sectors located in Washington Center airspace) and working with the military to revise airspace to accommodate traffic rerouted through Canada. The remaining 5 action items are scheduled for completion by July 30, 2002. These items are longer-term actions that will require phased implementation, future funding, equipment, or involve international agreements.

It is important to note that FAA's efforts thus far reflect only short-term efforts and do not speak to a much larger effort to redesign the national airspace from a strategic perspective. The costs of this effort are not yet known but will likely be

substantial. A key cost driver is the environmental work required to make changes in air traffic patterns. Environmental concerns become more pronounced and complex at lower altitudes where aircraft are preparing to land and take off.

Done:

- FAA has completed 11 of the 21 action items designed to reduce the effect on air traffic of the seven major airspace choke points, all of which are east of the Mississippi River. Several new air traffic control sectors have been established and more are planned.

- FAA has entered into a memorandum of agreement with the controllers' union regarding airspace redesign. The agreement outlines the general ground rules for working through airspace redesign issues and safeguards controller pay from changes if the airspace redesign effort lowers a facility's traffic level.

Actions Needed:

- Complete the following items by the planned date of December 31, 2001, and incorporate the completion dates in the performance standards of the accountable FAA managers.
  1. Flip flop the "Yardley" and "Robbinsville" sectors to increase the flow rate for traffic that affects the New York Center.

2. Assess military airspace for its ability to accommodate traffic through Canada.
3. Smooth traffic flows in the Great Lakes Corridor.
4. Conduct and evaluate the Tactical Altitude Assignment Program Test. This program will keep flights flying at lower altitudes for longer periods after takeoff.
5. Reduce the window for the expected Departure Clearance Time during Ground Delay Programs with the goal to minimize the use of multiple restrictions on the same flight.

- Complete these remaining action items by the planned date of July 30, 2002, and incorporate the completion dates in the performance standards of the accountable FAA managers.
  1. Establish a Traffic Coordinator position in the "Liberty West" sector to help coordinate traffic flows in the New York area.
  2. Create a new sector to relieve the busy "Elmira" high sector in the New York Center.
  3. Create an automation interface for radar data between the Cleveland and Toronto Centers.
  4. Design and establish nine new sectors at various locations.
  5. Develop new procedures for the Chicago tower, TRACON, and Center that provide alternate flight paths around bad weather and congestion without controller guidance.

Commitment 2: Use capacity benchmarks to identify areas for improvement (i.e., action plan) at the 10 most delayed airports.

On September 14, 2000, we first cited the need for capacity benchmarks for the Nation's largest airports.[5] Although development of these benchmarks took longer than was anticipated, FAA has now achieved an important milestone by issuing its report on capacity benchmarks last week. To FAA's credit, the benchmarks are more than just a set of two numbers (optimum arrival and departure rates based on good weather conditions and reduced rates based on adverse weather conditions) for some 31 airports, but also project the additional capacity gained through planned runway construction, installing new air traffic control equipment, and/or changing air traffic control procedures.

In analyzing FAA's capacity benchmarks, we found that nearly 70 percent of new capacity at these 31 airports will come from planned runway construction at 14 of them (as well as the recently completed runway at Phoenix), with the remainder achieved through new ATC equipment and procedural changes. We also found that some airports will gain 40 percent or more in capacity, while others anticipate little or no change from current levels. The following table lists the five airports with the highest and lowest increase in capacity based on FAA's benchmark data.

[5] OIG statement before the Committee on Commerce, Science, and Transportation, United States Senate, September 14, 2000.

Five Airports with the Highest and Lowest Projected Increase in Capacity Under Good Weather Conditions

Highest Increase

Rank	Airport	Percentage Capacity Increase
1	Seattle	57
2	Dulles	49
3	Houston	42
4	Phoenix	40
5	Atlanta	37

Lowest Increase

Rank	Airport	Percentage Capacity Increase
1	Baltimore	0
2	Las Vegas	0
3	San Francisco	0
4	Tampa	0
5	Kennedy	2

As part of the Airport Capacity Benchmark Report 2001, FAA included action plans for the eight most delayed airports.[6] These plans include a summary of each airport's delay statistics, projected future demand, and planned improvements—including any added capacity resulting from these improvements. Our examination of these plans, however, indicates that demand will exceed projected increases in capacity at seven of the eight airports—as illustrated by the following table.

[6] In ranking the 31 airports by the percent of Operations Network (OPSNET) delays per 1,000 flight operations in 2000, FAA selected 3 percent as the cut off point for determining those airports for which action plans would be developed. These included LaGuardia (15.6%), Newark (8.1%), Chicago (6.3%), San Francisco (5.7%), Boston (4.8%), Philadelphia (4.4%), Kennedy (3.9%), and Atlanta (3.1%). Some of the airports not making the cut included: Houston (2.8%), Dallas/Ft. Worth (2.4%), Phoenix (2.2%) and Los Angeles (2.2%).

FAA's Projected Increases in Capacity and Operations[7] At the Eight Most Delayed Airports (Next 10 Years)

No.	Airport	Percentage Change in Capacity	Percentage Change in Flight Operations	Net Difference
1	Atlanta	37	28	+9
2	Boston	4	6	-2
3	Kennedy	2	18	-16
4	LaGuardia	10	17	-7
5	Newark	10	20	-10
6	O'Hare	6	18	-12
7	Philadelphia	17	23	-6
8	San Francisco	0	18	-18

Barring new sources of capacity (e.g., new runways or technology) and/or reduced demand, additional actions may be needed to avoid future increases in flight delays at these seven airports. Such actions could include one or more of the various administrative and market-based options under consideration by DOT and Congress, including: peak-hour pricing, flat landing fees, slot auctions or lotteries, and granting anti-trust immunity to the airlines for scheduling purposes.

Done:

- FAA completed capacity benchmarks for 31 major airports.
- FAA developed action plans for the eight most delayed airports, which accounted for 75 percent of FAA-tracked delays in 2000.

[7] Flight operations projections were derived from FAA's Terminal Area Forecast System.

Actions Needed:

- FAA, the airlines, and the airports need to ensure that milestones are established for the vital capacity enhancement projects at the eight most delayed airports are met.

- These eight airports, with the exception of Atlanta, project insufficient capacity growth to keep up with the projected growth in demand over the next 10 years; therefore, delays are apt to grow at these airports rather than decrease. FAA, the airlines, and the airports need to devise additional capacity-enhancing projects for these and other airports to avoid the need to employ demand management techniques.

- DOT and FAA need to determine what administrative and/or market-based options are appropriate and economically efficient for managing excess demand at those airports experiencing high levels of congestion and delays and for which capacity-enhancing projects are unlikely to satisfy current or projected demand (e.g., LaGuardia).

Commitment 3: ***Ensure air traffic control modernization efforts under Free Flight Phase 1 and 2 remain on schedule.***

FAA's Free Flight Phase 1 (FFP1) initiative, with an estimated cost of over $700 million, is composed of new information-exchange systems that link FAA and airline facilities, and new automated controller tools (software programs that help air traffic controllers manage the flow of airplanes in the system). FAA plans to have all of the systems in place by the end of 2002. FFP1 has passed the halfway point in terms of its planned budget and schedule, and FAA is currently spending about $18 million per month on FFP1 initiatives. Much work remains in terms of software development, testing, and integration with other systems to complete FFP1 by the end of 2002 as planned.

FAA is in the process of developing a plan for Free Flight Phase 2 (FFP2), which includes the geographic expansion of select FFP1 initiatives, introduction of new technologies, such as Data Link, and continuation of a number of research efforts from 2003 through 2005. FAA estimates FFP2 to cost over $700 million, excluding costs for Data Link, which are still being refined. At this time, the question is not whether to move forward, but rather at what pace to ensure the effort is manageable and sustainable.

Done:

- FAA has made progress in implementing elements of FFP1. New information-exchange systems (Collaborative Decision Making and Surface Movement Advisor) are largely in place, and new automated controller tools—User Request Evaluation Tool and Center-TRACON Automation System—are in use at a small number of air traffic control facilities.

- Preliminary results indicate that FFP1 will provide modest improvements in capacity, though the benefits will vary by location.

Actions Needed:

- FAA has significant work remaining to complete the development and deployment of the new automated controller tools, which account for over 80 percent of the FFP1 investment.

- FAA needs to complete the FFP2 plan, which includes conducting human factors assessments, completing research management plans, developing a risk mitigation strategy, and finalizing costs for Data Link.

Commitment 4: ***Reach agreement with airlines and airports on near-term, mid-term, and long-term plans for increasing capacity in the National Airspace System (NAS), as outlined in the National Operational Evolution Plan.***

FAA's National Airspace System (NAS) Operational Evolution Plan represents an important step towards addressing capacity constraints at many of the Nation's busiest airports. The goals of this effort are to: (1) describe the operational evolution of the NAS as it relates to increasing capacity while maintaining safety, (2) devise a set of credible initiatives that focus the aviation community on solutions for the 2000 to 2010 timeframe, and (3) link these initiatives to a timetable and specific activities.

The plan calls for various near-term, mid-term, and long-term actions to increase capacity. For the near-term (2001), these actions include resolving remaining choke points and continuing collaboration and information sharing with the airlines (i.e., Spring 2001). For the mid-term (2002 to 2004), the plan calls for optimizing airspace design, widespread use of Free Flight Tools, reduced vertical separation, and enhanced navigation procedures. Finally, for the long-term (2005 to 2010), the plan cites data communications, satellite navigation, and enhanced surveillance systems.

Last week, senior FAA officials met with airline and airport representatives to go over the draft plan and receive comments on a proposed set of responsibilities and required actions to be completed by FAA, the airlines, and airports in the near-term, mid-term, and long-term. *Industry support is absolutely critical because many initiatives will require airspace users, principally large commercial airlines, to equip their aircraft with new avionics for navigation, surveillance, and communication functions.* At the meeting, FAA asked industry to provide comments by the end of this week and thereafter FAA intends to work with the airlines and airports to achieve agreement on a final plan by July 2001. FAA points out—and we agree—that the final Operational Evolution Plan will be a "living document" that will need to be updated periodically to reflect changing circumstances.

Done:

- FAA presented the draft Operational Evolution Plan on April 23, 2001 to airline and airport officials for their comment. Included in the plan was a summary of proposed responsibilities and required actions to be taken by the FAA, airlines, and airports in the near-term, mid-term, and long-term.

Actions Needed:

- Obtain and analyze the industry's comments on the draft Operational Evolution Plan.

- Reach agreement among all parties by July 2001 on specific activities and milestones to be included in the final plan.

- Implement and execute the plan and hold FAA managers accountable for meeting the plan's milestones in their performance standards.

Commitment 5: ***Streamline Federal, state, and local procedures for approving enhancements to airport capacity.***

According to FAA, several initiatives are being implemented to help improve the timeliness of environmental reviews within its control. These include dedicating more FAA staff to environmental reviews, increasing the number of projects that are excluded from detailed environmental review because they have historically resulted in no significant environmental impacts, and reviewing ways to shorten and streamline environmental assessments with findings of no significant environmental impact.

Staffing. FAA has used a team of experts to expedite certain environmental impact statements (EIS) and is expanding this approach. FAA wants to form an EIS team for every large hub airport with a runway project and put airport staff and their consultants and FAA staff on each team. A number of airport proprietors have offered to provide funding for more dedicated and fully staffed teams, and FAA is in the process of developing a workable arrangement.

Processes. FAA is increasing the number of projects that are categorically excluded from detailed environmental review because they have historically resulted in no significant impacts. (Such projects include construction of aprons, re-construction of runways, and marking or grooving runways.) FAA is reviewing ways to shorten and streamline Environmental Assessments with findings of no significant impact and EISs to reduce paperwork and delays.

Studies. In accordance with AIR-21, FAA is conducting a study of Federal environmental requirements related to the planning and approval of airport improvement projects. FAA anticipates issuing its findings to Congress in May. FAA is also working on methods to improve Federal and state interagency coordination during environmental reviews and is planning to issue a guide on best practices for EIS management and preparation.

Done:

- FAA has begun implementing initiatives to improve timeliness of environmental reviews. These include increased staffing on expert teams to expedite certain EIS, improved Federal and state interagency coordination during environmental reviews, and increased use of categorical exclusions from detailed environmental reviews for projects that have historically resulted in no significant impacts. Such projects include construction of aprons, reconstruction of runways, and marking or grooving runways.

Actions Needed:

- Issue FAA's overdue report to Congress on Federal environmental requirements related to the planning and approval of airport improvement projects.

- Issue the best practices guide for EIS management and preparation and evaluate the effectiveness of the streamlining initiatives currently being put in place.

Commitment 6: Develop Standard DOT Definition for Tracking and Reporting Flight Delays.

On March 28, 2001, Administrator Jane Garvey announced before this Committee that FAA would adopt the Department's current definition of a delayed flight—as one arriving 15 minutes or more after the scheduled arrival time. Although delays will continue to be tracked throughout all segments of the flight (i.e., gate departure, taxi-out, en route, taxi-in, and gate arrival), causal codes will only be assigned to flights that arrive 15 minutes or more past their scheduled arrival times at the gate.

FAA and the Department have made progress by establishing a common definition for a delay. However, as we noted in our July 25, 2000 report, the evolving congestion and delays in the airspace system over the last decade have caused the airlines to adjust their flight schedules. The result is a confusing situation for air travelers whose flights may depart the gate late, sit on taxiways for long periods, and then arrive on time. Thus, we need to have another indicator to record and identify the causes for these inefficiencies if we are to fully improve our national airspace system.

Staff of the Department and FAA have begun discussions on developing one or more measures that will gauge the delay problem already built into existing

schedules. We are not asking air carriers to revise their schedules to eliminate this expected delay—air travelers need to know what the actual expected arrival time will be given the current conditions. Instead, such a measure would identify where improvements are needed in the system that will permit airlines to reduce scheduled flight times toward their ideal levels while achieving those schedules with high on-time arrival rates. We encourage the Department and FAA to continue these discussions and to set some near-term milestones so as to expedite this process.

BTS has developed a system for reporting the growth in schedule time for flights between the largest airports. BTS officials hope to make this information available to the public on their web site in the near future.

Done:

- DOT and FAA have agreed upon a standard definition for a flight delay.

Actions Needed:

- Set a deadline for publishing information on the growth in schedule times for flights between the largest airports on the BTS web site.

- Set a deadline for completing the work on a set of measures to gauge and track the inefficiencies of the air traffic system already built into airline schedules.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions you might have.

AIR TRANSPORT ASSOCIATION (ATA) OPENING STATEMENT

Mr. ROGERS. Thank you. Mr. Merlis.

Mr. MERLIS. Thank you, Mr. Chairman. I would like to report on each of the steps that I committed to at the subcommittee's March 15th hearing.

HERNDON COMMAND CENTER

First, we committed to better utilizing the products of the Herndon Command Center conference calls to address the daily schedule so that we can identify places where delays may be occurring and take steps to reduce the inconvenience to our customers. The Spring 2001 delay-mitigation program began on April 1st. So far approximately 3,100 airline and FAA employees have been through a joint airline-FAA training process in order to better implement that program.

Each morning, the air carriers conduct an industry-only, weather-briefing conference call and then use the product of that in the every-two-hour conference call that takes place with the FAA. I think it is fair to say, based on the fact that so far, from preliminary data for the month of April being better than it was April of last year, these efforts have proven fruitful.

DELAY REPORTING ADVISORY COMMITTEE

Secondly, we said that, subject to approval by DOT, we would put in place the recommendations of the DOT Delay Reporting Advisory Committee so that we have this common system by which we can inform customers of the reasons for delay and address delays.

Four ATA-member carriers—American, Delta, Southwest, and United—are participating in a pilot program, collecting the data and submitting it to DOT so that DOT will know how to fashion the appropriate rule, after which all ATA members will comply with whatever that rule is.

FLIGHT INFORMATION DISPLAY SYSTEM

Thirdly, we said we would pursue the transfer of delay data from the FAA's data base into the carriers' systems used to inform customers. All of our member carriers have launched programs to improve the quality of the delay information that is provided to customers. Carriers have installed, and are actively pursuing, a variety of new systems to be installed at various locations. For example, American Airlines has already deployed new, gate-information-display systems at Chicago, Phoenix, Philadelphia, Columbus, Memphis, DFW Terminal 2, Los Angeles Terminal 4, and Salt Lake City, and ultimately plans to install these screens, which will have that accurate information, at 40 of the most delay-plagued airports.

American is also upgrading the current flight-information-display systems at its eight busiest airports and will replace the older systems in 267 airports. Delta has installed plasma-screen, gate-information-display systems at four airports and will complete seven of them by Labor Day. The airports that they have chosen to install first are those which have the most frequent flight delays.

Northwest has installed this new technology at approximately 30 percent of the gates that it serves, and by the end of the year they anticipate having it at about 50 percent of their gates. And in the case of Southwest Airlines, which does not have the same technological base as those other carriers I mentioned, they embarked upon a similar kind of program, and they anticipate that this will be completed within 18 months.

The undertaking actually turns out to be more complex than just transferring the FAA's data. The FAA's data does not include the estimated time of arrival at subsequent airports, and that is what needs to be put in these programs, and we are doing that.

One other point related to that is that during the course of this month we anticipate that FAA's airport-specific data will be put up in the gate rooms where CNN Airport Network is offered. That is approximately 1,600 gates at 30 of our nation's busiest airports. So to the extent that is improvement in the quality of the information that is being provided to customers, we are committed to doing that, too.

IDENTIFY CAPACITY EXPANSION PROJECTS

My fourth item was to work with the airport community to identify capacity-expansion projects that have the goal of reducing delays and to work with the airport community to find ways to fulfill those. We have asked each of our members to work with the airports they serve to pursue the airport-expansion projects identified in the testimony last month, and we will continue to advocate these. As a trade association, we have been called upon in a number of locations—Seattle and Boston and San Francisco in the past month or so—and we have been outspoken in our support for those efforts.

Similarly, we have joined forces with the airport community in forming an advocacy organization, Runways: A National Coalition, the goal of which is to streamline the federal-state environmental process and to take steps to overcome public opposition to increased runway capacity. There are 16 individual airports and airport systems with which we are working on that program.

DENIED BOARDING COMPENSATION PROGRAM

And lastly, we said that we would file a petition to update the denied-boarding compensation program, which was implemented by the Department of Transportation some 20-odd years ago. On April 3rd, we did file such a petition requesting that the Department of Transportation issue new rules which take into effect what has transpired over the last 20-plus years.

I would be happy to answer any detailed questions that come off the written statement, which was far more comprehensive than my oral statement.

[The prepared statement of Edward Merlis follows:]

Statement of Edward A. Merlis, Senior Vice President
Air Transport Association of America
Before the Subcommittee on Transportation,
Committee on Appropriations
House of Representatives Hearing on
Air Traffic Delays
May 3, 2001

Good afternoon, Mr. Chairman and members of the subcommittee. I am Edward Merlis, Senior Vice President of the Air Transport Association of America (ATA).[1] At the time of the subcommittee's hearing on March 15, each witness was asked to commit to undertaking five steps to help alleviate the problems facing the traveling public. I would like to review each of those steps to which I committed and report on the progress to date.

1. We committed to better utilizing the products of the Herndon Command Center conference calls to address the daily schedule so that we can identify places where delays may be occurring and take steps to reduce inconvenience to our customers.

Mr. Chairman, beginning April 1, the spring/summer 2001 program was underway. In preparation for that initiative, approximately 3,100 airline and FAA employees went through a joint airline - FAA training process and have now been trained in the goals and methods of the program, the requirements for communications and the decision making process. Each morning, the air carriers conduct a separate industry-only weather briefing conference call to see if agreement can be reached as to the impact of the daily weather forecast. Subsequently, every two hours during the day, joint conference calls are held between the air carriers' operations centers, the FAA's command center, and FAA's field facilities to provide additional information concerning changes in weather, to agree on the plan of operation, to determine how the program for the day is working, and to identify modifications that need to be made.

The program has been in effect for a month, and is working better than it did last year. There is a greater commitment to its success by both the FAA and our carriers. More air carriers are participating and more air carrier employees are involved. Additionally, this morning ATA had FAA Deputy Administrator Monte Belger attend a meeting of our Chief Operating Officers to discuss what additional steps we can take to make the program work even better than it is today.

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[1] ATA member airlines include: Alaska Airlines, Aloha Airlines, America West Airlines, American Airlines, American Trans Air, Continental Airlines, Delta Air Lines, DHL Airways, Emery Worldwide, Evergreen International Airlines, Federal Express, Hawaiian Airlines, Midwest Express Airlines, Northwest Airlines, Polar Air Cargo, Southwest Airlines, Trans World Airlines, United Airlines, United Parcel Service, and US Airways. Associate members include: Aerovias De Mexico, Air Canada, Canadian Airlines International, KLM Royal Dutch Airlines, and Mexicana De Aviacion.

2. Subject to approval by DOT, put in place the recommendations of the DOT delay reporting advisory committee so that we have a common system by which we inform customers of the reasons for delay and address them.

Pursuant to Section 227 of AIR-21, an advisory committee on delay reporting was established by the Secretary of Transportation. That advisory committee -- on which there was airline representation -- met with DOT and FAA officials throughout the fall. The goal of the Advisory Committee was to disclose more fully to the public the nature and sources of delays. Four of our member carriers (American, Delta, Southwest, and United) volunteered to participate in a pilot program to help better understand where and why in the system delays are occurring so that collectively we can take corrective action.

Our carriers are submitting data and once the results of the pilot program are evaluated by DOT, we anticipate they will issue appropriate regulatory guidance. All ATA member carriers subject to these reporting requirements will comply.

3. Pursue the transfer of delay data from the FAA's database into carrier systems used to inform customers.

Mr. Chairman, all of the ATA member carriers have embarked upon initiatives to improve the quality of the delay information that is provided to customers. Our goal is to provide customers with up to the minute information. Carriers have installed and are actively pursuing a variety of technical mechanisms to accomplish this goal. Some have already installed systems at a limited number of locations, and it is safe to say that the many of these systems will be completed by next spring.

For example, American Airlines has deployed new Gate Information Display Screens (GIDS) at Chicago, Phoenix, Philadelphia, Columbus, Memphis, DFW Terminal B, Los Angeles International Terminal 4 and Salt Lake City. Ultimately it will be installed in 40 critical airports. American is also upgrading the current Flight Information Display Systems (FIDS) with state of the art technology at its 8 busiest airports and will replace its older systems in 26 airports, at a cost of $ 20,000,000.

Delta has currently installed plasma screen Gate Information Display Screens (GIDS) at four major airports and will complete seven additional airports by Labor Day. The airports receiving the GIDS are those most frequently impacted by flight delays and cancellations.

Northwest has installed new technology gate displays at 30% of the gates it serves. By the end of the year, they anticipate having these systems at 50% of their gates.

Southwest is working through the feasibility of linking its operations system to the flight information display system (FIDS) monitors at the airports where Southwest controls the displays. This project is estimated to take a minimum of 18 months and costs approximately $ 20,000,000.

This undertaking is actually more complex than it appears. FAA's tracking data must be modified to reflect an aircraft's estimated time of arrival at subsequent airports, as well as other operational variables such as maintenance, weather, and the crew hours of service issues which arise when interrupted operations occur. During the course of an interrupted operations day, some carriers change or "swap" as many as 25% of a day's aircraft assignments in order to minimize delays. While these are some of the factors making the task more difficult, we are committed to improving the communication of current flight decision processes to front-line employees and customers and are assiduously pursuing that goal.

We are also taking interim steps until we can provide more timely flight operation status information to all of our front-line employees. Among those interim steps is the formation of a group of experts from airlines, airports, passengers, and the FAA to review, evaluate, and coordinate efforts to ensure that airport display monitors and other flight information passengers receive is accurate and timely. These experts have met and will continue to meet in the weeks and months ahead in order to address these important issues.

Another initiative that has been undertaken -- for which we anticipate results this month -- is the provision of FAA airport specific data in airport gate rooms where CNN Airport Network is offered, e.g. approximately 1600 gates at 35 of the nation's busiest airports.

4. Work with the airport community to identify capacity expansion projects that have the goal of reducing delays and work with the airport community to find ways to fulfill those.

In response to this issue we have asked our members to work with the airports they serve to pursue the airport expansion projects identified in my testimony last month. We are committed to these projects and want to be as constructive as possible with local airport officials in executing them. ATA has regularly supported, through testimony, filings, or lobbying, individual airport expansion projects ranging from Anchorage to Boston. We will continue to advocate this expansion in order to meet customer demand.

ATA has also joined forces with the airport community in forming an advocacy organization, Runways: A National Coalition, the goal of which is to streamline the Federal/State environmental process and to take steps to overcome public opposition to increased runway capacity.

Concurrently, ATA and its members are publicly supporting legislation to streamline Federal and state environmental processes, including actively lobbying for these proposals.

Mr. Chairman, you and Mr. Pastor also asked that with respect to this particular item we explore incentives necessary for carriers to move their operations to less

congested airports. First let me address an area where there can be meaningful incentives to encourage entry into markets that airlines do not serve.

Recently FAA has implemented a policy requiring pre-NEPA (National Environmental Policy Act) environmental assessments in conjunction with FAA approval of operations specifications (Ops Spec) modifications. If there were not already risks involved in deciding whether the market could sustain the entry of a carrier into a particular airport, this policy increases costs, makes decision making more risky, and telegraphs competitive moves.

So if an air carrier does not currently have an airport on its Ops Spec, this change in policy now requires that an air carrier spend considerable time and money on an unwarranted pre-NEPA environmental review of a minor federal actions - an exercise that the FAA acknowledges has not resulted in the requirement for a single NEPA analysis.

This exercise is not only unwarranted but produces absurd results. For example, carriers adding additional service and carriers providing service under Congressional authorization -- such as the addition of flights at LaGuardia pursuant to AIR-21 -- are not subject to such pre-NEPA environmental review for their flights into LaGuardia, but they are required to conduct this review for the destination of the flight if that destination is not already listed on their Ops Spec, e.g. Portland, Me. This is not only a waste of time and money, but is also discourages the use of alternative airports that might reduce congestion and delays at already busy airports.

As to the incentives necessary for carriers to rearrange their hubs, that is a far more complex and costly matter for which a bit of background discussion is necessary. In brief the issue is cost. It is not economically feasible to move large banks of flights out of existing hubs to alternative hubs unless there is the infrastructure in place as well as significant local demand. American Airlines tried to use alternative hubs at Raleigh Durham and Nashville; US Airway tried to use alternative hubs at both Dayton and Indianapolis. In all four cases the infrastructure was in place, but the local market was not adequate to sustain the airlines' economic requirements. Spreading system traffic over multiple hubs is a costly proposition.

Hubbing's cost effectiveness is related to a carrier's spreading high fixed costs over thousands of passengers in a single day.[2] The establishment of large hubs has resulted in a significant decline in costs per passenger, and has enabled carriers to provide service to more people to more places with lower fares, which, in real terms, have fallen 39% since 1978.[3]

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2 Brueckner and Spiller have estimated the marginal cost of carrying a passenger along a single spoke as being 25% higher in a low-density network as in a high-density network (where passenger volume is 3 times the amount). Jan K. Brueckner and Pablo T. Spiller, "Economies of Traffic Density in the Deregulated Airline Industry," The Journal of Law and Economics (October 1994).

3 Based on 1982 constant dollars 12.27¢/RPM in 1978 vs. 7.48¢/RPM in 1999.

Hubbing has enabled airlines to offer thousands of city-pair combinations to the flying public without significantly increasing the size (and cost) of their fleets. It does so by proliferating the number of connecting opportunities between origin-destination pairs that could not financially support abundant, if any, nonstop service. For example, on a point-to-point basis, a carrier needs 5 airplanes to connect 10 cities (5 city pairs). By introducing a hub to link these 10 cities (or spokes), the airline could use roughly the same number of aircraft and offer passengers 55 city-pair combinations.

The increased traffic flows generated by these networks has led to a more efficient use of airplanes, airports, and airspace, as evidenced by a 10-point jump in load factors, from 61% in 1978 to 72% in 2000. They have also led to growth of service to small communities, which feed traffic to and receive traffic from the hubs. As traffic grows in the network, an airline is able to support more frequent service and/or larger aircraft, spreading costs over a larger number of seats and passengers. This growth in capacity puts downward pressure on fares. Conversely, constraining capacity -- dehubbing -- puts upward pressure on fares.

There are principally two factors driving hub economics:

- Carriers have concentrated schedules at hub airports to avoid the high costs and inefficiencies of duplicate operations, facilities, personnel, etc. Depending on the size of a hub, moving a portion thereof to another airport could cost hundreds of millions of dollars.

- Carriers have concentrated schedules at hub airports as a means to accommodate demand by generating substantial opportunities for passengers to connect across a wide array of city pairs not available through split operations.

If the congestion at a particular airport becomes so detrimental (i.e., the costs of delays were prohibitive), it will, out of its own commercial volition, move flights to a secondary airport. Additionally, we have seen a number of carriers opt for these secondary airports (i.e., Providence and Manchester for Boston, Baltimore in lieu of Washington, and Midway for Chicago) if compatible with their cost structures.

Another possibility is that the carrier would resolve the matter by building another hub altogether, either within its own network or via acquisition. Some observers have suggested that American Airlines' acquisition of TWA and its resultant use of the St. Louis hub will simultaneously alleviate congestion in its own system as well as providing relief to O'Hare and the nationwide traffic that transits the airport or simply the surrounding airspace.

5. We will petition the DOT to reconsider the denied boarding compensation rules to better accommodate passengers who are bumped.

On April 3rd ATA petitioned the Department of Transportation to review the federal rules governing the compensation due to passengers bumped from oversold flights. Part 250 of the Department's Economic Regulations, 14 C.F.R. Part 250, creates the denied boarding regime for the airline industry. This regulatory system has existed for nearly

four decades, and balances the rights of ticket-holding passengers with the need of air carriers to minimize the adverse consequences of "no-show" passengers.

The rule recognizes that oversales can occur and establishes procedures for responding to those situations. Section 250.2b mandates that if an oversales situation exists, the carrier must first ask for volunteers to relinquish their reserved space. Only if there is an insufficient number of volunteers can the carrier involuntarily deny boarding to a passenger.

Subject to the exceptions noted in it, Section 250.5(a) requires that a carrier pay a passenger who has been involuntarily denied boarding "200 percent of the sum of the values of the passenger's remaining flight coupons up to the passenger's next stopover, or if none, to the passenger's final destination, with a maximum of $400." This amount is reduced by one-half if the carrier arranges transportation that is scheduled to arrive, in the case of a domestic flight, within two hours of the time that the flight from which he or she was denied boarding was scheduled to arrive or four hours in the case of an international flight.

The maximum involuntary DBC compensation amounts of $400 and $200 were established some years ago. Given the passage of time since their establishment, we advocate that the DBC issue is worth evaluating once again. We have requested that the Department commence a rulemaking proceeding to examine the continued reasonableness of those amounts and the associated issues that the Inspector General raised in his February 12th *Report.*

Mr. Chairman, this completes my prepared statement and report on the issues I agreed to address at the March 15 hearing. I look forward to responding to any questions you have concerning these issues.

BIOGRAPHICAL SKETCH

Edward A. Merlis
Senior Vice President - Legislative and International Affairs
Air Transport Association of America

Edward Merlis is Senior Vice President - Legislative and International Affairs of the Air Transport Association of America. In this capacity he oversees ATA's Federal and state legislative and executive branch advocacy. Mr. Merlis has also served in a number of other capacities at ATA, including Senior Vice President -- Government Affairs, Senior Vice President -- Federal Affairs and Airports, and Senior Vice President - External Affairs. He joined ATA in March 1990 as vice president, policy and planning, after working for a number of trade associations and corporations in public policy positions.

Previously, Mr. Merlis worked for nine years on the staffs of several committees of the United States Senate.

He is a graduate of Columbia and has done graduate work at both Columbia and The George Washington University.

AIRPORT EXECUTIVES (AAAE) OPENING STATEMENT

Mr. ROGERS. Thank you. Mr. Barclay.

Mr. BARCLAY. Thank you, Mr. Chairman. If I can give you a summary of my summary by the numbers. Number one is our overriding, long-term effort, and we are very encouraged with the reaction we are getting to that, and I will report to you on the progress. Two, three, and four are all items that hold out potential for near-term, real progress on delays and things airports can do about delays, so we are providing this committee with general-provision language on those three items for your consideration to see if it would be appropriate, in the committee's view, to include them in your bill that will be out later this year. And five and six on our list are accomplished, and we are in the implementation phase, and I will report to you on those.

STREAMLINING RUNWAY CONSTRUCTION

The first one, advocate streamlining of the runway-construction process. We have a comprehensive proposal that was put together by the leading experts in the airport industry that we have given the committee before. We are working with four members of the Senate on specific legislation that will include those provisions. We are also part of a runway coalition that Ed just mentioned, together with airports and airlines. In the effort there, we are very encouraged by the fact that even the president at the American Society of Newspaper Editors, in response to a question, when asked about delays, said, we need more runways, and we need to build them faster. So the government consciousness on this issue has, frankly, arrived earlier than we thought it would.

Mr. ROGERS. Well, that is his first commitment. We need four more out of him now.

Mr. BARCLAY. If I could on this first point, Mr. Chairman, a snapshot explanation of the problem our system faces, I think, is painted in thinking about Dallas-Fort Worth. It has seven runways to handle 31 million passengers. They are building an eighth runway so they can handle more than that. In comparison, in the 1990's we have added 200 million passengers to the national system, but we have only built six runways at all of the major airports combined. So you can see, in just a rough measure, we are not building enough capacity to keep up with the demand that is growing in the system.

So number one is in progress. We are working hard on it, and we are encouraged by the reaction we are getting from Congress. We will be working with the authorizing committees on both sides of the Hill on those.

SUPPORT STAFF FOR RUNWAY PROJECTS

Second, to advocate the FAA's ability to provide support staff in processing runway projects quicker, at FAA we are providing the committee both with some specific staffing ideas for your direct funding as well as a general provision that would allow airports to pay for staffing when the FAA does not have the staff resources available in order to speed up projects. And as I mentioned at our last meetings, this is patterned after the FDA process, where phar-

maceutical companies that want to speed up the approval of a new drug have the option to pay the added cost that FDA incurs as a result of their request to speed up. An example in the airport business would be San Francisco and the FAA are in need of a marine biologist for looking at the issues of a new runway that would go out into the bay. That is the kind of thing the airport could pay for if we make sure that FAA has the authority to do so, and we think that is something that is worthy of the committee's consideration.

PASSENGER FACILITY CHARGE CAP

Third, on the passenger-facility charge and lifting the cap, we, of course, have long been advocates of that in a general sense. It is the only case where we know of the federal government is capping a local government's ability to charge for resources being provided users. But rather than getting into that longer debate, which we know is still sensitive with our airline partners, what we are suggesting is a very narrow provision that would allow the Secretary to waive the cap only at the badly congested airports and only for critical runway projects that are in the national interest, giving that limited authority to the Secretary is, again, something that we think could be considered in your bill, and we are providing language on that.

REVENUE DIVERSION

The fourth point that we think is of immediate attention for the committee or useful for your immediate attention is to also include a directed interpretation to the FAA on off-airport, environmental remediation. Today, if you are going to spend money of an airport's, you have to do it, to make it simplistic, you have to do it within the boundaries of the airport, or you are guilty of what is called "revenue diversion." We have tried to include rules in the regulations and laws so that airports do not take money off airports and go use it for other, unrelated purposes.

That general rule. That general rule has gotten in the way of, for example, San Francisco doing heavy remediation in other places in San Francisco Bay that would far outweigh any environmental damage done on the new runway, and by spending that money off the airport, you allow an important capacity project to go forward. So that is also language that we are offering the committee and a suggestion that we think would have near-term benefits.

CNN AIRPORT CHANNEL

Fifth, it has already been mentioned briefly by Ed, we have gotten together. Our commitment was to get better information to airport customers, and after looking at all of the options, together with the FAA, the airlines, major airports, we all came to the conclusion that the CNN Airport Channel is a single network that is out there. It reaches over 400 million of the 675 million passengers. It is sited in gate areas in places where it is designed to be seen by passengers, and largely because of the efforts of Jane Garvey and FAA and CNN, that is happening. It is, in fact, going to be announced later this month.

FAA worked very hard to get the information CNN needed to do that quickly. It will be an independent source of information so that, for example, although the airline is going to have the best information on your flight, it will have information if all of the flights are being delayed out of Boston for a weather reason. That kind of information is coming from FAA as a general condition that is going on in the air traffic control system, and passengers will have that information to also arm them in their dealings with their own flights.

And I just want to say on this that if we ever wind up earning a gold star on this one, I would like to give it to Jane Garvey because she is the one that made it happen so quickly. It is an example of a broader point, that we have got a lot of problems in this system, but we have got a damn, good FAA Administrator. And this is an example of the kind of efforts we have gotten out of her on other solvable problems when airports have brought it to her. So this is one that we are excited about, and you will be hearing more about this later this month. As I say, it is in the implementation phase.

INFORMATION TO CUSTOMERS

And finally, we agreed, and if I can perfect the title of this one, what, at least, I meant to say was that we have become involved in coordination of the information on air traffic control operations for airports. I did not mean to imply that we would be involved in the coordination of air traffic control operations.

Airports would not have a direct role in that, except for the unusual circumstance where you were totally closing an airport. But we can help to get better the information in real time to airports that is coming from ATC, flow control, and the FAA Center, and if airports have that, they will be better armed to handle disruptions in the system.

We have already been out at Herndon. We have a private, distance-learning, satellite network that goes to over a hundred airports where we provide training on all different kinds of topics for airports: fire fighting and aircraft familiarization and snow removal and so on. In that grouping of training we are already filming a training video on how to utilize the FAA's information. We are then providing the FAA's ATC information over that satellite system so that airport operations people can get it right at their desktop computers. And that is one, again, where we have gotten great help from FAA, and we are in the process of—we have done the filming. We are doing the editing. We are in the process of accomplishing that item this month. Mr. Chairman, I will be happy to answer any detailed questions.

[The prepared statement of Charles Barclay follows:]

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House Appropriations Subcommittee on
Transportation and Related Agencies

Hearing on Airline Delays and Aviation

May 3, 2001

Statement of Charles Barclay
President, American Association of Airport Executives
On Behalf of the American Association of Airport Executives
And
Airports Council International – North America
House Appropriations Subcommittee on Transportation and Related Agencies
May 3, 2001

Chairman Rogers, Members of the Subcommittee, I appreciate the opportunity to appear before you again today to discuss the important topic of airline delays and aviation capacity. As you know, I identified six action items during the Subcommittee's March 15th hearing that airports would undertake to help "solve the airline delay problem." I am happy to report that we have followed through on those commitments. The following is a summary of the specific steps we have taken to date on these items as well as our plans for ensuring that airports continue to play an active role in finding solutions to delay and capacity problems.

1.) Advocate Streamlining of the Runway Construction Process
Recognizing the critical need to quicken the pace at which major airport projects like runways work their way through the current maze of overlapping, duplicative and onerous environmental reviews, AAAE and ACI-NA began working in the fall of last year on a legislative initiative to streamline the process. The effort grew out of an October 5th hearing before the House Aviation Subcommittee on why runways cost so much and take so long to build. The hearing made clear that the current process for approving runway projects is broken, a conclusion evidenced by the fact that the timeframe for completion is often measured in decades.

Developing the legislative initiative was a long and involved process. Over the course of the past six months, AAAE and ACI-NA held literally dozens of meetings with our members; environmental, airport planning and development officials; key FAA and congressional staff; and environmental and aviation law experts to find solutions that balance the need for continued environmental stewardship with the need to expedite the process by which airport operators, federal and state regulators, and environmental agencies review and approve critical airport projects. That painstaking but successful process produced the Expedited Airport System Enhancement (EASE) initiative, which we detailed in our March 15th testimony.

In summary, the EASE initiative would give priority to critical airport capacity projects within the scope of existing environmental laws and better integrate application of those laws into the process for approving such projects. EASE also seeks to improve procedures at FAA and elsewhere in the federal government to make sure that these critical projects receive prompt and informed attention.

Key provisions of the EASE proposal include:

- Declaration of "Critical National Airport Capacity" Projects, which would eliminate the need for the lengthy off-airport "alternatives" process for such projects;
- Priority processing by involved agencies of Critical Airport Capacity Projects;
- Establishment of an Airspace System Capacity Enhancement Council or Czar;
- Airport funding of project-specific FAA staff or consultants for expedited review of Critical Airport Capacity Projects;
- Expansion of categorical exclusions;
- Facilitation of agreements with local governments to allow additional mitigation for Critical Airport Capacity Projects;
- Requirement of realistic state air quality implementation plans; and
- Elimination of the duplicative Governor's Certificate.

Since putting the package together, we've aggressively worked to distribute it far and wide with decision-makers in Washington and throughout the country. A detailed letter of explanation and description of the proposal was sent on March 8, 2001, to literally hundreds of officials in Congress, the Administration, the press and the aviation industry.

Since that time, our staff has conducted countless face-to-face meetings to advocate the proposal. Our efforts have been bolstered by the work of numerous individual members at airports throughout the country who have pressed their elected officials for adoption of the EASE proposal. We continue to highlight the need for environmental streamlining on Aviation News Today, the weekly, half-hour news program produced by AAAE that runs locally in Washington on News Channel 8 reaching more than one million homes, on our Digicast satellite business network, which reaches thousands of airport officials across the country, and our various outside publications.

In addition, several individual airports have joined major airlines and other key players in building a coalition focused on bringing national attention to the need for additional runways. The group – Runways: A National Coalition – has already been very successful in shining a spotlight on the need to build runways at key airports with a major media event at the U.S. Chamber of Commerce and with a sustained professional media campaign.

These efforts are paying off. President Bush in a recent address to the American Society of Newspaper Editors responded to a question about airline delays by saying: "Well, one thing we need to do is expand the number of runways all around America. And, as you know, there's a lot of environmental regulations, some of them meaningful, some of them not, that prohibit the expansion of runways. And step one is to increase accessibility, which will then make it easier to increase competition."

Secretary of Transportation Norm Mineta rarely misses an opportunity to highlight the need for environmental streamlining as you know from his appearance before the Subcommittee last week. We are encouraged to see that speeding the process for runway construction is one of the five commitments Secretary Mineta has made to the Subcommittee as noted on the "report card" behind you.

Momentum is building in Congress as well. In addition to the tremendous attention Chairman Rogers and this Subcommittee have given to the issue, efforts on the authorizing committees in both the Senate and the House are moving forward. Several legislative proposals that have emerged or are in draft form contain provisions from our EASE proposal. We are actively involved in discussions with Senator Stevens, Senator Hutchison, Senator Brownback, Senator Rockefeller and others in the Senate as well as with the House Transportation and Infrastructure Committee. We continue to work for additional congressional support with the goal of moving some sort of environmental streamlining legislation through to enactment as quickly as possible.

The media has also noted the importance of environmental streamlining. A number of major newspapers, magazines and other publications have run stories and editorials suggesting that speeding the process for runway project approvals is key to addressing travelers' woes. Within the past several weeks alone, both the New York Times and USA Today, for example, have called for expediting runway construction. Newsweek recently ran a major story on delays, saying that the first of seven potential solutions to existing problems is speeding the process for getting new runways built. Again, AAAE, ACI-NA and the Runways Coalition are actively involved in building additional media attention.

Mr. Chairman, with the discussion on environmental streamlining well underway with the public, the Congress, the Administration, and the aviation industry, the next step is to take advantage of our momentum to pass modest, common-sense legislation that will fix existing problems and allow airports to add the capacity they need to deal with increased demand. We are committed to continued advocacy of our EASE proposal or any other legislative initiative that would accomplish that goal.

To quickly summarize our efforts on this first point, Mr. Chairman, we have identified the need to streamline the environmental review process for runways; we have developed a reasonable and balanced proposal for accomplishing that goal; we have actively worked to alert Members of Congress, the Administration, the media, the public and our industry colleagues to the proposal and advocated for its adoption; we have actively worked to encourage our members to do the same; we have actively worked to identify individuals in Congress and the Administration to help move the proposal forward; and we have developed a plan for continued advocacy in these key areas. Again, our goal is to see legislative action this year, and we look forward to working with the Subcommittee toward that end.

2.) Advocate FAA's Ability to Provide Support Staff to Airports

One of the key goals of the EASE proposal is to have more staff resources available to review and approve critical airport capacity projects such as runways. In our March 15th testimony, we suggested the FY 2002 transportation appropriations bill include a special funding increase in the FAA Chief Counsel's Office dedicated specifically and solely to the purpose of reviewing and approving critical airport projects. These resources, we suggested, should be added to the overall FAA Operations budget and be made available for a limited time in order to expedite the review and approval process for key runway projects. If resources are not available, we suggested that the FAA at a minimum consider a reprogramming request to shift resources to this endeavor.

In addition to FAA-financed staff, we have also advocated allowing airports to provide funds to the FAA to hire additional, project-specific staff to supervise and implement reviews of critical airport capacity projects. The additional staff would work exclusively under FAA's supervision and would have no obligation to the airport. This would allow the addition of staff for the most difficult and critical projects without increasing FAA's permanent headcount. This is solely a funding mechanism to allow the airports to pay the cost of accelerating project reviews. Attached is a draft General Provision that we believe will accomplish this goal.

At San Francisco, for example, a marine biologist is needed to conduct a great deal of work that will ultimately be needed for inclusion in an Environmental Impact Statement for proposed capacity enhancing projects. Although the airport and the FAA are well aware of the need and although the airport is willing to pay for such work, the Agency has not pursued this type of arrangement because of legal concerns.

Allowing the airport to pay for the work of the marine biologist or other specialists under the direction of the FAA would produce positive results for all parties. For the airport, the necessary work would be conducted in a more timely fashion. For the FAA, highly specialized work could be completed under the Agency's guidance at the airport's expense allowing for quicker review. This change would save both time and money.

A similar arrangement currently exists at the Food and Drug Administration, where drug companies have funded additional FDA staff to review and approve new drug applications. Over the past several years, this successful program has resulted in review and approval times being halved at billions of dollars in savings. We anticipate similar benefits for critical airport capacity projects with the addition of airport funded, project-specific FAA staff or consultants.

On this second point, Mr. Chairman, we have developed several specific approaches that we believe would provide additional staff resources to review and approve key environmental documents. In addition to suggesting additional funding at FAA, we have provided the Subcommittee with a General Provision that, if adopted, would allow airports to fund FAA project-specific staff or consultants. We urge the Subcommittee to adopt the General Provision and ensure that additional airport-funded staff resources are available to help speed the process. As is the case with the first commitment, we are dedicated to working with the Subcommittee, with other Members of Congress and with the Administration to achieve these changes.

3.) Advocate Lifting the Cap on Passenger Facility Charges (PFCs)
This is an area, Mr. Chairman, where I have every confidence that we will earn recognition for strong advocacy. Lifting the federally imposed cap on local Passenger Facility Charges (PFCs) has long been a top priority for the airport community. PFCs allow local governments to meet local needs; they have proven extremely effective over the years in adding capacity; enhancing safety, security and competition; and reducing noise. We believe strongly that lifting the federal cap would provide major benefits throughout the system in adding much needed capacity and reducing delays.

Unfortunately, many in the airline industry do not see eye-to-eye with us on this issue. With the battle wounds still fresh from last year's fight on lifting the cap from $3 to $4.50 as part of AIR-21, we know that some may not want to revisit the issue at this time.

We are, however, greatly encouraged by remarks made recently by American Airlines CEO Don Carty. In an April 23rd speech, Carty said "those of us in the airline business should stop demonizing PFCs and other forms of airport financing. We desperately need new runways, we need new terminals, we need other facilities, and we in the air carrier sector should at least be open to any cost-effective funding mechanisms, particularly those that enhance collaborative decision-making on airport capital spending."

Given the opportunity that may exist to find some reasonable approach to this issue, we have been hard at work over the past several weeks developing a more limited approach that is targeted exclusively at those airports where it can make the most difference in adding capacity and reducing delays. We believe our proposal is achievable, reasonable and promising.

Specifically, we suggest giving the Secretary of Transportation limited exemption authority to lift the PFC cap at highly congested airports for critically important capacity enhancing projects. Rather than a blanket elimination of the PFC cap at all airports, this modest and limited approach would target only those airports and projects that offer the best promise of enhancing capacity and reducing delays. Legislative language and a detailed explanation are attached for your review. We firmly believe that such a change is reasonable and responsive to the imperative of this Subcommittee to find ways to reduce delays.

Consideration of PFCs in the appropriations process is not without precedent. In fact, in the Senate version of the FY96 DOT spending bill, Chairman Hatfield's mark contained a provision allowing the cap on PFCs to be raised to $5 with the approval of the Secretary of Transportation. Unfortunately, the provision was not included in the final version of the legislation that year. Had it been, airports would have received an important, additional tool to help meet the burgeoning airport infrastructure needs that we faced then and that have been compounded since that time.

Mr. Chairman, fundamentally, we believe that the federal cap on PFCs should be lifted, a change that would allow decisions about local infrastructure needs to be made locally. In the absence of an outright lifting of the cap, we believe that progress can be made by giving the Secretary limited authority to lift the PFC cap on a case-by-case basis for critical airport projects. Again, we have provided the Subcommittee with legislative language that, if adopted, would provide additional resources targeted at critical runway projects at key airports. We offer the second approach as a compromise for your consideration, but we remain strong advocates of eliminating the cap.

4.) Advocate Flexibility for Off-Airport Environmental Remediation
As part of the EASE initiative, we are actively pursuing changes that would give airports flexibility for off-airport environmental remediation. This provision is modeled after successful programs at various airports where creative work early in the process to provide off-airport remediation reduced local opposition to key airport projects, saving time and ensuring that the projects were ultimately approved.

Both Minneapolis/St. Paul and Houston, for example, were successful in working with community groups early in the process as they put forward plans for new runways. Working hand-in-hand with the communities they serve, these airports were able to find creative approaches that built local support and enabled key runway projects to move forward more quickly than would have been possible otherwise.

We believe similar progress could be made in other instances. However, these types of agreements sometimes require funding for purposes not currently approved for use of airport revenues, either because of the application of anti-diversion rules or limits on PFC eligibility. The expansion of mitigation under our proposal would be limited to preclude payment of cash bounties or funding of unrelated development that a community desires.

Rather, the new authority would cover only costs of reasonable, project-related impacts – as determined by the FAA – that go beyond current funding standards. Such expanded funding could include, for example, mitigation of traffic impacts on nearby, non-exclusive airport access roads or repairing building code deficiencies that would otherwise make soundproofing schools or homes ineligible for federal funding.

This would require directed interpretations of policies on revenue diversion and use of passenger facility charges, noise and access restrictions for the designated Critical National Airport Capacity Projects to improve mitigation of environmental impacts. We continue to actively press for legislation as part of the EASE proposal that would give airports this type of flexibility.

Mr. Chairman, airports as units of local government are dedicated to working with the communities they serve to address potential concerns with proposed runway projects. Giving airports additional flexibility to proactively work with communities on off-airport remediation – as we have proposed in the EASE initiative – would help build local support for key projects early in the process, enabling them to move forward toward approval and completion. We are dedicated to enacting this change, and we urge the Subcommittee's support.

5.) Get Better Information to Airport Customers

After the March 15th hearing, we met with representatives of CNN and airports from across the country and determined that rather than having individual airports attempt to provide additional monitors with flight delay information, it made sense to exploit the existing infrastructure of the CNN Airport Network, which is in place at more than 1600 gates at 35 of the nation's busiest airports enplaning more than 400 million passengers.

FAA and the CNN Airport Network have been working to take delay information from the FAA's Command Center in Herndon and make it available as a "ticker" across the bottom of the screen of the Airport Channel monitors in the gate areas of airports. We understand that this new service will be unveiled within weeks, and we commend the FAA and CNN Airport Channel for working with the industry on this project.

On April 26, representatives from airports, airlines, and the FAA met to discuss how to get better information to customers. We discussed the progress on the CNN airport project as well as actions taken by airlines and airports to ensure higher quality delay information for passengers, along with airline and airport emergency planning coordination.

As an outgrowth of the effort to make delay information available on the CNN Airport Channel, the FAA has developed a 30 second public service announcement regarding its website, which will run on both the CNN Airport Channel and on CNN as well. Additionally, I am pleased to report that this PSA will run every week on Aviation News Today and on our Digicast satellite business network, which has nearly 100 airport subscribers. We have also linked the FAA's Command Center website to our own, www.airportnet.org.

AAAE has also co-founded, along with ACI-NA and the Air Transport Association, the Wireless Airport Association, which is very involved with bringing the latest wireless technology applications on-line at airports across the country. With technological innovation moving at an extremely rapid pace, passengers are already gaining access to real-time flight information on web-enabled cell phones, pagers and personal digital assistants. This trend will only accelerate, and we are at the forefront of the effort to ensure swift standardization of technology protocols, which will allow for exponential growth in information available to passengers in real-time.

Since the March 15th meeting, Mr. Chairman, we have made incredible progress working with the FAA and the CNN Airport Network to find a way to get important, flight-related information to passengers in airport terminals. For our part, we will continue to highlight the availability of this type of information to travelers with public service announcements on our television program, and we are pleased that CNN will do the same. We have also met with the airlines to discuss ways to provide better information to travelers and to better coordinate in emergency events that may affect them. Finally, we have embarked on an exciting project with the Wireless Airport Association to ensure we take advantage of cell phones, pagers and PDAs to bring better information to our customers.

6.) Become Involved in Coordination of Air Traffic Control Operations
We have also been working since the March 15th hearing with the FAA to get valuable information that the Agency currently has available on air traffic control conditions to airports throughout the country so that airport personnel can better prepare for potential disruptions. AAAE will serve as a direct link between the FAA and staff at airports nationwide through our Digicast satellite business network, which again has more than 100 subscribers that are listed below.

Digicast is a 24-hour, seven day a week computer-based aviation news, weather and airport training network that offers video airport training and text aviation news that is updated throughout the day. Digicast news and video programs may be viewed on a TV monitor and videotaped or, connected to a computer network, which allows Digicast to be viewed on computer desktops. In addition, interactive training is offered, which allows employees to take tests after viewing programs and enables supervisors to monitor employee progress.

Digicast will be used both as a means for disseminating information on critical air traffic control conditions as well as a tool for providing airport personnel with training on what to do with that information in order to better serve airport customers. Armed with daily flight related information and a knowledge of how to use that information to prepare for potential disruptions, airport staff can and will play a more active and productive role in accommodating weary travelers.

Already we have offered the Agency the opportunity to disseminate Notices to Airmen (NOTAMs), which is information on unanticipated or temporary changes to components of, or hazards in, the National Airspace System, daily updates on the condition of navigational aids, and other flight-related information to airports across the country. We have recently visited the FAA's Herndon Command Center to conduct interviews and videotape the information the Agency has available. This information is being distributed to airports as well.

Mr. Chairman, airport personnel can benefit from FAA information on air traffic control conditions to better serve airport customers. Since the March 15th hearing, we have worked with the FAA to obtain valuable air traffic operation information, and we have begun to distribute that information to airport personnel across the country through our Digicast satellite system. We will continue to take advantage of both FAA flight-related information and the Digicast system to ensure that airports are ready to tackle any daily disruptions and passenger needs.

For your review, the following are those airports that are Digicast subscribers:

Large Hub

Baltimore-Washington Int'l	Hartsfield Atlanta Int'l	Orlando Int'l
Boston Logan	John F. Kennedy Int'l	Philadelphia Int'l
Chicago O'Hare Int'l	LaGuardia	Phoenix Sky Harbor
Cincinnati/Northern Kentucky	Los Angeles Int'l	Reagan Washington Nat'l
Dallas/Fort Worth	Miami Int'l	Salt Lake City Int'l
Denver Int'l	Minneapolis/St. Paul Int'l	Seattle-Tacoma Int'l
Detroit Metro	Newark Int'l	Tampa Int'l
Ft. Lauderdale	St. Louis	Washington Dulles

Medium Hub

Bradley Int'l (CT)	Louisville Int'l	Sacramento Metro
Burbank-Glendale-Pasadena	Memphis Int'l	San Jose Int'l
Colorado Springs	Metro. Oakland Int'l	Tulsa Int'l
El Paso Int'l	Nashville Int'l	Will Rogers World
Jacksonville Int'l	New Orleans Int'l	San Antonio
John Wayne Airport	Raleigh-Durham	T.F. Green
Port Columbus Int'l	Reno	Tucson Int'l

Small Hub

Albany County	Gerald R. Ford (MI)	Palm Springs International
Amarillo Int'l	Dane County (Madison, WI)	Pensacola Regional
Billings Logan Int'l (MT)	Lubbock (TX)	Richmond Int'l
Birmingham Int'l	Des Moines Int'l	Savannah Int'l (GA)
Capital City (MI)	Fort Wayne Int'l	St. Pete/Clearwater Int'l
Brownsville/S. Padre Island	Tallahassee Regional	Wichita Mid-Continent
Charleston Int'l (SC)	Jackson Int'l (MS)	
Corpus Christi (TX)	Myrtle Beach (SC)	

Non-Hub Primary

Bush Field (Augusta, GA)	Manhattan Regional (KS)	S.W. Georgia Reg. (Albany)
Gunnison (CO)	Melbourne Int'l (FL)	NW Arkansas
Hilton Head (SC)	Nantucket Memorial	Tri-Cities (Pasco, WA)
Eagle County (CO)	Naples Municipal (FL)	Yeager (Charleston, WV)
Evansville Regional (IN)	Newport News (VA)	Yuma Int'l (AZ)
Jackson Hole (WY)	Panama City-Bay Co. Int'l (FL)	Asheville (NC)
Kalamazoo Int'l (MI)	MidAmerica (IL)	

Non-Hub Non-Primary/GA

Jefferson County (CO)	Salina Municipal (KS)
Jackson County (MI)	Scottsdale (AZ)
Morristown Municipal (NJ)	

Non-Airport

Connecticut DOT
DOT IG

Conclusion

Mr. Chairman, adding capacity at airports across the country in order to help alleviate flight delays remains a top priority for airports. We believe firmly that the commitments we have made to you and to this Subcommittee are necessary in order for us to achieve our goal, and we have been extremely aggressive in carrying out those recommendations. We appreciate the leadership you have provided in dealing with this serious issue, and we look forward to continuing our work with you and the Subcommittee.

General Provision
DOT Appropriations Act for FY 2002

SEC. XXX. For an airport project that the Administrator of the Federal Aviation Administration determines will add critical airport capacity to the national air transportation system, an airport sponsor may hereafter provide funding (including from funds provided to the sponsor under the Airport Improvement Program) to the Administrator (and the Administrator is authorized to accept such funds) to enable the Federal Aviation Administration to hire additional staff, obtain the services of consultants, or to undertake such related types of activities that will facilitate the timely processing, review, and completion of any environmental work associated with such critical airport capacity project.

Section 40117 is amended by adding the following paragraph to subsection (b):

(5)(A) In lieu of authorizing a fee under paragraphs (1) or (4), the Secretary may authorize under this section an eligible agency to impose a passenger facility fee of any whole dollar amount on each paying passenger of an air carrier or foreign air carrier boarding an aircraft at an airport the agency controls to finance an eligible airport-related project, including making payments for debt service on indebtedness to carry out the project, if the Secretary finds that the airport at which the fee is imposed is a highly congested airport.

(B) A "highly congested airport" is a hub airport, as defined in section 41731 of this title, that, as determined by the Secretary, exceeds a threshold of total annual hours of delay established by the Secretary. The threshold shall be set by the Secretary so that it will be met, at a minimum, by the twenty-five hub airports that experience the most delays, as determined by the Secretary.

"Section-by-Section" Analysis

Subparagraph 5(A) basically tracks the structure of 40117(b)(4), which raised the PFC cap from $3 to $4.50 in AIR-21. The new provision would allow the Secretary to authorize a PFC of any whole dollar amount for airports determined by the Secretary to be "highly congested airports."

Subparagraph (B) defines "highly congested airports" to be hub airports (those with at least .25% of total annual boardings) whose annual delays exceed a threshold established by the Secretary. The threshold must be set so as to include at least the top 25 hub airports ranked by delays. The phrase "as determined by the Secretary" is included in 5(B) to provide discretion to DOT/FAA on issues such as whether to use a previous year's delay statistics, or projections of current year delays. The intent is that inclusion as a "highly congested airport" must relate closely to current or recent delay statistics at the time the PFC is approved.

Once the PFC is approved at an increased level for a project, it need not be reduced if delays at the airport subsequently fall below the threshold. Indeed, the expectation would be that the completion of the project would help reduce delays, and the increased PFC may well need to be collected for a considerable time thereafter, to pay off the project (for example, by paying debt service on bonds issued to finance the project).

CHARLES M. BARCLAY

1983 to present	**President**, American Association of Airport Executives. Chief executive officer of the professional association for airport executives in the United States. AAAE represents 4500 members, coordinating its policies and programs with regional chapters.
1977 to 1983	**Professional Staff Member**, Aviation Subcommittee Committee on Commerce, Science and Transportation, U.S. Senate. As the senior staff member on aviation issues, tenure included directing staff work on airline deregulation, aviation trust fund authorization, aviation security and safety, accident investigation, international aviation, aircraft noise and NTSB authorization laws.
1975 to 1977	**Assistant Director**, Office of Community and Congressional Relations, Civil Aeronautics Board.
1970 to 1975	**Assistant Director**, American Association of Airport Executives.

APPOINTMENTS

1997	Appointed by DOT Secretary Slater to the National Civil Aviation Review Commission. Twenty-one voting members were appointed by the DOT, House and Senate Leadership to make recommendations on: (1) future financing of the FAA, air traffic control and airport systems, and (2) the regulation of aviation safety and accident trends.
1993	U.S. Senate appointee to the President's "Airline Commission." Fifteen voting members were appointed by the President, House and Senate Leadership to make recommendations on the financial condition of the airline industry. Chaired the FAA/ATC working group.

OTHER POSITIONS

1996 - 1998 **Chairman of the Board,** Travelers Aid International. TAI is the association of local charity agencies that serve transient and disconnected people in need. The local agencies' operate homeless shelters, runaway youth programs, health care programs and many other social services.

EDUCATION

B.S. Aviation Management
Auburn University, 1969

M.S. Administration
George Washington University, 1974

Disclosure required by clause 2(g)(4) of rule XI of the Rules of the House

Neither I, nor the American Association of Airport Executives or Airports Council International – North America, have received any Federal grant or subgrant thereof, or contract or subcontract thereof, from the Federal Aviation Administration during the current fiscal year or either of the two previous fiscal years.

AIRLINE PILOTS ASSOCIATION (ALPA) OPENING STATEMENT

Mr. ROGERS. Well, thank you for a good report. Mr. Woerth.

Mr. WOERTH. Good afternoon, Mr. Chairman and members of the subcommittee. I appreciate this opportunity to be here with you today to discuss the steps ALPA has taken to accomplish the five goals you asked each of us to set for ourselves which would help alleviate the problems of delays and limited capacity.

RTCA FREE FLIGHT STEERING COMMITTEE

The first item I presented at the March 15th hearing was to continue ALPA's high-level participation on the RTCA free-flight steering committee and to ensure that it is properly focused in defining what the system really needs and that the correct priorities are established. I am a member of that free-flight steering committee, and I can assure you that even with my other duties as president of ALPA, my attendance at these committee meetings receives my highest priority. The committee meets on a quarterly basis, and the next meeting will take place on August 8th.

ALPA has been an active participant in RTCA for over 35 years, and our extensive involvement with this organization will continue. Furthermore, we fully support the FAA's operational, evolutionary plan that is in the final stages of development and coordination with the industry. Through the free-flight steering committee, we will work to ensure that the implementation details and the schedules are and will continue to be realistic and deliverable. This will be critical to the success of airspace modernization.

IMPROVE NATCA LIAISON

The second item was to improve our liaison efforts to NATCA and to ensure that we address issues involving delays, cancellation, and capacity enhancements. I have designated ALPA's first vice president, Captain Denny Dolan from Delta, to head this effort, and their next meeting is scheduled for May 18th to identify issues we can jointly support and to develop a work program.

AIRLINE DISPATCHERS FEDERATION

The third item from the March 15th hearing is to bring the Airline Dispatchers Federation into the ALPA and NATCA liaison process. This proposal was on the agenda from our May 8th meeting, and I have already discussed it with John. This is going to happen. We are already working on a local level, but to formalize the process is going to be done this month.

The fourth item I mentioned was to work for standardized and modernized flight and duty time-limitation rules. Naturally, our first and primary concern regarding flight and duty time is safety. ALPA and other industry safety advocates have been seeking revisions to these inadequate regulations since 1990, and there was a notice of proposed rulemaking in 1995 and much talk of a supplemental rule last year, but as of today, no action.

The current state of affairs compounds the delay problem in several ways. First, amazingly enough, there seems to be some confusion over whether or not the current, 16-hour, maximum-duty-day limit is really a limit or is it just a scheduling goal for the airlines.

The confusion and disputes between the airlines and the flight crews on what is supposed to happen at the 16-hour point has caused lots of delays, and an unequivocal ruling must be made by the FAA immediately, or more delays and cancellations are going to result until this dispute is resolved.

Secondly, the current inadequate rule on pilot rest has led to airline scheduling views known as "scheduled reduced rest." This rule leads to thousands of delays. Let me explain how that happens.

Here is how scheduled reduced rest works. Airlines frequently schedule a flights crew to work all day and arrive at a destination, let's say, at 11 p.m., but they are the crew that is supposed to take out the first flight in the morning at 7 a.m. That is just eight hours from landing to takeoff. If everything works perfectly, you may get five hours of sleep in a hotel, but that is legal. But the real world, of course, as we know—that is why we are having this hearing—the real world intervenes, and delays occur, and that 11 p.m. flight arrives at midnight. So now the crew cannot legally take off at seven, so we have got another delay. The 7 a.m. departure is delayed until at least 8 o'clock in the morning, and if you start off at 8 o'clock in the morning late—this happens every day all over the country—then all of the flights all day long are delayed.

I cannot tell you how important it would be to fix this scheduled reduced rest. We have a rule that every airline has to follow, not by union contract. They cannot do this any more. We are going to solve a lot of delays, and, Mr. Chairman, we have been trying to get this for a long time. If you can help us break this logjam to get this flight time, duty time fixed, you will probably do more than any other thing in the near time to improve flight delays.

BUILDING INDUSTRY CONSENSUS

The final item was to affirm ALPA's commitment to continuing the work of building industry consensus on programs that will improve efficiency and increase capacity while maintaining the highest level of safety. Now, we are doing this through our involvement in a number of initiatives, the RTCA process, which I have mentioned, the ATA's closely spaced, parallel-runway steering committee, the FAA's Spring 2000 Plus One Project, and numerous FAA and industry work groups on such things as reduced separation in domestic airspace and land-and-hold short operations, commonly referred to as "LAHSO." Long and Hold Short Operation

Mr. Chairman, the input of the airline pilot is critical to the development of solutions to the problems facing the ATC system. You can be sure that ALPA will continue to provide that input and will remain committed to our motto of schedule with safety, thank you. I will be happy to answer any questions you may have, sir.

[The prepared statement of Captain Duane Woerth follows:]

STATEMENT OF

CAPTAIN DUANE E. WOERTH

PRESIDENT

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

BEFORE THE SUBCOMMITTEE ON

TRANSPORTATION APPROPRIATIONS

U.S. HOUSE OF REPRESENTATIVES

ON

DELAYS IN THE AIR TRAFFIC CONTROL SYSTEM

May 3, 2001

Air Line Pilots Association, Int'l
1625 Massachusetts Avenue, NW
Washington, DC 20036
(202) 797-4033

STATEMENT OF

CAPTAIN DUANE E. WOERTH
PRESIDENT
AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
ON
DELAYS IN THE AIR TRAFFIC CONTROL SYSTEM
MAY 3, 2001

Good day Mr. Chairman, I am Captain Duane E. Woerth, President of The Air Line Pilots Association, International (ALPA). ALPA represents the professional interests of 59,000 pilots who fly for 49 airlines in the United States and Canada. We appreciate the opportunity to appear before you again to continue the discussion on flight delays and proposed solutions to the problem.

As we all know, on March 15th, I presented five action items in response to your question: What are five things that your organization can do to help alleviate the problem of delays and limited capacity? This is an update on those items.

The first item is to continue our high level of participation on the RTCA Free Flight Steering Committee to insure that this committee is properly focused and is defining what the system really needs, and that correct priorities are established.

I am a member of the Free Flight Steering Committee and I assure you that that my attendance at the Committee meeting receives my highest priority. Additionally, ALPA's Director of the Engineering and Air Safety Department, who is my key staff person on safety issues, will continue to place the highest priority on attending. Since the Steering Committee meets on a quarterly basis, the next meeting will not take place until August 8th. We will continue to promptly and thoroughly respond to the action items generated by that committee and proper accountability for our work will be ensured.

ALPA has been active in RTCA for over thirty-five years. Our participation includes membership on RTCA special committees, select committees, steering committees, the RTCA Policy Board and the Board of Directors. Currently an ALPA Representative serves as the Chairman of the Board. Our involvement with this organization has been and will continue to be extensive.

We have been a strong proponent for development of operational concept and requirement plans for the NAS, and for defining the NAS Architecture based on these

requirements. After several years of advocating that methodology, FAA and industry have adopted this approach. The FAA has chartered a Federal Advisory Committee within RTCA to facilitate the planning of NAS improvements based on this methodology. Currently, one of our main concerns now is implementing the technologies and responding to the operational requirements as we advanced beyond Free Flight Phase 1 and 2 to Phase 3 and beyond. In this area, we support the FAA's Operational Evolutionary Plan that is currently in the final stages of development and coordination with industry. This plan must become a living document that prescribes where the modernization work is headed, as well as serve as a means to evaluate how it is progressing. In particular, the implementation details and schedules must be realistic and deliverable. The FAA's management of this comprehensive plan, supported by industry consensus and constructive input, will be critical to the success of NAS modernization.

The second item is to improve our liaison efforts with NATCA to ensure that issues involving delays, cancellations, and capacity enhancements are addressed. I have designated ALPA's First Vice President, Captain Dennis Dolan, to head this effort. We have a meeting scheduled for May 18th with key members of both organizations to identify issues that we can jointly support and develop a work program. The goal is to improve the efficiency of air traffic operations and especially to identify work that could improve the safety of those operations.

The third item from the March 15th hearing is to bring the Air Line Dispatchers Federation into the ALPA-NATCA liaison process. We believe the dispatchers such be involved because of the critical role this group plays in planning, coordinating and tracking airline operations. That proposal is on the agenda for the May 18th meeting.

The fourth item I mentioned at the earlier hearing was to standardize and modernize the flight and duty time limitation rules. The current rules allow the limits to be extended for irregular operations, i.e., weather, ATC, or mechanical delays. Therefore, to take advantage of the exception, carriers routinely over schedule their flight crews. Because these schedules are not realistic, the result is frequent delays and sometimes cancellations.

Flight delays occur, in my view, as a direct result of these regulations. Because carriers want to maximize the duty period of each pilot, they are tempted to provide computerized optimum schedules. While the schedules look good on paper, a historic review of them reveals that they are not realistic and as a result, flights are delayed. The carriers cite these schedule-induced delays as "crew delays" when, in fact, they are the result of unrealistic scheduling.

The flight time regulations desperately need revisions, which should be designed to require realistic scheduling practices by the airlines. Our primary concern with these outdated regulations is, of course, safety. We need to have rules based upon the science, which is ample, to ensure pilots are not pushed to fly fatigued. ALPA has been actively seeking such revisions since 1990. At that time, we petitioned the FAA to standardize both the duty and required rest periods. We have actively participated in two Aviation

Regulatory Advisory Committees (1991 & 1998) to change the regulations. We made extensive comments to NPRM 95-18, which was issued in December 1995.

Recently, at the new Pan American Airways, a pilot was fired for refusing to violate the FAA's ruling that a pilot cannot fly beyond 16 hours. Since this pilot had been on duty for 16 hours, he had been awake in excess of 17 hours. Science tells us that the cognitive performance of a pilot who has been awake for 17 hours is equivalent to someone having a blood alcohol concentration of .05%. This is more than the FAA intoxication standard of .04%. ALPA is proceeding to arbitration to seek reinstatement of the pilot.

The FAA, although agreeing changes are needed, has failed to act on the rulemaking initiatives. Since I last testified before this committee, I have had personal discussions with Secretary Mineta as well as Administrator Garvey urging them to take action on this important issue. Additionally, we have had discussions with members and staff of the authorizing committees seeking their support to standardize the flight limitations regulations.

In summation, it is ALPA's belief that standardization of flight time rules to promote realistic scheduling practices should help to reduce delays. We are still waiting for the FAA to act and we ask for your support in this effort.

The last item was to affirm our commitment to continuing the work of building industry consensus on programs that will improve efficiency and increase capacity in the system while ensuring that these programs maintain the highest level of safety. Indeed, we will be pressing hard for improvements in operational safety. We do this because current studies recognize that, as traffic increases, the number of accidents and incidents must decrease to maintain an acceptable level of safety.

Examples of where we are involved are: the RTCA processes as previously mentioned, the Air Transport Association sponsored Closely Spaced Parallel Runways Steering Committee, Spring 2000+1, FAA-industry work on reduced vertical separation above Flight Level 290 in domestic airspace, development and refinement of procedures for land and hold short operations (LAHSO), regional airspace redesign work groups, and airport planning groups. Another work program just getting underway is an FAA-industry project to review separation standards to determine if there are some efficiency gains available due to technology improvements already in place or planned.

In closing, ALPA will continue to be a very active participant in the delay reduction and capacity enhancement activities underway and planned. The input of the line pilot is a critical part in the development of solutions and you can be assured that ALPA will provide that input. We will remain committed to our Association motto of "Schedule with Safety" and that safety will always be our first priority. We believe that we can achieve both the level of safety that the traveling public deserves, and indeed demands, as well as accomplish a reduction in delays and increase in capacity. I will be happy to respond any questions.

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL
1625 MASSACHUSETTS AVENUE, N.W. □ WASHINGTON, D.C. 20036 □ 703-689-2270
FAX 202-797-4052

April 30, 2001

Mr. Richard Efford, Staff Assistant
Subcommittee on Transportation & Related Agencies
Committee on Appropriations
2358 Rayburn House Office Building
Washington, DC 20515

Dear Richard:

In compliance with committee rules, please find attached a biography of Captain Duane E. Woerth, President of the Air Line Pilots Association. Captain Woerth will be testifying for ALPA at the Subcommittee's May 3 hearing on airline congestion and delays. Also in compliance with committee rules, I am informing you that ALPA is currently under contract with the Federal Aviation Administration to administer an alcohol and drug education and intervention program for airline pilots. The contract for this fiscal year is in the amount of $140,000.

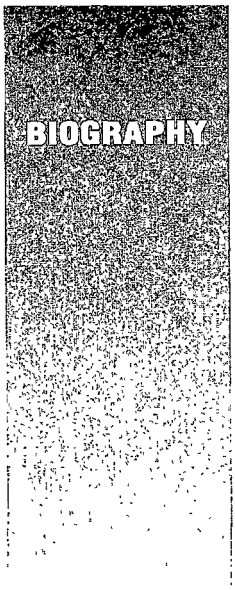
Thank you for your consideration.

Sincerely,

Jerry Baker
Legislative Counsel

JB:jw

Enclosure



CAPTAIN DUANE E. WOERTH, PRESIDENT

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

Captain Duane E. Woerth, a Northwest Airlines pilot with extensive experience in the field of international aviation, is the seventh president of the Air Line Pilots Association (ALPA). He was unanimously elected by the Association's Board of Directors in October, 1998, and assumed office January 1, 1999.

As the Association's chief executive and administrative officer, President Woerth presides over the meetings of ALPA's governing bodies, which set policies for the organization. He is also chief spokesman for the Association, testifying before Congressional committees and presenting the pilots' views to the media and in many forums.

Captain Woerth has served as US-ALPA's Director for the International Federation of Air Line Pilots Associations (IFALPA) and previously served as chairman of IFALPA's Industrial Committee. He also served for five years as a member of the Northwest Airlines Board of Directors under the Northwest employee stock ownership plan.

Before assuming office as ALPA president, Captain Woerth served for eight years as the Association's first vice president, its second highest-ranking officer. He has been the association's principal spokesman and representative in the area of international aviation.

Currently a B-747 captain, he has flown at Northwest for eighteen years and at Braniff Airlines for five years. He was involved in ALPA activities at both carriers, and served as the chairman of the Northwest Master Executive Council, the highest elective office for the Northwest pilot group. He also completed a term as ALPA's executive vice president.

He served in the U.S. Air Force for six years and retired with the rank of Lieutenant Colonel from the Air National Guard. He accumulated over 20 years of active and reserve duty, primarily with the Strategic Air Command.

A native of Scribner, Nebraska, Captain Woerth, 52, received his B.S. degree from the University of Nebraska and his M.A. from the University of Oklahoma.

ALPA is the world's oldest and largest labor union and professional organization of airline pilots. It represents over 59,000 airline pilots and flight engineers at 49 air carriers in the U.S. and Canada. In its professional role, ALPA is the industry's leading air-safety advocate. The Association is affiliated with the AFL-CIO, for which Woerth serves as a vice president, and with the Canadian Labour Council.

Air Line Pilots Association, Int'l
535 Herndon Parkway
Herndon, VA 20172
703-481-4440

September 2000

NATIONAL AIR TRAFFIC CONTROLLERS (NATCA) OPENING STATEMENT

Mr. ROGERS. Thank you. Mr. Carr.

Mr. CARR. Good afternoon, Chairman Rogers, Congressman Sabo, and members of the subcommittee. Thank you for the opportunity to testify on the proactive steps that the National Air Traffic Controllers Association has taken to address the delay situation.

AVIATION SAFETY

I am pleased to report that we have made significant progress on the five issues that I addressed at the last hearing. First of all, NATCA is committed to operating and to maintaining the safest air traffic control system in the world. We believe that our air traffic control system is a national treasure, and we renew our commitment to ensure that any changes undertaken to that system keep safety as the bottom line.

NATCA is working day and night with the FAA to move new technologies into the work place as quickly, efficiently, and safely as possible. We are directly involved in every technology project from its inception, and this collaboration and team work has been instrumental in ensuring the success of modernization projects such as the display system replacement and the standard terminal, automation replacement system.

NATCA currently has representatives on over 65 different technical projects with the FAA, and we will continue to lead both the agency and this industry into the 21st Century. By the same token, when we become aware of certain programs or procedures which raise safety concerns, we are quick to point them out to the FAA. Our relationship with this agency is built on a solid foundation of mutual trust, respect, and integrity, and we are partners in co-managing the National Airspace System.

With respect to my promise to monitor other panel members and evaluate their promises, I can tell you that we are working closely with the FAA to maximize efficiencies gained from the addition of the choke-point systems into the National Airspace System, and as long as we are horse trading gold stars, if you give Jane one for that, I will take half of that one.

FREE FLIGHT PHASE I

We continue as full participants in all products of the Free Flight Phase 1 teams, and we have recently met with ALPA to develop our relationship at the very highest levels. Additionally, I have established a rapport with the airlines and the airport operators that enables us to consult with each of them on matters of mutual concern.

CONTROLLER STAFFING

Secondly, NATCA is working to ensure that there are enough qualified and trained air traffic controllers to handle the increased traffic growth, the opening of these new choke-point sectors, and to prepare for the impending retirement crunch. Our current, five-year agreement between FAA and NATCA calls for a "baseline" of 15,000 air traffic controllers for the first three years. The agree-

ment calls for 15,300 full-time-equivalent positions this year and 15,606 next year. The Administration's fiscal year 2002 budget request is consistent with these numbers. However, we believe that over time these numbers may need to be revisited.

[NATCA does not support reopening our contract. However, we do have a fundamental disagreement with the agency over the terminology used in the contract. NATCA believes the term "baseline" refers to a floor, and therefore the 15,000 figure represents the minimum number of controllers.]

CONTROLLER WORK FORCE RETIREMENTS

This August marks the twentieth anniversary of the PATCO strike, when approximately 11,350 air traffic controllers were fired. The replacement work force will reach retirement eligibility in a very short period of time. Retirements will dramatically increase until 2007, when they will peak at about 8.4 percent of our work force, and by 2010 the cumulative retirements will, in all likelihood, exceed 50 percent of the air traffic controller work force. In order to lessen the impact of that retirement crunch and in order to provide necessary time for training new hires, Senator Max Cleland will be introducing legislation on our behalf to change the annuity computation for air traffic controllers under the Civil Service Retirement System.

The current annuity computation actually encourages early retirement because it contains a disincentive to defer retirement beyond the point at which your guaranteed level is reached. Changing this annuity computation will provide an incentive to civil service controllers to continue to work beyond their initial date of retirement eligibility, and that will allow us to ramp up the staffing and to train the new controllers.

NATCA has also met with representatives from GAO, who have been asked to determine whether the FAA will have a sufficient number of controllers and candidates to meet both short- and long-term staffing needs.

And finally on this point, NATCA is working to educate the public and the media on this very important issue. Recent articles on air traffic controller retirements have appeared in *Aviation Daily,* the *Boston Globe,* the *New York Times,* the *Star Telegram,* the *Record,* and several other publications.

NATIONAL AIRSPACE REDESIGN

On our third point, NATCA remains a partner in national airspace redesign (NAR). We have been actively involved with NAR since its inception in 1998. NATCA has one full-time liaison, 11 regional liaisons, and about 350 controllers who are currently committed to the project. On March 16th of this year, we signed a memorandum of understanding with the FAA on national airspace redesign. This MOU states that any changes should be based on increasing safety, efficiency, capacity, and that all modifications are to be made in the best interests of the users of the system and the flying public. The MOU also provides us with procedures in the event that NAR involves moving existing airspace boundaries or changing individual facility air traffic control grade levels and staffing changes.

The National Air Traffic Controllers Association is committed to national airspace redesign and will continue to play an active role in this very evolutionary undertaking, especially in the technical aspects of this project.

[Fourth, NATCA believes that it is time to consider safe and reasonable changes to the requirements for separating aircraft.]

SEPARATION STANDARDS

FAA separation standards date back to the 1950's. Attempts to determine the very origin of these standards have revealed that they were apparently the result of qualitative judgments. It is generally accepted that these standards were developed based on a number of factors, including military practices, radar equipment limitations, and pilot acceptance.

In April of this year, I met with Professor John Hansman from MIT (Massachusetts Institute of Technology), who is evaluating current separation standards. He has been a guest of this committee. His data shows that while separation standards have remained unchanged for virtually 50 years, radar performance has improved five-fold.

We are willing to join with the NTSB, NASA, the pilots, the FAA, and any other interested parties to carefully examine the possibility of changing these separation standards. Any marginal or fractional decrease in these standards could instantaneously free up unused capacity in this system. However, we must remember that any contemplated decrease must also be measured against the absolute litmus test of safety.

MANAGEMENT ADVISORY COUNCIL REPRESENTATION

And lastly, the National Air Traffic Controllers Association is working to obtain the labor seat on the Management Advisory Council (MAC). The MAC provides advice and council to the FAA Administrator and functions in an oversight resource role for management, policy, spending, and regulatory matters. To date, the MAC has held six meetings, it has elected a chairman, and has begun to move forward with its mission. Yet, there is no labor participation.

In January, I submitted my name to the White House and to the Secretary of Transportation requesting that I be nominated to serve as the labor representative to the MAC. I have had personal conversations with Secretary Mineta and with Administrator Garvey on this matter. I have written to all members of the aviation authorization and appropriations committees asking for their support of my candidacy, and just this very morning I sent an updated application to the White House.

My organization, the National Air Traffic Controllers Association, is the logical choice to represent the unions of air traffic control system employees. Given the important tasks and the challenges facing the aviation industry and the MAC, we believe that it is imperative that the remaining seats on this council be filled before any further business is conducted.

Mr. Chairman, that completes my testimony. I am honored and humbled to represent the very finest aviation professionals in all of public service. We look forward to working with the sub-

committee, the FAA, the pilots, the airlines, the airports, and any other interested groups to develop and implement concrete solutions to the capacity crisis. I would be happy to answer any questions you have might have.

[The prepared statement of John Carr follows:]

National Air Traffic Controllers Association
AFL-CIO

Testimony of

John Carr
President

National Air Traffic Controllers Association

before the

U.S. House of Representatives

Appropriations Transportation Subcommittee

Aviation Delays

May 3, 2001

1325 Massachusetts Ave., N.W. Washington, D.C. 20005 (202) 628-5451 (202) 628-5767 FAX www.natca.org

Good afternoon Chairman Rogers, Congressman Sabo, and members of the Subcommittee. I want to thank you for the opportunity to testify today on efforts to reduce aviation delays. I am John Carr, President of the National Air Traffic Controllers Association.

NATCA is the exclusive representative of over 15,000 air traffic controllers serving the FAA, Department of Defense and private sector. In addition, NATCA represents approximately 1,200 FAA engineers, over 600 traffic management coordinators, agency operational support staff, regional personnel from FAA's logistics, budget, finance and computer specialist divisions, and agency occupational health specialists, nurses and medical program specialists.

On March 15, 2001, I testified before the Subcommittee on the problem of airline delays and proposed solutions. During that hearing, I committed to five steps that NATCA would take to help reduce the record number of delays that continue to plague our National Airspace System. I have outlined below my five promises and the steps that NATCA has taken to implement each.

I. Ensure All Initiatives are Measured Against Safety

The United States operates the largest, most complex and safest air traffic control system in the world. This is due primarily to the dedication and professionalism of the nearly 15,000 FAA air traffic controllers. Air traffic control is a 7 days a week, 24-hour operation. And, safety is an air traffic controller's first concern.

Can the air traffic control system be improved? Absolutely, and NATCA is working day and night with the FAA on capacity enhancements in the form of new technology and air traffic procedures. We are well on our way in this regard. Over the past three years, the FAA has replaced or upgraded most of the major components of the air traffic control system. NATCA is directly involved in every technology project from its inception, and this collaboration and teamwork has been instrumental in ensuring the success of modernization projects such as Display System Replacement and Standard Terminal Automation Replacement System.

By the same token, when NATCA becomes aware that a certain program or procedure might raise safety concerns, like Compressed Arrival Procedures (CAPS) in Chicago, we are quick to point them out to the FAA. During the busy Christmas travel season, the agency planned to implement CAPS which involved stacking planes vertically as they approach O'Hare International Airport. NATCA immediately conveyed a number of safety concerns to FAA, including the fact that this procedure had only been tested sporadically and with mixed results. The FAA subsequently shelved the test pending resolution of NATCA's safety concerns.

In terms of other panel members and their promises, we are working closely with the FAA to maximize efficiencies gained from the addition of choke point sectors into the National Airspace System, we are full participants in all products of the Free Flight Phase

One teams, and we have recently met with ALPA to develop our relationship at the highest levels. NATCA will continue to work with the agency to move new technologies into the workplace as quickly, efficiently and safely as possible. NATCA is committed to operating and maintaining the safest air traffic control system in the world, and we renew our commitment to ensure that any changes undertaken to that system keep safety as the bottom line.

II. Hire More Air Traffic Controllers

While safety is the responsibility of all participants in the nation's air transportation system, the FAA's air traffic controller workforce serves on the front line, managing millions of commercial, military, and general aviation aircraft operations on a daily basis. The 15,000 professional air traffic controllers are essential to the seamless, safe, and efficient movement of these aircraft at airports, approach control centers, and enroute centers.

The five-year agreement between the FAA and NATCA, signed in 1998, calls for a baseline of 15,000 air traffic controllers for the first three years. The agreement calls for 15,300 full-time equivalents in 2002, and 15,606 in 2003. The Administration's FY2002 budget request, which provides for the hiring of 600 more air traffic controllers, is consistent with this. However, NATCA believes that these numbers need to be revisited because of the traffic growth and the coming wave of controller retirements. It is quite simple. If we continue to add new sectors to accommodate the traffic growth, we need to add more air traffic controllers.

In addition, this August marks the 20th anniversary of the PATCO strike when approximately 11,350 air traffic controllers were fired. The FAA spent most of the 1980s hiring and training a replacement workforce. By 1992, the controller workforce was restored to pre-strike levels, and hiring was halted. Now, after two decades, the air traffic controller workforce and the country are about to feel the aftershock of the PATCO event.

The thousands of controllers hired during the post strike recovery period will reach retirement eligibility in just a short period of time. Retirements will dramatically increase until 2007, when they will peak at 8.4 percent of the workforce. By 2010, cumulative retirements will exceed 50 percent of the workforce.

We need to ensure that there are enough qualified and trained air traffic controllers to handle today's increasing workload and to prepare for the coming wave of controller retirements. Mandatory overtime, six-day work weeks and understaffed shifts are what air traffic controllers will be facing if something is not done now to prepare for this crisis. Currently, there are not enough controllers to fill the gap, and it takes anywhere from 2 to 4 years to become a full performance level controller. We believe that the FAA must immediately begin hiring and training the next generation of air traffic controllers. If the pending retirement crunch continues to be ignored, it will only get worse.

NATCA is working with members of Congress to introduce legislation that will lessen

the impact of the retirement crunch. Senator Max Cleland will be introducing a bill this month to change the annuity computation for air traffic controllers under the Civil Service Retirement System. The current CSRS annuity computation actually encourages early retirement because it contains a disincentive to defer retirement beyond the point in service when the guaranteed level is reached.

There are approximately 5,000 air traffic controllers under CSRS. Changing the CSRS annuity computation to give these controllers the same annuity that is afforded to both federal firefighters and law enforcement personnel will provide the necessary incentive for these individuals to continue to work beyond their date of retirement eligibility. While the FAA will still need to hire new air traffic controllers, the changed annuity option will lessen the impact of the retirement crunch, and provide the necessary time for the new hires to receive the training they need to become full performance level air traffic controllers.

NATCA has also met with representatives from the Government Accounting Office who have been tasked to determine whether the FAA will have a sufficient number of air traffic controllers and candidates to meet its short and long term staffing needs. The GAO report, which was requested by Congressman John Duncan, is expected to be completed by November 30, 2001.

NATCA is working to educate the public, including the news media, on this issue. Recent articles on air traffic controller retirement have appeared in *Aviation Daily, The Boston Globe, The New York Times, The Star-Telegram, The Record,* and other publications.

III. Work with the FAA on National Airspace Redesign

National Airspace Redesign (NAR) is an evolutionary, multi-year, multi-faceted process. The goal is to review, redesign and restructure our national airspace to efficiently and effectively meet the needs of all customers and service providers while maintaining the high standards of safety. The short-term focus is on optimization of the present structure concentrating on projects such as the choke point initiative to strengthening the current system and technology. Then, the longer-term airspace redesign projects will incorporate technological and conceptual enhancements. In order to be successful, NAR requires a major commitment, by all involved, in time, effort and funding.

NATCA has been involved in NAR since its inception in April 1998. We have committed one full-time airspace liaison and eleven NATCA regional representatives that work with the regional FAA redesign managers to plan, provide user input and monitor regional NAR activities. In addition, the union has 300 to 350 controllers nationwide who are involved in some aspect of NAR.

On March 16, 2001, NATCA and the FAA signed a Memorandum of Understanding on National Airspace Redesign. The MOU states that changes to the National Airspace System should be based on increasing safety, efficiency and capacity, and any modifications are to be made in the best interest of the users of the system and the flying

public. The MOU also provides for procedures in the event that NAR involves moving existing airspace boundaries, changing individual facility air traffic control grade levels, and staffing changes.

NATCA is committed to NAR and will continue to play an active role especially in the technical aspects of the project.

IV. Examination of Separation Standards

NATCA believes that it is time to consider safe and reasonable changes to the requirements for separating aircraft. Any marginal or fractional decrease in separation standards could instantaneously free up unused capacity in the system. However, any decrease must also be measured against the litmus test of safety.

Separation standards are designed to ensure the safety of aircraft and its passengers from other aircraft. The FAA separation standards, which date back to the 1950s, require 5 miles laterally in the enroute environment, 3 miles laterally in the terminal airspace, and 1,000 to 2,000 feet vertical depending on altitude. Attempts to determine the origin and basis for the current separation standards have revealed that they were apparently the result of qualitative judgements. There are no documents that explain how the three and five mile standards were derived. It is, however, generally accepted that the standards are the result of a number of factors including practices used by the military, radar equipment limitations, pilot acceptance, and to provide for a practical time and distance buffer.

Today, we have the scientific methods and computer simulation tools needed to examine the separation standards. NATCA is willing to join with the NTSB, NASA, the pilots, the FAA and other interested parties to carefully examine the possibility of reducing the separation standards. In April, I met with Professor John Hansman from the Massachusetts Institute of Technology International Center for Air Transportation, Department of Aeronautics and Astronautics. Professor Hansman is researching the dynamics of the emerging capacity crisis in our country and is evaluating the current separation standards. Professor Hansman's data shows that while separation standards have remained unchanged radar performance has improved five-fold. While air traffic controllers are using 1970s radar with 1980s radios and 1990s scopes, they are using 1950s separation standards.

V. Labor Representative on the Management Advisory Council

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (P.L. 106-181) reaffirmed creation of the Management Advisory Council (MAC) that was first authorized under the Federal Aviation Reauthorization Act of 1996 but never formed. The MAC provides advice and counsel to the FAA Administrator, and functions as an oversight resource for management, policy, spending, and regulatory matters under the jurisdiction of the FAA.

The MAC consists of a designee of the Transportation Secretary, a designee of the Defense Secretary, and ten aviation industry representatives appointed by the President and confirmed by the Senate. Initially, these ten council members will serve from one to three year terms. Subsequent appointments will be made by the Secretary of Transportation and will be for three years. None of these ten Council members may serve as an officer or employee of the federal government. There is also a seat on the MAC for one of the union leaders representing air traffic control system employees, to be appointed by the President and confirmed by the Senate. The labor representative is appointed for a three-year term as long as such individual remains a leader of their respective union. Subsequent appointments will be made by the Secretary of Transportation.

Currently, the MAC consists of seven members. The Council has held six meetings, has elected a Chairman and has begun to move forward in its mission. However, there is no labor participation on the MAC. Given the important tasks and challenges facing the aviation industry and the MAC, I believe that it is imperative that the remaining seats on the Council be filled before any further business is conducted.

In January, I submitted my name to the White House and the Secretary of Transportation requesting that I be nominated to serve as the labor representative to the MAC. I have had personal conversations with both Secretary Mineta and Administrator Garvey on this matter. I have also written to members of the aviation authorizing and appropriation committees asking for their support of my candidacy.

NATCA is the logical choice to represent the unions of air traffic control system employees. The general function of the MAC is to provide advice and counsel to the Administrator on issues that affect or are affected by the operations of the FAA. All policy and technical discussions involving the National Airspace System will have a direct impact on NATCA and its members.

Over the past 18 years, I have worked as an air traffic controller at Kansas City International tower, at Chicago Terminal Radar Approach Control, and most recently at Cleveland tower. As such, I have the background needed to understand and actively participate in all policy and technical discussions involving the NAS. In addition, as an elected union leader, I have played an integral role in public policy discussions and decisions while working to enhance communications and develop cooperative partnerships with labor, Congress, user groups and the FAA.

It would be a privilege to serve as a member of the Management Advisory Council.

CONCLUSION

Thank you for the opportunity to testify on the problem of delays and the proactive steps that NATCA has taken to address the situation. We look forward to working with the Subcommittee, the FAA, the pilots, airlines, airports, and other interested groups to develop and implement concrete solutions.

National Air Traffic Controllers Association
AFL-CIO

John S. Carr
President

John Carr is serving his first term as president of the National Air Traffic Controllers Association. Prior to his election in September 2000, he worked as an air traffic controller at Kansas City International Airport, the Chicago Terminal Radar Approach Control (TRACON) and most recently, at Cleveland Hopkins Airport.

John's involvement in the formation of NATCA began in 1986 as a founding member. In 1987, he was elected the first president of Kansas City International's fledgling NATCA local, and eventually held every elected office in the local organization.

John moved to Chicago in 1987 and rose from facility representative to the position of president of the Chicago TRACON Local, and also filled every locally elected position. John helped use his office to assist in shepherding air traffic control legislation through Congress, and he has testified numerous times on air traffic control issues. He has held many influential union roles where he worked to shape NATCA's foundations, procedures and policies.

Throughout the past 14 years, John has served in numerous leadership positions including pivotal committees and work groups. John was a member of the union's 1998 Contract Negotiating Team, a Facility Representative Training Course Instructor, a facility representative, crew representative, secretary and treasurer. John is an outspoken advocate not only for air traffic controllers but for the flying public as well.

John's air traffic control roots date back to 1976, when he served in the U.S. Navy as an air traffic controller for four years. John spent two years as an air traffic controller in Corpus Christi, Texas, and two years on board the aircraft carrier USS Dwight D. Eisenhower. John's military service includes time spent in the Gulf of Oman during the Iranian hostage crisis of 1980.

John is happily married to Jill Carr, an air traffic controller whose background includes stints at Tampa-St. Pete Clearwater Tower, Greensboro Tower and TRACON, Cleveland Hopkins Tower and TRACON, and Dulles Tower and TRACON. The couple splits time between their home outside of Cleveland and their working apartment in the suburbs of Washington, D.C.

From Capitol Hill to the White House, government agencies to the myriad of industry trade groups and commercial providers, NATCA's strong presence in the aviation community and John's strong leadership has earned many grassroots successes. Combining those successes with strong citizen support for NATCA's issues, the organization continues to grow in stature as a policy-making voice for air traffic safety.

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TRACKING DELAY PROGRESS

Mr. ROGERS. Well, thank you very much. Thank all of you for your statements, and you have given statements that are chocked full of data and very important information and very important news. It seems like we are making some progress. We will look at Mr. Mead's graphs next month to see if the proof is in the pudding. The graphs that he had in his statement showing the delays month by month, referring to Figure Number 1, and Mr. Mead's testimony about the arrival delays at 10 major airlines for the year, and, of course, we only have 3 in March, which shows that, as he said, the delays are consistent with last year. The proof will be whether in April and May, these next few months, we see the yellow line, which represents 2001, go down in relation to the other points. Is that not correct, Mr. Mead?

Mr. MEAD. Yes, sir. That is absolutely correct.

AIRLINE SCHEDULE PUBLIC DISCLOSURE

Mr. ROGERS. In your opinion, the steps that have been taken that you have heard from here at this table today; will you evaluate what you have heard for us and tell us what you think is happening, if anything?

Mr. MEAD. Well, first and foremost, the whole tenor that was established in the March hearing of accountability and the laying out of specific action items, I think, is working. As you say, the proof will be in the pudding. I am pleased, as I sit here today, and while there are varying degrees of progress, I think my assessment is that you will hear progress across the different fronts. I think that a lot of these actions, like meeting with somebody, establishing a plan, we have established a system for tracking delays, establishing new sectors, we are going to come into implementation by this summer.

I am disappointed, as I mentioned in my oral remarks, that the airlines do not plan to invite the American public to help deal with the delay problem. I think by telling the traveling public when they call up to book a ticket that the flight they are about to book on is late 50 percent of the time and canceled 10 or 15 percent of the time, that the people that are about to book those flights might choose to book another flight. That is the one area that I am disappointed in.

The other is, this summer, for better or for worse, we are going to have to depend heavily on airline voluntary scheduling practices. It is too early to tell what is going to happen. American and Delta have taken a very good first step.

Mr. ROGERS. When they rearrange their schedules into their hub airports. Is that what you are referring to?

Mr. MEAD. Yes, sir. And the second page of the graph, I think, graphically illustrates the usefulness of not only the new capacity benchmarks as they are represented by the blue line cutting across the graph, but it shows the scheduling of last year in April as compared to the scheduling today, and in both instances you can see an improvement, as represented by the yellow spikes, and the red spikes for 2000. That is good action. That is progress.

AIRLINE PROGRESS ON DELAY ISSUES

Mr. ROGERS. Well, Mr. Merlis, we have heard two concrete suggestions that the IG has just mentioned. Would you care to comment on them?

Mr. MERLIS. On the first one, about disclosure, let me give you an example. There are six airlines that fly between Fort Lauderdale and New York. Four of them are our member carriers who do compile this information. Two of them are not. We do not believe it is appropriate to disparage our own product when our competitors not only do not collect it; they do not have to collect that data. And as long as that remains the case, we have a lot of difficulty saying we are bad, but the other guy, who may be as bad or worse, has no requirement to do so.

Secondly, with respect to the peaking issue, there are several other airlines which have done that, and we think this holds promise. In addition to the examples which he has cited involving Delta at Atlanta and American Airlines, we have the situation where Continental has done some de-peaking at Newark, and they report that their delays in the first three months of the year at Newark have gone down 20 percent against a picture which Mr. Mead painted of overall delays remaining relatively constant. So that does indicate that we may be in relatively good shape there.

AIRLINE REQUIREMENT TO REPORT DELAY DATA

Mr. ROGERS. Well, I am puzzled a bit by your first response. You said that of the airlines serving—was it New York?

Mr. MERLIS. New York. I just used that as an example because I happened to look it up.

Mr. ROGERS. That four of them are members of your group, did you say?

Mr. MERLIS. Yes, sir.

Mr. ROGERS. And that two of them are not.

Mr. MERLIS. That is correct.

Mr. ROGERS. Now, who are they?

Mr. MERLIS. Jet Blue and Spirit.

Mr. ROGERS. Why don't you represent them?

Mr. MERLIS. They have not joined us. But the issue, sir, is that they are not required by law to collect that data and to turn it over to DOT. The four ATA carriers are required by law, so they have the information available. The other two airlines do not have any requirement to collect it or to turn it over to DOT or to report it.

Mr. ROGERS. What percent of the market do those two airlines have?

Mr. MERLIS. I do not know in that market.

Mr. ROGERS. It is not very big, though, is it?

Mr. MERLIS. I just do not know. I do not know if it is 10 percent or what.

Mr. ROGERS. Are you suggesting that the law ought to require every flier, carrier, to report this data?

Mr. MERLIS. I think that when the results of that delay-reporting advisory committee are out, yes, it should. All of us should file according to the same system. We have been working on this pilot program, and then we could talk about that other issue.

Mr. ROGERS. And, Ms. Garvey, when would that take place, do you think?

Ms. GARVEY. Well, I do not want to speak for the Deputy Secretary designee, who is the new chair of that committee. I know that the pilot program is in operation now, and they are talking about coming up with a new schedule this summer. Again, the Deputy Secretary is chairing that new committee. I am not sure what schedule he will come up with.

Mr. ROGERS. Well, I guess we have got a seventh member of the body now.

Ms. GARVEY. There you go. I agree with Mr. Merlis that it may be that the requirement becomes all of the carriers. I am actually making a note of that and it may very well be one of the recommendations.

CHRONICALLY DELAYED FLIGHTS

Mr. ROGERS. Well, it seems to me that it makes imminent sense for every carrier to furnish data about each flight, revealing what percent of the time that flight is delayed so that the buyer can be informed, let the buyer beware. If they want to pay good money for a 30-percent chance of getting to New York on time or wherever, then that is their business. If they want to pay money for an 80-percent flight on another airline, then let the marketplace run the show. But we have got to have the data. And we cannot apparently rely upon airlines to voluntarily furnish that, all of them, and so it seems to me that we need some means by which that data is mandated. Mr. Mead?

Mr. MEAD. Mr. Chairman, I think it is important to clarify for the record. I did not understand the Air Transport Association to state that if every airline were to be reporting these data, that they then would be responsible for disclosing that to the people that are booking the flights. In point of fact, the 10 major carriers that account for the very substantial majority of flights already have this information, and they are required to disclose it if they are asked by the savvy traveler. Our point is that when you call up to book a flight and spend your money, if that flight does not show up on time 50 percent of the time or more or is canceled 10 or 15 percent of the time, that when you are buying that product, the airline ought to tell you the product you are about to buy has a statistically high frequency of not showing up on time.

MAJOR AIRLINE REPORTING OF DELAY DATA

Mr. ROGERS. Well, now, Mr. Merlis, the major airlines collect the data.

Mr. MERLIS. Yes, sir.

Mr. ROGERS. And what do they do with it?

Mr. MERLIS. That data is put in many instances on their Web sites. It is in the computer reservation system so that anyone who looks in that and wants to know the information can obtain it by asking for it, and it also is turned over to the Department of Transportation.

Mr. ROGERS. And how timely is it turned over?

Mr. MERLIS. I am not well versed on what the sequence is, whether it is 20 days after the end of the month or 30, but it is relatively promptly. It is not months and months after the fact.

Mr. ROGERS. Is it restricted what the DOT can do with that information?

Mr. MERLIS. No, sir, it is not.

Mr. ROGERS. So DOT could put the number Mr. Mead is referring to beside each flight, then.

Mr. MERLIS. My belief is that on occasion there have been, and I do not know if it is Mr. Mead or others, who have pointed out certain flights have been late X percent of the time in public testimony, so clearly they were allowed to do that. I do not think any airline has said they should not be allowed to use the data as they see fit.

FLIGHT DELAY PUBLIC DISCLOSURE

Mr. ROGERS. So, Mr. Mead, is that not the answer?

Mr. MEAD. Yes. We have done an analysis, and we were alarmed by the number of flights that are chronically late or canceled. And the problem is that we do not have the mechanism inside the Department of Transportation to let people know of that affirmatively when they are buying the ticket. We found 240,000 flights that were late more than 40 percent of the time and about 50,000 flights that were late about 80 percent of the time.

Mr. ROGERS. Well, how would you prefer that that information be given to the purchaser of a ticket?

Mr. MEAD. Well, when you call up to buy a ticket and say, I would like to buy a ticket on such-and-such a flight, I think that it is reasonable that the airline you are buying the tickets from would say, or the travel agent would say, the flight you are about to book, you should know there is a big risk that it is going to be late.

Mr. ROGERS. Mr. Merlis says that they provide that information now if you ask.

Mr. MEAD. If you ask.

Mr. ROGERS. You are saying they should tell you whether or not you ask.

Mr. MEAD. Yes, sir.

Mr. ROGERS. Mr. Merlis, what do you think about that?

Mr. MERLIS. I think that that could be very complex, sir, not only because of the competitive issue, which I raised, but a person calls to say I want to go on the 6 o'clock flight, not knowing what the flight number is. And so you end up having, and I see Mr. Mead mentioned travel agents, which have never had this requirement to disclose this information—only airlines are required to disclose this. But if you were to then have the travel agents say, well, there is a five-forty-five flight, and it says nothing because that five-forty-five flight is invariably above the threshold, or there is a six-twenty flight, but that is late 80 percent of the time.

I just think that the information is available to the customer. I think it has been widely publicized that it is available to the customer. It is very readily available to the customer from the airlines and from these on-line sites, and I think that until there is a con-

sistent mechanism for this reporting, let's give that one a chance, too.

One of the things that this advisory committee is going to do is come up with the reporting requirements for the causes of delay.

INTERNET RESERVATION SYSTEM FLIGHT DELAY REPORT

Ms. EMERSON. Mr. Chairman. Will the chairman yield just for a second for me?

Mr. ROGERS. Yes.

Ms. EMERSON. Speaking on this subject, I just thought this was a relevant time to bring this up. I was trying to get a reservation this morning for my husband on Expedia.com, and it so happens that a flight from here to St. Louis and then back again on my hometown airline, I might add, TWA-American, which is 90 percent on time, it does say that. That is a pretty good record, I might add. But needless to say, I was able to get that information. It is on almost all of these Internet books, which is why I cannot understand, I suppose, why you would not get it when you call.

Mr. ROGERS. Is that so? Do the Internet networks carry consistently the delay rankings of flights, all flights?

Mr. MERLIS. I am not aware of what the nonairline-owned Internet booking sites have, sir. I just do not know the answer to that.

Mr. ROGERS. All right.

Mr. MERLIS. I know the computer reservation systems, or if you go into the OAG, for example, on line, that information is right there. When you get into the flight, it tells you what the percentage on time of the flight in the OAG, on-line OAG, that is.

ACCURACY OF DATA REPORTING SYSTEM

Mr. ROGERS. Ms. Garvey, your statement refers to the voluntary program that the four airlines have agreed to. What are your thoughts about the objectives and timeliness of that effort?

Ms. GARVEY. Well, as we mentioned at the last hearing, and a great deal of credit should go to those four airlines that did step forward and are putting in the information and reporting it on a daily basis. I think that is going well. The real challenge for the Deputy Secretary is going to be to reconcile the data to understand and to make sure that we are getting the correct data. As Mr. Merlis and Mr. Mead have mentioned, there really are some challenges in just making sure we are getting the correct data and then bringing all of the other airlines on line. It is a step in the right direction. I do think it is going to be terrific to have the Deputy Secretary confirmed so that we can get moving with these task force. But we are working with him every day, providing the kind of analysis needed to support BTS in this effort. I do think they are the right steps to be taking.

ENVIRONMENTAL STREAMLINING

Mr. ROGERS. Now, Ms. Garvey, as both Secretary Mineta and you and everyone here, I think, have committed to shortening the amount of time it takes to obtain environmental approval and local permits for runway and taxiway construction, how much time could

we realistically expect to shave off the planning and approval process for new runways and taxiways?

Ms. GARVEY. Well, in many ways it varies both from, the complexity of the project, and also from site to site. A place like Houston that had very, few environmental issues, had enormous local support, very little opposition, got through it in a relatively short period of time, about 18 months. Other places, my own hometown of Boston, for example, have been wrestling through with an airport and a runway issue for a long period of time, so there are some that may take 10 to 12 years. What we have found, and Chip may have some other comments on this, but when we have done an anatomy of the project very often it is in that early and planning stages where we have some real issues, trying to build that kind of local consensus. In fact, some of the permitting at the end of the process is also a difficult issue. What we can do are some of the steps we have identified, which is dedicated teams and dedicated staff that Mr. Barclay has referred to. The Secretary has also spoken, very directly, about bringing together the environmental agencies so that we can identify the high-priority projects and sign memorandums of understanding early in the process so that we can move the project quickly. But it's diffcult to give a hard-and-fast, shortened time frame because it really does differ depending on each project.

CAPACITY BENCHMARK REPORT

Mr. ROGERS. Well, as you say, you have now released the capacity benchmarks as of April 25th.

Ms. GARVEY. That is right, sir.

Mr. ROGERS. Tell us what that is.

Ms. GARVEY. Well, as I mentioned in my longer statement, the capacity benchmark identifies two numbers. It is an optimum number, when the weather is really good, how many landings and takeoffs can be handled safely at an airport. We also looked at a number that can be handled safely when the weather is not so good. We think it is a very realistic expectation. The methodology of this was pretty sophisticated. We went to the airport itself, talked with the air-traffic people, talked about what they in their experience could handle. We matched that against the historic data and used a pretty sophisticated model from Mitre to work those numbers through. We vetted that through pretty carefully with the airport. I think everyone is pretty comfortable with the numbers but the real challenge for us, as I mentioned, is to focus on solutions at those airports, particularly those top eight, that really do affect the system.

EXCEEDING CAPACITY

Mr. ROGERS. Now, that Capacity Benchmark Report that you released documents that at many airports the number of scheduled flights exceed the capacity of the airport. Is that right?

Ms. GARVEY. That is correct, sir. Particularly in bad weather, what we found at those eight airports, and as I said——

Mr. ROGERS. In good weather, in perfect weather.

Ms. GARVEY. Okay. In good weather there are some airports where there are some difficulties as well.

Mr. ROGERS. How many?

Ms. GARVEY. There are eight. I would say probably at two of them that we have, even in good weather, some difficultly—it might be three, and I apologize for not knowing exactly.

Mr. ROGERS. You are saying three airports are scheduling more flights than they probably could handle in a day's time in perfect weather.

Ms. GARVEY. Well, in good weather we have some difficulties at a couple of those airports. Right.

Mr. ROGERS. What airports are we talking about?

Ms. GARVEY. Obviously, I should have thought of that. They just reminded me that LaGuardia is the major difficult one. During certain times of the day Chicago has a problem as well. And LaGuardia, as you know, we are treating as a unique situation I know the Congressman is very aware that we have certainly had some great challenges there.

Mr. ROGERS. Are there any other airports that are scheduling more flights than they can handle?

Ms. GARVEY. I think at all eight of those, as we have said, there are times of the day where we have some concerns. I have to say it is primarily in bad weather. If you look at the action plan of all eight airports we suggested that in each of those eight airports, the airlines review their scheduling. We think the suggestion that Mr. Mead has made is one that we share as well. At all eight of those airports, it would be wise for airlines to take a look at the scheduling.

Mr. ROGERS. As Mr. Mead said, American at Dallas and Delta at Atlanta on their own said look, we are exceeding our capacity at these airports at certain peak times of the day so they rearranged their flights so now there is actually only one, it looks like, at Dallas, one time of day when they are barely exceeding the capacity.

Ms. GARVEY. That's right. It made a big difference.

Mr. ROGERS. Why would no other airlines want to do that?

Ms. GARVEY. I am not as familiar with the details of it, but I do know that Newark—I am more familiar with American and Delta. But I know that Continental has taken some steps and United as well. So the airlines are beginning to take those steps. But again, that is why it is important for each one of those eight airports to look at their action plans. I think the last item on every one of those plans is that airlines should review the scheduling. We will work with them very closely to monitor that.

CAPACITY AT ATLANTA AND DALLAS/FORT WORTH

Mr. ROGERS. Mr. Mead.

Mr. MEAD. One reason why DFW and Atlanta are susceptible to this type of unilateral action is because the dominant airline in Atlanta is, of course Delta. The dominant airline at DFW is, of course, American Airlines.

At an airport where there is more of a competitive mix, and you have schedules exceeding the capacity benchmark, an airline will be afraid that if it takes unilateral action, its competitors will simply fill up the glass at the top. So I think you have that phenomenon at play at a number of airports in the country.

AIRLINE SCHEDULES DEMAND MANAGEMENT ACTIONS

Mr. ROGERS. What is the alternative then? If they do not do it voluntarily?

Mr. MEAD. Well, I think the alternative will be the demand management actions that we are supposed to review—like the lottery they had at LaGuardia. That would certainly be something that would have to be considered at some airports. Peak hour congestion pricing is another. Another one that is currently being discussed in the Congress is scheduling committees where the airlines can get together under antitrust immunity and discuss arranging their schedules.

Each of those options, Mr. Chairman, has a pro and it has a con, and the devil can be in the details of some of these. They may sound very appealing conceptually, "why do not the airlines just get together and arrange their schedules and come in on the benchmark". On the other hand, I would be concerned about what will happen to the smaller commuter fleets, because the airlines might not find it in their economic interest to serve smaller communities if they are going to get more money from big airplanes going between two or three major markets.

A downside to a lottery is that, if you do not carefully control it, a lottery can end up, creating big winners and some big losers. For example, you may have—United Airlines. What if United Airlines wins all the lotteries? That leaves out the smaller carriers. I know you have been entreated by new entrants who want a piece of the action, too.

Peak hour pricing, that sounds nice in concept, but in the end, Mr. Chairman, it is you and I who are going to pay the price. It is going to be passed on to us, whatever the price is for that peak hour travel. And who gets the money? Does the airport that will not expand get the money?

Mr. ROGERS. Let us ask Mr. Merlis.

Mr. MERLIS. I think all three of them, sir, need to be addressed. There are pros and cons in all three. We are supporting the antitrust immunity because we believe that we can make meaningful progress with the antitrust immunity with minimal adverse consequences to our customers. The reason I say that is that even when the peaks are exceeded at these airports, we are talking about three, five seven flights in a particular hour. So the goal is to move those three, five, or seven flights—not to move the 100 flights that are up to the peak. Because it is on the margins, it is less disruptive to the basic traffic, those initial 100 flights and communities; whereas with peak hour pricing all 100 flights would have to be charged the peak hour price. So we have been advocating in the authorizing committees where this legislation is being considered, that this kind of immunity be granted subject to the appropriate safeguards of the Secretary or Justice Department being a party to it, whoever needs to be in the room, and that there be no discussion of prices and issues of that sort.

ALLEVIATE PEAK DEMANDS

Mr. ROGERS. Mr. Mead's chart here on scheduled arrivals at Dallas Airport, that data is available to all airlines and they have it

themselves in much more detail than this. They know that if they move their 11:30 a.m. arrival at Dallas to 11:15, that that peak would go away, would it not?

I mean it does not take huge changes in schedules to alleviate these peak periods during the day. Does it?

Mr. MERLIS. No, sir. It does not.

Mr. ROGERS. Why do not they do that?

Mr. MERLIS. Because no carrier wants to do that individually if his competitor is going to maintain service at that time.

Mr. ROGERS. They may not want to do it, but they do not want us to do it.

Mr. MERLIS. That is why we are advocating the antitrust immunity so that we can do it, so that we can talk to one another and agree to move flights, without worrying about someone coming in and backfilling in that time.

Mr. ROGERS. It does not seem to me like you would have to talk to the other airlines to know that if you move your flight 15 minutes to alleviate a real problem at that hour at that airport, it is not going to make that much difference, is it?

Mr. MERLIS. As Mr. Mead said, in those airports where there are airlines which have a lot of traffic such as Atlanta with Delta; such as Dallas/Fort Worth with American; and such as Newark with Continental, those airlines have unilaterally done that. The issue arises where you have a large number of competitors at that common time, the issue becomes who moves first. That is why we think that the antitrust immunity would provide an opportunity for the carriers to agree who will move in the eight o'clock to nine o'clock hour, and someone else says I will move in the nine to ten hour.

ACTION PLAN FOR TOP EIGHT AIRPORTS

Mr. ROGERS. Ms. Garvey, your commitment says that you will not only develop the benchmarks but that you will use them to develop action plans at the worst ten airports identified in the study. First, what are the airports, and what are you doing about your action plans? And when will they be completed?

Ms. GARVEY. Mr. Chairman, the eight that we focused on in the report were Atlanta, Boston, Chicago, JFK, LaGuardia, Newark, Philadelphia, and San Francisco. Those are the ones that have a very high percentage of delays, and also have a tremendous impact throughout the system. We took eight because they impact the system. It is quite astonishing when you look at those eight. And what we did was take a first cut at the action plans for each one of those eight. We recognize that it is a first cut. It includes procedures, changes to air space in some cases and in some cases it includes technology. In a place like Atlanta, certainly it improves the runway. It also includes the recommendation that the airlines look at their scheduling at that particular airport.

What we would like to do, and we have begun discussions already with the airport directors, is to work closely with them. While there are elements of those action plans that we are solely responsible for, there are elements where we need the airports and want to work very closely with them.

Mr. ROGERS. When will they be complete?

Ms. GARVEY. The action plans, the first cut, are completed now and are part of the Capacity Benchmark Report. Most of them have seen that first cut, but we have not yet received comments back from them. So as we continue discussions with the airport directors if there is something we have missed, we want to make sure that we take advantage of the expertise and work to include that as well.

AIRLINE FLIGHT SCHEDULES

Mr. ROGERS. The IG says that FAA should compare airline flight schedules for 2000 and for 2001 at their hubs to gauge the effects of the airlines' voluntary actions on delays and cancellations. Are you planning to conduct that analysis?

Ms. GARVEY. I think the Department of Transportation will do that, but we will certainly support them in whatever way we can. I think it is a very good idea. Any time you can create a baseline and understand what your starting point is and how far you have come, that is very helpful. To the degree that we can support the Secretary's office in that, we definitely will. And if he delegates that to us, we will take that on.

Mr. ROGERS. Mr. Sabo.

AIRPORT REIMBURSEMENT FOR FAA STAFF WORK

Mr. SABO. Thank you, Mr. Chairman. A couple of questions. The airport reimbursement for FAA staff work, is it assume—I assume that what the airport would do is transfer money, not necessarily staff.

Mr. BARCLAY. Correct.

Mr. SABO. And it would be FAA that is in charge of the staff, either hiring or contracting?

Ms. GARVEY. That is right, sir. In fact that was an issue. We wanted to make sure there was not the conflict of interest. But I think Mr. Barclay's suggestion that it is like the Food and Drug Administration is a good analogy.

ENVIRONMENTAL STREAMLINING

Mr. SABO. Of the environmental issues you face in airport expansion, what are the most frequent problems you face?

Ms. GARVEY. From my perspective, and Mr. Barclay may have a slightly different one. But from my perspective it is very often creating that kind of local consensus that you need. That willingness, the political support at the local level to decide that we are really going to move out and move forward.

Mr. SABO. That is really not an environmental issue.

Ms. GARVEY. It is really in the planning process. You are right. I think if you break down the projects, that is where you see a number of problems. Having said that, there are still things we can do.

Mr. SABO. What is it that leads to that local opposition?

Ms. GARVEY. Often it is just people not wanting to see an expansion of an airport in their neighborhood. That is often the issue.

Mr. SABO. Mr. Barclay.

Mr. BARCLAY. Congressman, I do not know of any instances where an airport was not able to come up with a solution to an environmental problem or a remediation that would have done much more for the environment in that areas than the damage of the project itself. So the point we tried to make in our plan is that we are not trying to change any environmental standards. We think we can meet environmental standards or produce remediations in virtually every instance. It is the unending debate that you get into in trying to get to applying the standards that are in the environmental laws.

Because you have both state agencies with their laws and regulations, and federal agencies with their laws and regulations, you can even get into a loop where they put time limits on the EIS approval and so then you go to the state agency and the state agency holds you so long you have to go back and redo the environmental impact statement. So it is a process issue, and a lot of people have a legitimate interest in being involved in these. But we do have to figure out a way to put a statute of limitations on the debate and get to the point of applying the standards, getting a go/no go decision on them.

I was up in Boston this last week, we had a press conference on that runway addition which the airport is not selling as adding any capacity. They do not intend to add capacity at that airport, and it is a runway that will move flights out over the bay. It will take a number of flights that are now going over housing out over the bay, and they still have enormous local opposition. So it is just in the nature of these big infrastructure projects.

BOSTON RUNWAY EXPANSION NOISE ISSUE

Mr. SABO. Is the opposition in Boston primarily noise related? Or is it other?

Mr. BARCLAY. There are lots of arguments used, but I think it is fundamentally noise, in my opinion.

Mr. SABO. The reason I asked for a variety, I was just curious if you were running into particular air pollution problems or water pollution problems, or if it centered on the noise issue.

Mr. BARCLAY. There are coming air pollution problems for containment areas, but to date it has been mostly opposition over individual projects that in all likelihood centers around noise. So your efforts at increasing R&D on noise are particularly the right target for the long term on this issue.

Mr. SABO. I think it is crucial. But I am not sure how we—what you are talking about is an issue that creates so much opposition that you cannot get the local people that have to make the decision say yes. I am not sure how we deal with that by streamlining the process unless we deal with the essence of the problem.

Mr. BARCLAY. Well you do have to, I think as Herb Kelleher said not long ago, you cannot build buildings without dust, and you cannot have new flights without any noise. But communities have to be given a way to come to a conclusion and not be in unending debate on these.

The people at Boston that are concerned about the expansion there, many of them do want an air transportation system to work, and they want to be able to get to San Jose when they are from

the high tech area in Boston. They need the network system to work. And if it is going to work the people in Dallas are relying on the people of Boston to keep their capacity up; and the people in Boston are relying on the people in Dallas to keep their capacity up, and so on throughout the system. Because in a network if you put a bottleneck in any one place it ripples, delays, and affects everyone's performance in the system.

LOCAL SUPPORT OF AIRPORT EXPANSION

Mr. SABO. But you are not suggesting that we are going to get involved in approving runway expansions over the objection of the local officials are you?

Mr. BARCLAY. We have not suggested federal preemption in our legislation. But if one looks at the interstate highway system, the federal government took away the go/no go decision and said we are going to work with the locals on where the highways go, and where they meet at state boundaries and so on, but it is an important interstate transportation system, and aviation is probably the least intrastate of any of the transportation forms.

Mr. SABO. I think on freeways, that was fundamentally locally decided when and where they were built.

Mr. BARCLAY. The federal government, as I understand it, set out the general pattern of the interstate highway system and worked with the states on whether that routing should be changed. But they made the fundamental go/no go decision on——

Mr. SABO. I do not think so.

Mr. Mead?

Mr. MEAD. Yes, I think that is an interesting point. Probably anybody who has gone up and down the Atlantic seaboard would know that in South Carolina and North Carolina, there was a fairly substantial stretch there, that I do not think became part of the interstate system. And the Central Artery in Boston—the original design there was not to go all the way around the city. I think the locals thought "well, we do not want to cut through the city right now." It was some years later that they got the local consensus, if that is what you want to call it, to drive I–95 right through the city. So there are several places in the United States. I think you are raising a very good point, though, about what would happen, If there were no environmental laws, I think you still would find very substantial opposition. Some people just do not like an airport in their neighborhood.

Mr. BARCLAY. And I did not mean to get off on the debate about preemption. What we are asking for is limiting the time period for a debate, and then the locals can still make the no go decision, but not hold us all at a place where we do not know whether we are ever going to add capacity in Boston. That indecision winds up freezing the system and many of the partners in it for too long a period of time.

ENVIRONMENTAL STREAMLINING PROCESS STATUTE OF LIMITATION

Mr. SABO. I do not know how you get a committee to decide that it's a no go. I guess lack of action is no until someone says yes. Is that not accurate? How are you going to enforce it? I expect the structure of who decides varies. I do not know——

Mr. BARCLAY. If you add all the agencies that have a part of this decisionmaking make their decisions in parallel rather than in series, and require that for any major runway project that has a major impact on the national system at a highly congested airport, all the considerations have to take place in a three or four year time period and they have to take place simultaneously, would be a way to get everybody to a decision.

Mr. SABO. Not necessarily. If the result is significant local opposition and you are dealing with other elected officials, they come to the end of the four year period and say we have not decided.

Mr. BARCLAY. But all of these projects that I am aware of have a lot of local officials that are in their favor. They wind up being held up by significant opposition. And if that opposition can game the procedures in all of the different laws—both state and federal, and regulations—can game that procedure both legally and with the regulatory procedures, they wind up, a minority winds up holding up a project that the majority says it is not perfect, but it needs to go forward.

Mr. SABO. I guess I need to understand a little bit better what this whole streamlining process means. It sounds like you are trying to stop suits, lawsuits. I am not sure how you stop——

Mr. BARCLAY. A good example was Memphis. It took 16 years to add a new runway and nobody objected. But they wound up having to go through a number of federal agencies, that in their case probably took too long in their reviews, but all the federal agencies are very, very careful because they are worried that opposition might crop up later on.

Mr. SABO. That is different than dealing with the general political opposition. That is because they were dealing with a specific issue—I assume dealing with a particular environmental problem. But they may have taken too long at it. But that is different than dealing with the general, more complicated problem that there is political dissent and someone cannot come to a decision. That is in part why I asked the original question. Is it air problems, water problems.

Mr. BARCLAY. We are trying to develop a process for calling a vote. It is a difficulty that you cannot ever get to. It is not that you have a majority of people against one of these projects, it is that you never get a vote called to find out whether you are going to go forward or not.

Mr. SABO. That is pushing our capacity here. It might be a state legislature, and we are going to say we are going to have a system where you have to vote?

Mr. BARCLAY. I was using a metaphor there on the vote. We are not talking about projects, I do not believe, where a majority of the people in the local area oppose the project. It is just you have a very strong organized minority and they are able to game out the procedures for too long on these projects that are important to the whole nation.

Mr. SABO. Well——

Mr. BARCLAY [continuing]. National interests as well as local interests.

Mr. SABO. There is a legitimate question of how you streamline certain environmental procedures and avoid duplication. You get to

a very different issue if you are saying we are going to compel somebody to make a judgment to major public infrastructure that is subject to debate in the political community. One we can deal with. The other one, I do not know that we either have the capacity or should have the capacity to force a decision on it. If a decision is not to build, clearly that can impact that community's acceptability of their airport facilities, and it may have positive or negative consequences for that community. But they have to live with that. I do not know that we can force that decision.

Mr. BARCLAY. We have provided both individual streamlining ideas which is what most of our plan is. What you would do in specific laws, to try to streamline those procedures and to have procedures run simultaneously. It is an added step to say there would be some type of a deadline on, everybody has got to get their consideration done by X date if it is an important national project, and then you can either go forward or not, depending on the decision. That is a separate—you may be right that that is something Congress does not want to step up and do. But is an issue that I would put before you for consideration because there are very important interstate transportation issues being debated.

Mr. SABO. Thank you, Mr. Chairman.

Mr. ROGERS. Mr. Sweeney.

ANTITRUST IMMUNITY

Mr. SWEENEY. Thank you, Mr. Chairman. Again, I applaud you and commend you for these hearings and welcome all of our panelists back to this very hot room on this very hot topic. If you did not understand what we are going to do here, we are going to torture you until we get the system right.

I am trying to get my arms around and comprehend the whole delay issue and notion more specifically of the role the airline scheduling plays. Mr. Merlis, Jack Ryan from your organization in a Hearst article was quoted as citing FAA figures that only 11 percent of all delays were attributed to the airline scheduling process. And as it relates to just really kind of broadly the—where do passengers fit in the process, and what do airlines think of their passengers and their customers, and how important are they? While I am no mathematician, if I do some rough calculations, 680 million people flew in the last year, and one out of four of those flights were delayed. So a quarter of 680 million is 14.5 million people delayed, I think it is kind of disturbing that that is not a problem for the airlines in some respect. You said in response to the notion that we look at alternative scheduling processes that you welcome the idea of obtaining antitrust immunity—I introduced a bill today, that I happen to support that notion, and I agree with Mr. Mead that we need—there is both pro and con, and the devil will be in the details.

What you cited as your fundamental problem with the processes that exist now from the airlines' perspective is that you are afraid that if any airline were to voluntarily begin a scheduling process that focused first on delays and convenience to the customers, the system would affect, that airline would face effectively a backfilling by competitors. Is that not an anti-competitive process in and of

itself? What you are effectively saying is you want to block flights. Is that not true?

Mr. MERLIS. No, sir. What I was saying is our concern is that if an airline or two airlines unilaterally take down some flights in a particular time period in order to alleviate the delays that are caused by successive flights in that time period, and a competitor comes in and fills up that time period, then we are back to the same delays we had, and the two airlines which had removed flights got nothing in return. We welcome competition. The issue is that where the capacity of the system is not adequate to accommodate the demands, what tools are best used in order to smooth out the rough spots?

SLOT CONTROLLED AIRPORTS

Mr. SWEENEY. Is not the question really how do we get to a system that rates objectively the efficiency of the use of slots at airports? Do you think the airlines are capable of providing that process voluntarily?

Mr. MERLIS. I think they are, other than the slot controlled airports, of which there are four, at the other airports they are capable of doing it—as Mr. Mead pointed out, in Atlanta and at Dallas/Fort Worth changes are taking place; as I pointed out at Newark; and at other airports where there is a higher level of competition there needs to be some assistance. That assistance, I would suggest, is the anti-trust immunity so that the carriers who do serve that airport could reduce those peaks without fear of someone else coming in and filling in the peak.

Mr. SWEENEY. At Dallas/Fort Worth and Atlanta, which Mr. Mead also pointed out are dominated by single carriers——

Mr. MERLIS. Correct.

Mr. SWEENEY. You are not saying that we need to have some airlines in each of those airports, in every airport to determine efficiencies of slot distribution, are you?

Mr. MERLIS. No, sir.

Mr. SWEENEY. I think that is a pretty relevant point.

Mr. MERLIS. Those two airports those airlines have done it unilaterally and it hopefully will have a significant benefit. Now it is true, someone could come and fill in where they back out and we go back to delays.

SCHEDULING COMMITTEES

Mr. SWEENEY. Mr. Mead, how do we build a system that looks at efficiency? I feel like Secretary Mineta's proposal to develop scheduling committees was I think a pretty significant step in that direction. I would like you to talk about that a little bit. Also talk about what you see as the dangers in that. You touched on it briefly.

SYSTEM EFFICIENCY AND DEMAND MANAGEMENT OPTION

But is not what we need a sense of greater efficiency in how we are going to distribute slots and how we are going to schedule?

Mr. MEAD. Yes, sir. As a matter of fact, as you look through those lists, probably 25 percent of the items are designed to estab-

lish ways of analyzing the efficiency of the system. An example is the capacity benchmarks. What the capacity benchmarks really tell you, for the first time, is what an airport can handle by time of day, in good weather and bad—very fundamental piece of information. Another one—track the causes of delay—is going to the same point. I could go on.

I probably did not do a very good job in my oral or prepared statement in concealing my bias here. My bias is that I am a little nervous about antitrust immunity; I am a little nervous about peak hour congestion pricing; I am a little nervous about lotteries and slot controls. And I am hoping that this summer through less intrusive ways, some of which are just good citizenship and voluntary behavior, we can put the system in balance again without taking these more forceful regulatory actions.

But I would say if we have a repeat this summer of last year, we are headed down the road to some of these more forceful actions such as peak hour pricing, the antitrust issues associated with scheduling committees, and the like. That is where I see ourselves heading. I think it is too soon to tell what is going to happen this summer. The Chairman pointed out that we do not yet have the data on April. When we see where those bar graphs go in April and May, that will tell the fortune for the rest of the summer, I think.

AIRLINE SCHEDULING

Mr. SWEENEY. First let me assure you, Mr. Mead, that every time you come before this committee or even the authorizing committee when I served on that, you do a very complete job of presenting the facts. Let me talk a little bit about the good citizenship with Mr. Merlis, because as I pointed out, 14.5 million people are affected by scheduling, overscheduling problems, which is something of an intentional act, I think we can all agree. Yet I look at the five solutions presented in this bill to the committee and none of them deal with that problem. They all deal with other things. While the substantial delays are caused by weather, I am just curious as to then again where do the airlines place the customer?

That overscheduling issue is your problem.

Mr. MERLIS. Correct.

Mr. SWEENEY. You can do something about that, yet that is not a priority apparently.

Mr. MERLIS. Well, sir, I think the reason I did not do that at the last meeting was, first of all, I was not prepared for that question. I was asked on the fly to come up with five things and I had not thought about it. But we have carriers who have embarked upon unilateral actions which are designed to do that. Southwest has dropped out of San Francisco for the express purpose of improving its on-time performance. Hopefully others serving San Francisco will be the beneficiaries of having fewer flights to San Francisco. As I said, Continental, in the first three months of this year because of its changing the schedule at Newark, had a 20 percent reduction in delays. So I think there is a commitment to doing the right thing, as much of it as possible as the carrier can unilaterally do. But they are constantly looking over their shoulder, to see what is the competitor going to do which adversely affects them. You are correct.

Mr. ROGERS. Mr. Sweeney, will you yield?
Mr. SWEENEY. Sure.
Mr. ROGERS. Mr. Merlis, I hear the commitment.
Mr. SWEENEY. It is a good day, Chairman.

AIRLINE COMMITMENT TO SOLVING OVERSCHEDULING PROBLEM

Mr. ROGERS. You will see that the airlines commit to solving their overscheduling problem.
Mr. MERLIS. To the extent they can. There are competitive reasons why an individual could not do it on its own.
Mr. ROGERS. Let me think some more.

SLOT ALLOCATION

Mr. SWEENEY. Thank you, Mr. Chairman.
Let me ask a couple of related questions of both Mr. Mead and Ms. Garvey. I spoke recently to the folks in the Port Authority of New York and New Jersey—this is not a formal proposal as of yet although I think they are preparing one, which is the concept that they do all of their scheduling. Similar to their idea of the lottery process. I am interested in your response to that notion as a test process, as a means of trying to find a way to be more efficient in slot allocation.
Ms. GARVEY. I have not seen the proposal, but I will give you what my initial reaction would be. I would be hesitant of anything that would vulcanize the system too much. I think the extent with which the federal government works with the Port Authority as we are doing, for example, on the proposal for demand management strategies, in my view that is a much better approach. I am not sure of the legal implications of what they suggested, but I certainly would like to talk to them about it. I think the cooperative approach is a better one.
Mr. MEAD. I think a community should have some say-so over air traffic. I do not think a community should have any control or say over scheduling. I think that is very clearly the role of Interstate Commerce. I can understand, though, why some people in Chicago do not want a new runway. And, environmental considerations notwithstanding, I personally would be prepared to respect that decision. But I would be very concerned about a locality deciding what flights to accept from where. The Port Authority also, I think is quite interested in peak hour pricing.
The committee should know that that area, New York, is grandfathered under the revenue diversions law. That is to say that money they collect they can divert into other things that are not airport related. And I would just submit for your consideration, sir, if they were to impose for congestion a peak hour pricing fee, one, does the Port Authority contemplate getting the money? And two, what do they plan to do with that money? I think you would find that the airlines would ask those two questions as well, and they are good questions.

LOCAL GOVERNMENT INVOLVEMENT IN AIRLINE SCHEDULES

Mr. SWEENEY. Well of course we are going to grow service to upstate New York. At least that is what I would hope would happen.

Mr. Barclay, do you disagree with the notion that leaving it to individual localities would tend to vulcanize the system and create other problems? I agree with both Ms. Garvey and Mr. Mead that we need you at the table, among other people. But——

Mr. BARCLAY. One of the first provisions that was put in the Airline Deregulation Act was a federal preemption there saying that the local governments could not get into routes, rates and service that the federal government had just gotten out of, and if you had five CABs (Civil Aeronautical Boards) around the country instead of one in Washington, that would be a more difficult network to operate.

SLOT ALLOCATION AND COMPETITION

Mr. SWEENEY. Let me ask you this final question. David Blevin of the Airports Council suggested recently that auctioning off of slots at airports might be a step toward solving that. AIR 21 looked to roll back slots in an effort to promote competition. My question is since airport owners have been working to reclaim gates from airlines, again based on efficiencies and use, in order to promote competition, would not that idea, essentially slotting every airport, work against competition? Work certainly against competition with small carriers.

Mr. BARCLAY. Every time you get into any of the demand management schemes it gets ugly as soon as you start looking deeply into it, because by definition you are leaving out. Someone wants access and they have a good argument for access from their point of view, but you are saying to somebody no, no room in the inn for you. So every demand management scheme you come up with has real problems, whether it's lottery, auction, peak hour pricing. The economic allocations do reward those with deepest pockets and biggest airplanes. One of the ways Continental, as I understand it, has helped straighten out some of their Newark problems is by substituting bigger airplanes for slots scheduled where they used to have smaller airplanes, and that has—they have had to go around and explain to members of Congress why they were losing air service.

LA GUARDIA AIRPORT

Mr. SWEENEY. Absolutely. And as a representative of upstate New York, that is the real red flag for a guy like me.

Ms. GARVEY. Congressman, I think just a couple of other points. I think if you look at something like an auction to try to balance out some of the issues that you mentioned, you could carve out an exemption of some sort. A base, for example, X number that go to the small communities, X number for low cost carriers, and that protects that public policy. It is not the pure demand management strategy, but I think as we look at a place like LaGuardia, those are the kinds of considerations that we have to think about. Mr. Mead mentioned some of the challenges around peak hour pricing, and I think he is right. There is another challenge at a place like LaGuardia. The fact of the matter is, there is a peak hour. Unfortunately, it lasts all day long. So at LaGuardia you have a particular problem that does not exist at other places.

Mr. SWEENEY. I have other questions, but I will yield back.

Mr. ROGERS. Mr. Olver?

PHILADELPHIA AIRPORT

Mr. OLVER. Thank you, Mr. Chairman. I would like first to clarify something with Mr. Mead way back in your testimony. Things get into my head and it takes a long time to forget them. I think you said that Philadelphia was one of the places that had finished a runway recently.

Mr. MEAD. Yes.

Mr. OLVER. When did they finish that runway?

Mr. MEAD. 1999.

Mr. OLVER. So Philadelphia having completed its runway, then the data that we are talking about for what the choke points are for delays includes Philadelphia having brought that runway into usage and still it is running delays.

Mr. MEAD. Yes.

Mr. OLVER. Is that correct?

Ms. GARVEY. Congressman, there is one sort of unique situation in Philadelphia, and that is there is a technology called Precision Runway Monitor (PRM) that we think is going to be very helpful. It is not yet on-line, so the runway, while it is being used, has limited use right now. And when PRM, the technology, is put in place, we think that is going to improve that.

Mr. OLVER. Do you think that will solve the problem for delays at Philadelphia with the additional capacity? I do not know how many runways they have——

Ms. GARVEY. I do not think it will solve it. I think that is why getting together with the airports and looking at what else we can do. There are, for Philadelphia, some additional improvements that are already planned and again, at that one we suggested that the airlines look at the scheduling as well. There is also some free-flight technology that will be going into Philadelphia. There are some things planned but there is more that we need to do.

CAPACITY ENHANCEMENTS AT MOST DELAYED AIRPORTS

Mr. OLVER. Then we really need to wait for awhile until the new technology is in to see whether in fact increasing the number of runways does much good. I mean I am looking at this wonderful tabulation, Mr. Mead, of the runway projects that are in process. Philadelphia is not on there. Philadelphia, you pointed out, was the only one of the three that either had completed or were somewhere in the schedule. Atlanta and Boston are down there some ways. We have problems in Boston that we may all be ancient before that gets done, I would guess. I do not know. But it does not leave you with much really strong hope given what is being said about Philadelphia.

Mr. MEAD. May I put another statistic into the mix, sir?

Mr. OLVER. Sure.

Mr. MEAD. It responds to your question I think more directly. In Philadelphia, with the runway and with the improvements that Administrator Garvey referred to that would maximize the use of that runway. They are projecting it would yield a 17 percent increase in Philadelphia's capacity. That is inclusive of the runway and inclusive of that new technology. At the same time, they are fore-

casting a 23 percent increase in traffic. Your net difference is a negative six percent.

ATLANTA AND BOSTON CHOKE POINTS

Mr. OLVER. I do not know what the similar sort of situation would be, whether anyone has done an analysis on Atlanta and Boston, two of the other major choke points, as to whether or not if those were completed with technology we would find what percentage as the increase. Maybe your benchmark studies are showing that.

Ms. GARVEY. Congressman, that is right. In fact in Atlanta, for example, which is actually a good news story, the runway there is expected to increase capacity by somewhere around 20 to 30 percent. And that combined with the technology allows Atlanta to keep pace with the demand that is expected in the future. Demand is forecasted to grow by about 28 percent. The runway plus the technology gives Atlanta about 37 percent.

In a place like Boston, as was mentioned a little bit earlier, the runway is not really for increased demand. But Boston is not expected to grow to the same degree that some of the other airports are. It is about six percent. The runway that is being talked about is really to handle the traffic that is there right now.

Mr. OLVER. Of course I cannot quickly translate the possibility in five years in Atlanta, because we were talking about 2005 even getting a runway in place, where a high delay problem would choke point Atlanta for that period of time. And I cannot tell whether we are going to be without a delay problem, even with the net 37 percent that the technology plus the runway gives you, given a 28 percent projected increase in traffic out of Atlanta. At the very least it sounds as if we are running on a treadmill here. Wherever we are, we are running on a treadmill just to try to keep up with what is a little bit behind along the way. But it does say to me that the capacity to do this by way of runways is only at best keeping up with the problem. My understanding here is, looking at the points that have been made by Secretary Mineta, he speaks of disbursal of flights off peak hours into underused airports and developing incentives and disincentives for airlines and airports to disburse flights.

FLIGHT DISBURSAL

Mr. Mead, you mentioned that one of your key ones is tracking the disbursal of flights from hubs to smaller airports. I am just curious. At these places where the major choke points exist, where is it, Mr. Mead, that you think that the potential for disbursal is highest? We are obviously trying to get at choke points. The disbursal is one of those things that you clearly believe would have some positive benefit here. Of the eight places, do you have a sense?

Mr. MEAD. I have a sense, not within the eight. I do not think there is much room for disbursing among the eight. But I think, for example, one good example is Atlanta and New Orleans.

Mr. OLVER. New Orleans is not on the eight.

Mr. MEAD. We are talking about small to medium-sized airports where it might be economically feasible to disburse some flights.

You have some airports that we mentioned in testimony before this committee before, such as Mid America. It is not being used hardly at all and we paid $300 or $400 million for it. That is in Illinois. But the airlines do not want to use that airport.

Mr. OLVER. But that is not a disbursal point, is it? Oh, you view it as a potential disbursal for O'Hare. But it is right next to St. Louis.

Ms. GARVEY. St. Louis, yes.

BOSTON FLIGHT DISBURSAL

Mr. OLVER. But St. Louis is not on the choke points.

Ms. GARVEY. The one I might mention, Congressman, is our favorite, Boston. I think Boston does have the potential to disburse. In fact we are already seeing it. There are——

Mr. OLVER. The so-called reliever airport——

Ms. GARVEY. The so-called both reliever——

Mr. OLVER [continuing]. Manchester, New Hampshire and Providence, Rhode Island, and a couple of places in Massachusetts. If that were to move very effectively, would that eliminate the delay problem in Boston pending a runway which is at least five years away? And which may or may not move us ahead versus where we are now.

Ms. GARVEY. It would not eliminate delay, but I think it certainly would help. If you look at the numbers at Logan, for example, it needs to be about 80 percent of the travel in the region. It has now gone down to 60, and there are more going to Providence and Manchester. I think we have to encourage that. Worcester, Bradley. I think that is one place where that could happen. You had mentioned at the last hearing, and you made note, and I thought it was an observation. We certainly went back and looked at as well. You said that if you look at all the runways that are planned, the 18 runways that are planned in the next few years, you made the point that few if any are actually part of the top eight. The worst ones. And that is true. We have San Francisco in the very earliest stages; we have Atlanta coming along; we have Boston that also has some real environmental issues. On the other hand, a number of those 18 are at airports where if we see more infrastructure perhaps there will be a greater market. In many ways I think it does have an impact.

CHOKE POINTS NEW YORK/NEW JERSEY AREA

Mr. OLVER. I do not think so. I am not in any way suggesting that the places that have runways planned should be stopped because they are not in the choke points or anything. I mean I think the treadmill that we are on is one that they are going to have to build their capacity as best they can in order to not be in the sad situation along the way. I am surprised, actually. I would have thought three of those choke points are Newark, LaGuardia and Kennedy. There are bunch of smaller airports, at Islip, at Westchester, at Newburgh, at Teterboro, some of them have, it would seem to me—Stewart, Newburgh. Of course. Mr. Sweeney would love to have something happen at, I think. More to happen at them than does.

I am surprised, especially Mr. Mead, when you point out that AIR 21 Bill, we have complicated the situation this last year from your testimony rather clearly. There are slot controls at LaGuardia, allowed for exemptions for slot controls for new entrant airlines and for airplanes with fewer than 71 seats. Well, those smaller airports, which might be due to somewhat similar to the reliever airports that Boston has been talking about, though those are already million person metropolitan areas where they have the reliever airports. It would seem to me there ought to be some potential for smaller passenger planes dealing with going into places that are not right in the core of LaGuardia or JFK, when you really want to get to some other place around the large metropolitan area of New York.

Ms. GARVEY. Congressman, I think you are absolutely right. And particularly with a place like Stewart. And frankly, even at JFK. It has a little bit of capacity. Making the decision to travel out of JFK rather than LaGuardia, it was a very wise decision. The reason I did not point to it, though, I will tell you is that a number of those other reliever airports that you spoke about, Teterboro and others, have enormous community issues surrounding them. We have been somewhat reluctant to, or at least we are acknowledging realistically it is going to be difficult to get some of those.

CAPACITY BENCHMARK REPORT

Mr. OLVER. Does your benchmark study that is completed, does that first cut of the action plans take into account any kind of an analysis of a potential disbursal as one of the routes? Since the administrative one, everybody says there are problems with trust and problems with the peak hour pricing and problems with auctions and lotteries and so on, none of these are simple solutions. None of them are going to be done immediately.

Ms. GARVEY. You are right, Congressman. None of these are simple solutions. To your question about does it include some disbursement to other airports——

Mr. OLVER. Analysis of the disbursement?

Ms. GARVEY. It does not. But that is exactly I think the kind of discussion that we can engage in with the airport directors. I think that really has to be looked at almost on a regional basis.

Mr. OLVER. It is easy for me to suggest Teterboro or Westchester as disbursal possibilities. I mean we have also one in the Boston area called Hansom Field which——

Ms. GARVEY. You notice I did not mention that, in deference to you, Congressman. [Laughter.]

Mr. OLVER. Thank you.

AIRLINE DELAYS

Mr. SWEENEY. Thank you, Mr. Olver. I welcome your support on the study plan that we have for the Stewart Airport. I have good news and bad news for you, Mr. Merlis. The good news is I was wrong about something. I told you I was not good at math. The bad news is the number is worse for you. I said 14.5 million passengers were delayed. It's 145-plus million passengers. Why the airlines would resist a voluntary notice of passengers of chronic delays is beyond me. It is a little bit like going to a casino and playing black

jack with the exception that the dealer will not show you his cards. But with that I will turn it over to the gentleman from Arizona, Mr. Pastor.

TRACKING AIRLINE VOLUNTARY ACTIONS ON DELAYS AND CANCELLATIONS

Mr. PASTOR. Mr. Mead, this information you gave us on the second chart, and the third one, are dealing with Americans and governments. Who is going to now compare their voluntary scheduled arrivals at Dallas and Atlanta, and compare them to the delays and cancellations? Because that is the third part that we need. They may have done it, but the fact does not help solve the problem with delays and/or cancellations.

Mr. MEAD. The direct answer to that question is—I am prepared to have our office do this.

Mr. PASTOR. Okay.

Mr. MEAD. Once. At the beginning.

Mr. PASTOR. Once means the month of April?

Mr. MEAD. Maybe we would do it twice. But the point is——

Mr. PASTOR. April and May.

Mr. MEAD. Yes. We will be doing that. But the larger point here is that in the Department of Transportation, there is an agency called the Bureau of Transportation Statistics. There is the FAA. I think that, as a matter of course, one of them should be collecting this information.

Mr. PASTOR. I agree with you. I am just trying to find out, because we have talked about scheduling and how we take it from peak hours. We have two airlines who have started, and we need to find out who is going to track it. So, Mr. Chairman, maybe you can give a directive here, or give another star to whoever is going to do it, but we need to collect the data and compare it. It is good that they have done it. Now the question is, does it solve the problems.

Mr. MEAD. We are willing to do it, we are certainly open to doing it initially. But I think over the longer term——

Mr. PASTOR. It is the long term that we need to—the information in the long term is what we need. Maybe, we have been talking about prime time and everybody's scheduling that particular hour, and as these airlines look at it voluntary, it does not show a solution. Then maybe we are going up the wrong tree.

Mr. ROGERS. Would the gentleman yield, sir?

Mr. PASTOR. Yes.

Mr. ROGERS. I agree with Mr. Mead. The Secretary's office can handle that for us over the long pull. Mr. Mead should not be expected to do a bureaucratic chore over the long pull, unless he really wants to.

OPERATIONS SPECIFICATIONS MODIFICATION

Mr. PASTOR. Mr. Chairman, I would recommend that if we started this, that we are collecting data already on two airlines, that we may be able to see whether or not our concern over all the flights leaving at certain hours really is a problem, because we have some data to compare it with. I am going to go back with Mr. Sweeney and Mr. Olver. Because I will agree that Indianapolis and Nash-

ville and Raleigh/Durham and Dayton were probably bad ideas. I did fly from Nashville, and I would tell you that I never saw the local market there. So I will concede that. But I still think that disbursal and mini-hubbing or spoking may be a possible solution. But before I get to that, in your testimony on page four, Mr. Merlis, you talk about the pre-National Environmental Policy Act (NEPA) and those assessments and how if they are not included with the ops, operation specification, it causes problems. How do we solve that problem, if it is a problem? Because if we are going to look at disbursal airports this may be a problem. How do we deal with that problem?

Mr. MERLIS. I think the way we deal with that problem is that the FAA reverts to the practice it used to follow where those kinds of additions to an operations specifications are rendered, categorically excluded that is it is not subject to this pre-NEPA environmental assessment. That is the way it was for years. And it was a recent change in policy which has required the submission of these environmental assessments before a carrier starts service to an airport which it had not previously started service to.

Mr. PASTOR. Well, Ms. Garvey is ready to jump up at you so I will let her go ahead and do it. The problem that we are talking about, finding other hubs for airliners to land, we need to solve this problem, I assume.

Ms. GARVEY. Mr. Merlis is right. We issue operations specifications changes all the time. It just would not make sense to get bogged down. And in fact most of them are very routine. There must be some confusion, I did see this in Mr. Merlis' testimony. We have not really changed the policy. There has been a clarification. I think they really are rare cases where either an air carrier wants to move to larger jets that may be noisier or to a different kind of aircraft. Jet Blue when it started in New York was in a non-attainment area and had to go through more environmental processes. I need to understand that. I will certainly follow up. It is those rare cases where the environmental assessment very often routine environmental assessment is looked at.

Mr. PASTOR. But the testimony I read basically says it is an exercise that costs a lot of money, it has disincentives, and usually the result is not one that would require—the information does not help an airline. So if we are talking about going to reliever airports, what can we do to ensure that we meet the objectives that FAA may have so it does not become such a barrier.

Ms. GARVEY. We will definitely follow up. I do want to go back, though, to something that was said earlier which is why we are streamlining. We want to do it as efficiently as we can. We obviously do not want to be burdensome. When you are either in a non-attainment area or you are moving to perhaps noisier or different aircraft, I think there are some environmental steps that you do have to go through. But I would be happy to look at it again, and perhaps there are some specific suggestions from the Air Transport Association that we could adopt. We would certainly consider. Yes.

[The information follows:]

The issuance of operations specifications (op spec), which authorize an operator to perform certain operations, is a "federal action" that triggers the requirement for environmental review under the National Environmental Policy Act.

Most op spec changes have no environmental impact—and no potential for environmental impact—and are categorically excluded (catex) under FAA Order 1050.1D, "Operating specifications and amendments thereto which do not significantly change the operating environment of the airport". If, in the rare case where a catex cannot be justified, then the next step in the process will be an environmental assessment.

In the case of new flights, the FAA examines the current level of operations and the environmental planning documents created by the airport to see if the new operations fall within the growth planned by the airport. The FAA will analyze the noise impact of the new service, and in clean air non-attainment areas we also study the air quality impact of the service. It is the applicant's responsibility to provide this data to the FAA but often it can be obtained through the airport sponsor. If the new flights fall within the expected growth (which is not unusual), we document a catex and issue the op spec change.

ENVIRONMENTAL STREAMLINING

Mr. MERLIS. I think that is great. I will just use the example. Southwest Airlines when it went into West Palm or Fort Lauderdale, I do not remember which, in a 737, and other airlines were already flying into that airport with that plane which Southwest Airlines has 300 of, had to go to submit this environmental assessment and then it received this no adverse action decision after spending a couple of hundred thousand dollars. It makes no sense.

FLIGHT DISBURSAL

Mr. PASTOR. I agree that maybe not every city can be a hub, but if we take some of the examples that I heard today, that I could also provide myself—If we take San Francisco. People are flying into San Francisco so they can go to San Jose. Because that is where all the action is.

Mr. MERLIS. Congressman, airlines are doing that. To go to San Jose from Washington, D.C. you used to go to San Francisco. There are now non-stops to San Jose. Carriers are doing that. They are disbursing flights, but there still has to be sufficient volume.

As I pointed out in my testimony, United Airlines flies to John Wayne Airport, Ontario Airport, Burbank Airport, and Los Angeles International Airport. Now it may increase flights as volume demands at one of them, and they have, distributed traffic and Los Angeles International is still a congested airport.

Mr. PASTOR. I understand that. But I guess the question as I ask it, what incentives can we provide so that that airline will look at flying to LAX and compare it to Ontario and say you know what, there is enough of an incentive here that I may consider flying to Ontario a few more times. Because people are going to Los Angeles. What can I do? So what can we do, or what incentives can be provided?

Mr. MERLIS. I regret to say that I think only the marketplace can create those incentives. That is why some of these cities end up having more traffic after a carrier tries it with two flights a day, and then a couple of years later it has three because demand has been established. People have found it to be more convenient. Look at the example of Manchester and Providence which were cited by the Administrator. Those were two airports which are used more now and people have found them to be convenient airports, if I can use that term, and traffic is going into Manchester and Providence instead of going into Boston. So in part it is chicken and egg, it is

marketplace, and I do not think that it is a matter of simply providing financial incentive.

There have been situations where communities have induced a carrier to fly more flights to that community by virtue of a local travel and tourism organization or a chamber of commerce organization, getting people to agree that they would use that airline if they flew into that community. Northwest did it, as I recall, in Rockford, Illinois. When American pulled out of Rockford, Illinois. So there have been efforts undertaken. I just find it difficult to identify a specific incentive that is financial in nature, since that ultimately is the driver in this, other than the marketplace.

DELAYS AT SAN FRANCISCO AIRPORT

Mr. PASTOR. The bottom line is the cost, so there must be—I am trying to find an incentive. In San Francisco, as you know, San Jose is becoming now a reliever. What about Oakland? I mean Oakland is only a Bay Area Regional Transit (BART) ride away.

Mr. MERLIS. Oakland is a full airport. That is what Southwest did. It pulled out of San Francisco, all of its flights—it has no more flights into San Francisco—and is using Oakland because the delays at San Francisco were so damaging to their schedules. But if you take a look at Oakland, Oakland has most of its gates pretty much full most of the day. There is some construction that is planned and hopefully that will increase Oakland's capacity which does not have as much adverse weather as San Francisco, and I can assure you, the demand is there.

Mr. PASTOR. Time to get a runway built in Oakland. That is a pretty simple system, I would bet.

Mr. PASTOR. It may be.

Mr. MEAD. Mr. Pastor.

Mr. PASTOR. Yes.

PEAK HOUR CONGESTION PRICING

Mr. MEAD. One sure incentive, or almost sure incentive is on this peak hour congestion pricing. In theory how this would work would be that, at San Francisco, if you want to fly there during certain hours or leave there during certain hours, you would pay a premium. The premium would have to be so steep that it would provide an economic disincentive to travelers to fly out of San Francisco. However, another area airport would not have a corresponding fee and it would be cheaper. That is why there is a body of opinion that is in support of the peak hour congestion pricing scheme as a way of dealing with the scheduling. My concern is that we ought to try to exhaust other alternatives before we go that route.

RUNWAY EXPANSION AT PHOENIX

Mr. PASTOR. Well, what are the alternatives? Building more runways. I have to tell you, and I will tell my colleague, Mr. Sabo, Phoenix just finished and dedicated a runway, and that third runway now is getting calls to the FAA from different parts of the city. Ms. Garvey is probably now hearing from Ahwatukee. Before it used to be Tempe, now it is Ahwatukee. And to build a fourth run-

way, which the City Council and the Mayor and the business community is all in favor for, there are small groups now that have built up and would fight it. At every hearing, and lawsuits, and it would be the noise that they are confronting that would cause them to fight this fourth runway. So runways are not the only solution. The solution that maybe in the long run, but in the interim we need to find different solutions.

So what I am trying to do is find incentives that the airlines would go to nearby airports in metropolitan areas. Look at the choke points. Kennedy, LaGuardia north. Guess where they are going? Manhattan or Long Island. That is where they are going. So maybe it is possible to look to other airlines that are convenient for people to land at airports that are close to Manhattan or New York City. That is where I think that may be a possible solution. I just do not want to write it off by saying we have this regulation, it makes it hard, or there may not be any incentive. I am looking for those incentives because I think in the short term that may be a way to solve the problem.

Mr. MERLIS. I have a suggestion, sir.

AIRPORT CURFEW

Mr. PASTOR. Yes, sir.

Mr. MERLIS. White Plains has an airport. Westchester County Airport is an airport with a curfew. They don't want planes to land there. It is a voluntary curfew, but they close the garage so that you cannot use the airport. If Congress were to take action about these airports that have curfews—Long Beach Airport has a curfew, or a restriction. Only 43 or 41 flights a day I think. John Wayne Airport has a limitation of a certain number of million passengers per year, though the airport can certainly accommodate more.

Mr. PASTOR. But Mickey Mouse can only handle that——

[Laughter.]

Mr. MERLIS. But if those kinds of local impediments which are disincentives for carriers to use those alternative airports were removed, then airlines might be willing to establish a larger presence. I am sure the reason United does not fly to Long Beach is that if a market developed, it is only limited to the number of flights it can have. It cannot grow the way it would want to. But Long Beach Airport can certainly accommodate a lot more than just 40-odd flights a day.

FLIGHTS AND DUTY TIME LIMITATIONS

Mr. PASTOR. There is another reason that airlines are, at least explaining to me that they are having problems and delays or cancellations, and that is the flight time and duty limitations. I have found where now they say well, the pilots now, as they say, are illegal, or the crew is not here yet because if we put them on this particular flight they are illegal.

Mr. WOERTH. First of all, to curb the competitive edges of all the airlines which are hugely competitive we would need to have one rule apply to everybody so they do not try to get a competitive edge and negotiate the safety by who has the loosest rules wins, or the least safe.

Mr. PASTOR. You mean to tell me that each airline decides what safety is and then defines what the flight times——

Mr. WOERTH. The federal rules are so inadequate that the only protection for flight time duty is union contracts. And a union contract at the point where it matters becomes worthless because if you are ordered to fly by your airline and ignore the contract, you will be fired if you do not do it because you are insubordinate. You are supposed to grieve it later. Fly now and grieve later. The reason we need the same rules for every airline is to stop that.

One of the things I describe in here, again it goes to the scheduling practices that become unrealistic. If it is peak hour scheduling that is unrealistic, it is also unrealistic to schedule a pilot to a 16 hour duty day or 15 hours and 59 minutes and hope that nothing goes wrong all day long so he is going to be able to complete that flight. That goes on. Then they argue about well, it looks like you are going to 18 hours. Go ahead. But the federal rule says the pilot is responsible for safety, and if you are tired, do not fly. But if you cancel the flight, guess who is in trouble? They will not punish you for that flight. You will be punished later for canceling a flight. We need to have rules that make sense. And what I described earlier with this reduced rest, if it does not make sense to plan a pilot to land at 11:00 o'clock at night and take off at 7:00 in the morning, then do not allow them to schedule it that way. They can do that right now. It is perfectly legal to schedule, the computer will build an optimized schedule that does not take into account the real world. Because on a perfect day it might work so they want to save money. But when they land at midnight, two things either happen. You delay the flight, delay the clock in the morning, or some terrible experience, which happens all the time, and they should maybe tell somebody about that. But on the other hand, the worst thing I fear is sometimes the pilot is pressured. We need to take that flight out. Now somebody has to make a judgment call on both safety and if he is going to violate a Federal Aviation rule, if there is a dispute on that rule. Or is it really just your contract?

We need to eliminate all the confusion. Air crews and airlines should not be fighting over this. We ought to have one rule for everybody, and it ought to be a safe rule, and then we can take safety out of the equation. But also we can stop the practices—they cannot seem to stop themselves. If one airline—again, there are comparative urges. Somebody is going to have more frequency and have that last flight get in at night, if the businessman wants the last flight out of wherever; but he also wants that person to turn out at 7:00 o'clock in the morning. Until that is not legal, they will continue to do it. Then you are going to have that canceled flight in the morning.

Mr. PASTOR. Mr. Chairman, who would have jurisdiction over that?

FAA RULE ON FLIGHT AND DUTY TIME

Mr. ROGERS. Well, I was going to clarify that, if you will yield.

Mr. PASTOR. I will yield.

Mr. ROGERS. Are you saying that instead of this being left just to bargaining agreements between the airlines and pilots union that there should be a nationwide rule by the FAA?

Mr. WOERTH. Yes. And the rules we have had now have been trying to be modified now for many years. We had a new rule proposed in 1995. It has never been acted on. We have been waiting for a supplemental because industry had some disputes, since last year. And some of the arguments we hear back, well, we should not have very tight federal safety rules, we should let the unions bargain for that. I just explained to you, that does not work because——

Mr. ROGERS. Ms. Garvey, what do you say about that?

Ms. GARVEY. I think there are really two actions that Mr. Woerth is speaking about. One is clarifying the existing rule. I think he spoke about that in his oral testimony, and we will have something in the Federal Register. I hope it is in the next week to ten days. It is all completed, we are working with the Federal Register now. So there is a clarification, that is step number one.

Step number two that Mr. Woerth spoke about is the rule, the federal rule at the federal level. And he is right. He has worked long and hard with RTCA. I know the airlines and the pilots worked very hard in coming up with a rule that they could both agree to. They were not able to, as he pointed out. We have taken the work that they have done. A very high priority for us is to get that out in short order. But the first is to get clarification of the existing rule. As Mr. Worth pointed out, there are some differences in interpretation. We need to make that very clear, which we will do in the Federal Register.

FREE FLIGHT PHASE I

Mr. ROGERS. Mr. Clyburn.

Mr. CLYBURN. Thank you, Mr. Chairman.

Mr. Chairman, I have got two short questions. The first one for the Administrator. Ms. Garvey, I am looking on page 33 of Mr. Mead's submission, and he says here that the Free-Flight Phase One program is past the halfway point in terms of its planned budget and schedule, and FAA is currently spending about $18 million per month on FFPI [ph] initiatives. Now I understand that of the $700 million for this program, they have expended about 80 percent for all of these—for software, testing and all of that. Should we be really concerned that the program is not quite on schedule?

Ms. GARVEY. First of all, I think the 80 percent that Mr. Mead refers to, his point is that 80 percent of the funding is tied up in three of the automation tools. It is PFAST, URET and TMA, and that is right. I think he also points out that this is the hardest to do. It is the most challenging. We agree with that. Having said that, however, we are on schedule. And some of you have had the pleasure of meeting with Charlie Keegan who is the head of that program office. He is terrific, and it is a very focused team. They have met their deadlines, and they have met their schedules. And I have no reason to believe that they will not. They have a very robust risk mitigation process. In fact I would like to add that the IG staff has complimented Mr. Keegan on that being one of the best they have seen. While I think there is always reason to be

watchful, and Mr. Mead's point about let us watch the implementation is right on. I certainly am encouraged by the record to date.

MINI HUBS

Mr. CLYBURN. Thank you.

Mr. Chairman, I see that as we have these discussions about what we call these choke points, discussions on that. I feel so good that you are the chair of this committee coming from Columbia, South Carolina, and your being from a like-sized state, these people make me feel a little bit inadequate to serve on this subcommittee with all these discussions. But I am concerned a little bit about the incentives that we have talked about some time ago, I think in the last year, for the, to encourage what we call the mini-hubs or, what do we call them, sub-hubs? Mini-hubs. I thought we talked about trying to put some incentives in place that would encourage the development of these sub-hubs. Have you given more thought to that?

Mr. MERLIS. Yes, sir. In my testimony we have explored that both with our members as well have our Director of Research, do a little research on it. There are several examples where I guess the word was mini-hubs were tried about ten years ago, failed economically because there was not enough locally generating traffic. I think that as demand increases and as the congestion increases, what we are seeing is carriers trying to offset adverse costs of the delays as well as the adverse inconvenience to customers by finding alternative means.

Some have suggested that the acquisition of TWA by American is an example of that. American now has a new hub. Instead of having to rely upon O'Hare, it has O'Hare, it has St. Louis, and it has Dallas/Fort Worth. So I think the monetary incentives are so large, they cannot be done. We are talking hundreds of millions of dollars to move large numbers of employees to another locale, assuming that the infrastructure is in place. But where the carriers' adverse cost consequences are great enough, then the carriers will make the decision that they had better move because they are going to lose business to other competitors. So those opportunities will develop.

One example is Columbus, Ohio. That has developed in the last ten years as a hub. It was not a hub prior to that time. So I think they are out of sync. It does not happen as fast as perhaps we would like. But adverse consequences in the marketplace seem to be pushing some of that to happen.

Mr. CLYBURN. Thank you, Mr. Chairman.

CONTROLLER STAFFING

Mr. ROGERS. Thank you, Mr. Clyburn.

We want to wrap up here pretty quickly because the hour is getting late. We have been here a long time and the room is extremely hot, so we will begin to wind down here.

Mr. Carr, one of your commitments was to encourage the hiring of additional controllers. Since the staffing level was one part of a larger negotiated compromise, the collective bargaining agreement signed by NATCA and the FAA three years ago, would not what you are advocating lead to, or cause that we open up other elements of that agreement? Could it?

Mr. CARR. Well actually what I am advocating is that we take a really close look at our staffing numbers in terms not only of the collective bargaining agreement, but in terms of the coming wave of controller retirements, and in terms of the additional stresses that are being placed upon the system. The very fact that we are here indicates that things have changed over the course of the last 36 months, and that agreement was signed in mid 1998. Nobody contemplated in 1998 that we would be adding 13 additional choke point sectors to the National Airspace System. So we are advocating that we very closely scrutinize our staffing requirements to ensure that we do not find ourselves in the next five years where we found ourselves 20 years ago, which was about 12,000 people short.

Mr. ROGERS. Is it safe to say or fair to say that there are more controllers needed at the busiest airports that are causing the delays?

Mr. CARR. I think that is probably a fair assessment.

What is really fair to say is wherever you add sectors in order to offload some of this traffic or to accommodate choke point sectors, you are going to require increases in staffing. A controller is not made overnight. Someone hired today will be a full performance level controller in about five years.

CONTROLLER DISTRIBUTION

Mr. ROGERS. Let me ask you this. Is it possible that we do not need more total controllers, but perhaps to redistribute that staff to the hot spots, to the places where the airports are more busy than others?

Mr. CARR. It is possible that that could be a short term solution that could be looked at, but I have to tell you, Mr. Chairman, there are very few places in the system now that are overstaffed. Actually the preponderance of the facilities that we have are chronically understaffed.

Mr. ROGERS. I can show you a whole bunch of airports that do not have many flights these days. Since the advent of the hub system a lot of the smaller airports like Columbia and Lexington, Kentucky have a lot of dead time. So perhaps some of those airports could lend some controllers to a Chicago or a Denver or where we have a problem. Is that not a workable idea?

Mr. CARR. It is certainly worth exploration, although I have to tell you, like I said, controllers are somewhat like runways. They are not made overnight. A controller from Columbia who goes to Chicago O'Hare will be greeted with "Welcome aboard, trainee." And in the two to three years it takes for the gentleman or young lady from Columbia to learn the Chicago airspace and to ramp up to that traffic level——

Mr. ROGERS. I understand that. Ms. Garvey, what do you think?

Ms. GARVEY. A couple of comments.

First, I think your point about reassessing is something we are doing all the time. I will say I am not at all in favor of reopening the contract. I do think that was an agreement and we should stand by it. Having said that, I will point out, we are actually in closer agreement with the controllers than it may seem. We are hiring 600 this year, that is under the contract and another 1,000

next year. I think it is really only around 2006 where we may differ a little bit as to what the projected needs are. We will keep a very close watch on it, and we will work closely with them. But I think our assessment of it today is good, solid, and we will continue to monitor it.

Mr. ROGERS. What about redistributing controllers?

Ms. GARVEY. I think that is always a possibility. In fact to some degree we have done that. John's point about when you open a sector you really need new controllers is right. So certainly whether or not you can reassign folks from one place to another or redistribute work loads, I think that is what we have to do.

Mr. ROGERS. Do you have a list of the airports that are short of controllers at this time? That need controllers?

Ms. GARVEY. I do not have it with me, but I am certain that we can provide that for the record.

Mr. ROGERS. If you can provide that for us. And do you have also a list of the airports that perhaps could spare, give up a controller or two?

Ms. GARVEY. We can certainly provide you a staffing list, a list of all of those airports. Also, what we see as the anticipated retirements and where we see some challenges ahead.

Mr. ROGERS. You should have that in your files right away, we can get that right away——

Ms. GARVEY. Yes, sir.

Mr. ROGERS. Before our next get together.

Ms. GARVEY. Absolutely, sir.

[The information follows:]

ATCS HIRING REQUIREMENTS FOR FISCAL YEARS 2001-2010

Fiscal Year	2001	2002	2003	2004	2005	2006	2007[2]	2008	2009	2010
Required Staffing	15,000	15,300	15,606	15,906	16,139	16,363	16,599	16,836	17,072	17,309
Estimated Losses	428	482	532	585	630	722	873	928	978	1,036
Required Increase	0	300	306	300	233	224	236	237	236	237
Hiring Range[1]	428	782 1,050	838 1,200	885 1,300	863 1,400	946 1,500	1,109 1,575	1,165 1,650	1,214 1,725	1,273 1,800

[1] Based on attrition projections which may vary.

[2]There will be a significant increase in the number of air traffic control specialists reaching age 56 mandatory retirement.

Note: Staffing for fiscal years 2001-2003 are based on contractual obligations. Our plan is based on current historical data and projections. This plan will be updated periodically based on actual data and revised projections.

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
AWP	WESTERN-PACIFIC	LAX	LOS ANGELES INTL ATCT	12	47	47	0
AWP	WESTERN-PACIFIC	NCT	NORTHERN CALIFORNIA TRACON[1]	12	0	22	0
AWP	WESTERN-PACIFIC	OSO	OAKLAND BAY TRACON	12	66	71	5
AWP	WESTERN-PACIFIC	SCT	SO. CALIFORNIA TRACON[2]	12	250	287	37
ASW	SOUTHWEST	D10	DALLAS/FORT WORTH TRACON[3]	12	114	102	-12
ASW	SOUTHWEST	DFW	DALLAS/FORT WORTH ATCT	12	58	60	2
ASO	SOUTHERN	A80	ATLANTA TRACON[4]	12	0	27	0
ASO	SOUTHERN	ATL	ATLANTA HARTSFIELD ATCT	12	124	120	-4
ASO	SOUTHERN	MIA	MIAMI INTL ATCT	12	95	89	-6
AGL	GREAT LAKES	C90	CHICAGO TRACON	12	95	91	-4
AGL	GREAT LAKES	CAK	AKRON CANTON REGL ATCT	12	26	25	-1
AGL	GREAT LAKES	ORD	CHICAGO O'HARE INTL ATCT	12	66	65	-1
AEA	EASTERN	IAD	DULLES INTL ATCT[5]	12	76	84	8
AEA	EASTERN	N90	NEW YORK TRACON[6]	12	250	228	-22
AWP	WESTERN-PACIFIC	P50	PHOENIX TRACON	11	58	53	-5
AWP	WESTERN-PACIFIC	PHX	PHOENIX INTL ATCT[7]	11	42	49	7
ASW	SOUTHWEST	I90	HOUSTON TRACON/ATCT	11	62	60	-2
ASW	SOUTHWEST	IAH	HOUSTON INTL ATCT	11	31	34	3
ASO	SOUTHERN	CLT	CHARLOTTE ATCT	11	71	77	6
ASO	SOUTHERN	CVG	GREATER CINCINNATI INTL ATCT[8]	11	71	81	10
ASO	SOUTHERN	MCO	ORLANDO INTL ATCT[9]	11	70	82	12
ASO	SOUTHERN	TPA	TAMPA INTL ATCT	11	62	67	5
ANM	NORTHWEST MOUNTAIN	D01	DENVER TRACON	11	60	55	-5
ANM	NORTHWEST MOUNTAIN	DEN	DENVER INTL ATCT	11	40	42	2
ANE	NEW ENGLAND	A90	BOSTON TRACON	11	43	42	-1
ANE	NEW ENGLAND	BOS	BOSTON LOGAN ATCT	11	31	36	5
AGL	GREAT LAKES	D21	DETROIT TRACON[10]	11	66	60	-6
AGL	GREAT LAKES	DTW	DETROIT METRO ATCT	11	42	42	0
AGL	GREAT LAKES	M98	MINNEAPOLIS TRACON	11	64	62	-2
AGL	GREAT LAKES	MSP	MINNEAPOLIS ST. PAUL ATCT	11	37	33	-4
AEA	EASTERN	DCA	WASHINGTON NATIONAL ATCT[11]	11	70	63	-7
AEA	EASTERN	PHL	PHILADELPHIA INTL ATCT	11	79	78	-1
AEA	EASTERN	PIT	PITTSBURGH INTL ATCT	11	76	77	1
ACE	CENTRAL	STL	ST. LOUIS/LAMBERT INTL ATCT	11	37	36	-1
ACE	CENTRAL	T75	ST. LOUIS TRACON	11	50	52	2
AWP	WESTERN-PACIFIC	L30	LAS VEGAS TRACON	10	52	56	4
AWP	WESTERN-PACIFIC	LAS	LAS VEGAS INTL ATCT	10	43	43	0

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
AWP	WESTERN-PACIFIC	MCC	SACRAMENTO TRACON[2]	10	38	47	9
AWP	WESTERN-PACIFIC	OAK	OAKLAND ATCT	10	33	35	2
AWP	WESTERN-PACIFIC	SFO	SAN FRANCISCO INTL ATCT	10	30	33	3
ASW	SOUTHWEST	SAT	SAN ANTONIO ATCT	10	52	53	1
ASO	SOUTHERN	DAB	DAYTONA BEACH ATCT	10	70	72	2
ASO	SOUTHERN	MEM	MEMPHIS INTL ATCT	10	70	69	-1
ANM	NORTHWEST MOUNTAIN	S46	SEATTLE TACOMA TRACON	10	55	57	2
ANM	NORTHWEST MOUNTAIN	S56	SALT LAKE CITY TRACON	10	55	52	-3
ANM	NORTHWEST MOUNTAIN	SEA	SEATTLE TACOMA INTL ATCT	10	28	28	0
ANM	NORTHWEST MOUNTAIN	SLC	SALT LAKE CITY INTL ATCT	10	32	38	6
AGL	GREAT LAKES	CLE	CLEVELAND HOPKINS ATCT	10	60	56	-4
AEA	EASTERN	BWI	BALTIMORE INTL ATCT/TRACON	10	65	65	0
AEA	EASTERN	EWR	NEWARK INTL ATCT	10	37	35	-2
AEA	EASTERN	JFK	JOHN F KENNEDY INTL ATCT	10	35	35	0
AEA	EASTERN	LGA	LA GUARDIA ATCT	10	35	34	-1
ACE	CENTRAL	MCI	KANSAS CITY INTL ATCT	10	48	47	-1
AWP	WESTERN-PACIFIC	LGB	LONG BEACH ATCT	9	24	26	2
AWP	WESTERN-PACIFIC	SNA	ORANGE COUNTY ATCT	9	27	30	3
AWP	WESTERN-PACIFIC	U90	TUCSON TRACON	9	21	24	3
AWP	WESTERN-PACIFIC	VNY	VAN NUYS ATCT	9	21	21	0
ASW	SOUTHWEST	ABQ	ALBUQUERQUE ATCT	9	38	34	-4
ASW	SOUTHWEST	AUS	AUSTIN ATCT	9	38	36	-2
ASW	SOUTHWEST	CRP	CORPUS CHRISTI ATCT	9	46	48	2
ASW	SOUTHWEST	DAL	DALLAS LOVE FIELD ATCT	9	24	29	5
ASW	SOUTHWEST	FTW	FORT WORTH MEACHAM ATCT	9	21	23	2
ASW	SOUTHWEST	LIT	LITTLE ROCK ATCT	9	37	36	-1
ASW	SOUTHWEST	MSY	NEW ORLEANS MOISANT ATCT	9	38	38	0
ASW	SOUTHWEST	OKC	OKLAHOMA CITY ATCT	9	38	40	2
ASW	SOUTHWEST	TUL	TULSA INTL ATCT	9	38	39	1
ASO	SOUTHERN	BNA	NASHVILLE METRO ATCT	9	46	49	3
ASO	SOUTHERN	JAX	JACKSONVILLE INTL ATCT	9	57	62	5
ASO	SOUTHERN	P31	PENSACOLA TRACON	9	42	45	3
ASO	SOUTHERN	PBI	PALM BEACH INTL ATCT	9	41	45	4
ASO	SOUTHERN	RDU	RALEIGH DURHAM ATCT	9	46	47	1
ASO	SOUTHERN	SDF	LOUISVILLE STANDIFORD ATCT	9	49	51	2
ANM	NORTHWEST MOUNTAIN	APA	CENTENNIAL ATCT	9	21	21	0
ANM	NORTHWEST MOUNTAIN	P80	PORTLAND TRACON	9	30	27	-3
ANM	NORTHWEST MOUNTAIN	PDX	PORTLAND INTL ATCT	9	25	28	3

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
ANE	NEW ENGLAND	PVD	PROVIDENCE ATCT	9	44	41	-3
ANE	NEW ENGLAND	Y90	YANKEE TRACON	9	28	32	3
AGL	GREAT LAKES	CMH	PORT COLUMBUS INTL ATCT	9	46	44	-2
AGL	GREAT LAKES	DAY	DAYTON INTL ATCT[13]	9	53	45	-8
AGL	GREAT LAKES	IND	INDIANAPOLIS INTL ATCT	9	52	49	-3
AGL	GREAT LAKES	MKE	MILWAUKEE MITCHELL ATCT	9	49	47	-2
AEA	EASTERN	ORF	NORFOLK INTL ATCT	9	44	45	1
AEA	EASTERN	RIC	RICHMOND INTL ATCT	9	41	41	0
ACE	CENTRAL	ICT	WICHITA MIDCONTINENT ATCT	9	41	41	0
AAL	ALASKAN	A11	ANCHORAGE TRACON	9	31	30	-1
AWP	WESTERN-PACIFIC	BFL	BAKERSFIELD ATCT	8	27	28	1
AWP	WESTERN-PACIFIC	E10	HIGH DESERT TRACON	8	26	24	-2
AWP	WESTERN-PACIFIC	FAT	FRESNO ATCT	8	27	26	-1
AWP	WESTERN-PACIFIC	RNO	RENO ATCT	8	28	28	0
AWP	WESTERN-PACIFIC	SAN	SAN DIEGO ATCT	8	21	22	1
AWP	WESTERN-PACIFIC	SBA	SANTA BARBARA MUNI ATCT	8	33	32	-1
AWP	WESTERN-PACIFIC	SCK	STOCKTON ATCT[14]	8	32	20	-12
AWP	WESTERN-PACIFIC	SJC	SAN JOSE INTL ATCT	8	21	22	1
AWP	WESTERN-PACIFIC	TUS	TUCSON INTL ATCT	8	19	22	3
ASW	SOUTHWEST	ELP	EL PASO INTL ATCT	8	24	27	3
ASW	SOUTHWEST	FSM	FORT SMITH TRACAB	8	30	32	2
ASW	SOUTHWEST	HOU	WILLIAM P. HOBBY ATCT	8	22	25	3
ASW	SOUTHWEST	MAF	MIDLAND REGIONAL ATCT	8	26	27	1
ASW	SOUTHWEST	RVS	TULSA JONES ATCT	8	16	18	2
ASO	SOUTHERN	BHM	BIRMINGHAM MUNICIPAL ATCT	8	32	32	0
ASO	SOUTHERN	CHS	CHARLESTON INTL ATCT	8	24	24	0
ASO	SOUTHERN	FLL	FORT LAUDERDALE ATCT	8	20	23	3
ASO	SOUTHERN	GSO	GREENSBORO ATCT	8	32	33	1
ASO	SOUTHERN	MOB	MOBILE ATCT	8	24	23	-1
ASO	SOUTHERN	SAV	SAVANNAH INTL ATCT	8	22	21	-1
ASO	SOUTHERN	SFB	CENTRAL FLORIDA REGL ATCT	8	17	20	3
ASO	SOUTHERN	TYS	KNOXVILLE ATCT	8	25	30	5
ANM	NORTHWEST MOUNTAIN	BFI	BOEING FIELD ATCT	8	20	21	1
ANM	NORTHWEST MOUNTAIN	BOI	BOISE ATCT	8	23	25	2
ANM	NORTHWEST MOUNTAIN	COS	COLORADO SPRINGS ATCT	8	28	32	4
ANM	NORTHWEST MOUNTAIN	GEG	SPOKANE INTL ATCT	8	32	33	1
ANE	NEW ENGLAND	K90	CAPE TRACON	8	23	21	-2
ANE	NEW ENGLAND	MHT	MANCHESTER ATCT	8	31	30	-1

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
AGL	GREAT LAKES	FNT	FLINT ATCT	8	22	22	0
AGL	GREAT LAKES	GRR	GRAND RAPIDS ATCT	8	24	26	2
AGL	GREAT LAKES	LAN	LANSING ATCT	8	26	25	-1
AGL	GREAT LAKES	MDW	CHICAGO MIDWAY ATCT	8	27	28	1
AGL	GREAT LAKES	MSN	MADISON ATCT	8	22	27	5
AGL	GREAT LAKES	PTK	PONTIAC ATCT	8	19	22	3
AGL	GREAT LAKES	TOL	TOLEDO EXPRESS ATCT	8	27	26	-1
AEA	EASTERN	ABE	ALLENTOWN ATCT	8	28	31	3
AEA	EASTERN	ACY	ATLANTIC CITY ATCT	8	27	26	-1
AEA	EASTERN	ALB	ALBANY COUNTY ATCT	8	29	27	-2
AEA	EASTERN	AVP	WILKES-BARRE ATCT	8	22	23	1
AEA	EASTERN	BUF	GREATER BUFFALO INTL ATCT	8	28	30	2
AEA	EASTERN	MDT	HARRISBURG INTL ARPT ATCT	8	28	27	-1
AEA	EASTERN	ROC	ROCHESTER MONROE CNTY ATCT	8	28	27	-1
AEA	EASTERN	SYR	SYRACUSE INTL ATCT	8	28	28	0
ACE	CENTRAL	DSM	DES MOINES MUNI ATCT	8	33	31	-2
ACE	CENTRAL	R90	OMAHA TRACON	8	17	16	-1
ACE	CENTRAL	SGF	SPRINGFIELD REGIONAL ATCT	8	32	28	-4
AAL	ALASKAN	ANC	ANCHORAGE INTL ATCT	8	28	28	0
AWP	WESTERN-PACIFIC	BUR	BURBANK ATCT	7	26	26	0
AWP	WESTERN-PACIFIC	CMA	CAMARILLO ATCT	7	11	10	-1
AWP	WESTERN-PACIFIC	CNO	CHINO ATCT	7	11	10	-1
AWP	WESTERN-PACIFIC	CRQ	CARLSBAD ATCT	7	11	13	2
AWP	WESTERN-PACIFIC	DVT	PHOENIX DEER VALLEY ATCT	7	14	14	0
AWP	WESTERN-PACIFIC	FFZ	MESA ATCT	7	11	11	0
AWP	WESTERN-PACIFIC	ITO	HILO ATCT	7	11	8	-3
AWP	WESTERN-PACIFIC	MRY	MONTEREY PENINSULA ATCT[16]	7	19	11	-8
AWP	WESTERN-PACIFIC	MYF	SAN DIEGO MONTGOMERY ATCT	7	13	14	1
AWP	WESTERN-PACIFIC	OGG	KAHULUI ATCT	7	12	12	0
AWP	WESTERN-PACIFIC	PAO	PALO ALTO ATCT	7	11	11	0
AWP	WESTERN-PACIFIC	POC	LA VERNE BRACKETT ATCT	7	11	13	2
AWP	WESTERN-PACIFIC	PRC	PRESCOTT ATCT	7	15	17	2
AWP	WESTERN-PACIFIC	PSP	PALM SPRINGS ATCT	7	26	26	0
AWP	WESTERN-PACIFIC	RHV	REID HILLVIEW ATCT	7	11	11	0
AWP	WESTERN-PACIFIC	SDL	SCOTTSDALE ATCT	7	12	11	-1
AWP	WESTERN-PACIFIC	SEE	GILLESPIE FIELD ATCT	7	11	10	-1
AWP	WESTERN-PACIFIC	SMO	SANTA MONICA MUNI ATCT	7	11	11	0
AWP	WESTERN-PACIFIC	TOA	TORRANCE MUNICIPAL ATCT	7	11	13	2

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
AWP	WESTERN-PACIFIC	VGT	NORTH LAS VEGAS ATCT	7	14	15	1
ASW	SOUTHWEST	ABI	ABILENE DYESS RAPCON	7	23	22	-1
ASW	SOUTHWEST	ACT	WACO ATCT	7	21	23	2
ASW	SOUTHWEST	ADS	ADDISON ATCT	7	13	16	3
ASW	SOUTHWEST	AMA	AMARILLO ATCT	7	21	21	0
ASW	SOUTHWEST	BTR	BATON ROUGE METRO ATCT	7	22	22	0
ASW	SOUTHWEST	DWH	HOUSTON HOOKS ATCT	7	13	14	1
ASW	SOUTHWEST	GGG	GREGG COUNTY TRACAB	7	22	22	0
ASW	SOUTHWEST	LBB	LUBBOCK ATCT	7	21	23	2
ASW	SOUTHWEST	LFT	LAFAYETTE REGIONAL ATCT	7	22	22	0
ASW	SOUTHWEST	ROW	ROSWELL ATCT	7	18	18	0
ASW	SOUTHWEST	SHV	SHREVEPORT ATCT	7	24	25	1
ASO	SOUTHERN	CAE	COLUMBIA METRO ATCT	7	24	28	4
ASO	SOUTHERN	CHA	CHATTANOOGA ATCT	7	19	21	2
ASO	SOUTHERN	FAY	FAYETTEVILLE MUNI ATCT	7	26	24	-2
ASO	SOUTHERN	FXE	FT. LAUDERDALE EXEC ATCT[16]	7	14	20	6
ASO	SOUTHERN	GPT	GULFPORT BILOXI REG ATCT	7	19	21	2
ASO	SOUTHERN	GSP	GREER ATCT	7	18	19	1
ASO	SOUTHERN	HSV	HUNTSVILLE ATCT	7	19	21	2
ASO	SOUTHERN	ILM	WILMINGTON ATCT	7	15	20	5
ASO	SOUTHERN	JAN	JACKSON INTL ATCT	7	19	21	2
ASO	SOUTHERN	LEX	LEXINGTON ATCT	7	19	22	3
ASO	SOUTHERN	M87	MACON TRACON[17]	7	0	16	16
ASO	SOUTHERN	MGM	MONTGOMERY RAPCON	7	20	21	1
ASO	SOUTHERN	MYR	MYRTLE BEACH ATCT	7	19	20	1
ASO	SOUTHERN	NMM	MERIDIAN NAS RATCF	7	15	16	1
ASO	SOUTHERN	ORL	ORLANDO EXECUTIVE ATCT	7	12	15	3
ASO	SOUTHERN	PDK	DE KALB PEACHTREE ATCT	7	12	14	2
ASO	SOUTHERN	PIE	ST. PETERSBURG ATCT	7	12	17	5
ASO	SOUTHERN	RSW	FORT MYERS ATCT	7	23	27	4
ASO	SOUTHERN	SJU	SAN JUAN INTL ATCT	7	16	16	0
ASO	SOUTHERN	SRQ	SARASOTA ATCT	7	12	17	5
ASO	SOUTHERN	TLH	TALLAHASSEE ATCT	7	19	21	2
ASO	SOUTHERN	TMB	TAMIAMI ATCT	7	11	12	1
ASO	SOUTHERN	TRI	TRI-CITY REGIONAL ATCT	7	19	21	2
ANM	NORTHWEST MOUNTAIN	BIL	BILLINGS INTL ATCT	7	15	18	3
ANM	NORTHWEST MOUNTAIN	EUG	EUGENE ATCT	7	24	23	-1
ANM	NORTHWEST MOUNTAIN	MWH	GRANT COUNTY ATCT	7	16	14	-2
ANM	NORTHWEST MOUNTAIN	PSC	TRI-CITIES ATCT	7	18	18	0

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
ANM	NORTHWEST MOUNTAIN	PUB	PUEBLO MEMORIAL TRACAB	7	12	11	-1
ANE	NEW ENGLAND	ACK	NANTUCKET ATCT	7	13	10	-3
ANE	NEW ENGLAND	BDL	BRADLEY INTL ATCT	7	13	16	3
ANE	NEW ENGLAND	BED	BEDFORD ATCT	7	13	14	1
ANE	NEW ENGLAND	BGR	BANGOR INTL ATCT	7	19	21	2
ANE	NEW ENGLAND	BTV	BURLINGTON INTL ATCT	7	21	23	2
ANE	NEW ENGLAND	PWM	PORTLAND INTL ATCT	7	24	24	0
AGL	GREAT LAKES	AZO	KALAMAZOO COUNTY ATCT	7	22	22	0
AGL	GREAT LAKES	CMI	CHAMPAIGN ATCT	7	22	24	2
AGL	GREAT LAKES	DPA	DUPAGE ATCT	7	14	15	1
AGL	GREAT LAKES	EVV	EVANSVILLE DRESS REG ATCT	7	22	25	3
AGL	GREAT LAKES	FCM	FLYING CLOUD ATCT	7	13	12	-1
AGL	GREAT LAKES	FWA	FORT WAYNE MUNI ATCT	7	24	28	4
AGL	GREAT LAKES	GFK	GRAND FORKS ATCT	7	16	16	0
AGL	GREAT LAKES	GRB	GREEN BAY ATCT	7	22	25	3
AGL	GREAT LAKES	MBS	SAGINAW ATCT	7	21	22	1
AGL	GREAT LAKES	MIC	MINNEAPOLIS CRYSTAL ATCT	7	11	13	2
AGL	GREAT LAKES	MKG	MUSKEGON CNTY ATCT	7	21	21	0
AGL	GREAT LAKES	PIA	GREATER PEORIA ATCT	7	24	23	-1
AGL	GREAT LAKES	PWK	PALWAUKEE ATCT	7	11	14	3
AGL	GREAT LAKES	RFD	ROCKFORD ATCT	7	25	28	3
AGL	GREAT LAKES	SBN	SOUTH BEND ATCT	7	22	23	1
AGL	GREAT LAKES	SPI	SPRINGFIELD ATCT	7	22	23	1
AGL	GREAT LAKES	YNG	YOUNGSTOWN MUNI ATCT	7	22	22	0
AEA	EASTERN	ADW	ANDREWS AFB ATCT	7	24	22	-2
AEA	EASTERN	CDW	CALDWELL ATCT	7	11	10	-1
AEA	EASTERN	CRW	CHARLESTON ATCT	7	23	22	-1
AEA	EASTERN	FRG	REPUBLIC ATCT	7	11	12	1
AEA	EASTERN	HPN	WESTCHESTER CNTY ATCT	7	16	15	-1
AEA	EASTERN	ISP	LONG ISLAND MACARTHUR ATCT	7	16	17	1
AEA	EASTERN	MMU	MORRISTOWN MUNICIPAL ATCT	7	11	12	1
AEA	EASTERN	PHF	PATRICK HENRY INTL ATCT	7	11	12	1
AEA	EASTERN	RDG	READING MUNI ATCT	7	13	14	1
AEA	EASTERN	ROA	ROANOKE REGIONAL ATCT	7	29	29	0
AEA	EASTERN	TEB	TETERBORO ATCT	7	22	21	-1
ACE	CENTRAL	LNK	LINCOLN MUNICIPAL ATCT	7	18	19	1
ACE	CENTRAL	OMA	OMAHA ATCT	7	16	16	0
AAL	ALASKAN	FAI	FAIRBANKS INTL ATCT	7	22	18	-4
AAL	ALASKAN	MRI	MERRILL FIELD ATCT	7	13	14	1

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
AWP	WESTERN-PACIFIC	CCR	CONCORD ATCT	6	11	11	0
AWP	WESTERN-PACIFIC	EMT	EL MONTE ATCT	6	11	10	-1
AWP	WESTERN-PACIFIC	HWD	HAYWARD ATCT	6	11	10	-1
AWP	WESTERN-PACIFIC	KWA	KWAJALEIN	6	4	4	0
AWP	WESTERN-PACIFIC	LVK	LIVERMORE ATCT	6	11	11	0
AWP	WESTERN-PACIFIC	ONT	ONTARIO INTL ATCT	6	16	19	3
AWP	WESTERN-PACIFIC	PPG	PAGO PAGO	6	5	6	1
AWP	WESTERN-PACIFIC	SMF	SACRAMENTO METRO ATCT	6	13	13	0
ASW	SOUTHWEST	AFW	FORT WORTH ALLIANCE ATCT	6	16	17	1
ASW	SOUTHWEST	BPT	JEFFERSON COUNTY ATCT	6	16	15	-1
ASW	SOUTHWEST	LCH	LAKE CHARLES TRACAB	6	16	16	0
ASW	SOUTHWEST	MLU	MONROE REGIONAL TRACAB	6	19	18	-1
ASW	SOUTHWEST	NEW	LAKEFRONT ATCT	6	11	12	1
ASO	SOUTHERN	AGS	AUGUSTA ATCT	6	17	16	-1
ASO	SOUTHERN	AVL	ASHEVILLE REGIONAL ATCT	6	15	18	3
ASO	SOUTHERN	CSG	COLUMBUS METRO ATCT[16]	6	8	18	10
ASO	SOUTHERN	FLO	FLORENCE CITY CNTY ATCT	6	13	16	3
ASO	SOUTHERN	LOU	LOUISVILLE BOWMAN ATCT	6	10	12	2
ASO	SOUTHERN	PNS	PENSACOLA REGIONAL ATCT	6	10	12	2
ASO	SOUTHERN	VRB	VERO BEACH MUNICIPAL ATCT	6	12	15	3
ANM	NORTHWEST MOUNTAIN	BJC	JEFFERSON CNTY ARPT ATCT	6	11	15	4
ANM	NORTHWEST MOUNTAIN	GTF	GREAT FALLS INTL ATCT	6	16	16	0
ANM	NORTHWEST MOUNTAIN	HIO	PORTLAND HILLSBORO ATCT	6	9	10	1
ANM	NORTHWEST MOUNTAIN	HLN	HELENA REGIONAL ATCT	6	8	9	1
ANM	NORTHWEST MOUNTAIN	PAE	EVERETT ATCT	6	10	9	-1
AGL	GREAT LAKES	ARB	ANN ARBOR MUNICIPAL ATCT	6	9	9	0
AGL	GREAT LAKES	ARR	AURORA MUNICIPAL ATCT	6	10	10	0
AGL	GREAT LAKES	CPS	EAST ST. LOUIS ATCT	6	10	9	-1
AGL	GREAT LAKES	DLH	DULUTH INTL ATCT	6	16	16	0
AGL	GREAT LAKES	FAR	FARGO ATCT	6	15	18	3
AGL	GREAT LAKES	FSD	SIOUX FALLS ATCT	6	15	15	0
AGL	GREAT LAKES	HUF	TERRE HAUTE ATCT	6	21	19	-2
AGL	GREAT LAKES	MFD	MANSFIELD MUNICIPAL ATCT	6	13	13	0
AGL	GREAT LAKES	MLI	MOLINE QUAD CITY ATCT	6	22	21	-1
AGL	GREAT LAKES	RST	ROCHESTER INTL TRACAB	6	14	14	0
AGL	GREAT LAKES	STP	ST. PAUL DOWNTWN ATCT	6	12	13	1
AGL	GREAT LAKES	YIP	WILLOW RUN ATCT	6	12	16	4
AEA	EASTERN	AGC	ALLEGHENY COUNTY ATCT	6	11	12	1

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation
AEA	EASTERN	BGM	EDWIN A. LINK ATCT	6	16	16	0
AEA	EASTERN	CKB	CLARKSBURG ATCT	6	16	15	-1
AEA	EASTERN	ELM	ELMIRA ATCT	6	15	15	0
AEA	EASTERN	ERI	ERIE INTL TRACAB	6	18	18	0
AEA	EASTERN	HTS	HUNTINGTON ATCT	6	18	15	-3
AEA	EASTERN	ILG	GREATER WILMINGTON ATCT	6	11	10	-1
AEA	EASTERN	PNE	N.E. PHILADELPHIA ATCT	6	11	11	0
AEA	EASTERN	POU	POUGHKEEPSIE ATCT	6	11	9	-2
AEA	EASTERN	RME	GRIFFISS AFB ATCT	6	12	13	1
ACE	CENTRAL	CID	CEDAR RAPIDS MUNI ATCT	6	19	18	-1
ACE	CENTRAL	SUS	SPIRIT OF ST. LOUIS ATCT	6	13	12	-1
AAL	ALASKAN	JNU	JUNEAU INTL ATCT	5	11	9	-2
AWP	WESTERN-PACIFIC	APC	NAPA COUNTY ATCT	5	11	10	-1
AWP	WESTERN-PACIFIC	GCN	GRAND CANYON ATCT	5	8	8	0
AWP	WESTERN-PACIFIC	STS	SONOMA COUNTY ATCT	5	11	10	-1
ASO	SOUTHERN	FPR	FORT PIERCE ATCT	5	10	10	0
ASO	SOUTHERN	STT	ST THOMAS ATCT	5	8	9	1
ANM	NORTHWEST MOUNTAIN	ASE	ASPEN PITKIN COUNTY ATCT	5	15	12	-3
ANM	NORTHWEST MOUNTAIN	CPR	CASPER ATCT	5	10	10	0
ANM	NORTHWEST MOUNTAIN	TWF	TWIN FALLS ATCT	5	7	7	0
AGL	GREAT LAKES	BIS	BISMARCK TRACAB	5	12	13	1
AGL	GREAT LAKES	LAF	WEST LAFAYETTE ATCT	5	11	9	-2
AGL	GREAT LAKES	TVC	TRAVERSE CITY ATCT	5	10	9	-1
AEA	EASTERN	HEF	MANASSAS ATCT	5	11	11	0
ACE	CENTRAL	ALO	WATERLOO MUNICIPAL ATCT	5	14	19	5
ACE	CENTRAL	MKC	KANSAS CITY DOWNTWN ATCT	5	15	16	1
ACE	CENTRAL	SUX	SIOUX CITY ATCT	5	14	14	0

Key:
Rty Sym = Routing symbol for regions
Fac ID = Facility 3-Character Identifier
ATC Level = Level of facility
Rgnl Allocation = Staffing allocation for FY 01 given to regions by Air Traffic Resource Management Office
ATCS = Air Traffic Control Specialist
AOB = Actual Onboard

FY 2001 REGIONAL STAFFING ALLOCATION - TERMINAL BY LEVEL
(AOB AS OF APRIL 30, 2001)

Rtg Sym	Region	Fac ID	Facility Name	ATC Level	Rgnl Allocation	AOB ATCS	AOB Minus Allocation

Footnotes:

1-ATCSs assigned to NCT in preparation of 2002 opening.
2-Additional requirement placed on facility due to new equipment and normal attrition.
3-ATCS selections have been finalized and the facility expects to be fully staffed by 12/01.
4-ATCSs assigned to A80, which was commissioned on 3/25/01. Full transition of airspace is not complete.
5-Staffing was adjusted to address a significant increase in traffic.
6-The facility plans to place 15 new hires into N90 throughout the remainder of FY-01.
7-There has been no attrition to change the AOB since the regional allocation was estalished.
8-Staffing was adjusted to address a significant increase in traffic.
9-Staffing was adjusted to address a significant increase in traffic and support the transition to the Sun Coast TRACON.
10-The facility has selected 6 internal placement candidates that will report shortly.
11-Staffing has been adjusted to support the TRACON transition to the Potomac TRACON.
12-ATCS assigned to NCT in preparation for 2002 opening but on duty at MCC.
13-The facility has selected 4 internal placement candidates that will report shortly.
14-ATCSs assigned to NCT in preparation for 2002 opening but on duty at SCK.
15-ATCSs assigned to NCT in preparation for 2002 opening but on duty at MRY.
16-The facility has 2 additional midshift positions due to a "reimbursable agreement" with the city of Fort Lauderdale.
17-ATCSs assigned to A80, which was commissioned on 3/25/01. On duty at M87 until transition of airspace has been co
18-ATCSs assigned to A80, which was commissioned on 3/25/01. On duty at CSG until transition of airspace has been co

MANDATORY CONTROLLER RETIREMENT

Mr. ROGERS. Mr. Mead.

Mr. MEAD. I would just like to supplement what Mr. Carr said. I think that when they are analyzing the number of controllers they need there are factors in addition to the redistribution that you alluded to. We need to explain why there is an age 56 mandatory retirement. We let pilots fly until 60. There is a large body that think they should be flying longer than that. And we do have now an age 56 mandatory retirement for controllers.

Another factor is the contract tower program, which this committee has been funding. Another one is Oceanic Air Traffic Control. Another one is facility consolidation. All of those factors provide some room for productivity gains and should be factored into any review of how many controllers we need.

FREE FLIGHT PHASE 2

Mr. ROGERS. Now Mr. Woerth, one of your commitments was to develop a single list of aviation needs from the aviation industry. I did not see that list and I did not see it in your statement. Can you help us with that?

Mr. WOERTH. What I was referring to, sir, is working with the Free Flight Steering Committee because ALPA's list might be different than the airlines' list or the controllers' list. What we are trying to do in the Free Flight Steering Committee is build that consensus, and since I am a Free Flight Steering Committee member I am striving, so if we bring the Congress one set of criteria we need, not 27 programs. One program with one funding requirement. So I am working on that committee and participating in every level.

Mr. ROGERS. When will we have that?

Mr. WOERTH. Again, when the Free Flight Steering Committee, and Jane can probably answer that even better than I, when we expect the next level two to come out, which is Free Flight Steering Committee number two.

Ms. GARVEY. Assignments seem to be more mine. I wonder about that, Mr. Chairman. There are really two, I think, important points. One is in terms of Free Flight Phase 2. We have a set of recommendations from the RTCA that Mr. Woerth referred to. We are doing an assessment of that now. That is going to be finished by the end of this month. Just to make sure that we have both the capabilities in-house and understanding what the resources are and how that matches with our budget. So that is going to be done. The technology challenges will be done at the end of May. But I think even more importantly is the NAS Operations Evolution Plan. Again, Mr. Woerth is part of that effort as well. Making sure that we have industry and all elements of the industry really signed on to that operation plan.

ALPA DELAY COMMITMENT

Mr. ROGERS. Mr. Woerth, you just got rid of one of your commitments here.

Mr. WOERTH. I am a good negotiator, Mr. Chairman. [Laughter.]

Mr. ROGERS. I am too——

[Laughter.]

Ms. GARVEY. Thank you, Mr. Chairman.

Mr. ROGERS. Never negotiate with the chairman.

Mr. CARR. He can have one of mine.

Mr. ROGERS. No, we need to think about another commitment for Mr. Woerth, so I will come back to you in a minute. You be thinking about what you are going to promise us here in place of the one that Jane Garvey is going to take care of for you.

Mr. CARR. Mr. Chairman.

Mr. ROGERS. Yes.

CONTROLLER RELOCATION

Mr. CARR. If I could, I would like to clarify my earlier remark about moving people within the system. To the extent that there are opportunities for advancement at the busier level facilities, and to the extent that there are facility consolidation issues that we can work on, we are well in favor of that. We also recognize the responsibility to provide the necessary resources for permanent change of station moves and things of that nature. I just do not want to give the impression that we advocate a forced relocation of controllers from lower level facilities to higher level facilities in order to try to attempt to mitigate traffic growth problems. Most of the larger level facilities right now currently run between a 50 and a 75 percent wash-out rate as it is. So out of any given 100 people you send to Chicago O'Hare, 75 of them are going back home. It is just not that easy a game at the big facilities. So to the extent that we provide promotion opportunities for people who are currently in the system and wish to go to the busier facilities, we are all in favor of that.

DENIED BOARDING COMPENSATION

Mr. ROGERS. Mr. Merlis, one of your commitments is to petition DOT to change the denied boarding compensation pool. I understand you did petition on April 3rd. But I wonder what relevance or effect that might have on reducing airline monies, if any. I want to give credit for achieving the goal, but I am wondering if it has anything to do with the delay problem.

Mr. MERLIS. I think the way the question was framed, as I said before, I was answering on the fly, sir, and that was one of the things that came to mind that was responsive to something that Mr. Mead had said and we committed to doing that. What that can do because of delays and people getting bumped is compensate people for their losses or their delay. So we petitioned because the compensation rate is an old number. Does it solve the delay problem? No, it does not. But it is responsive to one of the problems related to delays.

PASSENGER FACILITY CHARGE CAP

Mr. ROGERS. Mr. Barclay, we have timed these hearings to ensure that the commitments we are working on are doable and realistic. One of yours is to work to lift the cap on passenger facility charges. That may be desirable for the airport community. I wonder if it is a really practical and doable goal since we just raised

it a year ago. I wonder if you would be thinking about another substitute commitment that we could place in place of that unrealistic commitment that was made. Will you be thinking about that?

Mr. BARCLAY. Will do, Mr. Chairman. We did narrow that point in the effort to be responsive in advance of your point. Just making a waiver at only the biggest airports. But I will come up with a substitute.

IMPACT OF WEATHER TECHNOLOGY ON DELAYS

Mr. ROGERS. All right. And Mr. Carr, when Secretary Mineta appeared here on April 25th, in his testimony he suggested that controllers may be over-sensitive to the new weather radar displays that came on line I guess in 1998. And perhaps may be unnecessarily routing aircraft around modestly bad weather. You have controlled traffic for a long time yourself.

Mr. CARR. Yes, sir.

Mr. ROGERS. And you represent the work force of traffic controllers. What is your opinion of that?

Mr. CARR. I am anxious to sit down and have a conversation with the Secretary to really set out exactly what circumstances he was alluding to. And until I have an opportunity to see exactly what it was he was alluding to and where he got his data points, I probably would be hesitant to answer that question with any specificity.

However I can tell you that as a line air traffic controller it is a far far greater thing I do to delay you five minutes too long, than one minute too few when we are talking about weather.

Mr. ROGERS. As I recollect, he had a chart that he showed that I think was depicting weather-related delays. And it was a fairly stable figure until 1998, and all of a sudden there was this huge updraft in numbers of weather-related delays during 1998. And he was saying that is when we brought on the equipment that displayed on the controllers' screens the very latest colored radar displays of weather.

Mr. CARR. I am uncertain whether the increase in 1998 was a result of the displays and the better display of the weather, or whether it was a result of better reporting techniques by the FAA and the Secretary with respect to weather-related delays.

Mr. ROGERS. Do you think that is right or wrong?

Mr. CARR. To be honest with you, Mr. Chairman, until I saw exactly what it was he was alluding to I would be hesitant to reply with any specificity. I would tell you that I am proud to say that controllers are extraordinarily cautious around defective weather, and I think it is prudent.

Mr. ROGERS. And we want that to be so. But there is such a thing as being perhaps too cautious.

Mr. CARR. Absolutely. And to the extent that we want to find that finite line between being cautious and being over-cautious, we are here to participate. We are here to be solution oriented.

ANTITRUST IMMUNITY

Mr. ROGERS. Mr. Barclay, your commitment, your substitute commitment that you are——

Mr. BARCLAY. First, Mr. Chairman, I cannot resist stating for the record that I had six commitments, and kicking this one out put

me only down to five. But to continue to have six, there is—the issue of antitrust immunity and some of the nervousness about those proposals was noted by Mr. Mead, and I think that nervousness and the different views are shared by people in the airport industry. But there is one element of that that has been brought up by Don Carty of American that I would like to go to our board and see if I cannot get airport community support for the notion that when you have a disruption in the system, really I think the frustration that we are all feeling comes about in particular when Chicago has a thunderstorm roll through and it causes massive delays throughout the system. In those cases, because the airlines do not have antitrust immunity, they cannot sit down and American and United cannot work together to straighten out that problem at Chicago. Say I will cancel these two if you will cancel those two, and we will still be serving that market.

Working with FAA, the carriers could cooperate—not antitrust immunity in general, but in specific where FAA would call for it that day because of a problem in the air traffic control system, to allow the airlines to have that immunity with an FAA observer or listener on the phone, could really help the system straighten out this problem when it gets into one of these massive problems.

I want to go and see if I cannot get—even though we have a number of members who when you say antitrust immunity get very nervous about providing that in that blanket sense, I would like to see if we cannot get airport support from our board to go and help champion that with the airlines.

Mr. ROGERS. Any other comments from the table?

Ms. GARVEY. I would support that heartily. I think those really are the tough days. If there is a way to surgically focus the antitrust discussions, I think we could go a long way in addressing some of the concerns that Mr. Mead has mentioned.

Mr. ROGERS. Who would trigger that exemption taking place?

Mr. BARCLAY. I think FAA would. The air traffic control folks.

Mr. ROGERS. You are talking about a weather problem that threatens to disrupt national patterns.

Mr. BARCLAY. Or a strike that occurs that affects an individual airport. Any major disruption of the system as judged by the FAA that is having an air traffic control impact rippling around the system for the purpose of recovering for just that day. Let us not allow the antitrust laws to get in the way of solving real life problems today in getting the system back on track.

Mr. ROGERS. Mr. Merlis, what do you think?

Mr. MERLIS. I would not want to get into that strike issue, but I think Mr. Barclay is absolutely right. The mechanism is this process out at Herndon. We know during the course of the day—let us take an example. Chicago is going to have to reduce its flights by 25 percent at a particular point during the day because of adverse weather. If the carriers who are flying during that point, 3:00 to 7:00 p.m. could get together and decide how to serve the maximum number of customers. American pulls down its flight to Newark, and Continental goes ahead and picks up all those people and gets them to Newark. That is the kind of thing that will serve the most number of people, and I think do least damage to the concerns people have about competition.

Mr. ROGERS. Mr. Carr, do you have a thought about that?

Mr. CARR. I tend to agree. Without even speaking any more extemporaneously than that, I tend to agree.

PROPOSED ANTITRUST IMMUNITY SCHEDULING CONFERENCE

Mr. ROGERS. Mr. Woerth.

Mr. WOERTH. I think they are talking more about a crisis management situation where day by day somebody decides they have a crisis. It could be a thunderstorm, it could be a snow storm, it could be something. I support those efforts. But I think it will not go far enough. I heard the concerns that some people have about antitrust immunity, but over a year ago I wrote letters to then Secretary Slater and proposed these scheduling conferences that were proposed or talked about earlier from Mr. Sweeney and by the Inspector General. And over a year ago ALPA was in support of that. We think we can manage a crisis, but it is easier to manage a crisis if you plan enough so there are fewer crises at the airports.

I still think that the antitrust scheduling conferences should be pursued, and since there are two bills in Congress with bipartisan support and ALPA suggested it in the first place, I can add my duties to continue to support that project because I think it is worth doing. I think the antitrust concerns can be eliminated, especially if we do not talk city pairs—in other words, competitive city pairs—and stop talking prices. But why I think this will work and why it should be pursued despite some other concerns, I certainly think it is better than peak hour pricing. But here is what I think——

Mr. ROGERS. What is better?

Mr. WOERTH. The antitrust immunity scheduling conferences will produce a better consumer result. The big airlines are competing with their hubs. The big carriers, whether you are competing for passengers in a catchment area you are going to use St. Louis, Detroit, Pittsburgh, Chicago, Detroit/Minneapolis.

What works in competition is frequency. Frequency is what is killing us with air traffic delays. We have learned to compete with more and more airplanes that are smaller. So our efficiency, as Mr. Sweeney asked earlier, is going down. But the strategy that works is high frequency. There is not a single airline that does not know if they want to win the high yield business customer who has fully refundable tickets who wants to change his mind all the time, that customer prefers the maximum number of options. If he misses a meeting, gets off early, wants to go home, whatever it is. So what they need to do is discuss about—say you are trying to go to LaGuardia. Whether you are competing out of St. Louis, Chicago, Detroit or Pittsburgh, you all want to have 10 flights a day to compete for those passengers into LaGuardia. But we all know we are going to have the same number of seats, just change the gauge on a few airplanes that we can take out, we all go to seven flights a day. But as I mentioned before, not one of those competitors is going to do that unless he knows everybody else is going to do the same thing. You can have the same number of seats in the market, just fewer flights, but they are not going to give up competitive frequency unless they know everybody else is. So I think this should be pursued.

Mr. ROGERS. Mr. Barclay, you are going to work to gain industry-wide unanimity around the language?

Mr. BARCLAY. I can try to get airport industry support around the language. The airlines are already in support of it, and FAA said it supported the thing. So I think it is a doable——

Mr. ROGERS. Okay. That is your project and we would like to see your language as soon as we could. Is that agreeable?

Mr. BARCLAY. Yes, sir.

PROPOSED ANTITRUST IMMUNITY SCHEDULING CONFERENCE

Mr. ROGERS. Now, Mr. Woerth, your substitute commitment.

Mr. WOERTH. Along those lines, Mr. Chairman, I would like to support the broader one, not the crisis management that Chip supported, but ALPA will lend its support to both bills in Congress to get them passed that will give antitrust immunity to scheduling conferences for the airlines.

I represent 49 airlines, so I do not have an ax to grind with any one particular. I grind all their axes fairly frequently. [Laughter.]

Mr. ROGERS. Well, we will take it but it is sort of a general commitment. We will never know whether you have done it or not.

Mr. WOERTH. If the Chairman asks me to testify, I will be there.

ALPA DELAY COMMITMENT

Mr. ROGERS. I know that. But I am just saying I wish we could have a specific commitment from you other than generally to lobby for something.

Mr. WOERTH. I think that one provides the most—that comes to mind that can actually be done, and along with the one we kind of abandoned that I tried to shift to Ms. Garvey, the Free Flight Steering Committee is far from complete. And the work on that even to get to phase two and have all the industry technology compatible with the aircraft as well as the pilot training, this work is ongoing and I will continue to work with that.

We have human factors—if we have a machine that people are trained on that is not compatible with the air traffic controllers, we have nothing. We will work to coordinate that, which is still part of what we were talking about originally with number one.

AIRLINE DELAY SOLUTIONS REPORT CARD

Mr. ROGERS. Okay. I thank you for your appearance here today again. It has been a long afternoon. I apologize for the length, but I do not think we can achieve what we are after unless we dig into the details as we had to today and have done. Does anybody have a closing statement before we wrap up here? If not, then we will proceed.

We are making some progress. We heard some specifics along the way here of achievements that pose some real promise for us. We are going to blow up Mr. Mead's graph and put it perhaps up here so we can have a thermometer to look at and see whether or not delays temperature is coming down or going up. And we are going to look to him and the FAA for those measurements of the delay situation for April, May and of course the summer months.

So we will be coming back. You are invited back and we are going to keep working on these commitments that have been made and that you are working on. Some of them are pretty much in place. Many others of them, of course, are works in progress. And some of them are sort of etherial promises that we will never really be able to objectively put a yardstick to.

But I think this is productive, as far as I am concerned. I think we are beginning to understand from each other the problem and trying to foster some degree of cooperation where sometimes I think it has been lacking.

Consequently, it is time to issue some grades here. I told you that we were going to have a report card, and we have the report card on the chart behind me here, so we are going to go through it, and with Rich's help we will do some work on that chart.

First, Ms. Garvey, you have completed the choke point initiative and—well, it is practically complete, so we are going to give you a smiley face.

Ms. GARVEY. Excellent.

CAPACITY BENCHMARKS

Mr. ROGERS. And you have issued the capacity benchmarks, and you have developed plans at the eight airports to improve operational efficiency. The ones with the highest delay rates—Atlanta, Boston, Chicago O'Hare, Newark New York, Kennedy New York, LaGuardia, and Philadelphia and San Francisco.

Ms. GARVEY. That is correct, sir.

Mr. ROGERS. So for that you get another star.

Ms. GARVEY. Excellent.

DELAY DEFINITION, ENVIRONMENTAL STREAMLINING, AIRPORT CAPACITY PROJECTS

Mr. ROGERS. Now you have already been awarded a star for your sixth commitment, number six, which is to develop the definition of a delay. You have informed us of that some three weeks ago. We have already given you a star for that.

Now for your agreement with airlines on a national operations evolution plan, that is a work in progress, but you are making progress, and for that another smiley face.

For number five, streamlining the approval procedures for airport capacity projects, in your testimony you elucidated the progress you are making on that. It is a work in progress. We are making progress. And for that another smiley face. So thank you. You are doing good.

Mr. Mead is difficult to measure because he is sort of measuring us all anyway. [Laughter.]

He is the guy with the yardstick. We are trying to measure him.

But for his work in keeping track of the disbursals of flights that we are trying to force or encourage from hubs to smaller airports and for disbursal of flights during the day at certain airports, particularly Atlanta and Dallas/Fort Worth, he gets a smiley face, work in progress. And monitoring the runway construction cost and schedule status, another smiley face.

Mr. Merlis, you completed, I think, your commitment on number five which is to petition the DOT to change the denied boarding

compensation rules. We are going to give you a golden star. And you are working on putting in place the delay reporting advisory committee, you have a ways to go, but work in progress, smiley face. Your number three commitment, to transfer aircraft position and delay data directly to gate agents, work in progress. We will see how it works but you are headed that way so a smiley face.

Mr. Barclay, your advocacy of streamlining the runway construction process, you are building a head of steam I think in that direction. We give you a smiley face, work in progress. Number two, your advocacy of FAA's ability to provide support staff to airports is a positive note in the right direction, a work in progress, a smiley face.

And Captain Woerth, you are developing a stronger alliance with the NATCA. You have a meeting on the 18th of this month with members of both NATCA and the dispatchers. And you are working on standardizing flying duty time industry wide, among other things. We give you a smiley face.

Mr. Carr, you have reached agreement with the FAA on air space redesign which is I think a major step in the right direction. We have got a ways to go to see what finally happens, but for your commitment to reach that commitment you get a star.

Mr. CARR. Excellent. [Laughter.]

Mr. ROGERS. Do not get too happy. [Laughter.]

Mr. CARR. I know at least three people that are jealous of me. I hope this room is guarded overnight.

Mr. ROGERS. And your work in monitoring other ideas for the safety impact, we have to give you a smiley face.

And your initiation of a study with others of the ability to reduce separation standards which could make major differences in delays earns you a smiley face. All of these smiley face things are works in progress, and if you can complete them, we will replace that smiley face with a star. All of this to say that you are competing with each other to get out of this room. To get off the island, so to speak. And we are not going to let you off the island until you have earned your stripes, your stars. So that may be a little elementary way to do this, but so what. We can have a little fun.

[The information follows:]

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEM

Commitments Made March 15 and April 25, 2001

	PROGRESS		
Norman Y. Mineta, Secretary, U.S. Department of Transportation			
1. Work to establish process to balance flight schedules with airport capacity			
2. Speed up airport construction and permitting process			
3. Address airway choke points			
4. Work with airports to disperse flights off peak hours & to underused airports			
5. Develop incentives/disincentives for airlines & airports to disperse flights			
Jane F. Garvey, Administrator, Federal Aviation Administration			
1. Complete choke point initiative and measure results	☺5-3-01		
2. Use capacity benchmarks to determine action plan at top 10 airports	★5-3-01		
3. Keep free flight phase 1 and phase 2 on track			
4. Reach agreement with airlines on national operations plan	☺5-3-01		
5. Streamline approval procedures for airport capacity projects	☺5-3-01		
6. Develop standard definition of delays	★3-28-01		
Kenneth M. Mead, Inspector General, U.S. Department of Transportation			
1. Monitor progress of causal tracking system for delays			
2. Track dispersal of flights from hubs to smaller airports	☺5-3-01		
3. Monitor runway construction cost and schedule status	☺5-3-01		
4. Monitor FAA's progress in meeting its 6 commitments			
5. Analyze options for demand management changes in short term			
Edward A. Merlis, Senior Vice President, Air Transport Association of America			
1. Better utilize FAA's daily conference call at flow control facility			
2. Put in place recommendations of Delay Reporting Advisory Committee	☺5-3-01		
3. Transfer aircraft position and delay data directly to gate agents	☺5-3-01		
4. Identify airport capacity projects and ways to implement them			
5. Petition DOT to change the denied boarding compensation rules	★5-3-01		

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEM Commitments Made March 15 and April 25, 2001	PROGRESS		
Charles Barclay, President, American Association of Airport Executives			
1. Advocate streamlining of runway construction process	☺5-3-01		
2. Advocate FAA's ability to provide support staff to airports	☺5-3-01		
3. Advocate lifting the cap on passenger facility charges (PFCs)			
4. Advocate flexibility for off-airport environmental remediation			
5. Get better information to airport customers			
6. Become involved in coordination of air traffic control operations			
Captain Duane E. Woerth, President, Air Line Pilots Association			
1. Develop a single list of aviation needs from aviation industry			
2. Develop stronger alliance with NATCA	☺5-3-01		
3. Bring airline dispatchers into that alliance			
4. Standardize flight and duty time industry wide	☺5-3-01		
5. Work to improve airport capacity where possible			
John Carr, President, National Air Traffic Controllers Association			
1. Monitor other ideas for safety impact	☺5-3-01		
2. Request more controller staffing			
3. Reach agreement with FAA on airspace redesign	★5-3-01		
4. Study, with others, ability to reduce separation standards	☺5-3-01		
5. Fill the labor seat on the MAC with a NATCA representative			

KEY: ★ COMPLETED; ☺ PROGRESS; ⊗ FAILED TO ACT

CLOSING

Mr. ROGERS. There is a lot of work that we are heading into here. As I said at the outset, with your help we want to help end the terrible disruption that airline delays are causing millions of Americans.

I know all of you and I know all of your organizations, private and public, are committed to public service and we congratulate you for that. So are we.

Our duty is to try to protect the public's interest and the pubic's interest is not being served adequately at this time by the system. So we are joining with you to try to remedy the faults and the problems as best we can.

We know that you have been swamped, the air industry has been swamped with flyers in the last several years. Literally hundreds of millions a year now are flying where just a few years ago only a few million. So we know that this is a dynamic industry. You have a dynamic demand. We want to help you along that way.

We are going to insist that these things be done, or as I said before, there will be consequences that will come from this subcommittee, perhaps, or from some other place. But we will be staying with you on this and we will be having another session such as this in the near future to check up on the progress that you have made on your commitments.

I hope you find this useful. If you do not, congratulations. But I hope that you find this useful because sometimes it may be that you or your organization may not be able to take the initiative on something unless you are made to. And I hope that we have some effect on encouraging you to do things that will benefit the whole group. So I thank you for your time and your work, and we will see you very soon.

The hearing is adjourned.

THURSDAY, AUGUST 2, 2001.

AIRLINE DELAYS AND AVIATION SYSTEM CAPACITY

WITNESSES

MICHAEL P. JACKSON, DEPUTY SECRETARY, U.S. DEPARTMENT OF TRANSPORTATION

JANE F. GARVEY, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

KENNETH M. MEAD, INSPECTOR GENERAL, U.S. DEPARTMENT OF TRANSPORTATION

EDWARD A. MERLIS, SENIOR VICE-PRESIDENT, LEGISLATIVE AND INTERNATIONAL AFFAIRS, AIR TRANSPORT ASSOCIATION

CHARLES BARCLAY, PRESIDENT, AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES

CAPTAIN DENNIS DOLAN, FIRST VICE-PRESIDENT, AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

JOHN S. CARR, PRESIDENT, NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION

OPENING REMARKS AND INTRODUCTION OF WITNESSES

Mr. ROGERS. The Committee will be in order.

We want to welcome back once again the infamous gang of six, now seven and growing. All are here; one substitute. Captain Dennis Dolan of the Air Line Pilots Association is sitting in for ALPA president Captain Duane Woerth, who could not attend today. I am very sorry he could not be here because I think it is very important that the people who make promises be the ones who keep the promises, so extend to him our personal regret.

Mr. DOLAN. I will.

Mr. ROGERS. Most importantly, I want to offer a special welcome to the Deputy Secretary of Transportation, the Honorable Michael Jackson, for the first time before this committee; maybe the first of many appearances. He is here representing Secretary Mineta and is responsible in his own right for all of the important activities being undertaken by the Department as it relates to airline delays. He is the man. He is called Mr. Airline Delay.

PURPOSE OF DELAY HEARINGS

We started this series of special hearings, as you know, on March 15 when it became obvious that the nation was laboring under a terrible burden of airline delays. At that time, we asked these prominent professionals in the aviation industry to commit to five concrete and measurable things that they would personally attend to to help address the growing problem of airline delays. That was a new approach—personal commitment, personal accountability, cooperation across the board of this industry and its various parts.

We put those commitments on a big board, as you see behind us, and when Secretary Mineta appeared on April 25 for his budget appearance he graciously agreed to add his name and commitments to our list, which I think was a great endorsement and aid to the work that we are trying to accomplish here.

One week after the Secretary's hearing, on May 3, we had our second special hearing where we checked what progress was being made on those commitments. Although it had been too short a time to see broad progress at that time, we awarded stars for a few completed items, smiley faces in those areas where concrete progress was being made. We withheld the frowny faces, but they are in a box that has an open lid. Although it may seem frivolous to award stars and frowny or smiley faces, it is a way of us judging and rewarding or punishing, as the case may be, progress, or lack of it, that is being made.

Now an additional 12 weeks have passed since the last hearing, and we are well into the peak travel season. If we do not see any real progress by now, we are missing the short-term opportunities and focusing only on long-term improvements. We need to do both, and I hope we will hear today that progress is being made on both fronts.

As Mr. Mead said in our last hearing and came up with this phrase, the proof will be in the pudding. I thought that was so unique. We are here today to check that pudding and see what the temperature is and see what proof is there from our experts.

FISCAL YEAR 2002 APPROPRIATIONS BILL

I should also point out that in the three months since our last hearing my Subcommittee has reported the transportation appropriations bill for fiscal year 2002, and we have made the airline delay matter a priority. We fully funded those programs targeted by the Administration to address delays, such as the chokepoints initiative and the Free Flight project.

We added money to speed up some technologies, such as the local area augmentation system and Safe Flight 21. We added money to redesign the crowded airspace around the New York metropolitan region and to see if we cannot safely reduce the aircraft separation standards. Overall, we raised funding for ATC modernization by ten percent and the airport construction program by five percent. There will be more money next year, and we have targeted it to address the delay problem.

REPORT CARD ON COMMITMENTS

Once again today we are here to provide a report card on your progress. FAA Administrator Garvey and Inspector General Mead have personally briefed me on the recent improvements in airline delays. I have appreciated that and look forward to hearing more details today.

My sense is that there is still a long way to go. We have made marginal improvement in the problem. We cannot rest on those laurels. They are not big enough to see hardly. The airline delay problem continues to be one of the most serious problems facing the American traveling public, affecting millions of people every month, every week.

Even with these improvements, one in every five flights is still delayed. The average delay is still too high. We have only seen marginal improvements and a shortening of the length of delays, and there are still too many chronically delayed flights. Much more can be done to promote the use of under used airports.

In short, we have a system which, while improved, is not serving the American public like it should. We also need to ensure that improvements are due to structural causes, not due to one-time events or improvements in the weather, as we have seen this year. If we have bad weather next year or the economy bounces back and we see more travelers, we must not find ourselves in the same situation we have been in regarding delays and cancellations. The American public will not tolerate it, and they will not let it go back.

I appreciate the fact that you have all but one returned today, and I await your progress reports. We will enter your written statements in the record without objection.

Before we take further proceedings, let me first recognize my colleague from Minnesota, Mr. Sabo.

Mr. SABO. Thank you, Mr. Chairman. I welcome all our witnesses back and look forward to hearing their testimony.

Mr. ROGERS. We have two votes on the Floor we are being called to. Rather than start the proceedings and then be interrupted, I think it best that we take a couple of minutes here and get our chores out of the way before we get started. Make yourselves comfortable while we are in recess for a few minutes.

[Recess.]

Mr. ROGERS. The Committee will be in order.

Thank you for your patience with us. This is we hope the last day before the August recess, and we are trying to pack a lot onto the Floor, as well as in our committees.

Any other statements, Mr. Sabo.

Mr. SABO. No.

Mr. ROGERS. Chairman Wolf.

Mr. WOLF. No.

Mr. ROGERS. We are glad to have you here, by the way.

Mrs. Emerson.

Mrs. EMERSON. No.

DEPUTY SECRETARY OPENING STATEMENT

Mr. ROGERS. Now we would love to hear your abbreviated opening statements.

Deputy Secretary Jackson, we will ask you to go first. Welcome.

Mr. JACKSON. Chairman Rogers, thank you for having me at the meeting today. Ranking Member Sabo, Chairman Wolf, Members of the subcommittee, I am grateful to be here. I will make my remarks brief and then assume that we can have an opportunity for questions to elaborate upon them.

I really wanted to do three things in my prepared remarks. First, to discuss the Department's basic strategy for dealing with aviation congestion issues and a nested set of additional issues related to the health of the aviation industry. Second, to give you a brief overview of some of the interim steps that Secretary Mineta has taken in the last several months to address these issues, particularly on aviation delays. Third, to just touch base briefly, Mr. Chairman, on

the specific points and commitments that the Secretary had signed up for with you earlier this year.

First of all, I think the issue of delays has been a continuous concern in the Secretary's comments and my comments as we talk about the problems we face in aviation. Mr. Chairman, I associate myself completely with your analysis of where we are. We have made some progress. It is important progress, but it is not enough. We have very much more to do. We are at the beginning of a long path, but we have to work at it hard and show results, so I think that your assessment is exactly on track.

TRANSPORTATION DELAY WORK GROUP

It is important to understand that we have had some progress in the short term over the last several months to work through the summer and spring peak seasons, and there are a series of efforts that we have set in motion, including a working group that we have established at the Department. I am chairing that group with Administrator Garvey, with our Inspector General and a series of other senior officials in the Department to manage these important issues on an ongoing basis, which we will have to do for the entire time that I am sitting in my chair at the Department.

DELAY IMPROVEMENTS

I think over the short term that we can see that on almost every one of the metrics that you are going to hear about from this group today, there has been progress. For on-time performance we have seen 19 percent improvement. You will hear about significant improvement on the reduction in ground stops. Similarly, through all of the FAA numbers we see incremental, but measurable, progress. Is it enough? No. Is it a start? Yes. Is it noticeable in the system today? I think the answer to that is yes also.

There are three real reasons that we think that we have seen some of this incremental and meaningful improvement. First is the weather. I am not saying that weather has gotten better. It has marginally been better this year than last.

I think importantly here for you and the work that your committee is asking us to look at is this question. What have we done to make management of bad weather a more effective process? It is on that axis that I think we have made some significant progress. The work that Herndon is doing to talk to the airlines on a routine basis throughout the day has been meaningful.

I was in Atlanta earlier this week talking to the operations people at Delta about collaborative decision making because I wanted to hear from them directly how they thought it had worked. One individual there had spent two months on the road with FAA going around to TRACONs and talking about how to manage these things. He was back on their daily conference call talking about the processes they were going to use on Tuesday afternoon at 2:45 to make that work.

On that score, I think we have been doing better about managing weather. Jane has talked about this with you, but I think that we have more to do, although we have made some progress there.

LABOR/MANAGEMENT IMPACT

Second, when we were looking at this at the beginning of the year, we were looking at a potentially very, very difficult summer. One of the elements of that difficult summer was the possibility of significant labor/management conflict and resultant delays.

That is a priority that the Secretary took on personally. I have assisted him in that regard in a marginal way perhaps, but it is something that he has spent a lot of time and energy on, each of the particular labor issues that we have had.

The parties themselves have made the difference and have made the commitment to do this. I think they understood very well the impact of not getting this done. OMB has worked effectively. We brought the Comair people in when that negotiation went to a dead stop, and I think we made some progress there. On the labor issues, it is the one that is an outlier. It could have been worse, but I think that we have made a little progress there.

SUMMER OPERATIONS PLAN

Finally, I think that this whole Summer Ops Plan has paid dividends for us in the short term, and I will let Administrator Garvey talk about that.

I would just touch briefly on the commitments that we signed up for with the Secretary and some of the work that we have done to try to make that a priority for us at the Department. We worked to establish a process on balancing flight schedules. The work at LaGuardia that you are very well aware of, Mr. Chairman, is very important in this regard, as is our capacity benchmark study, our NPRM that we have released on management options, and better consumer information.

These are areas that we have begun to dig into. The task force that we are working on has laid out a series of additional actions, but I think we have begun to make significant progress. My prepared remarks discuss this in more detail.

Airport permitting and construction. I am absolutely unhappy with how long it takes us to do any large transportation project. This is a significant area for us to work on. It is something also that cannot be just tackled at the Department of Transportation.

The Secretary and I have had conversations with the Domestic Policy Counsel, with OMB, with other Cabinet agencies about how we can collectively work on these problems. We cannot just make transportation infrastructure investments. We can be an aid to local communities as they decide what is appropriate for their community. We can also help clear out the underbrush of impediments when a community does decide to move in a particular direction, and we are committed to try to work on those. I think we have made some very good progress so far on that.

Chokepoint work. I think that the Administrator's comments again will summarize the work that she and the Department have done collectively in this area, and I believe we have made some real progress on realigning some of the chokepoint problems for this year. It is also something that we have to do on an ongoing basis and keep addressing.

Underutilized airports. Secretary Mineta has said repeatedly as he travels around the country that there are assets that are under utilized. We want to be helpful in making these under utilized assets a part of the airspace network and to help us drain off some of the delay issues. We have worked with the industry and several communities to address options for them to move forward.

Finally, on developing incentives and disincentives for airlines, we are earnestly encouraging the type of voluntary actions that Delta, American and Continental have taken on their own nickel, but with our encouragement and help, to make meaningful changes on adjusting the peaks and valleys of asset utilization at airports.

I visited Delta and the FAA's TRACON and tower in Atlanta this week, and there has been a very, very substantial change there. Our air traffic controllers say that it was like turning a switch when Delta made these changes in their traffic patterns, and it has made an important difference I think, so we are encouraging that type of continued work with the airlines.

In conclusion, I would just say that these are early steps for us. The commitment to work on the problems this committee is looking at today is a full-time commitment for us for the long haul. We are trying to organize ourselves to look at short-term medium-term and long-term solutions, and on each axis the Department and the airlines and airports have to contribute to these solutions and to work on these problems collectively.

Finger pointing will not accomplish a thing. We want to work in partnership with the groups represented at this table and the affected parties. We appreciate the support and the focus that this subcommittee is bringing to these issues. That is very constructive.

There is no magic wand, Mr. Chairman. My six-year-old daughter has a magic wand in her Barbie set. I looked in my toolbox when I got to DOT, and there is not one there, but we will continue to work all the tools that we have effectively here and hope to make real progress.

I am happy to answer questions about the Department's work as we go through the day.

[The prepared statement and biography of Michael Jackson follows:]

Statement of Michael P. Jackson
Deputy Secretary of Transportation
before the Subcommittee on Transportation
Committee on Appropriations
U. S. House of Representatives
August 2, 2001

Mr. Chairman and Members of the Subcommittee:

I am pleased to testify on behalf of the Secretary of Transportation regarding progress at our Department in reducing airline delays across the system. I wish to thank Subcommittee Chairman Rogers and Ranking Member Sabo for this opportunity.

A. Introduction

My testimony addresses two major points. First, I will provide an interim update on delays in our aviation system and a summary of key initiatives Secretary Mineta and the Department of Transportation have undertaken to address aviation delays. I am pleased to inform the Subcommittee that so far, delays during this spring-summer season are improved by almost every measure over last year. Second, I will briefly address each of the five commitments assigned to the Secretary by the Subcommittee as you monitor progress regarding the problem of flight delays. The Department has made significant strides in addressing each of these matters.

1. The Department's Strategy for Addressing Aviation System Issues

As Secretary Mineta has stated numerous times, a top priority of the Department of Transportation is to improve the safety and efficiency of our aviation system. As each of you knows, our aviation system is straining to keep up with the increasing demands for air travel.

Our strategy for improving the aviation system falls into three categories: (1) short-term operational steps to improve service during the spring-summer season for 2001; (2) medium-term operational and systemic improvements to increase capacity and improve traffic flow over the next few years; and (3) long-term strategies for meeting the significant increased demands on our aviation system into the next decade. For each of these, we will identify steps to be taken by the Department, airports and airlines. Finding effective solutions to the

aviation challenges we face will necessitate collaborative efforts among these three key constituencies, and the ongoing counsel and support of the Congress.

In my testimony, I will describe recent steps the Secretary and the Department have taken to make short-term operational improvements, as well as the template we will follow to set out our medium- and long-term strategies. I anticipate testifying before the Subcommittee in September, after the spring-summer season ends, to evaluate more fully the results of our short-term efforts, as well as to update you on our medium and long-term strategies for addressing this most important problem.

At this juncture I will mention one tool that we are using to mange the Department's efforts regarding a broad range of aviation issues, including delay and congestion management. Following my confirmation by the Senate in May, Secretary Mineta tasked me with organizing an internal Department of Transportation working group to coordinate Department efforts to alleviate aviation congestion. I have subsequently assembled a steering committee for this effort comprised of senior Department officials from the Office of the Secretary and the FAA, with assistance from the Inspector General.

This group will coordinate an ongoing effort at the Department to identify and evaluate Administration policy options for alleviating congestion, implement appropriate actions, and manage Departmental priorities in this area. As our work proceeds, I will be pleased to provide the Subcommittee with a more detailed account of the aviation working group efforts.

2. The 2001 Spring-Summer Travel Season

As most travelers this summer know, air travel is improved in the summer of 2001 as compared to the summer of 2000. The statistics kept by the Department bear this out.

The Bureau of Transportation Statistics reports that the 12 major carriers on-time performance was 81.5 percent in May 2001, compared with 74.3 percent in May 2000. The figures for June appear to be even better. Data for June show delays down 17 percent from June of 2000. Airlines cancelled 1.8 percent of their scheduled flights in May 2001, down from 3.4 percent in May 2000. In June, cancellations were 3 percent of total operations compared to 4 percent for June 2000.

As Federal Aviation Administrator Garvey indicates in her testimony, since March of 2001, air traffic control delays on a monthly basis are down an

average of 10 percent from last year. Average time per delay was reduced from 56 to 37 minutes. In May 2001, ground stop minutes were a total of 86,302, down from 296,598 in May 2000.

There are three major reasons for this improved performance.

First, the weather is better than last summer. As all of you are aware, our aviation system is interconnected through its hub-and-spoke system. That means that a weather delay in one part of the nation's airspace can have a ripple effect, compounding delays across the country. Put colloquially, last summer we were unlucky. This summer, the opposite is true.

But improvement in weather-related delays is not just a matter of luck. We have introduced very important tools at FAA to manage bad weather more effectively. We have implemented new training and processes with the airlines to be more nimble in responding to poor weather conditions. For example, the command center in Herndon, Virginia monitors weather and congestion 24 hours a day and holds teleconferences with airlines and system users every two hours to discuss weather and events as they occur. Working with the industry, the Herndon team has automated a series of predesigned "playbook" plans to re-route traffic in response to certain types of commonly recurring weather patterns. This allows the FAA and the carriers to re-route traffic around weather more quickly and efficiently. The center also holds a daily teleconference every morning to assess system performance from the day before. This effort will be described in further detail by Administrator Garvey. These innovations are now paying dividends.

Second, in 2000 labor management conflicts contributed significantly to delays. Earlier this year, the country faced the prospect of significantly more severe labor-related disruptions this summer with at least four major carriers.

Fortunately, in each case so far, the major airlines and their labor unions have been able to reach agreement and resolve their differences at the bargaining table. These include Northwest Airlines and the Aircraft Mechanics Fraternal Association (AMFA), Delta Air Lines and the Air Line Pilots Association (ALPA), and American Airlines and the Association of Professional Flight Attendants (APFA).

Of course, credit goes to the parties themselves, who in each case have made the important compromises necessary to reach a negotiated solution. The National Mediation Board has provided invaluable assistance to the parties and helped facilitate an agreement in every negotiation. Secretary Mineta has invested considerable personal effort to use all the tools available to the

Administration and the Department to assist the parties in finding equitable solutions.

In addition, when the Comair strike was in its 12th week, the parties were no longer negotiating and the situation had grown so serious that there were questions about Comair's viability as an ongoing concern, unless the strike was soon settled. Secretary Mineta invited representatives of Comair's management and ALPA to meet with him in Washington on June 8. The Secretary personally asked Comair and its pilots union to resume negotiations with representatives of the National Mediation Board. The parties agreed to meet the following Tuesday, and reached a tentative contract agreement within 72 hours. Comair's pilots ratified the contract on June 22, and the carrier resumed limited service on July 2.

While working to resolve these labor disputes is not expressly reflected in the five specific commitments that the Subcommittee asked Secretary Mineta to keep, we believe these efforts by the Secretary have played an important part in the reducing the prospect of significant delays this spring and summer versus last year.

Third, the Department's short-term operational initiatives aimed at improving the spring-summer 2001 travel season and implemented through the Federal Aviation Administration have--so far--produced important results. Taken together, FAA operational improvements have resulted in better utilization of congested airspace, particularly in the heavily traveled Boston-Washington-Chicago triangle. Again, you will hear more about these efforts from FAA Administrator Garvey.

B. Commitments Assigned to Secretary Mineta

I would now like to provide a status report on the areas of focus related to delay reduction that the Subcommittee has identified for Secretary Mineta.

1. Work to establish process to balance flight schedules with airport capacity.

The Department is taking many steps to help airlines and airports balance flight schedules with airport capacity - particularly at the Nation's most congested airports. At the outset, it is important to note that there is no one strategy to accomplish this goal. The factors that affect airport capacity range from the outdated physical arrangement of runways to the recent trend toward introduction of smaller regional jets on main line routes to provide more flight options to business travelers. Let me outline some of the most important:

- Capacity Benchmarks. In April, Secretary Mineta transmitted to Congress the "Airport Capacity Benchmark Report 2001". The Benchmark Report – for the first time – identifies the operational capacity at 31 major airports, which will enable airports, airlines and air traffic control systems to understand and optimally utilize the capacity at those airports. The first step in balancing use and capacity at airports is establishing benchmarks to measure capacity at those airports.

- LaGuardia Airport Delays. The Department is examining methods to combat delays at LaGuardia Airport in New York City – the nation's most congested. In June, a Federal Register notice sought input from the involved parties and the public in general on methods to combat delays at LaGuardia Airport. The Department expects to receive comment on a full spectrum of options, including:

    - market-based options that allocate capacity among air carriers based on an operator's "willingness-to-pay";

    - congestion pricing and an auction of landing and take-off rights; and

    - "administrative" options, including proposals to encourage the use of larger aircraft, or revising the High Density Rule but with provision for incentives for more service to small communities and new air carrier entry.

- Seeking Comment on New Options. As part of the internal aviation working group effort, the Department has drafted the first in what will be several Federal Register notices requesting public comment on different types of solutions to the congestion problem. These notices are intended to provide the Department with data and perspectives on policy alternatives that typically have not been debated with the industry itself. For example, our first request will be published shortly, and will solicit public comment on various demand management tools.

- Better Consumer Information. The Department is instituting new ways of giving consumers better real-time information about airport options. For example, following a successful pilot project with four airlines, the Department will be working on an expedited

basis to require better and more useful information about delays. Such data will be available to the public as part of a BTS website.

2. Speed up airport construction and permitting process.

Secretary Mineta has made speeding up the airport permitting and construction process a high priority for the Department.

- Streamlining Report. As the Subcommittee is aware, Secretary Mineta transmitted the "Report to the U.S. Congress on Environmental Review of Airport Improvement Projects" on May 18, 2001. The Department is already working to implement its recommendations for streamlining the review process for large airport projects. For instance, the Department/FAA has been involved with a task force on San Francisco airport improvements, developing a reimbursable agreement that would provide funds from the airport to FAA for additional FAA staff or consultants who could speed up the environmental review.

- Work With Other Agencies to Improve the Review Process. The Department has begun to work with other related agencies to make sure that streamlining is an Administration-wide responsibility.

- Make Improved Reviews a Priority Within DOT. The Secretary has asked staff throughout the Department to identify and assess the full range of options we might pursue to streamline the application and approvals process. I am optimistic that we can develop a useful set of initiatives to improve the process. If we at the Department do our jobs and focus on quickly evaluating and turning around permitting and review tasks, we can slowly-but-surely reduce the time it takes for the Department to conduct its necessary reviews.

- Raise Awareness of Importance of Community Consensus. In speeches to civic groups from across the nation, the Secretary has been emphasizing communities' responsibility to reach consensus on projects that help solve the runway shortage problem. There is a limit to what the Federal Government can and should do to promote airport capacity enhancements in a particular community, but communities also need to understand the importance of their airport facilities to the national system as a whole.

- Target Specific Airports. The Department will focus its streamlining efforts on facilitating work at the most congested airports, where capacity expansion will improve system-wide performance most dramatically. The Benchmark Report provides a guide as to where those problem spots are.

- New PFC Charges. The Department/FAA has been approving applications for increased Passenger Facility Charges to fund airport infrastructure expansion (e.g. O'Hare, Atlanta, Washington Dulles, Philadelphia, Minneapolis, all at the $4.50 level). The first of the higher charges took effect on April 1, 2001. These will provide needed funds for airport expansion projects.

3. Address airway choke points.

Because of Administrator Garvey's extensive testimony on this topic and the related topic of the 10-year National Airspace System Operational Evolution Plan, I will not dwell on the concerted effort we are making to squeeze more capacity out of the existing air traffic control system. This effort is a Secretarial priority of a very high order. Again, we thank the Subcommittee for its willingness to provide those needed operational resources.

4. Work with airports to disperse flights off peak hours and to underused airports.

Dispersing flight to off-peak hours can make a real contribution towards reducing delays. For example, Delta Airlines recently revised its flight schedule at its Atlanta hub to increase the number of flight banks, thereby more evenly spreading flights throughout the day. This type of approach holds promise for reducing the impact of delays at congested hub airports.

There may be a great potential for capacity improvement at major urban locations where an under-utilized facility, or excess military airport could take excess traffic from existing facilities. The Secretary has actively worked with local communities to examine these possibilities.

We have also recently mapped commercial airports and surplus military airports within 70, 50 and 20 miles of the 31 benchmarked airports. This information is being used in policy discussions on whether other airports can provide relief to the congested benchmark airports, what DOT/FAA might do to encourage more efficient use of capacity, and whether current policies discourage use of these other airports.

5. Develop incentives/disincentives for airlines and airports to disperse flights.

The Department has taken several steps in this regard, many of which I have already discussed.

- La Guardia Airport. As I earlier noted, the Department and FAA have published a notice in the Federal Register soliciting public comments on congestion pricing approaches to the delay problem at LaGuardia.

- Request for Comments on Market-Based Approaches. As I discussed earlier, the Department has begun the process of soliciting comments on market-based approaches system-wide.

- Study of Circumstances at Individual Airports. The Department has begun a study to collect detailed information on the reasons for delays at Boston Logan, Philadelphia and San Diego international airports and analyze the possible use of market-based policies to address congestion there. The three airports have different traffic patterns and capacity constraints. Our objective is to better understand the impact of airport congestion on airport users and how market-based approaches to relieve congestion could affect airport operations and specific airport users. The study should be completed early next year.

C. Conclusion.

Mr. Chairman, I have now provided an overview of our ongoing efforts to reduce airline delays system-wide, and to make the best use possible of the resources this Subcommittee has provided. I think the results are positive to date, and that there is potential for more gains as long as we stay focused. The President has recently announced nominations to fill key positions at the Department that will help us to do this important work.

Thank you for the opportunity to provide this testimony. Mr. Chairman, I look forward to continuing to work with you and the Subcommittee on these important matters.

The Deputy Secretary of Transportation

Washington, D.C. 20590

MICHAEL P. JACKSON
U.S. DEPUTY SECRETARY OF TRANSPORTATION

President George W. Bush nominated Michael P. Jackson to serve as Deputy Secretary of the U.S. Department of Transportation (DOT), and the Senate unanimously confirmed Mr. Jackson on May 3, 2001.

As Deputy Secretary, Mr. Jackson serves as the Department's chief operating officer, with responsibility for the day-to-day management of DOT's 11 modal administrations and for the work of more than 100,000 DOT employees. He supports Secretary of Transportation Norman Y. Mineta in carrying out DOT's core safety mission and overseeing policy development for the Department.

As Deputy Secretary of Transportation, Mr. Jackson began a second tour of duty at the agency; he earlier served as Chief of Staff to the Secretary of Transportation during the Administration of President George H. W. Bush. Mr. Jackson also served in the Bush White House as Special Assistant to the President for Cabinet Liaison, and he held several positions reporting to the Secretary of Education in the Administration of President Reagan.

Before returning to DOT, Mr. Jackson worked in the private sector as Chief Operating Officer at Lockheed Martin IMS's Transportation Systems and Services. IMS provides high technology services to toll authorities, freight companies and 35 state governments. From 1993 until 1997, Mr. Jackson was Senior Vice President and Counselor to the President of the American Trucking Associations, where he managed intermodal, international and technology policy matters.

He has been a researcher at the American Enterprise Institute and taught political science at the University of Georgia and at Georgetown University. Mr. Jackson graduated from the University of Houston with a B.A. and received a Ph.D. with distinction from the Government Department at Georgetown University in 1985.

Mr. Jackson resides with his wife and daughter in Virginia.

ATLANTA AIRPORT

Mr. ROGERS. Thank you, Mr. Secretary.

I applaud, like you, Delta and American and Continental for de-peaking their major hub airport. Essentially they are the dominant airline at each of those airports and can do that and be effective at it. It is these multi-hub airports that we have had difficulty with.

Even in spite of Atlanta de-peaking, it still leads, in my latest statistics, the nation in the percent of the total delays nationwide. Atlanta still accounts for 8.2 percent, even above Chicago, Philadelphia, New York, Newark, LaGuardia, Boston, San Francisco and JFK, still Atlanta after de-peaking.

Mr. JACKSON. It is our busiest airport, and we have not nailed it with this one action. It is an action that can help us, but not alone.

Mr. ROGERS. I am glad the air traffic controllers say it is like throwing a switch, but there should be some more switches out there to throw.

Mr. JACKSON. Absolutely.

Mr. ROGERS. Atlanta still is bad news.

Mr. JACKSON. Absolutely. Hopefully that runway extension will help that. We have an important priority to move that one in Atlanta. I think that will significantly help when they can get there, but that again is a longer term solution. We are not going to give up on intermediate and short-term solutions that might improve the situation as well.

FAA OPENING STATEMENT

Mr. ROGERS. Thank you. Ms. Garvey.

Ms. GARVEY. Thank you. Mr. Chairman, Mr. Sabo, Members of the Committee, thank you very much. I am pleased to be here this morning to report on our progress to date.

As the Deputy Secretary indicated and as you indicated, Mr. Chairman, in your comments, the news this year is definitely more favorable. If you look at the last four months, we are seeing a decrease, about a ten percent decrease in delays. That certainly is good news. I looked yesterday at the preliminary numbers for July, and it seems as though those numbers are heading in the same positive direction.

FAA PROGRESS ON COMMITMENTS

Before each of you, Mr. Chairman, is a package that outlines the commitments that we made at our initial hearing, the milestones we have set and the progress to date. I am pleased to say that under the direction of the Secretary and Deputy Secretary we continue to make progress, but in the interest of time what I would like to do is focus on just three of those commitments and speak more specifically about some of the benefits that we are seeing because I think that is important. Ultimately we want to see changes, and we want to see some benefits, benefits both to the passengers and to the airlines.

FREE FLIGHT PHASE I

If we start with our Commitment No. 3, which is implement Free Flight Phase 1, these are, as I think the committee knows, essentially five automation tools, five software programs, that are used by the controllers. The program, I am very delighted to say, is on budget and on track with a lot of help from this committee. We are enormously grateful for the commitment that we have received from this committee for Free Flight. We have a very straightforward agreement with industry. It is quite simply we will deploy the technology. Industry will measure the results.

Is it giving us what we want? The airlines are telling us some very good news. In some cases, the airlines have said they have been able to avoid three to five costly diversions a week. They have been able in some cases to sequence arrival traffic much more efficiently, thereby increasing capacity.

Another tool gives the controller the ability to see potential conflicts 20 minutes ahead of time, allowing us to provide much more direct routing for the aircraft. According to one airline, this tool alone saved $1.5 million in the two enroute centers where it is currently being used.

Because of the collaborative decision making software tool, we have common shared data, such as weather and action plans, among all the airlines in the Command Center. It allows us to plan much more efficiently. It allows us to be on the same page together. Free Flight is giving us some benefits. We are on track, and I think it is going to be a good model to use as we think of the Operational Evolution Plan (OEP).

CHOKEPOINTS

Chokepoints is another commitment for us. We have talked about before this committee in the past. We have identified with the airlines 21 initiatives to relieve those chokepoints. As you may remember from our first discussion, we focused on that very critical triangle from Chicago to Boston down to Washington. In the very broadest sense, I would characterize the initiative as making the most efficient use of the existing airspace. We have completed work on 14 of those initiatives. We still have some to go, but we are again on track.

Our initiatives are starting to pay off. Most of our completed chokepoints initiatives have focused, not surprisingly, around the New York/New Jersey metropolitan area. As a result, we have seen a reduction in delays from both northbound and westbound departures out of those New York airports. We have seen that they are experiencing 11 to 22 percent fewer unplanned ground stops when you compare it to the year 2000.

We also in the last few months have focused more directly on the Great Lakes region. We have changed some of the high altitude holding patterns. That has led to great benefits for airports such as Cleveland, Chicago, and Detroit where departure delays have been reduced by 11 percent and arrival delays by 16 percent.

We are meeting our commitments on the chokepoints initiative, but, I think even more significantly, we, along with the airlines,

are tracking the benefits. We really need to know what works and what does not.

OPERATIONAL EVOLUTION PLAN (OEP)

For the longer term solution, as we have suggested in one of our initiatives, we are focused on the Ops Evolution Plan. I am pleased to say that we have met our commitment to this committee to reach agreement with the airlines on a National Operations Evolution Plan. With great support from the airlines and a lot of encouragement from the Secretary of Transportation, this plan was released on June 6.

The plan represents, as the committee knows, the commitment of the industry, the commitment of the FAA, to a ten year future. Our real challenge right now is to shift from the plan, which we have now got, and we know what all our commitments are, to really an implementation. That has been the major focus for us and the airlines.

I just want to call your attention to one document. For each one, for example, of the 14 runways that are planned we have a detailed work plan. This is what I mean by shifting to implementation. We have a detailed work plan that is going to be up on our website in September, and it outlines very specifically who is responsible for what part of that work plan. I think that is going to be very helpful as we monitor and track our own progress.

We believe, and the airlines agree with us, that implementation of the Operational Evoluation Plan will lead to an increase of capacity of about 30 percent. Again, that is through technology, through airspace redesign, as well as through new runways.

Just in conclusion, as you pointed out at our first hearing, Mr. Chairman, everything that we have discussed or we will discuss today really comes down to serving the customers, serving the American people. We know, as the Deputy Secretary has said, that we still have a long way to go.

We know that many of these initiatives considered in isolation will not offer a solution, but we continue to believe, as you have stated at the first hearing, that with the kind of constructive collaboration that we are seeing, it is unprecedented. The future certainly looks good, and we believe we are on the right track.

Thank you again for allowing me to be here today.

[The prepared statement of Jane Garvey and status of commitments follow:]

STATEMENT OF

THE HONORABLE JANE F. GARVEY

FEDERAL AVIATION ADMINISTRATOR

before the

HOUSE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON TRANSPORTATION AND RELATED AGENCIES

CONCERNING AIR TRAFFIC CONTROL DELAYS AND CAPACITY

AUGUST 2, 2001

Chairman Rogers, Congressman Sabo, Members of the Subcommittee:

Thank you for the opportunity to appear before you today to follow-up on previous hearings to discuss our actions to help mitigate aviation delays and capacity problems. I am pleased to report that the Department of Transportation and the FAA continue to make significant progress on the items that I outlined for you at our initial hearing on March 15, 2001.

We are making real measurable progress on delays. We have had 4 consecutive months of decreases in air traffic delays compared to last year. March delays were down 7 percent. April was down by 15 percent. May showed a small decrease as well. And June delays were down by 17 percent. Averaged out – that's a 10 percent decrease in delays over 4 months. And that is exactly the direction we want the trend lines to go.

There are three major reasons for this improved performance. First, the weather is better than last summer. As all of you are aware, our aviation system is interconnected through its hub-and-spoke system. That means that a weather delay in one part of the nation's airspace can have a ripple effect, compounding delays across the country.

Second, there have not been any labor-related service interruptions at any of the nation's major airlines, and only one work stoppage overall. Early this year, one significant potential problem for domestic aviation was the series of labor contracts that affected many of the nation's major airlines. Service interruptions arising from the failure of collective bargaining efforts can pose serious problems for the functioning of the aviation system.

Of course, credit must go to the parties themselves, who in each case have made the important compromises necessary to reach a negotiated solution. The National Mediation Board has also provided invaluable assistance to the parties and helped facilitate an agreement in every negotiation. But in each and every case, Secretary Mineta has personally worked with management, the union and the National Mediation Board to help the parties persevere and reach agreement.

Third, the short-term operational initiatives aimed at improving the spring-summer 2001 travel season have produced results. At this time I want to comment on the status of our initiatives since the last hearing.

Develop standard definition for delays

As I testified on March 28, we developed a standard definition for aviation delays. This definition is that a flight is considered delayed if it arrives at the destination gate 15 minutes or more after its scheduled arrival time. The first phase of the Department of Transportation's (DOT) pilot program to test this approach has successfully concluded, and additional airlines have been invited to a meeting this month to join in the program. Participating airlines work with the DOT Bureau of Transportation Statistics (BTS) to voluntarily provide information on the causes for cancellations and delays so that consumers, industry, and the Department will have more and better information. We are supporting BTS in this effort.

Streamline approval procedures for airport capacity projects

The Department and the FAA are aggressively moving major new runway projects through the environmental review pipeline. Our most critical airports are the large hub primary airports that combined enplane about 70 percent of U.S. air passengers. At these airports, 18 new runways are currently proposed to come on line between now and 2010. FAA's environmental review is completed on 9 of these 18 runways and almost completed on 3 more projects with over 90 percent of the work being completed. The environmental process is underway on two other runways – with one location halfway through the process and in an early environmental impact statement (EIS) stage on the other runway. That leaves 4 runways out of 18 that have not advanced sufficiently in

local planning for the airport proprietors to submit them to FAA for environmental review.

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21), required that DOT report to Congress on the environmental review of airport improvement projects. In the report transmitted by Secretary Mineta on May 18, FAA identified environmental-related delays in constructing runways, as well as initiatives to reduce such delays.

At the same time, we have worked on this detailed analysis of the Federal environmental review process for airports, we have taken steps to expedite the FAA's part of this complex process. Our goal is to reduce unnecessary delays while maintaining the integrity of the environmental process and complying with all environmental protection requirements. To that end, we have taken the following steps:

- Established an EIS team of experts for four current major EISs and will establish a team for each new EIS for a major runway project at a large hub primary airport. We are strengthening existing and new teams by adding more FAA and airport members, as well as consultants.

- Reallocate FAA staff resources to environmental reviews. By the end of this fiscal year, we will convert five positions in FAA's Airports Office to environmental specialist positions—one in headquarters and one in each of the

regions where the bulk of the environmental review is conducted. We will also make more use of consultant resources through existing EIS contracts.

- Some airports have expressed interest in paying for additional FAA environmental staff resources for expedited EIS reviews through a reimbursable agreement. We are in the process of implementing our first reimbursable agreement at San Francisco. We expect to have this in effect for use by late summer.

Moreover, we are working with the Council on Environmental Quality (CEQ) to revise FAA's environmental orders. We are also working to shorten and streamline environmental impact statements and environmental assessments/findings of no significant impact to reduce paperwork and delays. We are addressing Federal interagency environmental coordination at national, regional, and project levels, and have entered into an agreement with the National Association of State Aviation Organizations to improve Federal/State coordination. A guide to best practices for EIS management and preparation was issued on July 13 and is available on our web site.

Keep Free Flight Phase 1 and 2 on track

Our initiatives for Free Flight Phase 1 and 2 are on track. We are on time and on budget for Free Flight Phase 1 activities and intend to do the same for Phase 2. Free Flight Phase 1 is the development and installation of automation tools for controllers to provide greater efficiency and capacity within the National Airspace System (NAS). Free Flight

has been built in cooperation with industry to achieve increased system capacity and efficiency. And most important, the benefits of these automation tools are measured both by the airlines and FAA. Two of the Free Flight Phase 1 projects already are complete.

Since the last hearing before the subcommittee on May 3, we have completed the delivery of the Traffic Management Advisor (TMA) application to Miami. We have also now scheduled the delivery of the User Request Evaluation Tool (URET) for Atlanta, Chicago, Cleveland, and Washington enroute centers. These deliveries are scheduled for January and February of 2002.

Use capacity benchmarks to determine action plan at eight airports with highest delay rates

On April 25th we released our capacity benchmarks report. Simply stated, an airport's capacity benchmark represents the maximum number of flights it can routinely handle in an hour. Our analysis establishes capacity benchmarks for the top 30 major airports. The 31st airport in the report, Memphis, was included for its importance to the air cargo industry. The data is being used to better understand the relationship between airline demand and airport runway capacity. The report has also provided valuable data to assist the FAA, airports, airlines, and other systems users in analyzing possible alternatives. The result should be more informed decisions and investments that can ultimately help better manage the increasing demand for capacity, while at the same time minimizing unavoidable delays.

One measure of how well airports are able to accommodate demand is the delay rate. Using the number of delays per 1,000 operations from the FAA's Operations Network (OPSNET) as the selection criterion, we have developed plans to improve operational efficiency at the eight airports with the highest delay rates (Atlanta, Boston, Chicago O'Hare, Newark, New York Kennedy, New York LaGuardia, Philadelphia, and San Francisco). Each of the plans indicates the expected gains that can be anticipated from runway construction, airspace redesign, and technological improvements.

The capacity benchmarks and action plans represent starting points for the aviation community to work together in solving the capacity problems at these specific airports. There has been some movement in this direction. For example, joint industry/FAA Delay Reduction Task Force Studies have been initiated at Chicago O'Hare, New York Kennedy, and LaGuardia airports. These studies are examining various alternatives for reducing delays and increasing capacity in both optimum and reduced conditions. We also have an on-going effort at Newark meeting quarterly with Continental Airlines to take measured steps to alleviate congestion and delays. In addition, recent actions by both American (at Chicago) and Delta (at Atlanta) to address their operations may prove to be helpful.

Reach agreement with airlines on national operations plan

For a longer-term solution to our capacity and delay problems, we have developed an Operational Evolution Plan (OEP). I'm pleased to say the plan was released on June 6 after achieving consensus with the aviation industry in its development.

The OEP represents the FAA's and industry's commitment to meet the air transportation needs of the United States over the next decade. The plan focuses on increasing capacity, managing delays, and maintaining the excellent safety record of the system. It integrates and aligns the agency's activities with those of the aviation industry and users of the system. Agreement among the airlines, other system users, and airports is critical to the success of the OEP.

We will keep the subcommittee informed of our progress in executing the goals of the OEP. The two short-term goals of the OEP are to execute our chokepoints initiative and our Spring/Summer 2001 collaboration and information sharing activities with the airlines.

Complete chokepoint initiative and measure results

We identified tactical measures to alleviate the chokepoints, or bottlenecks, in the National Airspace System (NAS). These are all in the "triangle" between Chicago, Washington, D.C., and Boston. Our chokepoints initiative focuses on the creation of new procedures and changes to existing programs in order to gain greater efficiency from our current airspace.

As reported in my earlier testimony, we identified twenty-one initiatives to make procedural changes to more efficiently use airspace. As of today, fourteen are completed, an increase of three since the May 3 hearing before the subcommittee. Four are mid-term initiatives ranging with completion dates from August to December 2001. The remaining

three are longer-term actions requiring phased implementation or involve international agreements.

We are in the process of establishing 19 new sectors to ease congestion and speed traffic flows through the Great Lakes corridor (Chicago area air traffic) and into New York. Since the last hearing we have opened one new sector, Yankee, in our Boston enroute center.

We will continue to see results from these initiatives as we meet our milestones and deadlines. I will continue to keep the subcommittee informed of our progress in this area.

But ultimately, Mr. Chairman, everything the Department and the FAA does comes down to our customers. It's about the passenger, and the passenger needs to be able to rely on our aviation system. The passenger needs to know that the 2:15 flight leaves at 2:15 and arrives when it's supposed to. The passenger doesn't care about categories of delays, they do care a lot about the schedule...that is, their schedule.

Everything we do must focus on the person in row 15, seat C. And when we do that, the rest will follow.

Mr. Chairman, that completes my testimony. I would be pleased to respond to any questions you may have.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

1. *Complete Choke Point Initiatives And Measure Results.*

Choke points are airspace areas that generate significant constraints in the system. The seven choke points are located in the highly traveled airspace between Chicago-Washington, D.C.-Boston. Twenty-one initiatives have been identified, which focus on procedural changes to gain greater efficiency in the airspace.

ACTIONS	BENEFITS
➢ **14 of the 21 initiatives have addressed reduction in delays in the New York/New Jersey metropolitan area and are complete such as:** – New routes through Canada help avoid convective weather and reduce congestion. – New traffic management procedures are used tactically to adjust flows.	- New York departures westbound have experienced 22% fewer unplanned ground stops in 2001 for the same period in 2000. - Reduced congestion for flights north out of New York airports, thus reducing ground stops by 11% in 2001 for the same period in 2000. - *The changes in the reduction percentage due to previous measures for 1 month, we recently received results for cumulative periods.
➢ **To ease flow restrictions at the choke points, 19 new sectors have been identified to segment airspace and reduce bottlenecks.** ♦ *5 are complete They are* • Pike, at Indianapolis Center • Waterloo, at Chicago Center • Yankee, at Boston Center •Lake, Geneseo, & Crosby, at Cleveland Center •Lincoln & Omaha, at Minneapolis Center	
➢ **4 of the remaining 7 are mid-term initiatives (to be completed by December 2001), such as:** - To increase the traffic flow rate into the New York/New Jersey metropolitan area and reduce the need to hold arrival traffic - The Tactical Altitude Assignment Program, which keeps flights between 300 city pairs at lower altitudes, was tested between April 22 and June 20. The program was discontinued, as most FAA facilities worked directly with their primary users to resolve low altitude issues Traffic management procedures to smooth traffic in the Great Lakes sectors. ♦ *An additional 7 sectors will be implemented by December 2001* • Madison & Batesville, at Indianapolis Center • Geauga, at Cleveland Center •2 at Philadelphia TRACON •2 at New York TRACON	– Anticipated benefits from mid-term initiatives will be reductions in miles-in-trail restrictions. – A reduction in daily average holding patterns (43%) for high altitude holding of east coast arrivals (EWR, JFK, LGA, IAD, BOS,PHL)shows benefits felt at several Great Lakes Airports (CLE, DTW, IND, MDW, ORD & PIT)where there were reductions in departure delays by 11% and arrival delays by 16%.
➢ **The remaining 3 are longer-term requiring phased implementation or involving international agreements (to be completed by June 2002) such as:** – Addition of new communication equipment at remote sites. – Improvements in Canadian automation and area navigation routes (RNAV) routes at Chicago Center ♦ *The final 4 sectors, to be delivered by June 2002, are* • Clarksburg, Cleveland Center •Springfield, Indianapolis Center •Ocean 1 & Ocean 2 at New York Center	– Anticipated benefits from longer-term initiatives will be reductions in miles-in-trail restrictions.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

2. *Use Capacity Benchmarks to Determine Action Plan at Top 10 (8) Airports.*

On April 25, FAA published a study that established benchmarks for 31 of the nation's busiest airports. Benchmarks established an optimal operational number that an airport can accommodate in visual flight rules (VFR) and under instrument flight rules (IFR) conditions. In addition, we have developed action plans for 8 of the most congested airports. The actions listed are the responsibility of the FAA. These alone will not be sufficient to satisfy projected demand.

ACTIONS	BENEFITS
➢ Website implemented: www.faa.gov/events/benchmarks/	
➢ The action plans highlighted potential capacity gains derived from FAA procedural changes and equipment installations.	
– Atlanta • Traffic Management Advisor (TMA) delivered to Atlanta ARTCC (completed) • Passive Final Approach Spacing Tool. (pFAST) delivered to the new Atlanta TRACON (March 2001). • New Standard Terminal Arrival Route (STAR) (2002). – One STAR being planned for Runway 27L/9R, publication first quarter of FY03. • New Departure Procedure (DP) (2002) – One DP for Runway 27R/9L in development, publication fourth quarter of FY02.	– Atlanta – Procedures, airspace & technology improvements are expected to increase good weather capacity by 6% and adverse weather capacity by 6% over the next ten years.
– Boston • New Departure Procedures (DP) (2001-2004) – A DP is being developed for all runways, publication in fourth quarter of FY01. • New Instrument Approach Procedures (2003).	– Boston – Procedures, airspace & technology improvements are expected to increase good and adverse weather capacity by 4% over the next 10 years.

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ACTIONS	BENEFITS
– Chicago-O'Hare • New Sector (Geneseo) operational (complete). • Madison and Batesville sectors scheduled to be operational (August 25, 2001). • New Sector (Geauga) scheduled to be operational (November 2001) • New Departure Procedures (DP) (2002). – Five DPs in planning, publication first quarter of FY02. • New Instrument Approach Procedures (2002). – New CAT II/III procedures for runways 27L & 27R. It is anticipated this will be in place in the 2002-2003 time frame. • New Standard Terminal Arrival Routes (STAR) (2002). – One STAR for Runways 4R, 9R, 4R, 22R/L being planned, publication first quarter FY02.	– Chicago – Improvements are expected to increase good weather capacity by 6% and adverse weather capacity by 12% over the next 10 years.
– Newark • New Departure Procedures (DP) (April 22, 2001) – The SELBY DP is being developed for Runway 4/22, publication in fourth quarter of FY01. • New Instrument Approach Procedures (2002). • The redesign effort in the NY/NJ/Phil area to be implemented (December 2005).	– Newark – Improvements are expected to increase good weather capacity by 10% and adverse weather capacity by 7% over the next 10 years.

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ACTIONS (cont'd)	*BENEFITS*
- JFK • New Instrument Approach Procedures (2001). • New PRM (2002) – PRM construction started 6/18/01, planned commission summer 2002. • New Standard Terminal Arrival Routes (STAR) (2002). – The SKUBY STAR is being developed, publication in first quarter of FY02. • New Departure Procedures (2003). – The DMYHL DP is being developed, publication in first quarter of FY03. • The redesign effort in the NY/NJ/Phil area scheduled to be implemented (December 2005).	– JFK - Improvements are expected to increase good weather capacity by 2% and adverse weather capacity by 3% over the next 10 years.
- LaGuardia • New Instrument Approach Procedure (2001). • New Standard Terminal Arrival Route (STAR) (2002). • New Departure Procedures (DP) (2003) – Two additional STARs and DPs being planned, publication first quarter FY03. • The redesign effort in the NY/NJ/Phil area to be implemented (December 2005).	– LaGuardia – Improvements are expected to increase good weather capacity by 10% and adverse weather capacity by 3% over the next 10 years.

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ACTIONS (cont'd)	BENEFITS
– Philadelphia • New Standard Terminal Arrival Route (STAR) (2002). – The BUNTS and CEDAR STARs being developed, publication in first quarter FY02. • New Instrument Approach Procedure (2003). • The redesign effort in the NY/NJ/Phil area to be implemented (December 2005). • Parallel Runway Monitor (PRM) scheduled for August 2001.	– Philadelphia – Improvements are expected to increase good weather capacity by 17% and adverse weather capacity by 11% over the next 10 years
– San Francisco • TMA delivery to Oakland ARTCC --begin initial daily use (September 2001). • New Standard Terminal Arrival Routes (STAR) (2001). – The RISTI4 STAR being developed for Runways 28L/R, publication third Quarter FY01. – The MANTECA1 STAR being developed for Runway 10, publication third quarter FY01. – The DUAL CEDES STAR being planned for Runway 28L/R, publication third quarter FY02. • New Departure Procedures (DP) (2003) – Two additional STARs and DPs being planned, publication first quarter FY03. • New Instrument Approach Procedures (2003). • PRM planned to be implemented summer 2002.	– San Francisco --Improvements are not expected to increase good weather capacity but expected to improve adverse weather capacity by 6% over the next 10 years.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

3. *Keep Free Flight Phase 1 (FFP1) and Phase 2 (FFP2) on Track.*

FFP1 consists of deploying five software programs: Surface Movement Advisor (SMA); Collaborative Decision Making (CDM) Passive Final Approach Spacing Tool (pFAST); User Request Evaluation Tool (URET); and Traffic Management Advisor (TMA). FFP2 calls for defining which Phase 1 capabilities to further deploy and to which locations.

ACTIONS	BENEFITS
✓ SMA - Philadelphia (December 1998) - Detroit (December 1998) - Chicago (December 1999) - Dallas/Fort Worth (December 1999) - Newark (December 1999) - Teterboro (December 1999)	- Airline precise touchdown times. - Avoids 3-5 costly airline diversions per week in bad weather.
✓ CDM - Collaborative effort between the agency and the airlines from the FAA's Air Traffic Control System Command Center in Herndon, VA and field facilities.	- Provides common data including weather to plan efficient utilization of enroute airspace.
✓ pFAST - Dallas/Fort Worth (April 2000) - Los Angeles (February 2001) - Minneapolis (June 2001) * - St. Louis (October 2001) *	- pFAST adds 1.5-3.5 percent increase in arrival capacity. - * pFAST installed but not in daily use, pending upgrade of the Automated Radar Terminal System (ARTS) from ARTS IIIA to ARTS IIIE. ARTS IIIE in Minneapolis in September and February 2002 in St Louis. The benefit is replacing 1970's technology (large & very slow machines, hard to maintain, and limited in adaptability) with microprocessor technology (state-of-the-art, significantly smaller, yet more powerful, easily adaptable and expandable platform). ARTS IIIE has greater error detection capabilities, supports color displays, has greater reliability and performance.

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ACTIONS (cont'd)	*BENEFITS*
➢**URET** Memphis (November 2001) – Washington (January 2002) Indianapolis (December 2001) – Atlanta (February 2002) Kansas City (December 2001) – Chicago (February 2002) Cleveland (January 2002)	– URET provides an increase in direct routings and a reduction in restrictions, saving airlines approximately $1.5M per month
➢**TMA** Dallas/Fort Worth (February 2000) – Atlanta (February 2001) Minneapolis (June 2000) – Miami (May 2001) Denver (September 2000) – Oakland (September 2001) Los Angeles (November 2000) **during 2003-2005**	- TMA increases airport acceptance rates by 5 percent .Dallas/Fort Worth completed 2 months early

➢ **Complete research management plan May 31, 2001. (Completed May 31, 2001)**

➢ **Monitor research initiatives that may be implemented**

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

4. Reach Agreement With Airlines on National Air Space (NAS) Operations Evolution Plan (OEP).

FAA worked in partnership with industry and other Federal agencies to develop the NAS OEP. OEP integrates and aligns the FAA's activities with those of industry. The plan focuses on key areas, such as new runways; technology, procedure, and airspace changes; as well as airlines' investment in avionics, equipment, and pilot training.

ACTIONS	BENEFITS
➢ **Held two Industry Days:** – December 30, 2000 • Delivered the first edition of the plan and solicited industry comments (due January 2001). – April 17, 2001 • Demonstrated new, current and prototype technology for managing the NAS to users and FAA representatives	
➢ **Posted the OEP on the web (April 20, 2001), www.mitrecaasd.com**	
➢ **Final OEP (June 2001).**	– 14 new runways at the nations top 31airports: provide capacity gains depending on locations. Normal increases range from 30 to 60%.
➢ **Execute the Plan's goals:** – 2 near-term goals (2001) • Execute choke point initiatives. • Spring 2001 collaboration and information sharing	– Technology: 3-15% capacity increase depending on airport locations and airport configurations.
– 4 mid-term goals (2002-2004) • Optimize airspace design • Widespread use of Free Flight tools • Reduced vertical separation • Enhanced navigation procedures	– Reduce en route congestion. – Improve strategies for dealing with severe weather to reduce delays.
– 3 long-term goals (2005-2010) • Data link communications • Satellite navigation • Enhanced surveillance	

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

5. Streamline Approval Procedures for Airport Capacity Projects.

Key actions include identification of environmental delays and expediting Environmental Impact Statements (EIS) for new runways at busiest airports

ACTIONS	BENEFITS
➢ **Report to Congress on Environmental Review of Airport Improvement Projects. Report** was sent to Congress on May 18. ➢ **18 new runways proposed to date (between now and 2010):** Nine Environmental Impact Statements (EIS's) done; three 90%+ complete; one 50% complete; one underway, four projects not yet submitted to FAA for EIS. ➢ **Four EIS teams in place for major runway projects. New team for each new major EIS.** ➢ **Increase environmental resources:** 6 new environmental specialists will be hired in August. Reimbursable agreements; first one available for use late summer. Amend EIS third-party contracts for more support; first amendment agreed on at San Francisco. ➢ **Improve Federal interagency coordination.** DOT-level meetings on national approach, including Council on Environmental Quality (CEQ) role. FAA discussions with Federal counterparts at regional levels in July and August. ➢ **Memorandum of Understanding between FAA and National Association of State Aviation Officials to address Federal/State coordination.** – MOU signed April 2001; effort to take 1 year. State survey to identify coordination choke points completed; 2-month analysis of survey in Aug-Sept to be followed by joint FAA/NASAO work on solutions. ➢ **Reduce environmental documentation with CEQ support.** - CEQ review of FAA's new categorical exclusion approach and list expected to be completed in Aug Beginning April 26, ongoing discussions with CEQ on reducing documentation for environmental impact statements and environmental assessment/finding of no significant impact(s) ➢ **Issue best practices guide for EIS management and preparation** Guide issued July 13 on best EIS management practices, including early planning, community consultation, consultant selection and skills, EIS teams, interagency coordination, use of technology.	– Solutions appropriately targeted to identified problems. – Bring new runways on line at busiest airports with capacity problems.

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEMS

6. Develop standard definition of delays.

On March 28, 2001, FAA reported to that House Transportation Subcommittee on agreement with industry that a delay is "arrival of a plane at its destination gate 15 minutes or more beyond the scheduled arrival time." This action also includes implementing a pilot program to evaluate new delay data, and forming a task force to review the data from the pilot program.

ACTIONS	BENEFITS
➢ The Pilot Program effort kicked off in January 2001.	
➢ To support the Department of Transportation Bureau of Transportation Statistics in evaluating February data received from 4 airlines, American, United, Delta and Southwest (classified by cause).	– Provide better information to flying public to assist in their decision making. – Determine causes of cancellations and delays experienced by air travelers
➢ Support review of data on ongoing basis.	– Uniform method for tracking delays.

SUB-HUB AIRPORT CAPACITY USE

Mr. ROGERS. Thank you for being here.

Are we making any progress on spreading capacity, using under utilized capacity? Cincinnati is a great airport near northern Kentucky, a wonderful place. Not too far away is the Louisville Airport with lots of unused runways. Lexington is just south of there. There are other airports in the region that could help relieve Cincinnati. I use that only as an example. The same thing is true in Atlanta, Dallas, San Francisco and so forth. What are we doing to disburse the load off of the hubs into the subhubs?

Ms. GARVEY. Well, from the government's perspective, and obviously the airlines will have a different view and perhaps may want to add other comments, but from our perspective I certainly continue to believe that the airport improvement program and the monies that Congress has given in record numbers is giving money for infrastructure development for the airport system. It is very helpful.

We are trying at LaGuardia, as you know, with the lottery, which is in a sense a kind of capping of those flights. We certainly hope that there will be more of an incentive to try some of those other airports; Stewart, for example, which I know that Mr. Sweeney has been very interested in.

I think there is still a lot of work we need to do in that area, and it is certainly still in a deregulated environment. How much we can sort of force it from the government's perspective is one of our great challenges. I think providing the infrastructure and looking at some of those demand management strategies that may in fact in crowded areas encourage use of other airports, is important as well.

LA GUARDIA AIRPORT LOTTERY

Mr. ROGERS. Well, by capping the number of flights at LaGuardia in effect you are forcing——

Ms. GARVEY. In a sense.

Mr. ROGERS [continuing]. Airlines to find alternative hubs in the region, right?

Ms. GARVEY. Absolutely, and I will say——

Mr. ROGERS. Why can you not do that in other places?

Ms. GARVEY. Well, I guess we always hoped that that was something of last resort in a deregulated environment.

Mr. ROGERS. We are fast approaching last resorts here.

Ms. GARVEY. I do think in some of the other—you mentioned Atlanta earlier. I do think in Atlanta we will when that runway is in obviously see some great benefits there. There may be other opportunities that some of the other panelists are seeing as well.

Mr. ROGERS. Well, we will have other questions in a few minutes.

Mr. Sabo.

Mr. SABO. Thank you, Mr. Chairman.

My understanding is in LaGuardia the slots by lottery expire in September. Is that accurate? What happens then?

Ms. GARVEY. It is, Congressman. We had a request for comments in the Federal Register and have agreed to extend that lottery for

another year. There is great interest from Members of Congress in that as well.

We will extend it for another year as we consider some of the longer solutions. The longer term solutions are pretty complicated. There are pros and cons on all sides. We want to give people enough time to really look at those, and we will extend the lottery for a year.

INSPECTOR GENERAL OPENING STATEMENT

Mr. ROGERS. We will have plenty of time for questions as soon as we hear the panel. I did not intend to start with questions. I apologize.

Mr. Mead, the Inspector General, our resident critic, how are we doing?

Mr. MEAD. Somebody told me that you were going to call me Pudding Man as a result of your comment earlier that I said the proof was in the pudding, which I did say.

Mr. ROGERS. The Pudding Man, yes.

Mr. MEAD. Mr. Chairman and Members of the subcommittee, it is good to be back again.

I would like to start by saying that I think that bringing this group together periodically to review progress in addressing the delay problem really has helped to focus attention, accountability, and greater cooperation among the parties. That is just from our own audit observations. It has contributed I think materially, along with the emphasis that has been provided by the Secretary, to some bottom line results.

PROGRESS ON DELAYS

What I would like to do for a moment here is I would like to report on where things stand today, some vital statistics, if you will, and then turn to the commitments that were made and highlight some areas that we believe require action.

There are charts throughout our testimony, and we have a chart board that we can put up later to illustrate some of these metrics, but there are just a few that I think are key barometers. Comparing the first six months of 2001 to 2000: arrival delays, down about 13 percent; cancellations, down 23 percent.

A key one, number of flights experiencing taxi out times of one hour or more: down 20 percent. That is a big number. In the two hour or more taxi out category, the decrease is really large, about 48 percent compared to this time last year.

Flights chronically delayed and/or canceled 40 percent of the time or more decreased 62 percent. I think the airlines are paying attention to this category. There are still too many of them, though. We have dropped from about 97,000 for the first six months of 2000 to about 37,000 still out there. Consumer complaints are down, too.

SCHEDULING DATA

What about scheduling? Scheduling data, frankly, are very mixed. You will recall that just a few short months ago we did not have all these metrics to compare for the committee, so I think that in itself is a fairly large improvement.

For the first 6 months of this year, there was less than a one percent increase in scheduled flights by the top ten carriers, which is a marked change from the last several years. There were major differences among the carriers, though, and among the airports: BWI—up 14 percent; Dulles—down 23 percent; Reagan National—up 13 percent; Cincinnati—down 13 percent; Chicago, Atlanta, and DFW all down slightly by a percentage point or two.

Growth that did occur tended to be in the use of small aircraft, so-called regional jets. Frankly, there was very little evidence of a dispersal of flights from major hubs to smaller, less congested airports.

AVERAGE LOAD FACTORS

Although load factors—the percentage of passenger seats filled—are down overall about four percent, but there was a pronounced drop in the business travel market. While overall the load factor is down about four percent, business travel is down about 15 percent as measured by revenue passenger miles.

Why are delays down? I think Mr. Jackson and Ms. Garvey referred to it: better weather, particularly in the eastern U.S.; no significant labor disruptions—I think the Secretary, the airlines, and the unions all deserve some credit for that; FAA and airline efforts to better communicate and coordinate actions; voluntary actions by several of the airlines, particularly through more responsible scheduling; and general economic conditions that have constrained growth in demand.

It is sort of a double edged sword here, you might say. While these delay statistics look favorable, we must not be lured into a false sense of security. Any of these previously noted factors could change even this year so that we could relive the summer of 2000 or worse.

COMMITMENTS AND PROGRESS

With that in mind, I would like to turn to the commitments and what progress has occurred. DOT and FAA, in our judgement, do continue to make progress. The most significant items we think are FAA's Operational Evolution Plan, the report to Congress on environmental review of airport improvement projects and, airlines actually moving their voluntary customer commitments into their contracts of carriage, making them legally enforceable.

There are six items for which we feel progress has been insufficient or actions are needed sooner rather than later. First, DOT still lacks a uniform system for tracking the causes of flight delays and cancellations. Some progress has been made. We had hoped, though, that a system would be in place by this summer. DOT expects additional airlines to begin voluntary reporting of causal data before the end of this year and plans to do an expedited, negotiated rulemaking to make reporting on the causes of delays obligatory.

You will remember, and I am sure every Member of this committee remembers, when this all started. You would get the airlines and FAA in the room and everybody would have a different reason for why a particular delay was happening. It is important to identify the causes of delay not only to avoid the finger pointing, but also for management to be able to fix those causes.

Second, airlines still need to notify passengers at the time of booking without being asked about the prior month's on time performance for flights that are chronically delayed. That is 40 percent or more of the time. None of the airlines to date have done this voluntarily.

We see this, frankly, as a truth in advertising issue. Thirty-seven thousand flights still fall in this category. In our judgement, that is the Inspector General's judgement, without Congressional or DOT action, corrective action will not be forthcoming.

Third, the airlines need to clarify to their customers what their rights are when they are put in an overnight situation. People need to know that. The airlines formed a task force to deal with this. Consumers have yet to see any change.

Fourth, FAA has made progress with respect to the seven major chokepoints. There are a number of areas where they need to set milestones, though, so they can track their progress.

Fifth, Free Flight Phase 2 is just around the corner. The FAA needs to let this committee know what their milestones are going to be, what the budget is going to be, and how this Free Flight initiative is going to be integrated with the satellite initiative, because taken together these programs aremulti-billion dollar undertakings.

Finally, one of our commitments is to track runway projects. I think FAA has made some real progress in developing a system to track runway costs progress, and issues that stand in the critical path.

One airport is supposed to have a new runway this year. That is Detroit. I think it ranks No. 15 in the congested airport category. It is important that they get the navigational aids they need to make that runway operational in November or December. Where the funding is going to come from to pay for those navigational aids also must be determined.

That is the one airport runway that is due out of the box this year. In 2002, none are due out of the box. In 2003, there are a cluster of five or six that should become operational.

Thank you, Mr. Chairman.

[The prepared statement and biography of Ken Mead follows:]

Before the Committee on Appropriations
Subcommittee on Transportation and Related Agencies
United States House of Representatives

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Update II: Actions to Enhance Capacity and Reduce Delays and Cancellations

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

Mr. Chairman and Members of the Committee:

At your March 15, 2001, hearing on aviation delays, you asked each of the panelists to list five actions they would take to help reduce the growing number of flight delays and cancellations. On May 3, 2001, we met to discuss progress in completing these actions. Mr. Chairman, we want to commend you and the Committee for holding this series of hearings. Bringing this group together periodically to review progress in addressing the delay problem has helped focus attention on this important issue and ensured accountability among all parties. Today, we would like to report on delay vital statistics and where things currently stand with respect to the commitments—including progress made and remaining actions.

Vital Statistics Show Noticeable Improvement in 2001

At the May hearing, we presented three charts illustrating how the delays, cancellations, and scheduled flights for the first 3 months of this year compared to those of the prior 2 years. At that time, the 2001 trends were uncertain, with the numbers closely tracking those of 2000. However, today we can report—as illustrated by the three figures to the right—that the current trends point to a significant reduction in both delays and cancellations this summer.

- ✓ During the first 6 months of 2001, 22.6 percent of flights scheduled by the 10 major airlines were delayed, canceled, or diverted, affecting an estimated 63 million passengers. In comparison, 26.4 percent of scheduled flights in the first 6 months of 2000 were similarly impacted, affecting an estimated 78 million passengers.

- ✓ Arrival delays decreased nearly 13 percent (638,727 to 557,138) during the first 6 months of 2001

Figure 1: 10 Major Airlines - Arrival Delays (1999, 2000, and 2001)

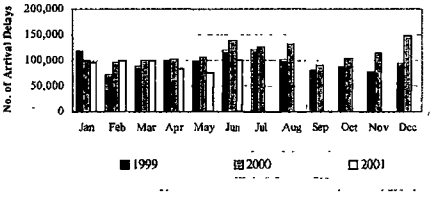


Figure 2: 10 Major Airlines - Cancellations (1999, 2000, and 2001)

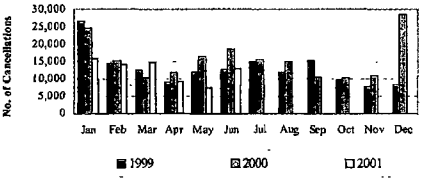
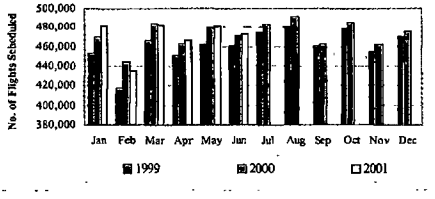


Figure 3: 10 Major Airlines - Scheduled Flights (1999, 2000, and 2001)



as compared to the same period in 2000. Flight cancellations dropped at an even faster pace, decreasing nearly 23 percent (96,727 to 74,660).

✓ Not only were there fewer delays, but those occurring were shorter in duration. Of those flights arriving late, the average delay was about 49½ minutes during the first half of 2001—a decline of 3 minutes from last year's average.

✓ The number of flights experiencing taxi-out times of 1 hour or more decreased over 20 percent (from 21,753 to 17,368) during the first 6 months of 2001 as compared to the same period in 2000. Flights with taxi-out times of 2, 3, 4, and 5 hours decreased at even higher rates of 48, 57, 51, and 82 percent, respectively.

Number of Flights with Taxi-Out Times of 1 to 5+ Hours, January-June 2000 and 2001 (BTS Data for 30 Largest Airports)

Time Period	2000	2001	% Change
1-2 Hrs.	18,020	15,493	-14%
2-3 Hrs.	2,888	1,513	-48%
3-4 Hrs.	689	296	-57%
4-5 Hrs.	122	60	-51%
5 or > Hrs.	34	6	-82%
Total:	21,753	17,368	-20%

✓ Flights chronically delayed (30 minutes or more) and/or canceled decreased 62 percent (from 96,737 to 36,796) between 2000 and 2001.[1] Likewise, the number of unique flight numbers associated with these chronically delayed and canceled flights decreased nearly 45 percent (from 6,033 to 3,324).

✓ Against this backdrop of decreasing delays and cancellations, consumer complaints also dropped. The Department of Transportation (DOT) Air Travel Consumer Report disclosed that consumer complaints against the major air carriers decreased nearly 20 percent (10,647 to 8,540) between the first 6 months of 2000 and 2001.

✓ Scheduling data present a mixed picture, with some data showing little change from the prior year, while other data show more significant increases or decreases. For example:

- BTS reported less than a 1-percent increase in the number of domestic flights operated by the 10 largest air carriers during the first half of 2001 as compared to the same period in 2000.

[1] Under our definition, which differs slightly from Bureau of Transportation Statistics (BTS), chronically delayed and/canceled flights are those regularly scheduled flights (e.g., Chicago to Miami) that arrived at least 30 minutes later than scheduled and/or were canceled at least 40 percent of the time during a single calendar month.

- When breaking out schedule data by airport, we found considerable differences, with LaGuardia (16 percent),[2] Baltimore (14 percent), and National (13 percent) experiencing the largest increases in operations, and Dulles (–23 percent), Cincinnati (–13 percent), and San Francisco (–5 percent) experiencing the largest decreases.

- By comparison, Official Airline Guide (OAG) data (which also include regional commuter airlines) for June through September 2000 and 2001 identified a 2.2 percent increase in schedule flights, with much of this growth involving smaller aircraft (70 passenger seats or fewer).

- Finally, we found very little evidence to indicate that the 10 largest airlines were dispersing flights from their major hubs to the smaller, less congested airports. For the last 5 years, roughly 67 percent of all scheduled domestic departures occurred at the 30 major airports.

✓ As a sign of the softening economy, we found that the number of vacant seats has increased from last year. The average load factor (number of passenger seats filled) was down during the first half of 2001 for all months except January—as illustrated by Figure 4.[3]

Figure 4: Monthly Load Factors (Air Transport Association Data)

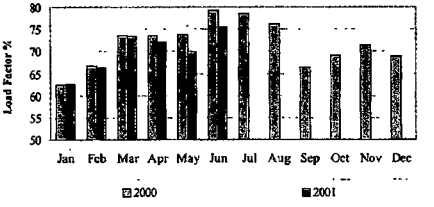
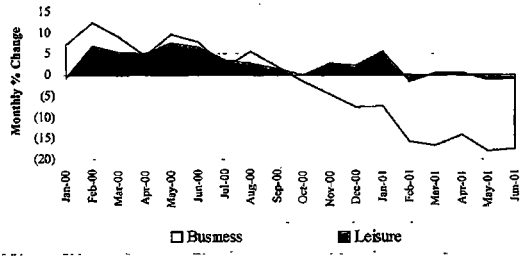


Figure 5: Monthly Change in Business and Leisure Travel (ATA Data on Revenue Passenger Miles)



Moreover, the number of business travelers, as measured by revenue passenger miles (RPM), decreased significantly faster than leisure travel during the first half of 2001. Overall, ATA reported that business travel has declined 15 percent this year.

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[2] The increase in LaGuardia occurred primarily as a result of slot exemptions allowed under AIR-21. Although FAA's lottery program reduced the number of scheduled flights beginning in January 31, 2001, these numbers are still above the pre-AIR 21 period.

[3] BTS data on load factors for the 10 major airlines show a similar trend in 2001.

Multiple Factors Contributed to Recent Declines in Delays

We noted at the March 15th hearing, the extent to which delays and cancellations increase or decrease in 2001 will depend on several key factors, including weather conditions, labor disputes within the airline industry, the impact of a softening economy on air traffic demand, and how existing capacity is managed at already congested airports. For the most part, factors that were a major cause of delays last year are not as severe so far this year or haven't materialized. For example:

- ✓ The National Weather Service reported a 6 percent reduction in the number of Significant Meteorological Events (SIGMETs)[4] in the Eastern United States during the first half of 2001 as compared to the same period in 2000. This area includes such delay-prone airports as Atlanta, Boston, Kennedy, LaGuardia, Newark, Philadelphia, and Reagan National.

- ✓ None of the major airlines have experienced significant labor disruptions so far this year. This is in contrast to last year, in which one major airline canceled over 24,000 flights[5] due to labor problems. The only labor disruption this year has been the strike at Comair, a Delta Air Lines subsidiary that reduced demand on the system, particularly at the Cincinnati and Orlando airports.

- ✓ The Federal Aviation Administration (FAA) and airline actions over the last year to improve communication, air traffic management, and airspace/airport usage appear to be bearing fruit. Having gone through the worst year on record with respect to delays and cancellations, FAA and the airlines now appear to be working together to avoid some of last year's problems through such efforts as Spring/Summer 2001 and Collaborative Decision Making. The slot lottery at LaGuardia has also played a role in helping ease delays, both in the New York City area as well as nationally.

- ✓ Finally, voluntary actions by several of the major airlines with respect to adjusting their flight schedules and using larger aircraft have helped reduce congestion, and, in turn, delays at several of the major airports. (See pages 9 through 11 for figures illustrating changes in the number of arrival delays, cancellations, and scheduled flights for Atlanta, Dallas/Ft. Worth, and Newark airports over the last 3 years.)

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[4] SIGMETs are reports of any weather patterns that may be deemed hazardous to all aircraft, such as thunderstorms (convective) and snow or ice storms (non-convective). Because of insufficient regional data on non-convective events, our analysis focused only on SIGMETs involving convective weather.

[5] This figure represented approximately 13 percent of all cancellations reported by the 10 major airlines in 2000.

While Progress Has Been Made on Many of DOT's and FAA's Commitments, Much Work Remains

Although the current delay statistics and trends look favorable, we must not be lured into a false sense of security. Any of the previously noted factors could still play a role this year or next in causing a return to a higher number of delays and cancellations, and higher levels of consumer dissatisfaction with the airlines. With this in mind, we would now like to turn to the commitments and what progress has occurred.

DOT and FAA have continued to make progress on many of the remaining action items since the May hearing. The most significant items include the issuance of FAA's Operational Evolution Plan (a set of initiatives and milestones for expanding capacity in the air traffic control system), FAA's Report to Congress on Environmental Review of Airport Improvement Projects, and the airlines' inclusion of the customer service commitment provisions in their contract of carriage—thereby making them legally enforceable. As we emphasized at the last hearing--the key for each of these actions is implementation and execution. By contrast, there are six items for which we feel progress has been either insufficient or action is needed sooner, rather than later.

(1) DOT still lacks a uniform system for tracking the causes of flight delays and cancellations—as first required by AIR-21.[6] While some progress has been made, we had hoped a system would be in place by this summer. We understand that DOT expects additional airlines to participate in the program voluntarily before the end of 2001 and hopes to complete an expedited rulemaking (i.e., mandatory reporting of causal data by all airlines) by September 2002.

(2) Airlines need to notify passengers at the time of booking, without being asked, the prior month's on-time performance for those flights that have been consistently delayed (i.e., 30 minutes or greater) and/or canceled 40 percent or more of the time. None of the airlines, to date, has chosen to adopt this proposal, despite the fact that we have recommended this several times. Although the number of chronically delayed and canceled flights has dropped 62 percent so far this year, nearly 37,000 flights were still consistently delayed. Nevertheless, without Congressional or DOT action (i.e., legislation or regulation) it is unlikely that the airlines will begin reporting such information to passengers.

(3) Airlines also need to clarify to customers their rights when put in an overnight situation due to delays, cancellations, or diversions. Although the

[6] The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (Public Law 106-181, April 5, 2000).

airlines announced they had established a task force to address this issue, consumers have seen no change, and the actions to be taken by the task force have not yet been specified nor have timelines been established.

(4) Although FAA has made progress with respect to the 7 major airspace choke points, the agency needs to set firm milestones and budget parameters for implementing several of the remaining action items, which include establishing an interface between U.S. and Canadian facilities for exchanging radar data. This is important to take full advantage of re-routing traffic through Canadian airspace to lessen congestion in the Great Lakes Corridor. These implementation dates should be incorporated into the performance agreements of accountable FAA managers.

(5) FAA needs to finalize budget and plans for Free Flight Phase 2, and address how Free Flight Phases 1 and 2 will be integrated and linked with satellite-based systems, which can provide precision landing capability and improve a pilot's situational awareness.[7] Taken together, these initiatives represent multi-billion dollar investments.

(6) Airport runway projects are in various stages of progress. Responses from the various airport authorities (see pages 7 and 8) provided a wide range of information as to challenges to meeting estimated completion dates. FAA has initiated an effort, known as the Runway Template Action Plan, to track runway milestones for the 14 planned new runways. This plan is intended to assign responsibility and establish a climate of accountability for FAA, airports, and airlines. Detroit, which FAA ranked as the 15th most delayed airport in 2000, is scheduled to complete a new runway this year. Concerns expressed by airport officials include FAA's need to ensure navigational aid equipment is in place and operational, as well as, appropriate funding is provided for these navigational aids. Nevertheless, FAA and airport officials expect the runway to be completed by November or December 2001. FAA needs to carefully track all runway projects to monitor timeframes and estimated costs because of their vital interest and nature.

In addition to monitoring actions by FAA and DOT, we committed to three additional actions. Since the last hearing, we have developed a baseline of the 14 currently proposed runway projects, examined the voluntary actions some airlines have taken to reduce delays, and developed a list of demand management options that we are reviewing. Runway construction and demand management actions, however, will not provide relief this summer. Each of these commitments will be fully examined in longer-term analysis and review, and will result in two reports on airline delays that we will issue later this year.

[7] New satellite-based systems include the Local Area Augmentation System (LAAS) and Automatic Dependent Surveillance-Broadcast (ADS-B).

AIRPORT RESPONSES TO OIG SURVEY OF NEW RUNWAY PROJECTS
(Ordered by Estimated Completion Date)

Airport	Estimated Completion Date	Phase	Cost Estimate (Millions)[8]	Challenges to Timely Completion (as provided by the airport)
Detroit	2001	Construction	$224	✓ Timely delivery of NAVAIDs. ✓ Removal, relocation, and installation of new electrical and communication utilities. ✓ Grading requirements not identified in the contract schedule. ✓ Conduct of runway instrumentation tune-up and flight check.
Miami	2003	Construction	$213	✓ None cited.
Orlando	2003	Construction	$203	✓ None cited.
Houston	2003	Construction	$257	✓ None cited.
Denver	2003	Construction	$166	✓ Obtaining and installing the paving and lighting project components is contingent upon FAA funding approval. ✓ FAA follow through on commitments to fund, design, and install NAVAIDs.
Minneapolis	2003	Construction	$528	✓ Cooperation among Federal and state permitting and approval agencies. ✓ Inclement weather delays. ✓ Contractor ability to carry large bonds and reliability in completing existing contracts on time due to accidents, labor actions, work force availability, and material shortages.
Charlotte	2003	Construction	$161	✓ Obtaining sufficient Federal funding to retire debt from runway land acquisition.
Atlanta	2005	Environmental	$1,100	✓ Obtaining fill material for both runways. ✓ FAA issuance of the 9,000 foot runway Record of Decision. ✓ Corps of Engineers 404 (wetlands) permit modification. ✓ Local authorities relocation of existing road, utilities, and NAVAIDs. ✓ FAA funding and installation of NAVAIDs. ✓ FHWA and Georgia DOT design of runway support structures for the runway portion that extends over I-285.
Boston	2005	Environmental	$76	✓ Public and political opposition, including lawsuits from opposing groups and organizations. ✓ Lengthy EIS process.
Cincinnati	2005	Environmental	$233	✓ Construction beginning by March 2002. ✓ Timely land acquisition.
St. Louis	2005/06	Construction	$1,109	✓ None cited.

[8] Estimates were provided by airport authorities.

Airport Responses to OIG Survey of New Runway Projects
(Ordered by Estimated Completion Date)

Airport	Estimated Completion Date	Phase	Cost Estimate (Millions)	Challenges to Timely Completion (as provided by the airport)
Seattle	2006	Environmental	$773	✓ Issuance of the Washington State Department of Ecology's 401 Water Quality Certificate and the U.S. Army Corps of Engineers 404 (wetlands) permit. ✓ Pending citizen lawsuits. ✓ Competing demands on FAA funding, equipment, and personnel.
Dulles	2007	Planning	$252	✓ None cited.
Dallas/ Fort Worth	2007/2008	Planning	$361	✓ Timely completion of the EIS and adoption of a rigorous project schedule.
		TOTAL	**$5,656**	

ALANTA: NUMBER OF ARRIVAL DELAYS, CANCELLATIONS, AND SCHEDULED FLIGHTS

(BTS Data from 10 Major Airlines)

Figure 1: Atlanta's Arrival Delays (1999, 2000, and 2001)

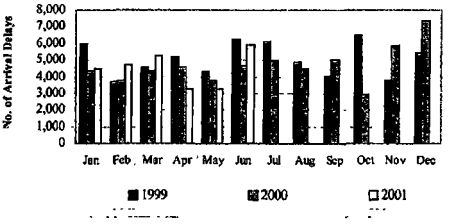


Figure 2: Atlanta's Cancellations (1999, 2000, and 2001)

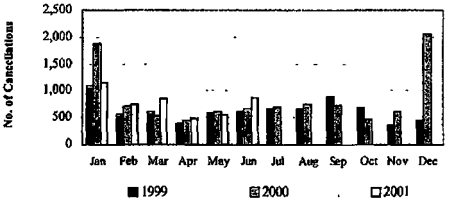
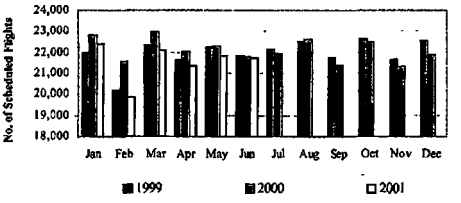


Figure 3: Atlanta's Scheduled Flights (1999, 2000, and 2001)



DALLAS/FT. WORTH: NUMBER OF ARRIVAL DELAYS, CANCELLATIONS, AND SCHEDULED FLIGHTS

(BTS Data from 10 Major Airlines)

Figure 1: Dallas/Ft. Worth's Arrival Delays (1999, 2000, and 2001)

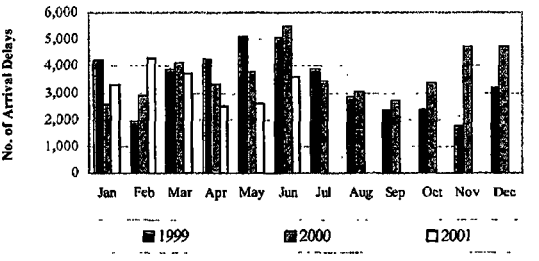


Figure 2: Dallas/Ft. Worth's Cancellations (1999, 2000, and 2001)

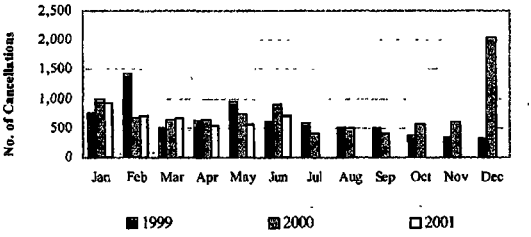
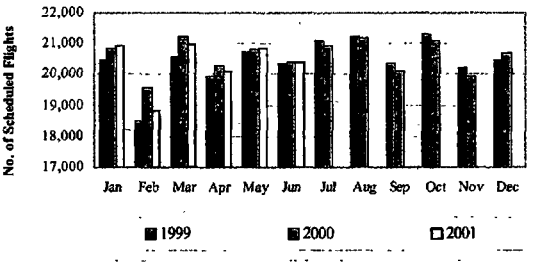


Figure 3: Dallas/Ft. Worth's Scheduled Flights (1999, 2000, and 2001)



NEWARK: NUMBER OF ARRIVAL DELAYS, CANCELLATIONS, AND SCHEDULED FLIGHTS
(BTS Data from 10 Major Airlines)

Figure 1: Newark's Arrival Delays (1999, 2000, and 2001)

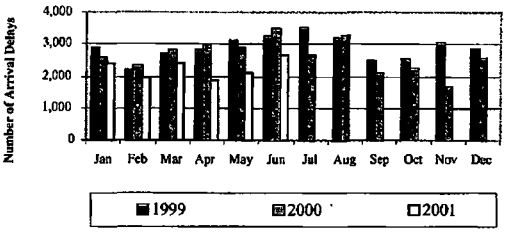


Figure 2: Newark's Cancellations (1999, 2000, and 2001)

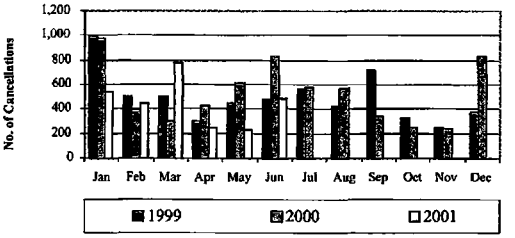
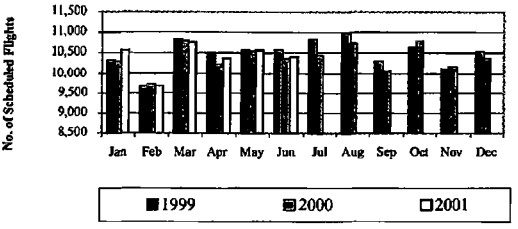


Figure 3: Newark's Scheduled Flights (1999, 2000, and 2001)



The following includes a brief summary of each commitment and progress that has occurred.

1. **Monitor DOT's progress in establishing a uniform system for tracking the causes of flight delays and cancellations.**

Done:

- On March 28, 2001, Administrator Garvey announced before this Committee that FAA would adopt the Department's current definition of a delayed flight—as one arriving 15 minutes or more after the scheduled arrival time.
- All four air carriers that volunteered to participate in the delay reporting pilot program have submitted causal data for flight delays and cancellations occurring in February 2001.
- Prior reporting discrepancies have been resolved and all four air carriers have agreed to submit additional causal data (March through June 2001) to permit further system testing and refinement.
- A meeting has been set to extend the causal reporting methodology to the other airlines in DOT's delay reporting system.

Actions Needed:

- Begin voluntary causal reporting by the airlines (without release to the public) by October 2001.
- Begin an expedited rulemaking immediately to require mandatory reporting of the causal data by no later than September 2002.
- Begin releasing the voluntarily reported causal data to the public beginning January 2002.
- Airlines should notify air travelers before they book their flights if they are purchasing a ticket on a chronically delayed or cancelled flight, that is, one that has been cancelled and/or delayed at least 40 percent of the time in the prior month.

2. **Track airline voluntary actions, such as dispersal of flights from hubs to smaller airports, to help reduce flight congestion and delays.**

Done:

- BTS performed an analysis of the OAG flight schedules for all carriers (majors, nationals, regionals, commuters, and small air carriers) for the period April through June 2000 and 2001, to determine what changes in air carrier schedules have occurred and how they may have contributed to the reduction in flight delays so far this year.

- American reduced the size of peak operations periods at Dallas/Fort Worth by slowing its arrival and departure rates and providing more connecting time between flights. (See Figures 6 and 7.)

Figure 6: American's Scheduled Arrivals at Dallas
(6/5/00 vs. 6/4/01)

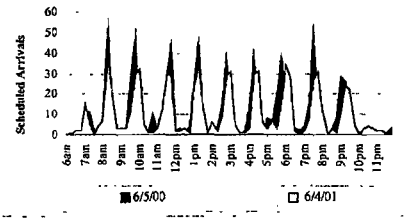
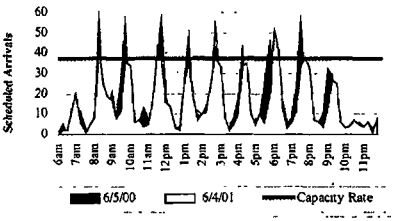


Figure 7: All Airlines Scheduled Arrivals at Dallas
(6/5/00 vs. 6/4/01)



- Delta reduced the size of peak operations periods at Atlanta by increasing the number of departure and arrival banks from 10 to 12. Banks are the clustering of arriving and departing flights into narrow periods of time (e.g., scheduling 15 departures from 7:00 a.m. to 7:15 a.m.). This was done without reducing flight opportunities to its customers because the total number of flights per day has remained the same. (See Figures 8 and 9.)

Figure 8: Delta's Scheduled Departures at Atlanta
(6/12/00 vs. 6/11/01)

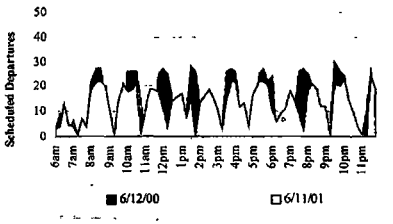
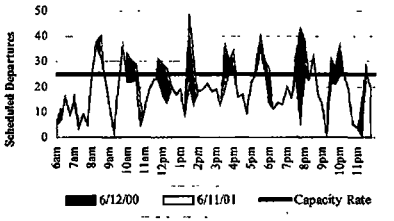


Figure 9: All Airlines Scheduled Departures at Atlanta
(6/12/00 vs. 6/11/01)



- Continental and United have increased the size of aircraft operated at selected delayed airports. For example, our comparison of Official Airline Guide (OAG) data for the months of June 2000 and June 2001 found that United had decreased the number of smaller aircraft (125 seats or less) at San Francisco by 42 percent, while increasing the number of mid-sized aircraft (126 to 150 seats) by 15 percent.

Actions Needed:

- Rescheduling at hub airports by airlines that have not done so on an independent and voluntary basis.
- DOT continue efforts to compare 2001 and 2000 flight schedules of airlines at their hubs to gauge the effects of the airlines' voluntary actions on flight delays and cancellations.
- Beyond the airlines' scheduling practices, another factor that will have a growing impact on airport and airspace usage in the years ahead is the rapid growth in the number of smaller jet aircraft. As the following table illustrates, scheduled flights involving aircraft with 70 passenger seats or fewer grew at a much faster pace than their larger counterparts. While such aircraft provide valued service, especially to smaller communities, unrestrained use at the

10 Major Airlines and Regional Affiliates
No. of Scheduled Flights at the 30 Largest Airports by Aircraft Size (OAG/BTS Data)

Aircraft Size	6/2000	6/2001	% Change
70 Seats or fewer	6,588	9,543	44.9%
71 to 125 Seats	144,148	162,162	12.5%
126 to 250 Seats	496,318	496,474	<1%
250 Seats or greater	25,498	21,699	-14.9%
Total	672,552	689,878	2.6%

larger hub airports creates a number of issues that both the Department and FAA will need to address (e.g., how to balance the needs of communities with little or no air service with growing congestion at the larger airports).

3. **Monitor runway construction at the major airports, including costs and schedule status, to ensure additional capacity is produced within established milestones.**

Done:

- OIG developed an initial baseline of the 14, currently proposed, runway projects, including estimated completion dates, current status, estimated costs, and major challenges to completing runways on time. (See pages 7 and 8.)
- OIG has received responses from all 14 airport authorities concerning runway construction projects. The responses are being coordinated with FAA Headquarters and regional officials to determine their reasonableness.

Actions Needed:

- OIG finalize runway baseline and publish results by this fall.
- Continuous tracking of this baseline by FAA and prompt action to keep runway projects on schedule as risks to meeting planned completion dates are identified.

4. **Analyze administrative and market-based options as short-term measures for managing excess demand at congested airports.**

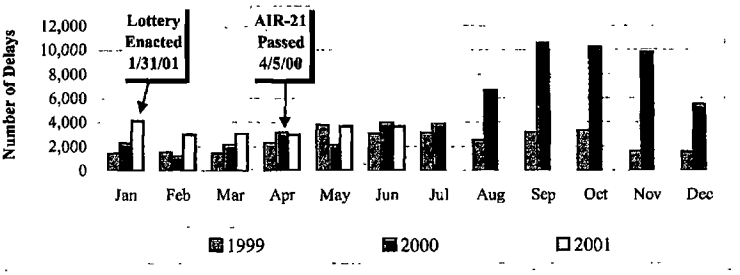
Done:

- OIG developed a list of demand management options that are currently being examined as part of an ongoing study. These options range from administrative actions, such as slot lotteries and anti-trust immunity for scheduling, to market-based solutions, such as congestion pricing and flat landing fees.

- FAA issued a "Notice of Alternative Policy Options for Managing Capacity at LaGuardia Airport and Proposed Extension of the Lottery Allocation" on July 12, 2001. The Notice, published in the *Federal Register*, discusses both market-based and administrative options and proposes the temporary extension of the current lottery allocation to October 26, 2002.

As Figure 10 illustrates, with passage of AIR-21 and the resulting increase in scheduled flight operations at LaGuardia, delays rose dramatically, especially from August to December 2000. With enactment of the lottery program on January 31, 2001, delays—although generally higher than monthly totals in 1999 and 2000—are more in line with those reported by FAA prior to AIR-21.

Figure 10: FAA-Reported Delays at LaGuardia



Actions Needed:

- OIG complete study and publish findings this fall regarding the pros and cons of each demand management option including who benefits and who bears the cost of each option.
- FAA and the Port Authority of New York and New Jersey reach a decision on whether to extend slot lottery at LaGuardia (as proposed by the current Notice) or select some other alternative before the current program expires on September 15, 2001.

5. Monitor FAA's progress towards meeting its six commitments.

Commitment 1: Complete action items pertaining to seven major airspace choke points and measure results.

Done:

- FAA has completed 14 of the 21 action items designed to reduce the effect on air traffic of the 7 major airspace choke points, all of which are

east of the Mississippi River. As part of this effort, eight new air traffic control sectors have been established thus far. FAA expects to establish a total of 19 new sectors for the 7 major choke points by June 2002.

- FAA has entered into a memorandum of understanding with the controllers' union regarding airspace redesign. The agreement outlines the general ground rules for working through airspace redesign issues and safeguards controller pay from changes if the airspace redesign effort lowers a facility's traffic level.

Actions Needed:

- Complete the development of metrics for assessing the impacts and benefits of choke point initiatives by the end of September 2001.
- Complete the following items by the planned date of December 31, 2001, and incorporate the completion dates in the performance standards of the accountable FAA managers.
  1. Flip flop the "Yardley" and "Robbinsville" sectors to increase the flow rate for traffic that affects the New York Center.
  2. Smooth traffic flows in the Great Lakes Corridor.
  3. Reduce the window for the expected Departure Clearance Time during Ground Delay Programs with the goal to minimize the use of multiple restrictions on the same flight.

- Complete these remaining action items by the planned date of June 30, 2002, and incorporate the completion dates in the performance standards of the accountable FAA managers.

  1. Establish a Coordinator position in the "Liberty West" sector to help coordinate traffic flows in the New York area. An implementation date has not yet been established.
  2. Create an automation interface for radar data between the Cleveland and Toronto Centers. An implementation date has not yet been established.
  3. Design and establish 19 sectors at various locations. To date, eight sectors have been established.
  4. Develop new procedures for the Chicago tower, TRACON, and Center that provide alternate flight paths around bad weather and congestion without controller guidance. The first phase of this effort is complete, but implementation dates for the next two phases have not been established.

Commitment 2: Use capacity benchmarks to identify areas for improvement (i.e., action plan) at the 10 most delayed airports.

Done:

- FAA completed capacity benchmarks for 31 major airports.

- FAA developed action plans for the eight most delayed airports, which accounted for 75 percent of FAA-tracked delays in 2000.[9]
- FAA issued a notice on July 12, 2001 requesting comments on various administrative and market-based options for managing capacity at LaGuardia.

Actions Needed:

- FAA, the airlines, and the airports need to ensure that milestones are established for the vital capacity enhancement projects at the eight most delayed airports and that those milestones are met.
- These eight airports, with the exception of Atlanta, project insufficient capacity growth to keep up with the projected growth in demand over the next 10 years; therefore, delays are apt to grow at these airports rather than decrease. FAA, the airlines, and the airports need to devise additional capacity-enhancing projects for these airports to avoid the need to employ demand management techniques.
- DOT and FAA need to determine what administrative and/or market-based options are appropriate and economically efficient for managing excess demand at those airports experiencing high levels of congestion

[9] In ranking the 31 airports by the percent of Operations Network (OPSNET) delays per 1,000 flight operations in 2000, FAA selected 3 percent as the cut off point for determining those airports for which action plans would be developed. These included LaGuardia (15.6%), Newark (8.1%), Chicago (6.3%), San Francisco (5.7%), Boston (4.8%), Philadelphia (4.4%), Kennedy (3.9%), and Atlanta (3.1%). Some of the airports not making the cut included: Houston (2.8%), Dallas/Ft. Worth (2.4%), Phoenix (2.2%) and Los Angeles (2.2%).

and delays and for which capacity-enhancing projects are unlikely to satisfy current or projected demand (e.g., LaGuardia).

- FAA establish procedures for keeping capacity benchmarks for the major airports current.

Commitment 3: Ensure air traffic control modernization efforts under Free Flight Phase 1 (FFP1) and Free Flight Phase 2 (FFP2) remain on schedule.

Done:

- FAA continues to make progress in implementing elements of FFP1. New information-exchange systems (Collaborative Decision Making and Surface Movement Advisor) are largely in place, and new automated controller tools—User Request Evaluation Tool and Center-TRACON Automation System—are in use at a small number of air traffic control facilities.
- Preliminary results indicate that FFP1 will provide modest improvements in capacity, though the benefits will vary by location.

Actions Needed:

- FAA has significant work remaining to complete the development and deployment of the new automated controller tools, which account for over 80 percent of the FFP1 investment.

- FAA needs to finalize and publish the FFP2 plan, which includes conducting human factors assessments, developing a risk mitigation strategy, and finalizing costs for Controller-Pilot Data Link Communications.

Commitment 4: Reach agreement with airlines and airports on near-term, mid-term, and long-term actions for increasing capacity in the National Airspace System (NAS), as outlined in the National Operational Evolution Plan.

Done:

- FAA released its Operational Evolution Plan on June 5, 2001, which outlines the actions—new runways, new technologies, airspace redesign, and new procedures—needed over the next 10 years to enhance capacity. In addition, FAA named the former Director of FFP1 to lead the implementation of the plan.

Actions Needed:

- Implement and execute the plan and hold FAA managers accountable for meeting the plan's milestones in their performance standards.

- Develop a clear strategy for how the wide range of FAA programs (such as FFP1, FFP2, and satellite navigation efforts) will be linked together and managed.
- Develop metrics for assessing capacity benefits and an approach for reporting benefits, progress to date, and user equipage rates on a periodic basis.
- Conduct an assessment of programmatic interdependencies to identify critical path issues that could impede the plan's implementation.

Commitment 5: Streamline Federal, state, and local procedures for approving enhancements to airport capacity.

Done:

- On May 18, 2001, FAA issued its Report to Congress on Environmental Review of Airport Improvement Projects. As required by AIR-21, FAA conducted a study of Federal environmental requirements related to the planning and approving of airport improvement projects. The report included six initiatives approved by the FAA Administrator "to provide real progress towards reducing environmental review timelines."
- FAA issued its Guide to the Best Practices for Environmental Impact Statement (EIS) Management in July 2001, which included management

techniques, approaches, and actions that can make the environmental process more streamlined and efficient.

- FAA continues to implement other initiatives to improve the timeliness of environmental reviews. These initiatives include: (1) establishing EIS teams for each new EIS for a major runway project; (2) dedicating more FAA staff to environmental reviews; (3) maximizing consultant resources to perform EIS tasks; (4) increasing the number of projects that are excluded from detailed environmental review; and (5) improving Federal and state interagency coordination during environmental reviews.

Actions Needed:

- In its Report to Congress, FAA identified 10 sequential steps in the EIS process with only 2 of those steps having benchmarks (expressed in days) as required by law. For the remaining 8 steps, FAA should establish benchmarks (also expressed in days) for when each step could realistically be completed.
- Monitor and evaluate the effectiveness of the six initiatives designed to streamline the EIS process. In doing so, FAA should identify objectives, goals, and outcomes for measuring the effectiveness of each of the six initiatives currently being implemented.
- Finalize FAA Order 1050.1E, Environmental Impact: Policies and Procedures incorporating policies and procedures for implementing

FAA's initiative to streamline the environmental process to use more categorical exclusions,[10] and to shorten and streamline environmental assessments, environmental impact statements, and findings of no significant environmental impact.

- FAA needs to strengthen its Guide to the Best Practices for Environmental Impact Statement Management by including specific management techniques, approaches, procedures, and tools that proved successful or unsuccessful in the EIS process for major runway projects. One suggestion would be to provide an example of the EIS process for an actual major runway project identifying what practices in each step of the process worked well, needed improving, or did not work well.

Commitment 6: Develop standard DOT definition for tracking and reporting flight delays.

Done:

- DOT and FAA have agreed upon a standard definition for a flight delay.
- Starting in May 2001, BTS began publishing on its web site changes in scheduled times for flights between the largest airports.

[10] Categorical exclusions apply to actions that do not individually or cumulatively have significant effects on the environment and for which neither environmental assessments nor environmental impact statements are required.

Actions Needed:

- DOT and FAA set a deadline for completing the work on a set of measures to gauge and track the inefficiencies of the air traffic system already built into airline schedules.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions you might have.

Kenneth M. Mead
Inspector General
Department of Transportation

Mr. Mead has served as the Department of Transportation (DOT) Inspector General since being confirmed by the U. S. Senate in May 1997. His office is responsible for conducting audits and evaluations to improve the effectiveness and efficiency of DOT programs and operations. The Inspector General also has authority to conduct investigations into fraud, waste, and abuse associated with DOT activities.

Hallmarks of Mr. Mead's tenure include audits on aviation delays and cancellations, airline customer service, air traffic control modernization and system capacity, and aviation safety issues such as runway incursions and operational errors. Other important audits have covered: motor carrier safety, mega construction projects (such as the Boston Central Artery/Ted Williams Tunnel project and the Woodrow Wilson Bridge), Amtrak's efforts to become financially self-sustaining; and Departmental computer security. Mr. Mead's office also performs the annual audit of the DOT financial statements. Working with DOT, Mr. Mead's office supported improvements in DOT's financial management, resulting in the first ever clean opinion on the Department's consolidated financial statements. Recently, Mr. Mead's office issued an audit on the DOT rulemaking process, which audit found that despite agency efforts to improve the timeliness of its rulemakings, the Department is actually falling further behind in meeting Congressional due dates for important safety regulations.

Under Mr. Mead's leadership, the Office of Inspector General investigative team has increased emphasis on the prosecution of cases involving illegal transport and mishandling of hazardous materials, trafficking in unapproved aircraft parts, falsification of truck drivers' duty logs, and contractor fraud in Federally-funded construction and modernization projects.

Prior to becoming Inspector General, Mr. Mead served with the U.S. General Accounting Office for 22 years. He rose to be Deputy Assistant Comptroller General for Policy after serving several years as Director of Transportation and Telecommunications Issues. Mr. Mead received GAO's Distinguished Service Award and the rank of Meritorious Executive in the Senior Executive Service.

Mr. Mead received his baccalaureate degree from Southern Connecticut University and his Juris Doctor degree from the University of South Carolina.
A veteran, Mr. Mead served in the U.S. Naval Submarine Service.

Mr. ROGERS. Thank you. We will be coming back to you on those points and others.

Mr. Merlis.

Mr. MERLIS. Thank you, Mr. Chairman. I appreciate the opportunity to be back here and to review the progress we have made since the last hearing was held.

I think it is important to note first off that your persistence is paying off. As compared to year earlier figures, as you have heard from the previous witnesses, delays are down, customer complaints are down, mishandled baggage is down, and on-time performance is up, so this exercise has great value.

COMMITMENTS AND PROGRESS

With respect to the commitments that I made, I would like to review those briefly. My written statement has some greater detail, and I would be happy to respond to questions.

Insofar as our first commitment both the Deputy Secretary and the Administrator commented on how the results of the every two hour conference calls out at Herndon have provided us some benefits. DOT's data shows that the on-time performance for April increased 3.9 percent over 2000 and that for May it increased 7.2 percent over 2000, flight cancellations were down in both of those months, and overall year to date delays were somewhere near ten percent lower.

I think that as the previous witnesses observed, the relatively good weather has helped. It is very important to note that our ability to handle delays on days with adverse weather is what has really improved. We provide a higher degree of service on the days when there is adverse weather and we have to cancel flights or delay flights, and it is because of the communication system between the carriers and the FAA that has been put into place.

This manifests itself when you take a look at the complaint level because the complaint level is down greater than the delay level is down, which means we must be doing something a little bit better.

One thing that could help, as we have mentioned before, is if the Congress passed this antitrust authority that has been proposed and reported out of the Transportation and Infrastructure Committee. I think it is important to add to that bill a provision which is not there, that gives us the opportunity on days with weather delays to coordinate the schedules between the airlines so that we can serve the maximum number of passengers.

There is a value, of course, to doing it for the basic schedule, but if we want to provide the most service for people on the days when we do have delays or cancellations due to weather there is a necessity to ensure that we can still talk to one another to make sure that we do not adversely impact all the people going to a particular destination from a particular city.

Mr. ROGERS. If I may interrupt briefly? This subcommittee had intended to place in our bill authorizing language which would have granted antitrust immunity so that airlines could talk to each other through the Department about crises and delays. The author-

izing committee, the Judiciary, said no, we will handle it. We said okay, we will see.

Mr. MERLIS. Sir, if I may comment, I do not think that in what they have reported it deals with the issue I have addressed, which is how do we deal with coordinating schedules on days with weather delays. They have not addressed that issue, and I think that would provide greater service than any other part of the antitrust scheduling bill would provide.

Mr. ROGERS. Well, we are not through with it. This subcommittee is not through with that topic yet.

Mr. MERLIS. Very good, sir.

Mr. ROGERS. I hope the Judiciary Committee acts and does its job the way it should be done, but we will continue to reserve the right to have a conversation about that later in the year.

Mr. MERLIS. We will support you on that, sir.

With respect to Item No. 2, we continue to provide the data to DOT. As the previous witnesses indicated, that process will soon result in some sort of requirement or rule making, which, as I indicated previously, the industry will comply with. We think it is very useful that we have a consistency in the reporting.

DELAY DATA AVAILABILITY TO CUSTOMERS

No. 3 is the issue involving transfer of data from the FAA's information into carrier systems used to inform customers. As I indicated last time, a number of carriers have installed systems at airports, among them American, Delta, Northwest and United. They have installed some costly technology in order to bring this information to the customers at the gate. Now all ATA (air transport association) member carriers provide the flight data on their websites when there are delays, and that is one of the 17 additional customer service commitments to which our members agreed to undertake a few months ago.

Additionally, we put together an airline/airport FAA task force to address the issue since some airport display monitors are not fed data automatically from airline operation centers. Airlines and airports need to review the process, which is in process now, and coordinate their efforts to obtain and post the data. Airport and airline managers will address this at the local level because as each airline obtains the data, it has to provide it to a key person in the airport who posts that information.

We have a process that has begun, and I hope that we will complete this within the next 60 to 90 days and that subsequently a higher degree of accurate information will be available at the airports.

Mr. ROGERS. I heard a promise. I thought a heard a promise.

Mr. MERLIS. Sir, I did say we want to complete this within 60 to 90 days.

Mr. ROGERS. Sixty to 90 days. Complete?

Mr. MERLIS. The process of identifying how we get information fed from the carriers to those airport display systems which are under the control of the airport, not the airline.

Mr. ROGERS. That is a new commitment, a new promise.

Mr. MERLIS. Sir, I think it is the same one I already did, but gives a concrete time table to one we already did.

Mr. ROGERS. Yes. All right. Please proceed.
Mr. MERLIS. Okay.
Mr. ROGERS. That goes on the board, by the way.

CAPACITY EXPANSION PROJECTS

Mr. MERLIS. Okay. The fourth item that I identified was working with the airport community to identify capacity expansion projects. We have been deeply engaged in this activity, particularly at the 14 airports identified that in the March 15 statement, as the industry's highest priority. Our members are in regular discussions with those airports about expansion requirements and determining how to undertake them, how to finance them and what is the best way to address these expansions.

Specifically, though, we at ATA have been involved in efforts to increase the utilization of Newburgh and Westchester County Airports in order to mitigate delays in New York City. We have been involved in the building of the new runway at Boston Logan, being as supportive as possible to Massport, trying to overcome the local hurdles to that.

We have been working with the mayor of Chicago in efforts to obtain the new runways that he has proposed for Chicago O'Hare Airport, including people on our staff testifying at state hearings. We have endorsed Mr. Lipinksi's bill, and we are trying to help him in getting co-sponsors for this legislation, which will overcome some of the obstacles that exist to the building of the O'Hare Airport expansion.

We have been involved in the new runway at San Francisco, having agreed with Mayor Brown to put together an advocacy group, which we will participate in to try to overcome the local community hurdles to that. With respect to Minneapolis-St. Paul and the issue of the low frequency noise, we have been engaged with the airport in finding ways to address it and overcome that problem, too.

Lastly, these are specifically ATA staff, not the members who could identify many more activities in which they are engaged. We have been working with the regional coalition that has been put together by communities and members of the Congress from southern California who are looking at a regional fix to the congestion problems at airports in southern California. These will be ongoing activities because that is the nature of airport construction. We need to find a way to get these things done faster, and hopefully our efforts and our members' efforts will help in that regard.

AIRLINE SCHEDULE CHANGES

Insofar as the fifth item goes, at the last hearing we reported that was accomplished so I will go on to something which while it is not on the board at the last hearing you did indicate that we should work towards efforts to deal with the issue of the capacity benchmarks and over scheduling at airports.

What I would like to do is report on some of the activities the carriers have undertaken. Previously, as you know, we reported on American's activity at Dallas-Fort Worth, the rebanking of flights at Atlanta by Delta Airlines and Continental's unilateral rearrangement of its peaks at Newark.

Also in response to your question about using other airports, Northwest, Southwest and U.S. Airways have increased service to less congested airports, Manchester, Portland and Providence, in order to try to reduce some of the congestion at Boston. Oakland is being used more than San Francisco in fact. Southwest Airlines has pulled down all its service into San Francisco and is using Oakland as an alternative. White Plains, Newburgh and Islip are three of the non-congested New York City airports where some of our members have increased service.

The results of these activities to date appear to be somewhat positive. American's on-time performance at Dallas-Fort Worth was 85 percent in May. Continental's Newark de-peaking resulted in its May systemwide on-time performance reaching 86.1 percent, which was the highest of any major airline, and Delta's May Atlanta on-time performance was 83 percent.

One of the more dramatic improvements has occurred at San Francisco International Airport where United's major schedule refinement, through the reduction of 245 flights a week and the increasing of the size of the equipment it is using, has resulted in United's May San Francisco performance, on-time performance, hitting 85.2 percent, which is the highest of its four hubs.

Additionally, San Francisco went from being the most delay plagued airport in a country with 38.9 percent of its flights delayed in the first half of 2000 to having a ten percent drop to 29 percent delay in the first half of 2001.

One thing that United points out is that while it has cut 245 flights at San Francisco, but other airlines have now come in behind, so the full benefit of its reduction is not being felt at San Francisco Airport, though the benefit to United's schedule is being felt.

US Airways has undertaken a review to ensure that all of its hubs operate within the FAA capacity benchmarks, and so Charlotte, Philadelphia and Pittsburgh no longer exceed the benchmarks insofar as US Airway's schedule is concerned.

Additionally, in the June schedule US Airways restructured its arrival and departure times at Philadelphia so that they do not get what is called cross traffic; that is, periods of the day when inbound flights enter the terminal area at the same time as the outbound flights are leaving the gates and crossing each other on the way causing additional problems.

US Airways has also now taken delivery of 22 new 169 seat A–321 aircraft, which they are using these larger aircraft to reduce flight schedules in some of the congested markets by putting more people on fewer flights.

Other carriers have undertaken similar kinds of refinements, but these are some of the concrete ones that I am able to identify at this point and want to be in a position on a regular basis to keep you apprised of these changes.

With that, I will be happy to respond to any questions, sir.

[The prepared statement and biography of Edward Merlis follows:]

Statement of Edward A. Merlis, Senior Vice President
Air Transport Association of America
Before the Subcommittee on Transportation,
Committee on Appropriations
House of Representatives Hearing on
Air Traffic Delays
August 2, 2001

Good morning, Mr. Chairman and members of the subcommittee. I am Edward Merlis, Senior Vice President of the Air Transport Association of America (ATA).[1] I appreciate the opportunity to report on steps the airlines are taking to combat delays.

At the time of the subcommittee's hearing on March 15, each witness was asked to commit to undertaking five steps to help alleviate the problems facing the traveling public. At the last hearing, on May 10, I reported on our accomplishments to date. I would like to review each of those steps to which I committed and report on our further efforts to fulfill our commitments.

First, Mr. Chairman, let me note that your persistence is paying off.

As compared with year earlier comparable months, for 2001

Delays are down
Customer complaints are down
Mishandled baggage is down, and
On-time performance is up.

1. We committed to better utilizing the products of the Herndon Command Center conference calls to address the daily schedule so that we can identify places where delays may be occurring and take steps to reduce inconvenience to our customers.

In May I noted that the preliminary delay data suggested that the program was working better than it had in 2000. Now that three months have elapsed, for which data has been reported for two months, we know that is the case. For example DOT data shows that on-time performance for April increased 3.9% over 2000 and on-time performance for May increased 7.2% over 2000. Additionally, flight cancellations decreased by .3 percent in April and were almost halved in May to 1.8 percent of flights.

Overall year to date figures indicate that delays are down 10%.

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[1] ATA member airlines include: Airborne Express, Alaska Airlines, Aloha Airlines, America West Airlines, American Airlines, American Trans Air, Atlas Air, Continental Airlines, Delta Air Lines, DHL Airways, Emery Worldwide, Evergreen International Airlines, FedEx, Hawaiian Airlines, Midwest Express Airlines, Northwest Airlines, Polar Air Cargo, Southwest Airlines, United Airlines, United Parcel Service Airlines, and US Airways. Associate members include: Aeromexico, Air Canada, KLM Royal Dutch Airlines, and Mexicana.

While the relatively good weather has helped, it is important to note that our ability to handle delays on days with adverse weather has improved significantly. Not surprisingly, this reduction in delays has been accompanied by a dramatic reduction in complaints. According to DOT data, complaints are down in excess of 20% since the first of the year, compared to last year, and specifically down in April and May. April's complaints were 81% of last year's level and May's complaints were down to 797, 60% of the number chalked up in the corresponding month in 2000.

2. Subject to approval by DOT, put in place the recommendations of the DOT delay reporting advisory committee so that we have a common system by which we inform customers of the reasons for delay and address them.

Mr. Chairman with respect to this item our carriers continue to submit data to DOT for the pilot program established Pursuant to Section 227 of AIR-21. As I previously noted all ATA member carriers subject to these reporting requirements will comply with whatever rules DOT develops and issues. It is unclear to us how much more data and time DOT requires prior to issuing new guidance, but we remain committed to providing the assistance and cooperation DOT needs.

3. Pursue the transfer of delay data from the FAA's database into carrier systems used to inform customers.

Mr. Chairman, when I last appeared before you I identified a number of initiatives that carriers had undertaken to accomplish this goal. Several airlines, among them American, Delta, Northwest, and United have installed the costly technology required to provide this information at the gate. Also, all ATA member carriers now provide flight data on their websites. This is one of the 17 additional customer service commitments, which the ATA member carriers agreed to undertake a few months ago.

Additionally, we put together an airline - airport – FAA task force to address this issue since some airport display monitors are not automatically fed data from airline operations systems.

The Task Force issued its recommendations just a few days ago. The Task Force recommended that airlines and airports undertake a review of all stations and classify the display monitors into three categories.

Those with direct feeds from airline operations systems.
Those without direct feeds requiring manual updates from the airline, and
Those without direct feeds requiring manual update from the airport.

Airlines and airports will review and coordinate efforts outlined in the recommendations of the Task Force. Airport and airline managers will address these efforts at the local level, at each individual airport. I would hope that this process is completed within the next 60 to 90 days.

4. Work with the airport community to identify capacity expansion projects that have the goal of reducing delays and work with the airport community to find ways to fulfill those.

We have been deeply engaged in this activity particularly at a number of the fourteen airports I identified, at the March 15 hearing, as the industry's highest priority targets.

In addition to our members discussing expansion requirements with the airports, ATA has been participating in a number of efforts to facilitate airport utilization, expansion, and delay mitigation including:

Utilization of Newburgh and Westchester County Airports, in order to mitigate delays in New York,

Building a new runway Boston Logan International Airport,

Building new runways at Chicago O'Hare Airport, including testifying at a state legislative hearing and endorsing Mr. Lipinski's bill H.R. 2107,

Building a new runway at San Francisco International Airport,

Increasing capacity at Minneapolis St. Paul Airport, and

Assisting the regional coalition organized by communities and members of Congress to bring about expansion in Southern California.

It is too early to tell what the results of these efforts will be, but if we can create the community support to move these projects forward, we will be making a real contribution to delay mitigation.

5. We will petition the DOT to reconsider the denied boarding compensation rules to better accommodate passengers who are bumped.

As previously reported we petitioned the Department of Transportation to review the federal rules governing the compensation due to passengers bumped from oversold flights. Part 250 of the Department's Economic Regulations, 14 C.F.R. Part 250, creates the denied boarding regime for the airline industry. This regulatory system has existed for nearly four decades, and balances the rights of ticket-holding passengers with the need of air carriers to minimize the adverse consequences of "no-show" passengers.

The Department has not yet issued a notice of proposed rulemaking, but ATA's members stand ready to participate constructively in the rule making process.

Mr. Chairman, at the May hearing you asked that I also report on airlines' efforts to solve the overscheduling problem.

Overscheduling is a somewhat difficult issue to define because if we define overscheduling as flights in excess of the FAA's recently announced airport benchmarks, we run the risk of removing from the schedule a large number of flights that apparently do not contribute to delays. To be specific about this, I have attached a chart contrasting delays against the capacity benchmarks. As you can see, there are about a dozen airports that do not exceed the benchmarks, yet have average delays ranging from three minutes to about 8.5 minutes. Among these airports are the following: HNL, LAS, BWI, DFW, MEM, MIA, MCA, TPA, SLC, PIT, DEN, DTW, and CLT. So at these airports, reducing arrivals and departures may not have any meaningful impact on delays, since existing arrivals and departures are already at or below airport capacity.

The carriers are focusing efforts on unilateral actions they can take to reduce congestion.

To review some of the activities noted at the May hearing:

American Airlines has rearranged its DFW schedule to reduce the peaks it imposes; even though those peaks do not exceed airport capacity.

Continental has unilaterally rearranged its peaks at Newark.

Delta has increased the number of connecting complexes at ATL, and has reduced the maximum number of flights in each connecting complex.

A number of carriers, including Northwest, Southwest, and US Airways have increased service to less congested airports such as Manchester, Providence and Portland, instead of Boston, Oakland, instead of San Francisco, and White Plains, Newburgh and Islip instead of the three congested Port Authority airports.

The results from some of these efforts appear to be very positive. For example, American's on-time performance at DFW was 85.5 % in May, Continental's EWR de-peaking resulted in its May system-wide, on-time performance reaching 86.1% -- the highest of any major carrier, and Delta's May ATL on-time performance was 83%.

One of the more dramatic improvements has occurred at San Francisco International Airport where United's major schedule refinement through increasing the size of aircraft and removal of 245 flights per week resulted in United's May SFO performance reaching 85.2%, the best of all four of its hubs. Additionally, SFO went from being the most delay plagued airport, with 38.9% of its flights delayed in the first half of 2000, to 28.8 % being delayed in the first half of 2001. While there is obviously still room for improvement, United's San Francisco initiative has resulted in the most significant percentage decline in delays among the leading airports.

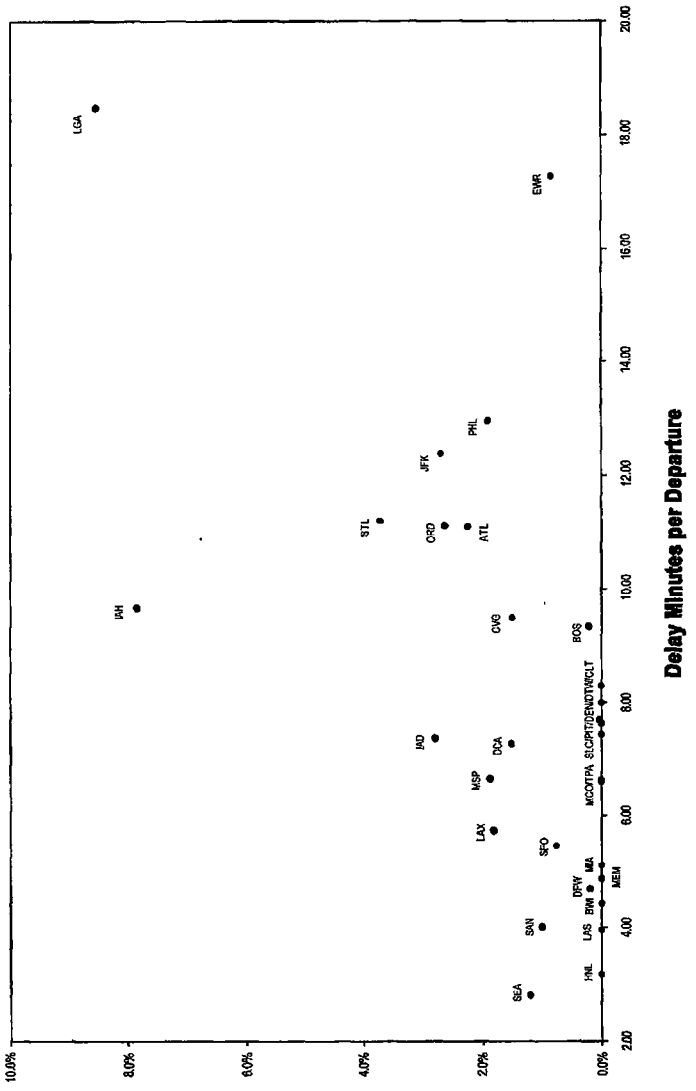
US Airways has undertaken a review to ensure that all its scheduled flights at its hubs, Charlotte, Philadelphia, and Pittsburgh, fit within the FAA Capacity Benchmarks. Additionally, effective with the June 2001 schedule, US Airway restructured its

Philadelphia arrival and departure stream to reduce delays due to "cross-traffic" – periods of the day when inbound flights enter the terminal area at the same time outbound flights are leaving gates.

US Airways has also taken delivery of 22 A-321 aircraft, each with 169 seats, and is using these larger capacity aircraft to reduce flight frequencies in some congested markets.

Other carriers have similarly undertaken these kinds of refinements, and I would be pleased to provide you with additional information as we receive it.

Mr. Chairman, that concludes my prepared statement. I would be pleased to respond to the questions you or other members of the subcommittee may have.


DELAYS VS. SCHEDULING
Good Weather: September 2000
10.0%
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PIT
SLC
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DTW
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CLT

BIOGRAPHICAL SKETCH

Edward A. Merlis
Senior Vice President - Legislative and International Affairs
Air Transport Association of America

Edward Merlis is Senior Vice President - Legislative and International Affairs of the Air Transport Association of America. In this capacity he oversees ATA's Federal, state and international legislative and executive branch advocacy, and ATA's airport and energy activities. Mr. Merlis has also served in a number of other capacities at ATA, including Senior Vice President - Government Affairs, Senior Vice President - Federal Affairs and Airports, and Senior Vice President - External Affairs. He joined ATA in March 1990 as vice president, policy and planning, after working for a number of trade associations and corporations in public policy positions.

Previously, Mr. Merlis worked for nine years on the staffs of several committees of the United States Senate, including serving as staff director of the Senate Committee on Commerce, Science, and Transportation during committee consideration of the Airline Deregulation Act of 1978.

He is a graduate of Columbia and has done graduate work at both Columbia and The George Washington University.

AIRPORT EXECUTIVES OPENING STATEMENT

Mr. ROGERS. Thank you. I will have some. Mr. Barclay.

Mr. BARCLAY. Thank you, Mr. Chairman. I just want to do a very brief rundown of the argue of the progress on the commitments we have made, but I want to begin by thanking the committee first for work on the appropriations bill that was reported out and passed on the Floor.

We do not even get to the point of debating the issues of streamlining approvals for runways if we do not have the money to build those, so we are very grateful. That is an absolutely critical starting element of solving this problem, so we appreciate that.

We also appreciate the committee's work and Mr. Sabo's leadership on adding greater funds for noise research. In the long run, one of the greatest impediments to us adding capacity to the system is aircraft noise, so looking at that issue in the long term is extremely important. Number one is thank you.

AIRPORT CONSTRUCTION STREAMLINING PROCESS

On the items that we discussed before, I will spare you the philosophical defense of our positions on all these things and just run down our progress from again my point of view. The first one was advocate the streamlining of runway construction. This is our top priority. It is a long-term impact on the system, but we are extremely encouraged.

People from the President to the Secretary to the Deputy Security to the Administrator to key Members of Congress on both sides of the Hill have been talking about the importance of adding new runway capacity at the key airports in the system. The entire industry is united on this issue, and today over in the Senate the Senate Commerce Committee is reporting on a bill that includes the core features of what we have been recommending and other parts of the industry have been recommending on streamlining this process. We are seeing good progress there, and we are encouraged by that.

REIMBURSABLE AGREEMENTS FOR ENVIRONMENTAL ACTIVITIES

Our second commitment was to advocate support for FAA staff to help airports move more quickly, allow airports to pay for FAA staffing that would more quickly move an application for a new runway. We appreciate again the committee's effort to put that in the bill here and realize on jurisdictional grounds it was taken out on the Floor. That was put back in by the Senate Appropriations Committee, so again there is good support for that philosophically.

The Transportation and Infrastructure Committee did not argue with the merits of that issue. Administrator Garvey and the FAA are working on doing this administratively. They are doing a very good job working with San Francisco, so on both the administrative and legislative ends we are seeing excellent progress there, and we think that that one is going to happen.

ANTI-TRUST IMMUNITY

My third was we have substituted at the Chairman's recommendation the lifting of the cap on PFCs for the issue Mr.

Merlis mentioned, which is recovery immunity different and distinct from the issue of scheduling immunity that is a more debatable notion.

A number of our members have problems with the idea of airlines sitting down for a longer term to debate schedules for the next six months, but there is virtual unanimity among our members and I think among the industry that recovery immunity, which is 24 hour immunity to recover from a weather or other event in the system, allow airlines with FAA's oversight to discuss how do we recover from this one day event I think is a notion that is unexceptionable, but it is going to take us a little time to have the debate and get everyone understanding this is separate and distinct from the longer term immunity, which does have some philosophical issues attached to it.

That item is also in the bill being scheduled to be marked up this morning over on the Senate Commerce Committee, and it is put in there separate from the scheduling immunity. They also have scheduling immunity in that bill.

We are very encouraged, and we did follow through on our commitment to lead a membership resolution that all the members of association of airport executes endorsed that, which had not happened prior to this commitment.

AIRPORT REVENUES FOR REMEDIATION

The next one was to provide more flexibility for allowing airports off-airport remediation in order to speed many of these runway projects. There are current restrictions in the law that say that airports are only allowed to spend the revenues they earn on the airport within the airport boundaries. Often you can remediate environmental problems off the airport to make up for any disruptions being caused by a runway extension.

That is again a key part of allowing us and giving us the tools we need to build more runways. That again is in the bills currently in process over in the Senate. It is being considered by the House Transportation and Infrastructure Committee. It is a long-term issue, but again one that we are seeing very good progress on.

DELAY INFORMATION FOR CUSTOMERS

We also committed to help in the effort to get better information to customers, which is something that is being accomplished in large part by FAA and CNN with the new ticker. That has been accomplished. CNN on the televisions in the gate areas that are seen, and these are in gate areas that serve 400 million of the passengers in the country.

Whenever there is more than a 60 minute delay at any airport, a ticker starts naming those airports where there is greater than 60 minute delays so the passenger has a separate line of information coming directly from FAA by looking at those monitors, which are strategically placed, of course, for passengers to see them.

Let me add on that one that we all in the industry understand that the real issue is that customers do not want better information about delays. They want delays to stop. We all realize that, but once you are in a delay situation the only anecdote to frustration is information in that instance.

This is going to be I think a very useful tool because no matter how good a job we do on adding capacity and solving some of the delay problems in the system, schedules are always going to be secondary to safety so you are going to at times due to weather have flights held up, and this is going to be useful information for the passenger, so that is one that is being done.

We are also working with the airlines and the FAA on more wireless information going out to people who have PDAs and Black Berries and other tools to be able to communicate directly with them on delay information.

Finally, on coordination of air traffic control information for airports to use that again is something we have accomplished. We appreciate very much the cooperation of FAA. We are pushing that information out. In addition to linking in on our website for airports, we are actually pushing it to the desktops of airports with our satellite information network. That is one we have accomplished.

We are actually working currently with FAA to provide even more detailed, broken down information, but the top 30 airport information is already out there.

I would be happy to answer any questions.

[The prepared statement and biography of Charles Barclay follows:]

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House Appropriations Subcommittee on
Transportation and Related Agencies

Hearing on Airline Delays and Aviation Capacity

Airline Delays and Aviation Capacity
AAAE/ACI-NA Airport Commitments
August 2, 2001

1.) Advocate Streamlining of Runway Construction Process

- Developed Expedited Airport System Enhancement (EASE) Initiative to quicken pace at which major airport projects like runways work their way through the current maze of environmental reviews.
- Advocated EASE proposal with Congress, the Administration, the aviation industry, the media and the public.
- Gained acceptance of EASE provision to allow airports to pay for project-specific FAA staff and consultants to review and approve environmental work as part of the FY 2002 DOT appropriations measure.
- Worked with FAA to gain important administrative changes aimed at expediting runway approval process.
- Working with House and Senate authorizing committees to include EASE provisions as part of comprehensive packages aimed at expediting runway approval process.

2.) Advocate FAA's Ability to Provide Support Staff to Airports

- Developed general provision adopted by the subcommittee that would allow airports to fund FAA project-specific staff or consultants.
- Gained adoption of similar provision as part of Senate DOT appropriations bill.
- Working to gain adoption as part of conference agreement on DOT appropriations bill.

3.) Gain Airport Support for "Bad Weather" Emergency Antitrust Immunity for the Airlines

- Gained airport industry support for granting airlines limited antitrust immunity in emergency events such as bad weather at a major hub.
- Working with Senate Commerce Committee to gain adoption of this change as part of S. 633, the Aviation Delay Prevention Act.
- Working to ensure airports play an active role in partnering with airlines, the FAA and DOT to limit system disruptions caused by periods of inclement weather.

4.) Advocate Flexibility for Off-Airport Environmental Remediation

- Developed provision as part of EASE that would give airports additional flexibility to proactively work with communities on off-airport remediation.
- Continue to advocate giving airports additional tools to help build local support for key projects early in the process, enabling them to move forward toward approval and completion.
- Working to gain inclusion of this provision as part of comprehensive legislation aimed at expediting runway approval process.

5.) Get Better Information to Airport Customers

- Completed initiative with FAA and the CNN Airport Network to get real-time flight-related information directly to millions of passengers in airport terminals via an "update ticker" on the CNN Airport Channel.
- Highlighted the availability of this type of information to travelers with public service announcements on Aviation News Today, our weekly television program and on Digicast.
- Met with the airlines to discuss ways to provide better information to travelers and to better coordinate in emergency events that may affect them.
- Embarked on project with the Wireless Airport Association to ensure we take advantage of cell phones, pagers and PDAs to bring better information to our customers.

6.) Become Involved in Coordination of Air Traffic Control Operations

- Worked with FAA obtain valuable air traffic operation information.
- Worked to distribute information to airport personnel across the country through our Digicast satellite system.
- Continue to take advantage of both FAA flight-related information and the Digicast system to ensure that airports are ready to tackle any daily disruptions and passenger needs.

Statement of Charles Barclay
President, American Association of Airport Executives
On Behalf of the American Association of Airport Executives
And
Airports Council International – North America
House Appropriations Subcommittee on Transportation and Related Agencies
August 2, 2001

Chairman Rogers and members of the subcommittee, I appreciate the opportunity to appear before you again today to update you on the progress airports have made in working to "solve the airline delay problem." Before moving to discuss the specific actions we have taken to date in meeting our commitments in that regard, I want to first congratulate you, Mr. Chairman, on passage of the fiscal year 2002 Department of Transportation appropriations bill in the House of Representatives. Although the bill is your first as chairman of this subcommittee, you have managed to expertly focus resources where they will be most beneficial – a goal you outlined at the onset of these hearings. A debt of gratitude is also due to Mr. Sabo for his leadership, particularly in the area of aircraft noise reduction research, and to the other members of the subcommittee as well.

While there are a number of items in your legislation that will greatly benefit airports and the traveling public, I want to thank you in particular for fully funding the Airport Improvement Program at $3.3 billion and for including a general provision that would allow airports to pay for project-specific FAA staff and consultants. Although the general provision was struck on the House floor, your efforts to provide much-needed resources for airport construction and your willingness to find ways to put those funds to use as quickly as possible for critical capacity projects clearly illustrates your dedication to addressing the airline delay problem. The ability of airports to tackle congestion and delays will greatly benefit from your work on this important legislation.

In addition to the positive strides made in the appropriations bill, I am happy to report that we are making progress in other areas to meet the commitments made to you and the subcommittee. The following summarizes our progress to this point:

1.) Advocate Streamlining of the Runway Construction Process
As airports, the FAA, and countless others in the aviation industry have pointed out, additional runways hold the greatest promise for increasing aviation system capacity and reducing delays. Unfortunately, the process for review and approval of new runway projects routinely takes 10 years or more to complete. With delays and congestion mounting and with a billion passengers expected annually within the next decade, we simply must quicken the pace at which major airport projects like runways work their way through the current maze of overlapping, duplicative and onerous environmental reviews.

Earlier this year, AAAE and ACI-NA developed a legislative proposal – The Expedited Airport System Enhancement (EASE) initiative – aimed at accomplishing that goal. EASE strives to strike the proper balance between legitimate environmental concerns and the urgent need to add capacity to alleviate the nation's congestion problem. Key provisions of the EASE proposal include:

- Declaration of "Critical National Airport Capacity" Projects, which would eliminate the need for the lengthy off-airport "alternatives" process for such projects;
- Priority processing by involved agencies of Critical Airport Capacity Projects;
- Establishment of an Airspace System Capacity Enhancement Council or Czar;
- Airport funding of project-specific FAA staff or consultants for expedited review of Critical Airport Capacity Projects;
- Expansion of categorical exclusions;
- Facilitation of agreements with local governments to allow additional mitigation for Critical Airport Capacity Projects;
- Requirement of realistic state air quality implementation plans; and
- Elimination of the duplicative Governor's Certificate.

While not every one of these provisions has been met with equal enthusiasm, we have enjoyed some success over the past several months in moving them forward toward enactment. Again, our thanks to you for including the general provision dealing with airport-funded, project-specific staff to expedite the review and approval of key runway projects. Although not in the House bill, the Senate DOT appropriations measure does include the provision, and we remain hopeful that the change can be included in conference.

Beyond airport-funded staff and consultants, several EASE provisions have garnered support with the authorizing committees in the House and Senate. Both the Transportation and Infrastructure Committee and the Senate Commerce Committee have expressed their intention to move forward with some sort of legislation aimed at expediting the runway approval process, and we fully expect that EASE will form the framework for these efforts. In fact, the Senate Commerce Committee may consider legislation as early as today that includes many EASE-like provisions. The Transportation and Infrastructure Committee is likewise in the process of developing legislation based largely on the EASE model.

In addition to our efforts with the Congress, we have worked with the FAA to encourage administrative action where possible. We are pleased that the Agency is working with the San Francisco International Airport on a reimbursable agreement to help make additional staff resources available for environmental work. We also applaud the Agency for the other initiatives outlined in its May 2001 report to establish EIS Teams for major runway projects; to reallocate FAA staff resources to support environmental work; to use more categorical exclusions and shorten and streamline Environmental Assessments, Findings of No Significant Impact and Environmental Impact Statements; to improve interagency cooperation and coordination for the review of airport projects; and to compile and issue a guide to best practices for EIS management and preparation.

As I have said before, Administrator Garvey and her team deserve a great deal of credit for recognizing the issues airports face in moving forward with key capacity projects and for working to find solutions. The FAA's recent initiatives are a testament to the fact that the Agency has listened to our concerns and worked to take action where possible.

To quickly summarize our progress on this first point, Mr. Chairman, we are beginning to see real results in moving to streamline the runway construction process. Thanks to your leadership, we are moving forward in the appropriations process with an important change to allow airport-funded FAA staff and consultants. We hope to work with you to ensure that this provision is included in the conference report on this year's DOT appropriations bill.

In addition, we have encouraged the FAA to take administrative action to streamline the runway approval process based on the recommendations in the EASE initiative and input of airports across the country that have struggled to bring new runways into operation. Finally, we continue to work with the authorizing committees to move legislation that provides further changes to expedite the runway approval process. It is our hope and belief that both the House and Senate will soon begin to move legislation with many of the items we have advocated as part of the EASE initiative.

2.) Advocate FAA's Ability to Provide Support Staff to Airports

A lack of adequate staffing to conduct, review and approve environmental work associated with runway projects has been and continues to be an impediment to their timely completion. In light of that fact, we developed a provision as part of EASE that would allow airports to provide funds to the FAA to hire project-specific staff and consultants to conduct, supervise and implement reviews of critical airport capacity projects. The additional staff would work exclusively under FAA's supervision with no obligation to the airport.

This approach would save both time and money with positive results for all parties. For the airport, the necessary work would be conducted in a more timely fashion. For the FAA, highly specialized work could be completed under the Agency's guidance at the airport's expense allowing for quicker review. For the traveling public, much needed capacity could be added in a more timely fashion.

As I mentioned earlier, the FAA has also noted the need for this type of arrangement and is working on a reimbursable agreement with San Francisco. While we are pleased with the Agency's progress in that regard, we are concerned about the legal questions that remain about pursuing agreements with other airports across the country that have or will have projects pending. The language we provided to the subcommittee would make clear that these arrangements are both acceptable and encouraged.

Again, Mr. Chairman, we appreciate your understanding of the importance of this effort and your willingness to include the language as part of your bill. It is our intention to contact all conferees on the legislation to urge their support of this change as part of the conference agreement. We are also working to address the concerns raised by the authorizing committee during the debate on the House floor.

On this second point, Mr. Chairman, we have made real progress. In addition to the FAA's action to pursue reimbursable agreements with airports to provide additional staff resources, we are on the verge of gaining clear legal authority for these arrangements as part of H.R. 2299, the FY 2002 DOT spending bill thanks to your leadership. We are actively engaged in urging all conferees to adopt this important provision as part of the conference report on H.R. 2299. We are also dedicated to pursuing this change as part of other legislation, if necessary.

3.) Gain Airport Support for "Bad Weather" Emergency Antitrust Immunity For the Airlines
At the Chairman's request, we replaced our original commitment here – a targeted increase in the cap on Passenger Facility Charges (PFCs) – with a pledge to gain airport industry support for providing limited antitrust immunity to the airlines in emergency events such as severe weather. At the last hearing, I committed to raising this issue with the AAAE Board of Directors. Not only were we able to secure Board approval for the concept but the AAAE membership at large adopted a resolution in support of the concept at our Annual Conference and Exhibition. A copy of that resolution is attached for your review.

The thought behind this change, Mr. Chairman, is to allow the airlines the ability on a limited basis to coordinate and work with the FAA to provide faster recovery to severe disruptions in the aviation system such as bad weather at a major hub. As everyone knows, the negative effects of a thunderstorm in Chicago often ripple throughout the aviation system. Giving the airlines the go ahead on a limited and controlled basis to develop alternative plans in the event of bad weather offers a great deal of promise in providing flexibility to tackle real problems as they emerge.

As was mentioned in your last hearing, Mr. Chairman, this change could produce immediate results. Already airlines and FAA staff at the Herndon facility coordinate throughout the day to address ever-changing air traffic control issues. Building on this system to provide the airlines the go-ahead to coordinate on a limited basis to respond to challenges such as bad weather could minimize system disruption. This targeted approach has the added benefit of being less controversial than blanket antitrust immunity, which has stirred opposition from the Judiciary Committee and the Justice Department.

It is our understanding, Mr. Chairman, that when the Senate Commerce Committee moves forward with its markup of S. 633, the Aviation Delay Prevention Act, it will adopt this approach. We are told that the manager's amendment to that legislation contains language that would allow the Secretary of Transportation to authorize airline discussions under DOT supervision during periods of inclement weather. The DOT could grant such authority only after consulting with the FAA and receiving a determination that inclement weather is likely to adversely and directly affect capacity at an airport for a period of at least three hours. Discussions and agreements would be strictly limited to flights directly affected by inclement weather and would remain in effect for only 24 hours. Again, a DOT representative would be a part of any discussion approved under this authority.

We believe this approach makes a great deal of sense and we are actively supportive of the Senate's effort. We are working to ensure that airport representatives are a party to such discussions and play an active role in partnering with airlines, the FAA and DOT to limit system disruptions caused by periods of inclement weather.

Since the last hearing, Mr. Chairman, we have gained airport consensus to support granting the airlines limited antitrust immunity to undertake discussions and agreements in emergency situations such as periods of bad weather at major hub airports. We are fully supportive of the approach being considered in the Senate and we will work to gain passage of this change into law as quickly as possible. We will work to gain adoption of similar changes in the House.

4.) Advocate Flexibility for Off-Airport Environmental Remediation
Another piece of the EASE initiative, this item is intended to give airports additional flexibility to address local concerns with airport projects through off-airport mitigation. Specifically, we are asking for additional authority to provide airport revenues to cover the costs of reasonable, project-related impacts such as mitigation of traffic impacts on nearby, non-exclusive airport access roads or repairing building code deficiencies that would otherwise make soundproofing schools or homes ineligible for federal funding. Our proposal would be strictly limited to preclude payment of cash bounties or funding of unrelated development that a community desires.

In simple terms, Mr. Chairman, this change would give airports additional flexibility to work with the communities they serve to build support for airport projects. It is modeled after successful programs at various airports where creative and cooperative work early in the process between the airport and the community in identifying off-airport projects produced both support for the airport project and important environmental benefits. A win-win for the national air transportation system as well as local citizens.

To accomplish this goal, we have advocated directed interpretations of policies on revenue diversion, use of passenger facility charges, and noise and access restrictions for designated Critical National Airport Capacity Projects. Currently, anti-diversion rules and PFC eligibility requirements prohibit airport revenues from being used for off-airport solutions.

On this point, Mr. Chairman, we are again gaining interest and support as part of various efforts to comprehensively address runway construction impediments. A key part of the EASE initiative, this proposed change is key to building local support for key airport projects and merits the support of the Congress. We are actively engaged in working with the Senate Commerce Committee and the Transportation and Infrastructure Committee to ensure that this provision is part of the legislation each will soon begin moving through the process.

5.) Get Better Information to Airport Customers
When I last reported to the subcommittee, we were actively involved in discussions with CNN and the FAA to find a way to make FAA flight delay information available to airport customers through the CNN Airport Network, which is in place at more than 1600 gates at 35 of the nation's busiest airports enplaning more than 400 million passengers. I am happy to report success in that regard.

On June 5, I joined House Aviation Subcommittee Chairman Mica, FAA Administrator Garvey, and then-CNN News Group Chairman and CEO Tom Johnson at a press conference announcing a joint effort to provide timely airport delay status information to travelers. Thanks to the efforts of these leaders, we now have in place a system that provides real-time airport delay information from the FAA's Air Traffic Control System Command Center directly to travelers via the CNN Airport Network.

The new CNN service provides a ticker at the bottom of the screen that reads "FAA airport delay advisory" and "Check with your airline for details." The ticker scrolls the city/airport name, the airport's abbreviation code and the delay time. If there are no delays greater than 60 minutes, the ticker does not appear.

Although not a perfect solution to the underlying problems of delays caused by a lack of aviation system capacity, this important initiative will provide millions of passengers with additional real-time information about the aviation system's status. Armed with better information, travelers can better plan their travel and make informed decisions. AAAE is currently in discussions with the FAA regarding making the same "feed" available through our Digicast satellite network, allowing thousands of airport operations and management personnel across the country to have immediate access to this information.

As an outgrowth of the effort to make delay information available on the CNN Airport Channel, the FAA has developed a 30 second public service announcement regarding its website, which is running on both the CNN Airport Channel and on CNN as well. The PSA also runs every week on Aviation News Today and on our Digicast satellite business network, which has nearly 100 airport subscribers. We have also linked the FAA's Command Center website to our own, www.airportnet.org.

AAAE has also co-founded, along with ACI-NA and the Air Transport Association, the Wireless Airport Association, which is very involved with bringing the latest wireless technology applications on-line at airports across the country. With technological innovation moving at an extremely rapid pace, passengers are already gaining access to real-time flight information on web-enabled cell phones, pagers and personal digital assistants. This trend will only accelerate, and we are at the forefront of the effort to ensure swift standardization of technology protocols, which will allow for exponential growth in information available to passengers in real-time.

Since the last hearing before the subcommittee, Mr. Chairman, we have made incredible progress working with the FAA and the CNN Airport Network to get important, flight-related information directly to millions of passengers in airport terminals. In addition, we continue to highlight the availability of this type of information to travelers with public service announcements on our television program. We have also met with the airlines to discuss ways to provide better information to travelers and to better coordinate in emergency events that may affect them. Finally, we have embarked on an exciting project with the Wireless Airport Association to ensure we take advantage of cell phones, pagers and PDAs to bring better information to our customers.

6.)Become Involved in Coordination of Information on Air Traffic Control Operations for Airports
We have also been working with the FAA to get valuable information that the Agency currently has available on air traffic control conditions to airports throughout the country so that airport personnel can better prepare for potential disruptions. AAAE will serve as a direct link between the FAA and staff at airports nationwide through our Digicast satellite business network, which again has more than 100 subscribers, which are listed below.

Digicast is a 24-hour, seven day a week computer-based aviation news, weather and airport training network that offers video airport training and text aviation news that is updated throughout the day. Digicast news and video programs may be viewed on a TV monitor and videotaped or, connected to a computer network, which allows Digicast to be viewed on computer desktops. In addition, interactive training is offered, which allows employees to take tests after viewing programs and enables supervisors to monitor employee progress.

Digicast will be used both as a means for disseminating information on critical air traffic control conditions as well as a tool for providing airport personnel with training on what to do with that information in order to better serve airport customers. Armed with daily flight related information and a knowledge of how to use that information to prepare for potential disruptions, airport staff can and will play a more active and productive role in accommodating weary travelers.

Already we have offered the Agency the opportunity to disseminate Notices to Airmen (NOTAMs), which is information on unanticipated or temporary changes to components of, or hazards in, the National Airspace System, daily updates on the condition of navigational aids, and other flight-related information to airports across the country. We have recently visited the FAA's Herndon Command Center to conduct interviews and videotape the information the Agency has available. This information is being distributed to airports as well.

Mr. Chairman, airport personnel can benefit from FAA information on air traffic control conditions to better serve airport customers. We are working with the FAA to obtain valuable air traffic operation information and distribute that information to airport personnel across the country through our Digicast satellite system. We will continue to take advantage of both FAA flight-related information and the Digicast system to ensure that airports are ready to tackle any daily disruptions and passenger needs.

For your review, the following are those airports that are Digicast subscribers:

Large Hub

Baltimore-Washington Int'l	Hartsfield Atlanta Int'l	Orlando Int'l
Boston Logan	John F. Kennedy Int'l	Philadelphia Int'l
Chicago O'Hare Int'l	LaGuardia	Phoenix Sky Harbor
Cincinnati/Northern Kentucky	Los Angeles Int'l	Reagan Washington Nat'l
Dallas/Fort Worth	Miami Int'l	Salt Lake City Int'l
Denver Int'l	Minneapolis/St. Paul Int'l	Seattle-Tacoma Int'l
Detroit Metro	Newark Int'l	Tampa Int'l
Ft. Lauderdale	St. Louis	Washington Dulles

Medium Hub

Bradley Int'l (CT)	Louisville Int'l	Sacramento Metro
Burbank-Glendale-Pasadena	Memphis Int'l	San Jose Int'l
Colorado Springs	Metro. Oakland Int'l	Tulsa Int'l
El Paso Int'l	Nashville Int'l	Will Rogers World
Jacksonville Int'l	New Orleans Int'l	San Antonio
John Wayne Airport	Raleigh-Durham	T.F. Green
Port Columbus Int'l	Reno	Tucson Int'l

Small Hub

Albany County	Gerald R. Ford (MI)	Palm Springs International
Amarillo Int'l	Dane County (Madison, WI)	Pensacola Regional
Billings Logan Int'l (MT)	Lubbock (TX)	Richmond Int'l
Birmingham Int'l	Des Moines Int'l	Savannah Int'l (GA)
Capital City (MI)	Fort Wayne Int'l	St. Pete/Clearwater Int'l
Brownsville/S. Padre Island	Tallahassee Regional	Wichita Mid-Continent
Charleston Int'l (SC)	Jackson Int'l (MS)	
Corpus Christi (TX)	Myrtle Beach (SC)	

Non-Hub Primary

Bush Field (Augusta, GA)	Manhattan Regional (KS)	S.W. Georgia Reg. (Albany)
Gunnison (CO)	Melbourne Int'l (FL)	NW Arkansas
Hilton Head (SC)	Nantucket Memorial	Tri-Cities (Pasco, WA)
Eagle County (CO)	Naples Municipal (FL)	Yeager (Charleston, WV)
Evansville Regional (IN)	Newport News (VA)	Yuma Int'l (AZ)
Jackson Hole (WY)	Panama City-Bay Co. Int'l (FL)	Asheville (NC)
Kalamazoo Int'l (MI)	MidAmerica (IL)	

Non-Hub Non-Primary/GA

Jefferson County (CO)
Jackson County (MI)
Morristown Municipal (NJ)
Salina Municipal (KS)
Scottsdale (AZ)

Non-Airport

Connecticut DOT
DOT IG

Conclusion

In closing, we again want to thank you, Chairman Rogers, and the other members of the subcommittee for focusing attention on the need to add capacity at airports across the country in order to help alleviate flight delays. Your work on the FY 2002 DOT appropriations bill illustrates your commitment to following through in tackling the issues identified in this series of hearings. For our part, we remain focused on aggressively working to carry out the commitments we have made to you and the subcommittee. We are making real progress in that regard, and we look forward to continuing these efforts.

RESOLUTION ON GRANTING AIRLINES LIMITED ANTITRUST IMMUNITY

WHEREAS, the Department of Transportation reported that one in four airline flights were delayed, cancelled or diverted last year affecting approximately 163 million passengers; and

WHEREAS, commercial air service in the United States is based on a network system, airline delays and cancellations at the busiest airports cause disruptions throughout the entire system; and

WHEREAS, it may be beneficial for officials from carriers to coordinate their schedules to recover from airline delays and cancellations caused by severe weather; and

WHEREAS, granting airlines limited antitrust immunity in periods of severe weather or other temporary hub disruptions could allow their representatives to work out scheduling and cancellation arrangements; and

WHEREAS, granting the airlines limited antitrust immunity could minimize the impact of airline delays and cancellations on passengers at large hubs and service to small communities; and

WHEREAS, when triggered by the Federal Aviation Administration, granting limited antitrust immunity to airlines could be a sensible way to reduce airline delays and cancellations in the aviation network system in the short-term; and

WHEREAS, any effort to reduce airline delays and cancellations in the long-term should include a commitment to construct new runways and other capacity enhancing airport projects.

NOW, THEREFORE, BE IT RESOLVED that the American Association of Airport Executives supports granting limited antitrust immunity to airlines in periods of severe weather or other temporary hub disruptions when triggered by the Federal Aviation Administration provided that officials from the agency attend and monitor any meetings where airline officials attempt to coordinate their schedules.

CHARLES M. BARCLAY

1983 to present	**President**, American Association of Airport Executives. Chief executive officer of the professional association for airport executives in the United States. AAAE represents 4500 members, coordinating its policies and programs with regional chapters.
1977 to 1983	**Professional Staff Member**, Aviation Subcommittee Committee on Commerce, Science and Transportation, U.S. Senate. As the senior staff member on aviation issues, tenure included directing staff work on airline deregulation, aviation trust fund authorization, aviation security and safety, accident investigation, international aviation, aircraft noise and NTSB authorization laws.
1975 to 1977	**Assistant Director**, Office of Community and Congressional Relations, Civil Aeronautics Board.
1970 to 1975	**Assistant Director**, American Association of Airport Executives.

APPOINTMENTS

1997	Appointed by DOT Secretary Slater to the National Civil Aviation Review Commission. Twenty-one voting members were appointed by the DOT, House and Senate Leadership to make recommendations on: (1) future financing of the FAA, air traffic control and airport systems, and (2) the regulation of aviation safety and accident trends.
1993	U.S. Senate appointee to the President's "Airline Commission." Fifteen voting members were appointed by the President, House and Senate Leadership to make recommendations on the financial condition of the airline industry. Chaired the FAA/ATC working group.

OTHER POSITIONS

1996 - 1998 **Chairman of the Board,** Travelers Aid International. TAI is the association of local charity agencies that serve transient and disconnected people in need. The local agencies' operate homeless shelters, runaway youth programs, health care programs and many other social services.

EDUCATION

B.S. Aviation Management
Auburn University, 1969

M.S. Administration
George Washington University, 1974

Disclosure required by clause 2(g)(4) of rule XI of the Rules of the House

Neither I, nor the American Association of Airport Executives or Airports Council International – North America, have received any Federal grant or subgrant thereof, or contract or subcontract thereof, from the Federal Aviation Administration during the current fiscal year or either of the two previous fiscal years.

AIR LINE PILOTS ASSOCIATION OPENING STATEMENT

Mr. ROGERS. Thank you, Mr. Barclay.

Captain Dolan.

Mr. DOLAN. Thank you, Mr. Chairman. Good morning, Members of the subcommittee. I am pleased to be here this morning.

Once again, I would like to reiterate Captain Woerth's apologies for not being here. He does have a great interest in the subcommittee. Unfortunately, his prior commitment precluded him from being here. I know, Mr. Chairman, you said you like to chew on the same people. I hope you find me as chewable as Captain Woerth.

Before I get into my update on the remarks, I would just like to say that while I have not been directly involved in the subcommittee's activities, I have followed these issues with great interest in my position as ALPA's First Vice-President. There is an old adage in real estate that says location, location, location. I think the mantra here is communication, communication, communication.

I applaud the subcommittee and you, Mr. Chairman, for bringing together these players in the industry to be able to sit down finally I think and put the hard issues on the table. Let us develop some solutions. These are problem solvers here. I am convinced of that. I feel that I am a problem solver, and I think that we have been given the venue to do that. I applaud you for that.

FREE FLIGHT STEERING COMMITTEE

Rather than reading my written testimony, I would just like to synopsize some of the salient points. In regard to Point 1, ALPA (Air Line Pilots Association) is committed to a high level of participation in the RTCA Free Flight steering committee. As you know, Captain Woerth sits on the steering committee. There is a quarterly meeting scheduled next week. He will be there, along with our Director of Engineering and Safety, who is our key staff person on safety and air traffic issues. The main agenda item there is to combine Free Flight with the FAA's Operational Evolutionary Plan.

Along with the commitment to attend these meetings, I think it is important to understand that we have committed the resources as well to make sure that we have the pilot volunteers involved and that we get the line pilot input that is required to make sure that all the stakeholders have their issues addressed.

Specifically, we are making resources available to staff the federal advisory committee and follow that, which is working on NAS architecture and integration of that. As part of that, there is a Free Flight working group. It has been my experience on a number of committees and things that I have worked on that the working group is where the rubber meets the road. That is where the work gets done in these committees. I applaud the Free Flight steering committee for establishing work groups to try to integrate these difficult issues.

AIR LINE PILOTS AND CONTROLLER ALLIANCE

On the second item, I think that we have made some real progress in our establishment of our alliance with our colleagues at NATCA. I have been appointed the ALPA liaison person with

NATCA, and we have had a couple of meetings in the last several weeks. We have really established some good working relationships and good ground rules to tackle issues such as land and hold short operations and simultaneous offset instrument approaches. These are capacity enhancement tools, and there is a big stake in both of these for the controllers and the pilots as well.

We are also planning to mutually support the Communicating for Safety conference scheduled in September. This will give us an opportunity to get pilots and controllers together. There is a lot of—I hate to say it—miscommunication because communication is a way of life with us, both of us, the pilots and controllers. They ride on our jumpseats, and it is a good experience for them, but too often the pilots do not get to talk to the controllers one on one to find out what their real issues are. This is an opportunity to do that.

We are trying not only just at the national ALPA level, the elected leadership, to get pilots and controllers together. We would like to see the folks in the field come together as well, and we are working on that.

PILOT, CONTROLLER, AND DISPATCHER ALLIANCE

The third item is bringing the dispatchers into the liaison with ALPA and NATCA. I am pleased to say that our colleagues at NATCA and ALPA both sent a joint letter to the dispatchers union president, and they are very enthusiastic about joining the liaison. Unfortunately, they were unable to make our last meeting on the 5th of July. Nevertheless, the next meeting that is scheduled will be include the dispatchers. I think this brings another level of experience and knowledge into the equation here for us to get to the root of some of these problems since the dispatchers are an integral part of airline operations.

FLIGHT TIME/DUTY TIME RULES

On the fourth item, we have for a long time thought that the standardization of flight time/duty time issues is very important and will provide an ability for the airlines to have more practical scheduling and the ability to gather historical data that will allow them to build realistic schedules. I think that, we are still waiting, more than patiently for the implementation by the FAA on some flight time/duty time rules.

I do have to say that it does not help when they do enforce a rule that is already in effect, and they are immediately sued by someone over the implementation of a rule that has been in effect since 1985. We need to get beyond that. We need to get these rules established, and we need to move on with some realistic scheduling practices. We would appreciate any help we can get from the subcommittee in making that a reality as well.

NATIONAL AIRSPACE SYSTEM MODERNIZATION STRATEGIC PLAN

On the last item, my understanding was that there was perhaps some thought that there was some redundancy at the last subcommittee hearing on this particular issue with the Association. Captain Woerth came back after the hearing. We sat down, and we

had a very deep discussion on the issues involved. Perhaps I think what happened to us is we maybe did not articulate well enough exactly what we are doing in regard to the last item here.

In 1999, our executive council, one of our governing bodies, approved a NAS modernization strategic plan, which we have since begun to implement. We have committed a lot of resources, both financial and pilot resources, to ensure that we are involved in every phase of NAS modernization. We in fact have gone out and recruited more safety volunteers, about 50 is my last count, to make sure that we are able to provide line pilot input on all these important projects. It does not help us, our service, to get down the track, so to speak, and not have had the ability to have our input and say what we feel are the important issues.

We have definitely committed funding. In fact, we are going to make this a line item in our budgeting process for next year. I will just highlight some of the things. We want to basically encourage basic research development and implementation for new and improved air traffic management tools, work to strengthen and maintain industry consensus on these critical NAS modernization issues and other such projects as that. We are committed to spend the time, the effort and the resources to make the pilot input effective and meaningful.

That pretty much synopsizes my written testimony, Mr. Chairman. I will be happy to answer any questions.

[The prepared statement and biography of Captain Dennis Dolan follow:]

STATEMENT OF

CAPTAIN DENNIS DOLAN

FIRST VICE PRESIDENT

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

BEFORE

SUBCOMMITTEE ON TRANSPORTATION APPROPRIATIONS

U.S. HOUSE OF REPRESENTATIVES

ON

DELAYS IN THE AIR TRAFFIC CONTROL SYSTEM

AUGUST 2, 2001

Air Line Pilots Association, Int'l
1625 Massachusetts Avenue, NW
Washington, DC 20036
(202) 797-4033

STATEMENT OF

CAPTAIN DENNIS DOLAN
FIRST VICE PRESIDENT
AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

BEFORE THE
SUBCOMMITTEE ON TRANSPORTATION APPROPRIATIONS
U.S. HOUSE OF REPRESENTATIVES
ON
DELAYS IN THE AIR TRAFFIC CONTROL SYSTEM
AUGUST 2, 2001

Good morning Mr. Chairman and members of the Subcommittee. I am Captain Dennis Dolan, First Vice President of the Air Line Pilots Association, International (ALPA). I appreciate the opportunity to appear before you in place of ALPA President, Captain Duane Woerth, who has testified at previous hearings on this subject. I want to assure you that he and I, as well as our entire Association, place the highest importance on identifying the causes and resolving the problem of delays in the air traffic control system.

At the first hearing on March 15th,ALPA presented five action items to address the question: "What are five things that your organization can do to help alleviate the problem of delays and limited capacity?" At the May 3rd hearing, an update was provided on these issues, and that is also my intent today.

To address item one: we will continue our high level of participation on the RTCA Free Flight Steering Committee to ensure that this committee is properly focused and defining systemic needs associated with delay and capacity issues, and that correct priorities are established to address these issues in a timely manner.

A quarterly meeting of the Free Flight Steering Committee will be held next week, on Wednesday, August 8th. Captain Woerth will be attending this meeting along with ALPA's Director of Engineering and Air Safety, who is our key staff member on safety and air traffic issues. The main agenda item to be discussed at the meeting is the proposal to combine Free Flight with the FAA's Operational Evolutionary Plan (OEP).

As noted at the last hearing, ALPA pilot and staff safety representatives are committed to work on all levels of RTCA activities. They will continue to stay involved with the RTCA Special Committees that develop minimum operational performance standards for equipment. ALPA will also make resources available to specifically deal with the RTCA Federal Advisory Committee, a functioning committee within RTCA that has been charged with facilitating the planning of National Airspace System (NAS) improvements based on the NAS Architecture.

As part of this effort, on July 24 through 26 the RTCA Free Flight Working Group began a work program to review and validate the NAS Architecture 4.0. ALPA representatives are an integral part of that work. The goals of this Work Group are to ensure that this Architecture properly addresses Free Flight Phase 1 and 2, Task Force 3, the Free Flight Action Plan, and other initiatives such as Safe Flight 21. Additionally, and of great importance, this Work Group needs to ensure that these initiatives can be traced back to the NAS Concept of Operations and to the Operational Evolutionary Plan (OEP). This work is critical to establishing a level of credibility to ensure that all of the stakeholders have confidence in the process, and that it directly relates to the proposal before the Free Flight Steering Committee regarding the management of the OEP.

Turning to the second item: we are working to improve our liaison efforts with NATCA to identify areas where our joint efforts may produce potential solutions to issues surrounding delays and capacity enhancement, and perhaps expedite their implementation. I was appointed to head this effort within ALPA and we have had two meetings with NATCA in the past several weeks. At our last meeting we came to an understanding of how our two

organizations would work on areas of mutual concern and identified some technical areas that we have agreed to work on together. Among these are procedures for land and hold short operations (LAHSO), simultaneous offset instrument approach procedures (SOIA), and the planning and mutual support for the Communicating For Safety Conference scheduled for September.

The third item we are working diligently to accomplish is to bring the Air Line Dispatchers Federation into the ALPA-NATCA liaison process. We are convinced that the dispatchers play a critical role in the airline operations process, and that we would all be better served to receive the benefit of their input and experience. In fact, with the concurrence and support of our colleagues at NATCA, we invited them to our most recent liaison meeting on July 5th, and they were quite enthusiastic about becoming part of the process. Unfortunately, they were unable to attend the July 5th meeting, but are planning to attend the next meeting. Additionally, we have invited the dispatchers and NATCA to the ALPA Annual Safety Forum to be held August 15 through 17. Both organizations have responded positively to the invitation and both have stated that they will send representatives to this event. This will be an excellent opportunity for these representatives to meet and interact with many of ALPA's pilot safety volunteers and staff. In addition, both groups have been invited to a number of our technical committee meetings that precede the Forum. I plan to personally meet with representatives from both organizations during this event.

The fourth item we identified is the standardization and modernization of flight and duty time limitations. On May 3, 2001, we testified about why these rules need to be standardized and modernized. We believe that if the rules are updated and enforced by the FAA, carriers will begin to schedule their flights in a more realistic manner. Such realistic scheduling will produce accurate historical data, which the airlines can draw upon to develop their future schedules. As these practices are refined, we believe future scheduling will be more realistic and more predictive, and will lead to an improvement in on-time performance.

Although all interested parties, including the FAA, are in agreement that these regulations need to be revised, the FAA has taken no action to date to accomplish any revisions. One must wonder why that is the case. In fact, the FAA is being subjected to external pressures that may be having a chilling effect on taking these necessary actions. For example, the FAA recently ruled that it would strictly enforce the requirement to provide pilots with a minimum 8-hour rest during every 24-hour period. As soon as the FAA announced that it would enforce this rule, which has been in existence since 1985, the Air Transport Association filed suit to stop the FAA from requiring carriers to comply with this requirement. When one considers the time it takes for a crew to be transported to and from the layover hotel, together with personal hygiene needs, even the strict enforcement of this 8-hour rule only provides a 5-6 hour sleep opportunity. This situation, coupled with the ATA's current position that seeks to permit carriers to require pilots be on duty beyond 16 hours, is not only unsafe but will encourage carriers to continue unrealistic scheduling practices. Action by the FAA can resolve these scheduling issues, but a formal proposal for industry comment has not yet been issued. We would appreciate the assistance of this Subcommittee in encouraging the FAA to immediately act on this important undertaking.

The last item is ALPA's pledge to work to improve airport capacity, where possible, by affirming our commitment to working toward building industry consensus on programs that will improve efficiency and increase capacity, while ensuring that these programs maintain the highest level of safety.

In the last hearing, it was suggested that this item is redundant to other items being worked by the FAA. However, ALPA believes this item is still appropriate as a stand-alone issue. In September 1999, the ALPA Executive Council endorsed an ALPA National Airspace System Modernization Strategic Plan as a vital step toward assisting in the restructure of the NAS and the pilot's working environment. An Oversight Committee was established within ALPA to coordinate the work of our Communications, Economic & Financial Analysis, Government Affairs and Engineering & Air Safety Departments. Funding was established outside our safety structure budget to support a six-year program to assure that the pilot perspective would

be an integral part of, all NAS Modernization initiatives. As a result of this high priority initiative within ALPA, additional pilot safety volunteers have been recruited to interface with the myriad of projects associated with NAS Modernization.

The goals of ALPA's NAS Modernization initiative are: to secure appropriate levels of funding for NAS Modernization programs; encourage basic research, development and implementation for new and improved Air Traffic Management tools; continue to assist in developing a joint U.S. industry/government document that is truly responsive to user needs on future NAS requirements that would be in addition to the NAS Architecture; work to insure that the National Civil Aviation Review Commission's report on funding and aviation is considered in the modernization plan; work to strengthen and maintain industry consensus that will be critical to the success of NAS Modernization; and ensure effective pilot input into the modernization effort.

The ALPA NAS Modernization Initiative rates safety as the highest priority and, as Captain Woerth stated in October 2000, can be summed up as follows: "Modernization is all about change, implementing new ideas and concepts, using new technology, equipment and procedure, to better serve the public's needs, and doing so in a timely and economical manner."

To fulfill that mandate, ALPA pilot volunteers and staff are active in a variety of industry groups working on closely spaced parallel runway operations, land and hold short operations, regional airspace redesign work groups, airport planning groups, reduced vertical separation procedures, and many more initiatives.

In closing, ALPA remains committed to work to resolve delay problems while ensuring that the safety of operations in the National Airspace System is maintained and, hopefully, enhanced. ALPA will continue to provide the line pilot input that is essential to achieving that goal. Thank you for the opportunity to present ALPA's views to the Subcommittee, and I will be happy to respond to any questions.

CAPTAIN DENNIS J. DOLAN,
FIRST VICE PRESIDENT
AIR LINE PILOTS ASSOCIATION, INTERNATIONAL

Captain Dennis J. Dolan, a Delta Air Lines pilot, is First Vice President of the Air Line Pilots Association (ALPA). ALPA is the largest labor union and professional organization of airline pilots in the world. It is affiliated with the AFL-CIO and represents over 67,000 airline pilots at 47 carriers in the U.S. and Canada. In its professional role, ALPA is the industry's leading air safety advocate.

As First Vice President, Captain Dolan is one of the four national officers of ALPA. In his capacity as First Vice President he serves on ALPA's Executive Council, one of the Association's governing bodies, which is comprised of the four national officers and nine executive vice presidents.

Captain Dolan is the chairman of the Association's Strategic Planning Committee and the National Airspace Modernization Oversight Committee, serves as ALPA's liaison to NATCA, is a former Executive Vice President of the Association and also formerly chaired the Delta Master Executive Council, that pilot group's highest governing body.

Captain Dolan is also the Principal Vice President—Professional Affairs, for the International Federation of Air Line Pilots' Associations (IFALPA). Headquartered in Chertsey, England, IFALPA represents over 100,000 pilots of 95 member associations worldwide. The PVP—Professional Affairs is responsible for coordinating IFALPA's industrial policies on a worldwide basis.

Captain Dolan began his ALPA volunteer work as a member of the Communications Committee of his local council. He has since served as a technician for the Western Airlines pilots' Merger Committee during the merger process with Delta Air Lines, has served on the Delta Negotiating Committee, has chaired the contract administration committee, and was Vice Chairman of the Atlanta Local Council.

A native of St. Louis, Missouri, Captain Dolan has been a commercial airline pilot since 1976, when he joined Western Airlines, which later merged with Delta. He earned his Bachelor of Science & Commerce degree in Accounting in 1967 at Spring Hill College in Mobile, Alabama, and his Juris Doctor, *cum laude*, in 1985 from the St. Louis University School of Law. Prior to becoming an airline pilot, he served in the U.S. Marine Corps from 1967 to 1976, where he flew the F-4 Phantom on two tours of duty in Vietnam, completing 333 combat missions.

Captain Dolan and his wife, Maritza, live in Roswell, GA. They have three children, Dennis Jr., Rebecca and Robert.

NATIONAL AIR TRAFFIC CONTROLLERS OPENING STATEMENT

Mr. ROGERS. Thank you, Captain.

Mr. Carr.

Mr. CARR. Good morning, Chairman Rogers and Congressman Sabo, Members of the subcommittee. I appreciate the opportunity to testify this morning on NATCA's efforts to reduce aviation delays. I also appreciate the opportunity to go last because I had the opportunity to go over my remarks and make sure I was not making any new promises.

FLIGHT DELAYS AND CANCELLATIONS

Flight delays and cancellations have eased somewhat over the past few months, and I believe that this is a testament to a new era of cooperation. We view the results so far as a beginning rather than an end, thanks in no small part to the leadership of this subcommittee, NATCA, the Secretary's office, the FAA, the pilots, the airlines and the airports all working together to develop and implement concrete solutions to the delay dilemma.

In fact, just last week NATCA and the Air Transport Association co-hosted the 2001 Aviation Capacity Summit, which focused on forging industry consensus on airport capacity, air traffic control modernization and long-term funding issues. Thirteen different groups from every corner of the aviation community came together in sending a letter to the President asking him to make these issues a national priority.

AIR TRAFFIC MODERNIZATION TOOLS BOOKLET

I am also pleased to report that NATCA has made significant progress on the five commitments we made to this subcommittee. First and foremost, we are committed to operating and maintaining the safest air traffic control system in the world. We remain an advocate of Administrator Garvey's evolutionary approach to modernization. We are directly involved in over 65 technology projects with the agency, and we will continue to lead both the agency and the industry into the twenty-first century.

As a matter of fact, in an effort to provide information to government officials, industry and media we have recently created the Air Traffic Modernization Tools booklet as an introductory reference guide to many of the FAA's technology programs. We took the liberty of providing the subcommittee with copies of the booklet.

With respect to the FAA's modernization effort, we believe it is critical to correct any misconceptions or inaccurate information in the interest of safety. This is especially important when our air traffic control system is being compared to that of other countries. The U.S. system is the most sophisticated in the world. We handle twice as many IFR (instrument flight rules) flights with the same number of controllers and at almost the same total cost as Eurocontrol. The FAA is modernizing our system gradually, effectively and very carefully.

NAV CANADA

On July 17, the *Wall Street Journal* carried a story entitled The Unfriendly Skies, which advocated quite radical reform of the FAA,

touting Nav Canada as the perfect model. The article mentions Nav Canada's sterling safety record with two operating irregularities per 100,000 operations. If that is sterling, then the United States, with only .67 errors, is more than three times better than sterling.

As a matter of fact, I testified earlier this summer on runway incursions, and Mr. Mead can tell you just how seriously we take those events. It is important to note that runway incursions are up over 145 percent in Canada since the advent of privatization.

The article goes on to credit Nav Canada with investments in technology and declining delays. However, in reality they use their surpluses to reduce air navigation fees, as opposed to investments in modernization or equipment.

The simple fact that Canada does not have a national flight data processing system puts them 20 or so years behind us in automation functionality. Without this basic system, Canada does not have the automated ability to hand aircraft off between centers within their own system. This is a very basic and core functionality of all United States air traffic control centers and has enabled us to achieve the efficiencies which are the model for the rest of the world.

CONTROLLER WORKFORCE

On our second item, NATCA is working to ensure that there are enough qualified and trained air traffic controllers to handle increased traffic growth, the opening of new sectors and to prepare for the impending retirement crunch. The President's fiscal 2002 budget request is consistent with the NATCA/FAA contract and will help the FAA address increased traffic levels. We support the Senate fiscal year 2002 transportation appropriations bill language, which includes full funding for the Administration's request.

Tomorrow marks the twentieth anniversary of the PATCO (Professional air traffic controllers association) strike when approximately 11,350 air traffic controllers nationwide were fired. The replacement work force will reach retirement eligibility in a very short period of time. GAO is currently trying to determine whether the FAA has sufficient numbers of controllers to meet its short- and long-term staffing needs. In order to obtain accurate data, the GAO, in consultation with my union, has procured a survey which we are pretesting this very week.

Additionally, on May 10, Senator Cleland introduced S. 871, the Federal Air Traffic Controllers Annuity Computation Act. The bill changes the annuity computation for controllers under CSRS (civil service retirement system) to give them the same annuity afforded to both federal firefighters and law enforcement officials. This changed annuity computation would provide an incentive for the 5,000 CSRS controllers to work beyond their retirement eligibility. We are working to co-sponsor and to get the legislation introduced in the House.

AIRSPACE REDESIGN

On our third item, NATCA remains a partner in national airspace redesign. Since signing the national airspace redsign memorandum of understanding, five new sectors have been opened in

Cleveland, Chicago and Indianapolis centers. Current testing is being done at three other centers to incorporate part-time sectors to deal with peak hour volume and demand. Additionally, modification of the airspace for the Las Vegas Airport is in the final stages of implementation. NATCA is committed to NAR and will continue to play an active role, especially in the technical aspects of this project.

AIRCRAFT SEPARATION STANDARDS

On our fourth item, NATCA would like to thank this subcommittee for the funds provided in the House fiscal 2002 transportation bill to examine reduced separation standards. As I have described here before, any marginal or fractional decrease in separation standards could instantaneously free up unused capacity in the system. Any decrease must also be measured against the litmus test of safety, and we look forward to examining these separation standards in tandem with industry.

MANAGEMENT ADVISORY COUNCIL

Lastly, NATCA continues to work to obtain the labor seat on the Management Advisory Council. I have sent letters and testified before both the Aviation authorizing and Appropriations Committees asking for their support. Numerous Members of Congress have contacted the Administration on my behalf, and, most recently, I have contacted the seven current members of the MAC to ask for their support. There are still four openings on the Management Advisory Council, including the labor seat. NATCA strongly believes that it is imperative that these seats be filled as soon as possible.

Mr. Chairman, that concludes my testimony. As always, I will be happy to answer any questions you may have.

[The prepared statement and biography of John Carr follows:]

National Air Traffic Controllers Association
AFL-CIO

Testimony of

John Carr
President

National Air Traffic Controllers Association

before the

U.S. House of Representatives

Appropriations Transportation Subcommittee

Aviation Delays

August 2, 2001

1325 Massachusetts Ave., N.W. Washington, D.C. 20005 (202) 628-5451 (202) 628-5767 FAX www.natca.org

Good afternoon Chairman Rogers, Congressman Sabo, and members of the Subcommittee. I want to thank you for the opportunity to testify today on efforts to reduce aviation delays. I am John Carr, President of the National Air Traffic Controllers Association.

NATCA is the exclusive representative of over 15,000 air traffic controllers serving the FAA, Department of Defense and private sector. In addition, NATCA represents approximately 1,200 FAA engineers, over 600 traffic management coordinators, automation specialists, regional personnel from FAA's logistics, budget, finance and computer specialist divisions, and agency occupational health specialists, nurses and medical program specialists.

The fact that flight delays and cancellations have eased somewhat over the past few months is testament to a new era of cooperation. I am happy to report that the aviation community has stepped up to the plate. NATCA, the FAA, the pilots, the airlines, the airports and others are working together to develop and implement concrete solutions. In fact, last week NATCA and the Air Transport Association co-hosted the 2001 Aviation Summit focused on forging industry consensus on airport capacity, air traffic control modernization and long-term funding. Thirteen groups from every corner of the aviation community came together in sending a letter to the President asking him to make these issues a national priority.

However, despite these monumental achievements delays and capacity constraints remain a significant problem. On May 3, 2001, I testified before the Subcommittee on the five initiatives that NATCA is taking to help reduce the record number of delays that continue to plague our National Airspace System. Today, I will update the Subcommittee on our progress.

I. Ensure All Initiatives are Measured Against Safety

NATCA is a firm supporter and partner in Administrator Garvey's evolution not revolution strategy of "build a little, test a little, deploy a little," and we will remain an advocate of this throughout the modernization effort. NATCA is working day and night with the FAA to move new technologies into the workplace as quickly, efficiently and safely as possible. FAA modernization is an ongoing process and NATCA is directly involved in every technology project from its inception. This collaboration and teamwork has been instrumental in ensuring the success of modernization projects such as Display System Replacement and Standard Terminal Automation Replacement System.

NATCA currently has representatives on over 65 technical projects, and we will continue to lead both the agency and the industry into the 21st Century. In an ongoing effort to provide information to government officials, industry and the media, NATCA recently created the *Air Traffic Modernization Tools* booklet as an introductory reference to many of the FAA's technology programs. NATCA welcomes the opportunity to provide information and testimony to members of Congress on these important initiatives.

Most recently, NATCA testified before the House Aviation Subcommittee on the prevention of runway accidents. Enhancing runway safety and reducing the number of runway incursions and surface accidents is a top priority for the aviation community. In addition to having full-time representatives working on technological solutions such as Airport Movement Area Safety System, NATCA has devoted much of its attention and resources to aggressively pursuing non-technological solutions. To this end, air traffic controllers have been participating on monthly workgroups dealing with training and procedures, phraseology and memory enhancement.

NATCA representatives also met with the FAA and ALPA last week in order to reach an agreement for safe and efficient use of land and hold short operations (LAHSO). LAHSO is a procedure in which the air traffic controller clears an aircraft to land on one runway with additional instructions to hold short of an intersecting runway where simultaneous operations are taking place. This procedure allows controllers to use intersecting runways as if they do not intersect at all, thus allowing for the maximum arrival and departure rates. NATCA supports the use of LAHSO to increase airport capacity and help alleviate delays, and we will continue to work with the FAA, the pilots, and other stakeholders to safely maximize the use of this capacity enhancing tool.

With respect to the FAA's modernization effort, NATCA believes it is critical to correct any misperceptions or inaccurate information. This is especially important when modernization of our air traffic control system is being compared to that of other countries. The U.S. system is the most sophisticated in the world, handling over half of the world's air traffic and cargo. In air traffic control terms, we are the envy of every other nation. The FAA is modernizing the system gradually, effectively and carefully, with safety as its litmus test.

Yet, on July 17, 2001, the *Wall Street Journal* carried a story entitled "The Unfriendly Skies" which advocated radical reform of the FAA touting Nav Canada as the perfect model. I am here to tell you that Nav Canada is not the appropriate model for the U.S. Even Air Canada President Robert Milton admitted that "we have a long way to reach the levels of efficiency that exist in the U.S."

The article touts Nav Canada's safety record stating that while traffic has increased by 20 percent there are only "two operating safety irregularities per every 100,000 aircraft movements – a sterling record." If that is sterling, then the United States, with only .67 errors per 100,000 operations, is three times better than sterling. In addition, runway incursions, the most serious threat to air safety, have sky rocketed in Canada increasing at a rate of three times that of the U.S. In fact, there has been a 145 percent increase in runway incursions in Canada in the four years after privatization. While in the U.S., over a comparable period, the rate was 45 percent.

The *Wall Street Journal* article credits Nav Canada with investments in new technology and declining delays. However, in reality, Nav Canada's surplus revenue has been used to reduce the air navigation fees charged to airlines, as opposed to investment in new equipment or modernization efforts. Passenger costs have skyrocketed while the airlines have received hundreds of millions of dollars in rebates.

The fact alone that Canada does not have a national Flight Data Processing system puts them some 20 or more years behind the U.S in automation functionality. Without this system, Canada does not have the automated ability to hand-off aircraft between centers within their system. This means that they perform manual hand-offs to adjacent facilities. The ability to perform automated flight data processing is a core functionally of the U.S. air traffic control system and has enabled us to achieve the efficiencies that are the model for the rest of the world.

NATCA is committed to operating and maintaining the safest air traffic control system in the world, and we renew our commitment to ensure that any changes undertaken to that system keep safety as the bottom line.

II. Hire More Air Traffic Controllers

While safety is the responsibility of all participants in the nation's air transportation system, the FAA's air traffic controller workforce serves on the front line, managing millions of commercial, military, and general aviation aircraft operations on a daily basis. The 15,000 professional air traffic controllers are essential to the seamless, safe, and efficient movement of these aircraft at airports, approach control centers, and enroute centers. We need to ensure that there are enough qualified and trained air traffic controllers to handle the increased traffic growth, the opening of new sectors and to prepare for the impending retirement crunch.

The five-year agreement between the FAA and NATCA, signed in 1998, calls for a baseline of 15,000 air traffic controllers for the first three years. The agreement calls for 15,300 full-time equivalents in 2002, and 15,606 in 2003. NATCA does not support reopening our collective bargaining agreement. However, we do have a fundamental disagreement with the agency over the terminology used in the contract. NATCA believes that the term "baseline" refers to a floor, and therefore the 15,000 figure represents the minimum number of air traffic controllers.

The President's FY2002 budget request provides for the hiring of 600 additional air traffic controllers. This is consistent with the FAA-NATCA contract and will help the FAA address the increased traffic levels. NATCA supports the Senate FY2002 Transportation Appropriations bill that includes full funding for the Administration's request.

In addition, tomorrow marks the 20th anniversary of the PATCO strike when approximately 11,350 air traffic controllers were fired. The FAA spent most of the 1980s hiring and training a replacement workforce. By 1992, the controller workforce was restored to pre-strike levels, and hiring was halted. Now, after two decades, the air traffic controller workforce and the country are about to feel the aftershock of the PATCO event.

The thousands of controllers hired during the post strike recovery period will reach retirement eligibility in just a short period of time. Retirements will dramatically increase

until 2007, when they will peak at 8.4 percent of the workforce. By 2010, cumulative retirements will exceed 50 percent of the workforce.

Mandatory overtime, six-day work weeks and understaffed shifts are what air traffic controllers will be facing if something is not done now to prepare for this crisis. Currently, there are not enough controllers to fill the gap, and it takes anywhere from 2 to 4 years to become a full performance level controller. We believe that the FAA must immediately begin hiring and training the next generation of air traffic controllers. If the pending retirement crunch continues to be ignored, it will only get worse.

On May 10, Senator Max Cleland introduced the Federal Air Traffic Controllers Annuity Computation Act (S. 871). The bill would change the annuity computation for air traffic controllers under the Civil Service Retirement System to allow them to receive a two percent annuity for years of service after twenty. This will simply give controllers the same annuity that is afforded to both federal firefighters and law enforcement officers.

Under current law, after an air traffic controller completes twenty years of service, his CSRS annuity will not change until he has completed twenty-seven years of service. For those seven years, controllers are required to pay seven percent of their basic pay annually, but their annuity remains constant. This encourages early retirement because there is no incentive to work beyond the point in service (20 years) when the guaranteed level is reached.

There are approximately 5,000 air traffic controllers under CSRS. Enactment of S. 871 will give these controllers the necessary incentive to work beyond their date of retirement eligibility. While the FAA will still need to hire new air traffic controllers, the changed annuity option will lessen the impact of the retirement crunch, and provide the necessary time for the new hires to receive the training they need to become full performance level air traffic controllers.

S. 871 was referred the Senate Governmental Affairs Committee where no further action has been taken. NATCA is working to garner cosponsors and to get similar legislation introduced in the House.

In testimony before the Senate Commerce Aviation Subcommittee on May 10, 2001, the GAO Director of Physical Infrastructure Issues Gerald Dillingham stated that "If steps are not taken now to plan for succession, the retirement of critical personnel responsible for the safe and efficient operation of the NAS in the coming decade could negatively affect the ability of FAA and others to meet future demands for air service." Mr. Dillingham went on to state that, "While estimates vary greatly, it is generally agreed that by 2010, at least 40 percent of the current controller workforce will be eligible to retire."

The GAO has been tasked to determine whether the FAA will have a sufficient number of air traffic controllers and candidates to meet its short and long term staffing needs. In order to obtain accurate data, the GAO, in consultation with NATCA, has prepared a survey that is being pre-tested this week. The GAO report, which was requested by Congressman John Duncan, is expected to be completed by November 30, 2001.

III. Work with the FAA on National Airspace Redesign

National Airspace Redesign (NAR) is an evolutionary, multi-year, multi-faceted process. The goal is to review, redesign and restructure our national airspace to efficiently and effectively meet the needs of all customers and service providers while maintaining the high standards of safety. The short-term focus is on optimization of the present structure concentrating on projects such as the choke point initiative to strengthening the current system and technology. Then, the longer-term airspace redesign projects will incorporate technological and conceptual enhancements. In order to be successful, NAR requires a major commitment, by all involved, in time, effort and funding.

NATCA has been involved in NAR since its inception in April 1998. We have committed one full-time airspace liaison and eleven NATCA regional representatives that work with the regional FAA redesign managers to plan, provide user input and monitor regional NAR activities. In addition, the union has 300 to 350 controllers nationwide who are involved in some aspect of NAR.

On March 16, 2001, NATCA and the FAA signed a Memorandum of Understanding on National Airspace Redesign. The MOU states that changes to the National Airspace System should be based on increasing safety, efficiency and capacity, and any modifications are to be made in the best interest of the users of the system and the flying public. The MOU also provides for procedures in the event that NAR involves moving existing airspace boundaries, changing individual facility air traffic control grade levels, and staffing changes.

Since signing the MOU, five new sectors have been opened at Cleveland, Chicago and Indianapolis centers. Currently, testing is being done at three other centers to incorporated part-time sectors to deal with peak hour volume and demand. In addition, modification of the airspace for Las Vegas airport is in the final stages of implementation. We expect 14 additional sectors to be opened over the next six to eight months.

NATCA is committed to NAR and will continue to play an active role especially in the technical aspects of the project.

IV. Examination of Separation Standards

NATCA would like to thank the Subcommittee for the funds provided in the House FY2002 Transportation Appropriations bill to examine reducing separation standards. For the past year, NATCA has stated that it is time to consider safe and reasonable changes to the requirements for separating aircraft. Any marginal or fractional decrease in separation standards could instantaneously free up unused capacity in the system. However, any decrease must also be measured against the litmus test of safety.

Separation standards are designed to ensure the safety of aircraft and its passengers from other aircraft. The FAA separation standards, which date back to the 1950s, require 5 miles laterally in the enroute environment, 3 miles laterally in the terminal airspace, and 1,000 to 2,000 feet vertical depending on altitude. Attempts to determine the origin and basis for the current separation standards have revealed that they were apparently the result of qualitative judgements. There are no documents that explain how the three and five mile standards were derived. It is, however, generally accepted that the standards are the result of a number of factors including practices used by the military, radar equipment limitations, pilot acceptance, and to provide for a practical time and distance buffer.

Today, we have the scientific methods and computer simulation tools needed to examine the separation standards. NATCA is willing to join with the NTSB, NASA, the pilots, the FAA and other interested parties to carefully examine the possibility of reducing the separation standards. Data developed by Professor John Hansman from the Massachusetts Institute of Technology International Center for Air Transportation, Department of Aeronautics and Astronautics shows that while separation standards have remained unchanged radar performance has improved five-fold.

V. Labor Representative on the Management Advisory Council

The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (P.L. 106-181) reaffirmed creation of the Management Advisory Council (MAC) that was first authorized under the Federal Aviation Reauthorization Act of 1996 but never formed. The MAC provides advice and counsel to the FAA Administrator, and functions as an oversight resource for management, policy, spending, and regulatory matters under the jurisdiction of the FAA.

The MAC consists of a designee of the Transportation Secretary, a designee of the Defense Secretary, and ten aviation industry representatives appointed by the President and confirmed by the Senate. Initially, these ten council members will serve from one to three year terms. Subsequent appointments will be made by the Secretary of Transportation and will be for three years. None of these ten Council members may serve as an officer or employee of the federal government. There is also a seat on the MAC for one of the union leaders representing air traffic control system employees, to be appointed by the President and confirmed by the Senate. The labor representative is appointed for a three-year term as long as such individual remains a leader of their respective union. Subsequent appointments will be made by the Secretary of Transportation.

Currently, the MAC consists of seven members. The Council has held numerous meetings, has elected a Chairman and has begun to move forward in its mission. However, there is no labor participation on the MAC. Given the important tasks and challenges facing the aviation industry and the MAC, NATCA believes that it is imperative that the remaining seats on the Council be filled before any further business is conducted.

In January, I submitted my name to the White House and the Secretary of Transportation requesting that I be nominated to serve as the labor representative to the MAC. I have had personal conversations with both Secretary Mineta and Administrator Garvey on this matter. I have sent letters and testified before the aviation authorizing and appropriation committees asking for their support of my candidacy. Numerous members of Congress have contacted the Administration on my behalf. Most recently, I have contacted the seven current members of the MAC to ask for their support.

NATCA is the logical choice to represent the unions of air traffic control system employees. The general function of the MAC is to provide advice and counsel to the Administrator on issues that affect or are affected by the operations of the FAA. All policy and technical discussions involving the National Airspace System will have a direct impact on NATCA and its members.

Over the past 18 years, I have worked as an air traffic controller at Kansas City International tower, at Chicago Terminal Radar Approach Control, and most recently at Cleveland tower. As such, I have the background needed to understand and actively participate in all policy and technical discussions involving the NAS. In addition, as an elected union leader, I have played an integral role in public policy discussions and decisions while working to enhance communications and develop cooperative partnerships with labor, Congress, user groups and the FAA.

It would be a privilege to serve as a member of the Management Advisory Council.

CONCLUSION

Thank you for the opportunity to testify on NATCA's five commitments and the proactive steps we have taken to address the capacity crisis. We look forward to working with the Subcommittee, the FAA, the pilots, airlines, airports, and other interested groups to develop and implement concrete solutions.

R TRANSPORT ASSOCIATION

CARGO AIRLINE ASSOCIATION

GAMA

NATA

National Association of State Aviation Officials

RAA

July 26, 2001

The President
The White House
Washington, DC 20500

Dear Mr. President:

Thirty-two years ago, the United States landed the first astronauts on the moon. Because of the focused efforts and cooperation put forth by various groups, this tremendous feat took only eight years from President Kennedy's historic pledge to Neil Armstrong's giant leap. In contrast, today's bureaucracy and regulatory red tape can delay more modest, yet crucial runway construction projects at airports for up to 15 years. The resulting lack of adequate airport capacity creates lengthy delays for air travelers and system users resulting in negative impacts to the economy.

Mr. President, the world's most accessible and efficient aviation system faces an infrastructure crisis unless we act now. Given government forecasts that estimate one billion passenger enplanements by 2010, and a project review process that results in lengthy delays in upgrading airport infrastructure to meet that demand, the aviation system will slide into gridlock in the next decade if measures to increase and speed capacity improvements do not receive immediate attention and support from the Bush Administration, Congress, and the entire aviation community.

The aviation community is as multifaceted as the dilemma we are confronting, but we have always shared a common goal -- to safely meet the evolving and ever-increasing demand for air transportation. Today, this community reached a consensus on the actions needed to achieve that goal. Representatives from each major facet of the aviation community met to determine the most effective means to resolve this airport capacity crisis before its devastating economic implications come to bear on the nation's economy. We concluded that a three-part strategy focusing on concrete actions to address capacity and infrastructure, ATC modernization and investment, and long-term funding is an appropriate course of action.

First, capacity is more than runways. Capacity can be affected by the ATC system as well as the levels of funding committed to various projects. Americans rely on air travel; therefore, we must build the necessary infrastructure to support the economic needs of the United States and to maintain the quality of life the public has come to expect. Aviation delays are caused, in part, by inadequate runway, taxiway, and gate space at our nation's busiest airports.

Help for congestion and the mismatch between passenger demands and airport capacity is available in capacity enhancement plans put together by many of our nation's busiest airports. Given that the top 25 airports represent 90 percent of the delays in the system, measures to expedite these projects promise to offer the single greatest benefit to travelers and system performance. These top 25 airports are also supported by a robust system of secondary and reliever airports. Many of these "reliever" facilities are under threat of closure, and need protections for better land use laws.

The Bush Administration and Congress should ensure that the environmental review process identifies real concerns, but is not used as a tool to unreasonably delay new runways and other vital capacity enhancements. Also, the Federal Aviation Administration and the Department of Transportation should become more vocal in their advocacy of new runway capacity where it is most needed.

Second, but just as importantly, we must accelerate efforts to modernize air traffic control equipment and methods while maintaining our absolute commitment to safety. Significant improvements have been made in the past several years, but more needs to be done. As the FAA's air traffic control systems continue to be modernized, congestion will be relieved and delays will become less frequent, but this effort must be expedited to meet ever-growing demand.

Modernization programs that increase capacity and reduce delays should be given high priority over a five-year timetable, including the full-scale implementation of Global Positioning System (GPS) Satellite Navigation, En Route Software and Hardware (HOST Computer) Upgrades, Airspace Redesign, Choke Point Initiatives that continue access by all system users, Wake Turbulence Detection at major airports, Controller-Pilot Data Link Communication, other Free Flight Phase I and II technologies, continued development and deployment of Safe Flight 21 Initiatives, such as ADS-B, and proper staffing of air traffic controllers.

These technology initiatives hold the promise of significantly increasing safety, as well as capacity. For example, many of these technologies can be used to address the very real problem of runway safety and situational awareness.

Finally, maintaining consistent, long-term federal investment in the aviation system is critical. The continuation of AIR-21 funding levels is imperative. This funding, the vast majority of which derives directly from aviation system users, is what supports the addition of airport infrastructure and air traffic modernization. In addition to AIR-21, adequate funding of the NASA aeronautics programs must be assured. This will ensure on-going technological innovation and capacity building in the areas of noise and emissions reductions and evolution of the air traffic system. We must continue the momentum gained through AIR-21, and extend the use of present aviation taxes to produce predictable funding levels over the long term. This is key to getting the necessary corrective steps accomplished. Guaranteed funding levels for aviation capital programs should be continued and increased to meet our system's ever-growing needs.

We respectfully urge the Bush Administration to make aviation capacity enhancements a top national priority, by working with the aviation community to ensure that America's air transport system has the airport capacity, modern air traffic management technology and procedures, and long-term investment necessary to foster the maintenance of safe and efficient air transportation system.

Sincerely,

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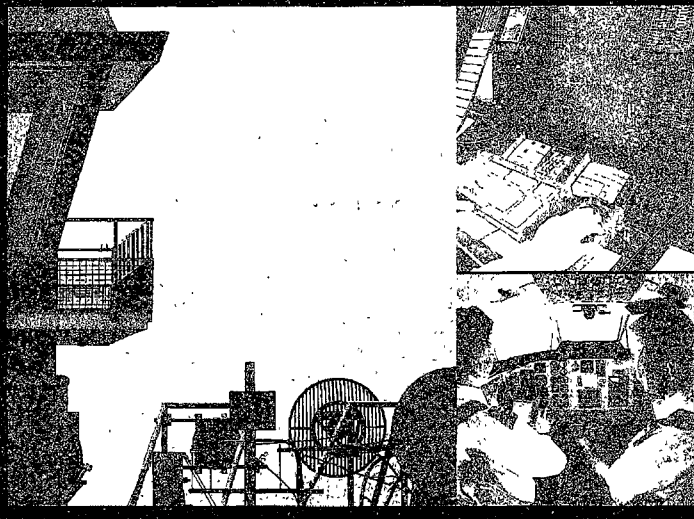
RAA

AIR TRAFFIC
MODERNIZATION TOOLS

Controller expertise delivering ATC solutions



INTRODUCTION

The United States' air traffic controllers are committed to supporting the most complex and sophisticated air traffic control system in the world by taking advantage of new technologies. NATCA members are long standing advocates of air traffic control research and development and provide their expertise at every stage in the requirements development, design and procurement processes. In an ongoing effort to provide information to the industry and media, NATCA created the *Air Traffic Modernization Tools* booklet as an introductory reference to some of the many technology programs currently or recently funded by the Federal Aviation Administration.

NATCA members actively participate in all of these initiatives, each of which is intended to provide an increased level of safety, capacity and efficiency in the air traffic system. Collectively, they represent significant movement toward comprehensive modernization of the National Airspace System. This publication merges information from a variety of public, contractor, and historical sources, as well as from NATCA representatives involved in the respective programs described it is presented for general informational purposes only.

NATCA represents over 15,000 air traffic controllers, engineers and other safety related professionals. It is a federal sector labor union and a direct affiliate of the AFL-CIO.

NATCA is very proud to represent not only the interests of its membership, but the safety interests of the flying public. The motto, "Safety Above All," is the litmus test against which all its decisions are based. NATCA continually strives to improve and enhance aviation safety and proudly provides the safest air traffic control system in the world

Each year, the men and women NATCA represent will work for over 600 million passengers---over half the world's passengers and cargo---twenty four hours a day, seven days a week, in almost 350 different air traffic control facilities from Guam to St. Thomas and everywhere in between. Safety is NATCA's business, and business is good.

Users of the *Air Traffic Modernization Tools* booklet are encouraged to consult official FAA sources for specifics regarding program details, funding, testing, and deployment. Or for additional information, please contact NATCA's national office at 202/628-5451.

President
John Carr

Executive Vice President
Ruth Marlin

CONTENTS

ATOP - Advanced Technologies and Oceanic Procedures 2
ARSR-4 - Air Route Surveillance Radar - 4 2
ASR-11 - Air Surveillance Radar-11 2
ATCBI-6 - Air Traffic Control Beacon Interrogator, Model 6 2
AMASS - Airport Movement Area Safety System 3
ASDE-X - Airport Surface Detection Equipment - X Band 3
ACD - Automated Radar Terminal System Color Display 3
ALDARS - Automated Lightning Detection and Reporting System 4
ASOS - Automated Surface Observation System 4
ADS-B - Automatic Dependent Surveillance - Broadcast 4
CDM - Collaborative Decision Making 5
Common ARTS - Common Automated Radar Terminal System 6
CIDS - Controller Information Display Systems 6
CPDLC - Controller Pilot Data Link Communications 7
CRDA - Converging Runway Display Aid 7
CRU-X - FAA Organizational Software 8
D-BRITE Relocation - Digital Bright Radar Indicator Tower Equipment Relocation 8
DVRS - Digital Voice Recording System 8
DSR - Display System Replacement 8
Domestic RSVM - Domestic Reduced Vertical Separation Minima 9
DD - Dynamic Density 9
EDT/EFSTS - Electronic Drop Tube/Electronic Flight Strip Tracking System 9
ERAM - En Route Automation Modernization 10
FDIO - Flight Data Input/Output 10
FTI - FAA Telecommunications Infrastructure 10
FFP1/FFP2 - Free Flight Phase One and Two 11
GPS - Global Positioning System 13
ITWS - Integrated Tower Weather System 13
LAAS - Local Area Augmentation System 13
LLWAS - Low-Level Windshear Alert System 14
MicroEARTS - Microprocessor En Route Automated Radar Tracking System 14
NEXCOM - Next Generation Communications 14
NEXRAD - Next Generation Weather Radar 15
ODMS - Operational Data Management System 15
pFAST - Passive Final Approach Spacing Tool 15
PRM - Precision Radar Monitoring 16
RVSM (Oceanic) - Reduced Vertical Separation Minima (Oceanic) 16
SATDS - Stand-Alone Tower Display System 16
SAWS - Stand-Alone Weather System 16
SNARS - Satellite Navigation Aviation Reference System 17
STARS - Standard Terminal Automation Replacement System 17
TDWR - Terminal Doppler Weather Radar 18
TDLS - Tower Data Link Services 18
TCAS - Traffic Alert and Collision Avoidance System 18
TMA - Traffic Management Advisor 19
TLS - Transponder Landing System 19
URET - User Request Evaluation Tool 19
VSCS/VTABS - Voice Switching and Control System/VSCS Training and Back-up System 20
VST/TVSR - Voice Switching for Terminal/Terminal Voice Switch Replacement 20
WARP - Weather and Radar Processor 21
WSP - Weather System Processor 21

ATOP

Advanced Technologies and Oceanic Procedures

ATOP is a new oceanic program that provides integrated data link, intra-facility data communications, and oceanic flight data and radar data processing for the Anchorage, New York and Oakland Centers' oceanic operations. The acquisition process includes a "fly before buy" approach. Three teams of controllers from the aforementioned centers test the equipment prior to deployment to ensure operational suitability and identify all possible computer-human interface and functionality issues prior to contract award. Once fielded, ATOP will provide an integrated solution and replace several existing oceanic systems, including:

- Oceanic Display and Planning Systems
- Multi-Sector Oceanic Data Link
- Interim Situation Display
- ATS Interfacility Data Communications

The ATOP program interacts with a number of related programs, including:

- Controller-Pilot Data Link Communications
- Flight Data Processor 2000
- Micro-EARTS
- CAPSTONE/Automatic Dependent Surveillance – Broadcast in Alaska
- Dynamic Ocean Track System Plus

ARSR-4

Route Surveillance Radar - 4

ARSR-4 replaces obsolete equipment at 42 domestic Federal Aviation Administration sites. This involves complete replacement and refit side-by-side with existing facilities except where environmental problems were encountered. Two additional sites are at Vandenberg Air Force Base and Naval Air Station at Guantanamo Bay, Cuba, of which only Guantanamo Bay is in the National Air System. Vandenberg is a possible inclusion site in the NAS at a later date. With the commissioning of Guantanamo Bay Cuba in mid-2000, all 44 ARSR-4 sites have now been deployed.

The program interacts with these two other initiatives.

- Air Traffic Control Beacon Interrogator - 6
- Long-Range Radar Restructuring

ASR-11

Air Surveillance Radar - 11

ASR-11 is a replacement for aging analog terminal radar systems such as ASR-7 and ASR-8. It is a close-in digital radar system compatible with the Standard Terminal Automation Replacement System. Raytheon received the contract as indefinite delivery/indefinite quantity with the Air Force as lead procurement agency. The two key sites are Stockton, Calif., and Eglin Air Force Base, Fla. The former uses existing Automated Radar Terminal System display systems, while the latter is uses STARS terminals.

ATCBI-6

Air Traffic Control Beacon Interrogator, Model 6

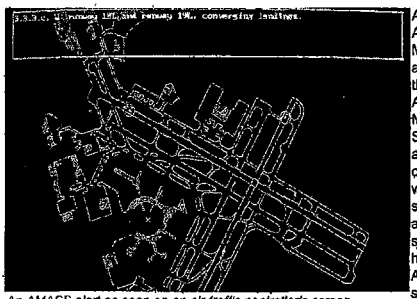
ATCBI-6 will replace predecessor beacon interrogators at domestic Federal Aviation Administration sites. ATCBI-6 provides greater target capacity, improved accuracy and better probability of detection with a reduction in false targets. Its high reliability reduces maintenance and support costs.

The ATCBI-6 program interacts with two other initiatives:

- Air Route Surveillance Radar – 4
- Long-Range Radar Restructuring

AMASS

Airport Movement Area Safety System



An AMASS alert as seen on an air traffic controller's screen.

AMASS is a software enhancement to the Airport Surface Detection Equipment, Model 3 that provides controllers with aural and visual alerts to potential collisions on the runway. It processes data from the Airport Surface Detection Equipment, Model 3 and Automated Radar Terminal Systems to predict aircraft movement for arriving and departing aircraft and see aircraft and vehicles that infringe on the runway surface. This is done by correlating speed, time and distance algorithms to assess potential collision situations. The system will be deployed at 34 airports that have ASDE-3. There is no plan to install AMASS beyond these sites, but its basic safety logic concept will be incorporated in to future ground radar systems such as Airport Surface Detection Equipment, X-Band. The AMASS project team also has agreed to commonality in displays, keyboards, and the visual specification with ASDE-X.

ASD

Airport Surface Detection Equipment - X

ASDE-X provides controllers with surface surveillance equipment that will use multilateration and radar to obtain position information on cooperative and non-cooperative targets on the airport surface. Multilateration is the process of determining a transponder's location in two or three dimensions. ASDE-X will utilize a fusion platform enabling it to accept input from multiple sensors such as Automatic Dependent Surveillance, Model B, Airport Surface Target Identification System and radar. It will have the ability to accept input from multiple radar sensors if necessary. The fusion platform will also be able to interface with existing ASDE-3 sites.

The system will use ATIDS to provide data tags on arriving and departing aircraft. Cooperating vehicles will have data tags as well. Future system enhancements will incorporate safety logic similar to AMASS for collision prevention. Additional enhancements will allow the system to accept input from ASDE-3/AMASS to the fusion platform to allow common functionality between ASDE-3/AMASS and ASDE-X sites.

ACD

Automated Radar Terminal System Color Display

Pending replacement by Standard Terminal Automation Replacement System, some existing Automated Radar Terminal Systems are being modified to provide target information to digital displays. Under a contract awarded by the Federal Aviation Administration in May 1999, Lockheed Martin is replacing monochrome display technology with the ARTS Color Display for terminal air traffic control workstations that incorporate commercial open systems technology. The ACD program is now in the operational test and evaluation phase and focused on operational readiness prior to deployment. At the large TRACONs, ACD will be integrated with the ARTS-IIIE terminal automation system. The first operational ACD installations will be New York TRACON, Washington National Airport and Dallas/Fort Worth TRACON. The Atlanta TRACON has been commissioned utilizing the ACD. The next in line to receive ACDs will be the Northern California TRACON and the Potomac TRACON.

A related program known as Remote ACD provides controllers with all the functionality of the current Digital Bright Radar Indicator Tower Equipment as well as a stable high resolution color flat panel monitor and a graphical user interface for full control of the presentation. All ARTS keyboards and trackball function are supported. The R-ACD uses the ARTS keyboard, which features LED backlighting, and keys provide quick access to the R-ACD graphical user interface used in place of the D-BRITE knobs.

The Remote Display Multiplexer provides the interface to local TRACON ARTS-IIIE and core display processing for the R-ACD. The RDM is capable of interfacing multiple R-ACDs to the ARTS-IIIE system. All controls are provided via multifunction menus accessed by a few simple keyboard and trackball entries. The same functionality that exists in the ACDs will be available in the R-ACD. Because the D-BRITE is no longer available, the R-ACD will be installed in facilities in the Atlanta, Northern California and Potomac TRACON areas.

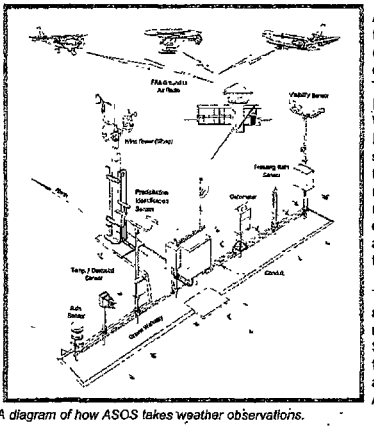
DARS

MATED LIGHTNING DETECTION AND REPORTING SYSTEM

ALDARS augments the Automated Surface Observation System, the Automated Weather Observation System and the upcoming Automated Weather Sensor System by reporting near-real time lightning strikes within 30 nautical miles of a given airport reference point. In addition, ALDARS reports the presence of a thunderstorm if cloud-to-ground lightning strikes are detected within 10 NM of that same reference point. Reports are disseminated in both text and voice formats. One hundred six lightning detection sensors provide information across the country. They make up the National Lightning Detection Network. Global Atmospheric Incorporated, a contractor, operates NLDN.

OS

ATED SURFACE OBSERVATION SYSTEM



A diagram of how ASOS takes weather observations.

ASOS is an automated observing system that takes weather observations of temperature, dew point, wind, altimeter setting, visibility, sky condition and precipitation at each sensor site. The ASOS program is a joint effort of the Federal Aviation Administration, National Weather Service and the Department of Defense. Five hundred sixty-nine FAA-sponsored ASOS systems will be installed at airports throughout the country. ASOS automatically reports local weather to cab and TRACON-mounted display systems, either through dedicated monitors or information display systems, and is capable of delivering observations over the radio or telephone using a synthetic voice.

Twenty-three ASOS systems will be installed and commissioned during 2001. Thirty-seven new systems, called Automated Weather Sensor Systems will provide weather information to low-level towers, both federally operated and under contract. Bloomington, Ind., is the AWSS key site.

ADS-B

AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST

ADS-B is designed to do four things:

- Receive and process Global Positioning System data.
- Receive and process Mode C transponder data.
- Transmit identification, position, performance and aircraft data to surrounding aircraft and ground receivers.
- Display processed GPS and Mode C data to provide pilots with a cockpit display of traffic information that merges aircraft present position data with that of surrounding aircraft.

The Alaskan Region is evaluating an initial implementation of this technology for ATC purposes, known as

CAPSTONE, applying ADS-B technology to surveillance efforts where radar is not available. The test program consists of participating aircraft equipped with ADS-B hardware and a link from a receiver site in the vicinity of Bethel, Ark., to a MicroEARTS processor at Anchorage Center for controller display. Successful traffic separation was first performed using this system in January 2001.

Future operational evaluations have been planned to explore a variety of applications of ADS-B technology and capabilities. These include:

- Approach Spacing.
- Departure Spacing
- Final Approach Runway Occupancy Awareness
- Airport Surface Situational Awareness

AS will measure consistency of spacing. Controllers will use radar and pilots will use cockpit displays of information during arrival operations. DS will task pilots to achieve a specific spacing interval referencing departing aircraft. FAROA will evaluate pilot awareness of traffic on the runway during a restricted low approach using cockpit displays of information and ASSA will gauge the cockpit display of information utility as a tool to help pilots navigate scripted taxi routes.

COLLABORATIVE DECISION M

CDM is based upon the premise that shared information on all sides will ensure a National Airspace System beneficial to all. Representatives from the government, several airlines, private industry and academia contribute to CDM's efforts to change the way air traffic is managed. CDM seeks a shift is from central planning in which the Federal Aviation Administration as NAS service provider is responsible for traffic decisions, to a collaborative paradigm in which users have input on decisions and all parties are aware of NAS constraints at the same time and in the same format. This concept has proven successful during prototype operations of CDM's first major effort, Ground Delay Program Enhancements, and appears promising as it moves into more complex Free Flight-related areas.

The near term objectives for CDM are as follows.

- Validate estimated reduction in delays resulting from increased information sharing across all airports in the U.S
- Evaluate and institutionalize new procedures that improve flight routing under severe weather avoidance conditions and congestion.
- Continue the expansion of joint FAA/industry information exchange mechanisms.
- Release FAA real time sensor and resource status data to improve efficiency.

Along with the GDPE effort, CDM created several working groups specifically targeted towards furthering collaborative technologies in the areas where the NAS needs improvement. Two of these groups, the Collaborative Rating Group and the NAS Status Information Working Group, promise to have an impact on the NAS in the near future.

The Collaborative Routing Group seeks to give the Air Traffic Control Systems Command Center and NAS users the same picture of adverse weather conditions to avoid confusion and confrontation, while allowing all users to meet their flight routing needs. The group examines what technology and procedures are needed to facilitate collaborative routing between the frequency modulators and NAS users both before take-off and en route. It has developed Coded Departure Routes, a standard abbreviated form for routes of flight; the National Playbook, a set of routes to help coordinate the movement of traffic in severe weather situations and several Standard Instrument Departures and Standard Terminal Arrival Routes.

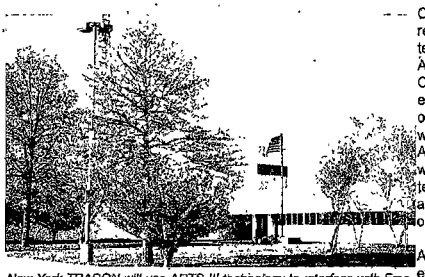
The group is responsible for the Collaborative Convective Forecast Product, a joint effort to deliver a consensus weather forecast product for industry and FAA use. The CCFP provides an alternative to conventional aviation weather forecast products by tailoring its product to the strategic needs of air traffic management. Collaboratively produced by the National Weather Service, the FAA and numerous airline meteorological departments, the CCFP will be their basis for air traffic management planning in an effort to minimize disruptions due to weather. Operationally, it is an extended forecast of thunderstorms with a lead time of two, four or six hours presented in graphical form. The Collaborative Routing Group also facilitated

the development of prototype equipment such as Collaborative Routing Coordination Tool and the Sector Management Tool.

The NAS Status Information Working Group is attempting to identify data critical to safety and efficiency existing in the NAS, but is distributed to all who need it. Examples include airport configuration data, braking action reports, runway visual range and Notice to Airmen information.

COMMON ARTS

COMMON AUTOMATED RADAR TERMINAL SYSTEM



New York TRACON will use ARTS-III technology to interface with Free Flight Phase One tools.

Common ARTS is an evolutionary replacement for the air traffic control systems in use at 136 of the Federal Aviation Administration's TRACON facilities. Common ARTS replaces 30-year-old equipment with highly reliable commercial-off-the-shelf processors. While the hardware and software used in Common ARTS are new, NATCA and the FAA worked to preserve user interfaces, system functionality and field-proven safety algorithms from legacy systems throughout the upgrade process.

ARTS-IIE was designed to replace 133 existing ARTS-IIA installations at small to medium-sized TRACONs nationwide. Pensacola TRACON was the key site for this program. All ARTS-IIE systems were fielded as of the summer of the year 2000.

ARTS-IIIE was designed to replace existing ARTS-IIIA installations nationwide. Denver TRACON was the key site for this program. Other TRACONs equipped with ARTS-IIIE include New York, Chicago, Dallas-Fort Worth and Southern California facilities. ARTS-IIIE facilities will have the ability to interface with Free Flight Phase I tools. All ARTS-IIIE systems were fielded as of the summer of the year 2000.

CIDS

CONTROLLER INFORMATION DISPLAY SYSTEMS

CIDS is a blanket program aimed at identifying the informational needs of controllers in all types of facilities, determining what data may need to be available to multiple facilities and then procuring hardware and software appropriate to those needs.

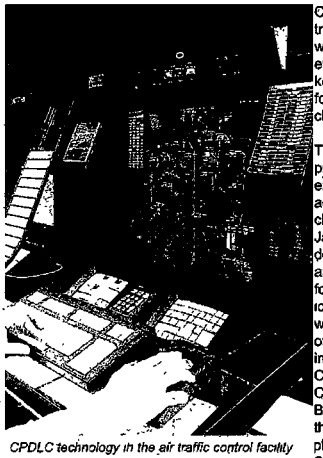
The latest CIDS program for the tower/TRACON environment is the Automated Surface Observation System Controller Equipment – Information Display System. ACE-IDS is designed for use in air traffic control towers and radar approach control facilities, but can be expanded to integrate centers, automated flight service stations, weather stations, maintenance facilities, airline and airport operations centers and military airfields as well. ACE-IDS allows data from multiple internal and external sources to consolidate onscreen in many combinations and formats for easy access within a graphical user interface. Reference data, such as charts, maps and instrument approach procedures can be integrated with real-time data collected by interfaces to other systems. The system automatically alerts users to changes in critical information such as weather and Automated Terminal Information Services. ACE-IDS external interfaces presently include Automated Surface Observing System and other National Weather Service systems, digital altimeter; flight data input/output system, Low-Level Windshear Alert System, runway visual range, Terminal Doppler Weather Radar and other graphical weather systems. Workstations may be located within a single facility, throughout an airport or over a wide geographical area.

The next generation of center information systems will be the En Route Information Display System, which is being developed in conjunction with the En Route Automation Modernization program. There are fundamental differences between the center and terminal environments with respect to how controller information needs to be accessed and displayed. A stand-alone unit that works in the terminal environment is unsuitable for the center environment, where necessary information has to be accessible on the con-

troller's radar display and Display System Replacement workstation design drives the amount of space available for additional displays on the D-side. However, there is a need for static information in center that provide approach control service to non-towered airports within their area of responsibility.

CPDLC

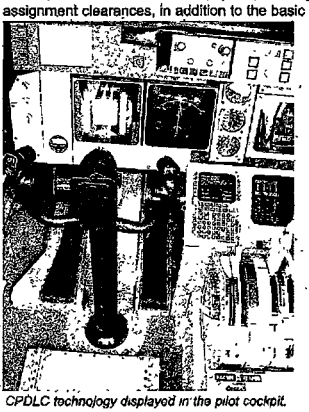
Controller Pilot Data Link Communications



CPDLC technology in the air traffic control facility

CPDLC will provide an alternate digital path between controllers and pilots for ATC communications. The program will start with the center environment, and will eventually evolve into a terminal tool as well. Miami Center is the key site for CPDLC and will be a single-site deployment of four basic CPDLC services, but will not contain any ATC clearances that affect the trajectory of the aircraft.

The basic concept of CPDLC involves the development preformatted text messages that can be quickly exchanged between ATC and aircraft to direct normal activities such as altitude changes and frequency changes. A contract to develop Build-1A was awarded in January 2000. Build-1A will be the CPDLC rollout to all domestic centers, and will contain altitude, speed, heading and route assignment clearances, in addition to the basic four services that were part of Build-1 in Miami Center. CPDLC Build-2, the next phase for CPDLC, is currently in the definition process.



CPDLC technology displayed in the pilot cockpit.

The CPDLC initiative interacts with a number of related programs, including:

- Flight Information System
- Traffic Information System
- Terminal Data Link System
- Oceanic Data Link
- Next Generation Communications System
- Datalink Delivery of Expected Taxi Clearance

CRDA

Converging Runway Display Aid

CRDA is a spacing tool built into Automated Radar Terminal System that permits controllers to more precisely vector arriving aircraft for landings on converging runways, a procedure referred to as *Dependent Converging Instrument Approaches*. It is operational at the St. Louis, Boston, and Philadelphia TRACONs.

CRDA provides the controller with an indication of where the next aircraft needs to be in order to have optimum spacing for converging approaches. In a converging runway scenario, each runway is designated as either Alpha runway or Beta runway. CRDA tracks the Alpha runway in-trail aircraft at the terminal controller's unit and creates a symbol or a "ghost" on the Beta runway. This ghosting allows the controller to accurately space out departures and arrivals on both runways. It gives the system predictability

because the ghosts are precisely spaced at the current separation minima. This is particularly useful during Instrument Meteorological Conditions. If there is bad weather and aircraft are using Instrument Flight Rules approaches, it is often necessary to use only one runway to maintain proper separation, and thereby lower the capacity of the airport. CRDA gives controllers the ability to spatially stagger the aircraft on the two approaches so the aircraft would be safely separated even during multiple missed approaches enabling the continued use of two runways.

U-X

ORGANIZATIONAL SOFTWARE

CRU-X is an office suite designed to dramatically reduce paperwork in all Federal Aviation Administration facilities and simultaneously provide databases to assist in the managing of facilities. This suite has several programs within that may interest controllers:

- Radar replay
- Duty board (electronic sign-on)
- Other duties board
- Briefing pages
- Time and attendance

RITE RELOCATION

L BRIGHT RADAR INDICATOR TOWER EQUIPMENT RELOCATION

This project will utilize the D-BRITE scopes from in facilities scheduled to receive Remote Arts Color Display equipment to provide radar displays for Visual Flight Rules towers that currently do not have radar. The first two sites are Boca Raton and Gainesville, Fla., which were congressionally mandated. Key Field in Meridan, Miss., has also been considered for deployment.

The waterfall list includes 89 facilities. Of these 89, 16 are proposed to be under a Stand Alone System.

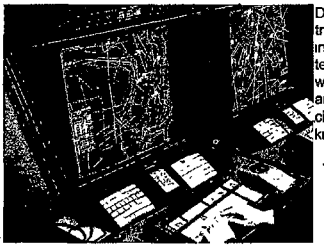
S

L VOICE RECORDING SYSTEM

DVRS is a Department of Defense/Federal Aviation Administration joint program intended to provide digital recording capability equivalent to that presently provided by multi-channel tape-based recording systems used in civil and military ATC facilities. This system utilizes digital audio tapes, which are much easier to work with, are of superior sound quality, and can be manipulated in ways that greatly improve their utility. Sixty-one of the total 513 units are scheduled for delivery in 2001and conversion of all scheduled facilities should be completed by 2003. DVRS is frequently cited as an early success in federal acquisition streamlining efforts.

DSR

DISPLAY SYSTEM REPLACEMENT



A controller tests a DSR interface in Seattle Center

DSR is an ongoing program designed to modernize air traffic controllers' existing display-related systems, including hardware, software and consoles, in each of the centers. It also provides a platform for future upgrades that will increase productivity and help cut costs for the airlines and other aviation users by making the system more efficient. It is a follow-on to an earlier, terminated project known as the Initial Sector Suite System.

DOMESTIC RSV

DOMESTIC REDUCED VERTICAL SEPARATION MINIM

Domestic RVSM is the use of reduced vertical separation of 1,000 feet (from the current 2,000 feet) for approved aircraft operating between Flight Level 290 and FL390 in designated airspace. Its goal is to increase airspace capacity and safely fly more optimum route profiles in the continental U.S., building upon the efficiencies gained by applying this procedure to the oceanic environment. Planning of the best use of reduced vertical separation in domestic airspace began in the year 2000.

The focus of this program is on establishing Domestic RVSM capability while considering coordination of airspace redefinition needs, transition issues between different regions using RVSM for different purposes and matching procedures to capacity and workload constraints. Phase-in is currently scheduled for the year 2004.

DYNAMIC DE

The growth in air traffic and new concepts in air traffic management such as "Free Flight" increased the need to develop models and measures to describe traffic in the national airspace to predict air traffic controller workload and to make flow management decisions like resectorization. As described in the Research Management Plan, the purpose of the DD program is to develop, validate and select mathematical formulas that will measure and predict sector level air traffic complexity. The DD metric consists of several mathematical formulas intended to model sector complexity based on such variables as traffic flow patterns, sector geometry, traffic density within segments of the sector airspace, angles of convergence, weather impact, controller options and situational detection and response time. The formulas within the DD metric may prove more accurate through weighting and offer flexibility for site-specific requirements. If DD research proves this concept valid, potential applications could be far ranging. The DD function is tied into the Center/TRACON Automation System architecture, and interfacility data provided through CTAS will be essential to the eventual success of the overall effort. While current efforts focus on the en route sector environment, later development may provide applications for the terminal environment as well.

Initially, a viable DD metric is expected to supplant the Enhanced Traffic Management System Monitor Alert system. Today, Monitor Alert attempts to analyze traffic demand for all airports, sectors, and airborne reporting fixes in the continental U.S., using a single-dimension number to predict sector complexity. A threshold number of aircraft is built into the program based on a subjective assessment of what constitutes being busy. When the Monitor Alert program predicts this number will be met or exceeded, an audio-visual alert activates. This function is extremely limited as it does not consider other significant complexity variables prior to issuing an alert. As a result, alerts often are unwarranted and prove highly inaccurate.

Air Traffic Planning 400 and ASD-130 sponsor DD. ACT-540 has the primary responsibility of designing and conducting the Phase II data collection. Other Phase II researchers include ACT-540 support contractor SRC, NASA Ames Research Center and Metron.

EDT/EFSTS

ELECTRONIC DROP TUBE/ELECTRONIC FLIGHT STRIP TRACKING S

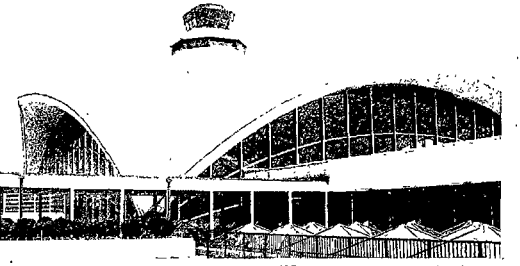
EDT and EFSTS are terms used to describe systems for paperless tower and TRACON operations. Paper flight strips evolved from their beginnings as a way of capturing and transferring flight plan information from one controller to another into integral tools of the system as a whole. In addition to providing a means of safeguarding automated systems against possible data loss, the strips themselves serve a variety of functions that are often unique to individual facilities.

In 1991, MITRE outlined general requirements for addressing air traffic management tasks within the context of an object-oriented electronic environment. Review of this issue demonstrated that to be truly functional, electronic systems aimed at eliminating paper strips must account for both the data they handle and the other specialized uses of current paper strips. The ideal virtual environment must therefore replicate both the content and the physical handling of paper strips to meet all users' needs.

Some Free Flight Phase I programs, especially the Surface Movement Advisor and the User Request Evaluation Tool rely upon paperless environments and emulation of current flight data strips. However,

current generation systems simply draw data from the ARTS as necessary and are not designed to interact with other systems.

EDT is deployed at the Atlanta Tower and TRACON, EFSTS, which was developed with the Central Region, is in use at the Chicago O'Hare Tower and TRACON and the St Louis Tower and TRACON. Both systems are operational and have proven reliable in daily use.



St. Louis Tower and TRACON currently uses EFSTS, which was developed in the Central Region.

ERAM

EN ROUTE AUTOMATION MODERNIZATION

The Host Computer System hardware recently was updated to address Y2K and maintenance concerns. At the time of replacement the G3 (current HCS) was one of only three computer systems available that is still capable of running the National Airspace System in its native language, Jovial. Current HCS support maintenance ends in 2008.

The ERAM program is intended to replace the existing NAS software and hardware. The replacement hardware systems and the networks connecting them will be built on open standards-based architecture to allow scalability and expansion for current and future needs without having to re-architect. Modern software architecture and coding in modern languages such as C++ and Objective C will allow rapid development of expanded functionality and capacity. ERAM will add the capabilities needed to support the NAS Architecture 4.0, Free Flight, Air Traffic Service needs and information security requirements. The ERAM program stresses benefits in five key areas: safety, capacity, security, efficiency and productivity.

FDIO

FUTURE DATA INPUT/OUTPUT

The FDIO system provides automated flight data input, manipulation and printed flight strips supporting all en route air traffic control operations, including the military and oceanic areas. FDIO was fielded in 1988 and installed in centers, Towers and TRACONs. Controllers input flight data via direct interface with the HOST Computer System and FDIO then prints out the information on paper strips. According to the Federal Aviation Administration, the flight data provided by FDIO currently accounts for 50 percent of all HOST processing.

The FDIO system is currently in use at approximately 394 of 464 control towers and all TRACON facilities in operation. For air traffic control facilities not currently equipped with the FDIO system, flight data is exchanged by phone with centers. The termination of the Advanced Automation System program necessitated extending the FDIO life cycle.

FTI

FAA TELECOMMUNICATIONS INFRASTRUCTURE

FTI would establish a new, leased system for facility-to-facility communications. A mix of FAA-owned and leased systems and services currently provide the Federal Aviation Administration's telecommunications. FTI will integrate these systems into a suite of primarily leased telecommunications services for seamless transfer of voice, data and video information among National Air System and external users. FTI also may accommodate the consolidation of operational and administrative networks, with appropriate safeguards.

IO

and provide centralized telecommunications management. The FAA expects these changes will improve interoperability, reliability, survivability, service levels and security while reducing the unit cost of telecommunications services.

This program will replace FAA-owned and leased telecommunications assets that reach the end of their life expectancy or end of their contracts between 2002 and 2005. FTI implementation will address operations at more than 5,000 facilities, replacing more than 35,000 circuits, upgrading switching and routing services, improving network monitoring and control and providing network-engineering services.

The primary programs the FAA plans to replace under FTI are as follows:

- The Leased Interfacility NAS Communications System, which provides operational telecommunications connectivity for critical aviation services.
- The Agency Data Transmission Network 2000, which provides wide-area network services to FAA sites nationwide, including FAA headquarters and regional offices
- The Data Multiplexing Network, which connects many FAA facilities such as en route centers by using circuits provided by other projects.

FFP 1 /FF

Free Flight Phase One an

Free Flight has been defined in various Federal Aviation Administration documents as "A safe and efficient operating capability under instrument flight rules in which the operators have the freedom to select their path and speed in real time. Air traffic restrictions are only imposed to ensure separation, to preclude exceeding airport capacity, to prevent unauthorized flight through Special Use Airspace, and to ensure safety of flight. Restrictions are limited in extent and duration to correct the identified problem. Any activity which removes restrictions represents a move toward Free Flight."

The FAA established the FFP1 Program Office in October 1998 to serve as the single point of accountability for FFP1 issues. It is organized around product teams responsible for the development and deployment of each core capability. These teams draw upon the expertise of other internal groups that provide critical crosscutting and support functions. At its core, FFP1 is an umbrella program aimed at coordinated management of multiple, interrelated modernization efforts intended to improve National Airspace System safety, capacity and efficiency.

In Section 759 of AIR-21, *The Wendell H. Ford Aviation Investment and Reform Act for the 21st Century*, Congress directed the FAA to provide a definitive plan for the continued implementation of Free Flight operational capabilities for FY2003 - 2005. Congress further required the plan to include and address recommendations concerning operational capabilities for FY2003 – 2005 made by the Radio Technical Commission for Aeronautics Free Flight Steering Committee in December 1999. Thus, the FAA created the Free Flight Phase Two program to handle the implementation of these recommendations.

FFP1 incorporates five separate programs, which include the following four that are described separately in the *Air Traffic Modernization Tools* guide:

- Traffic Management Advisor
- Passive Final Approach Spacing Tool
- User Request Evaluation Tool
- Collaborative Decision Making

The fifth program, Surface Management Advisor, is being tracked in conjunction with the FAA's overall Runway Safety Program. SMA will provide airport ramp towers with a one-way feed of current traffic information previously unavailable to them. At those airports where SMA is implemented, Automated Radar Terminal System III data will be available to Ramp Control operators so that they will have real-time and predicted knowledge of aircraft arrival information. This information will include aircraft identification and position in TRACON airspace and may be used to compute estimated touchdown time. This information allows users to better coordinate ground support operations, allocating resources such as ramp and airport services in a more efficient manner.

Five systems managed outside the FFP1 program office must be in place for full implementation of the FFP1 program:

- Display System Replacement
- Traffic Flow Management Infrastructure
- Standard Terminal Automation Replacement System
- Host and Oceanic Computer System Replacement
- Weather and Radar Processing

FFP1 also interacts with the Datalink program and is a partial determinant of that program's long-term architecture requirements

The first FFP2 implementation program is known as Collaborative Routing Coordination Tools. CRCT is an integrated collection of automation functions that assist traffic flow management in monitoring traffic flows, develop strategies to alleviate congestion and avoid severe weather, and analyze the impact of proposed strategies CRCT will provide tools to traffic flow managers and airspace users to address the shortfalls experienced in the present system. Specifically, CRCT functions are designed to assist with the following:

- Visualizing future traffic flows based on filed flight plan information.
- Identifying and analyzing potential traffic flow management situations
- Anticipating directly impacted flights.
- Defining candidate routes, either for traffic flows or specific flights, to alleviate the situation.
- Analyzing the impact of a reroute strategy on sector loading for all the sectors across a region.
- Enabling traffic flow managers from all facilities and airspace users to gain common situational awareness and information about strategy alternatives.
- Facilitating the implementation of reroute strategies.

FFP2 research programs also are underway These fall into two categories; accelerated, those with a high probability of reaching a mature stage during the 2003-2005 timeframe, and monitored, those unlikely to reach a mature stage during the 2003-2005 timeframe, but will be monitored and possibly accelerated.

Accelerated initiatives include:

- Direct-To – a tool designed to assist en route controllers in identifying aircraft that can reduce en route time by flying "direct to" a downstream point closer to the destination airport. The tool displays a list on the R-side screen of eligible aircraft that can save at least one minute of flying time over the next 20 minutes. Eligibility is determined by whether the aircraft will remain conflict free on the amended route of flight.
- Problem Analysis, Resolution and Ranking – a set of tools that will assist the en route D-side controller in the management of flight data derived from the User Request Evaluation Tool. It also will assist the controller in the development of strategic resolution for aircraft-to-aircraft and aircraft-to-air space conflicts, in responding to hazardous weather conditions and in complying with Traffic Flow Management metering times and flow instructions.
- Traffic Management Advisor, Multi Center – intended to build on the single center TMA architecture to enable efficient management and metering of traffic in complex airspace. Complex airspace is defined as airspace in which multiple centers and TRACONs with interdependent traffic flows are responsible for delivering arrivals to a congested airport.
- Surface Movement System – a follow-on to the Surface Management Advisor that will reduce arrival and departure delays and inefficiencies occurring on airport ground due to surface issues and downstream restrictions.

Monitored research projects include:

- Advanced Vortex Spacing Program – a ground-based system that dynamically provides safe spacing for aircraft in trail to a single runway by using current and estimated weather conditions to determine when vortices from an arriving aircraft have left the approach corridor. This will reduce in trail separation requirements on final approach, particularly with B757 and heavy aircraft.
- Active Final Approach Spacing Tool – a decision support tool that will provide TRACON controllers accurate, conflict-free aircraft speed and vector advisories, expanding upon pFAST's runway assignment and traffic prioritization capabilities.

- En Route/Descent Advisor – a system intended to assist R-side controllers in handling arrival aircraft in the descent phase of the sequencing process by providing speed, heading and altitude/top-of-descent advisories
- Expedite Departure Path – a decision support system designed to assist controllers in TRACONs and centers with departure-related situations. It provides controllers with active advisories, such as speed, heading and altitude, to manage the complexities of unrestricted climbs into the en route system.

GPS

GLOBAL POSITIONING SY

GPS is a space-based, all-weather timing and positioning system owned and operated by the Department of Defense. GPS alone is not capable of meeting the stringent requirements necessary for all aviation applications or phases of flight. Due to its limitations, GPS can be approved for use only as a supplemental means of navigation for en route through non-precision approach operations or as a primary means of navigation in oceanic and remote operations

The GPS program office interacts with a number of programs that rely upon GPS data, including,

- Wide Area Augmentation System — designed to provide the level of accuracy, integrity and availability necessary to utilize GPS as a sole or primary means system for en route through Category I precision approach.
- Local Area Augmentation System
- Automatic Dependent Surveillance – Broadcast
- Controller-Pilot Data Link Communications
- Gulf of Mexico Project

Part Two of the implementation of GPS technology in the National Airspace System will address automation, charting and database currency.

IT

INTEGRATED TOWER WEATHER S

ITWS will provide terminal and hazardous weather detection to sustain capacity in all conditions. It will provide terminal aviation system users with safety and planning products that describe current terminal weather situations, as well as offering a forecast for approximately 30 minutes into the future. Integrating data products from various Federal Aviation Administration and National Weather Service sensors such as Terminal Doppler Weather Radar, airport surveillance radars, Next Generation Weather Radar, Low-Level Windshear Alert System, Automated Surface Observing System and other NWS systems achieves these capabilities.

Products generated by ITWS include windshear and microburst predictions, storm cell and lightning information, terminal area winds aloft, runway winds and short-term ceiling and visibility predictions. The fully fielded system will consist of 37 systems serving 49 towers, 39 TRACONs and 18 centers. The first four systems are to be delivered in 2001, with Initial Operating Capacity at the key site planned for 2002

LAAS

LOCAL AREA AUGMENTATION SYSTEM

LAAS will make use of Global Positioning Satellite information to provide the level of accuracy, integrity and availability necessary for Category I, II, and III precision approaches. LAAS was acquired through a government industry partnership. The LAAS program office is currently working on the requirements for LAAS monitors for centers, TRACONs, and towers. This monitor will be similar to an Instrument Landing System monitor and should be integrated into existing systems to prevent placement of yet another display in the work area.

The biggest challenge associated with fielding LAAS is providing an acceptable level of redundancy. If one LAAS system provides approach capability to six runway ends currently served by independent ILS, six separate ILSs must be lost to drop approach service. But loss of only one LAAS system would have an equivalent impact on terminal operations

13

LLWAS

Low-Level Windshear Alert System

LLWAS uses surface wind measurements at multiple anemometer sensors to detect windshear. Wind and shear information is sent to air traffic controllers in digital or graphic form. LLWAS tracks and predicts windshear in the approach and departure paths of an airport, allowing controllers to anticipate the need to configure runways before wind shifts occur. LLWAS is designed to issue a windshear alert when it estimates an intensity of between 15 and 30 knots, and a microburst alert when it estimates an intensity above 30 knots.

MicroEARTS

Microprocessor En Route Automated Radar Tracking System

The Federal Aviation Administration's EARTS, a 1970s vintage mainframe air traffic control radar data processing and display system, has been replaced with low-cost, high-performance commercial off-the-shelf equipment. MicroEARTS offers all the original EARTS capabilities while providing better performance and capacity. The MicroEARTS application software performs all EARTS functions and provides ample marginal processing power, memory and expandability to accommodate project growth in EARTS facility service demand. MicroEARTS is capable of processing inputs from Automatic Dependent Surveillance - Broadcast sites, and has been used in successful ADS-B tests in the Ohio Valley and the Bethel, Alaska, area.

MicroEARTS key site is Anchorage Center; the system also has been installed at Honolulu, San Juan, and Guam Center Radar Approach Controls. It is in Department of Defense service at Nellis Air Force Base, Nev., White Sands Proving Grounds, N.M., and Ft. Polk, La.

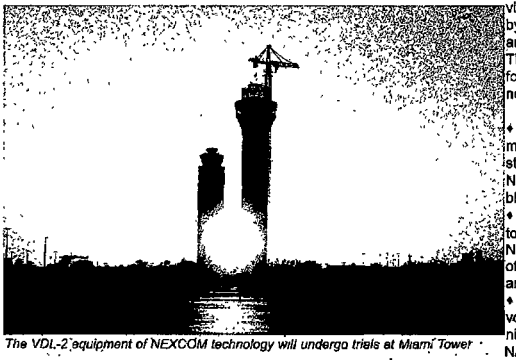
NEXCOM

Next Generation Communications

The primary purpose of NEXCOM is to introduce digital voice capability, alleviating frequency congestion in the VHF air-to-ground frequency band. Today, there are 760 discrete channels interspersed between the upper and lower frequency limits of the VHF radio spectrum (118 MHz to 137 MHz), spaced 25 kHz apart, which are required to serve the needs of more than 10,600 facilities across the United States. However, it was projected that all of these channels will be committed and the communications system essentially saturated by 2010, even as demand will continue to increase for the foreseeable future. NEXCOM is also a critical piece of the air to ground National Airspace System communications infrastructure and its evolution into a digital system. The initial NEXCOM transition is planned into the high and super high altitude en route environment.

The current NEXCOM strategy reflects adjustments to address affordability and risk mitigation, and to provide increased participation by both the airspace users and radio manufacturers. The strategy consists of the following major components:

- Procurement of a multi-mode digital radio for infrastructure use and as a NEXCOM VDL-3 building block.
- Development of an end-to-end evaluation of the NEXCOM system capable of integrated digital voice and data.
- Deployment of digital voice air-to-ground communications throughout the NAS



The VDL-2 equipment of NEXCOM technology will undergo trials at Miami Tower

The program will provide additional voice channels to meet ATC requirements with a projected Initial Operational Capability in FY2008. It will allow the engineering necessary to integrate combined voice and data, but is expected to remain focused on implementation of digital voice capability.

The aviation industry urged other alternatives to the current NEXCOM strategy, one of which would involve adopting Eurocontrol's mandated use of 8 33-kHz channel spacing. This solution is compatible with the currently approved Very High Frequency Data Link-2 system, which has the commercial advantage of being adopted by Eurocontrol. American Airlines will use VDL-2 equipment in trials in Miami, Fla., and Europe during 2001, and United Airlines is planning to install the system in its Airbus A319/320 fleet.

NEXRAD

Next Generation Weather R

NEXRAD uses Doppler radar technology to display convective activity and other atmospheric phenomena. It was procured through a joint National Weather Service/Air Force contract in the late 1980s. While NEXRAD products are useful in the aviation environment, the six-minute update rate built into the system is frequently inadequate to monitor rapidly changing conditions. However, NEXRAD is the source of weather data used by the Weather and Radar Processing system.

ODMS

Operational Data Management S

ODMS was intended to integrate Federal Aviation Administration computer systems to gather and assess operational data, such as time on position, and to develop technological means of assisting in the quality assurance mission. Its creators envisioned three specific tasks.

- Replacing and integrate the Aeronautical Information System and the U.S. Notice to Airmen System to meet new static aeronautical data requirements.
- Providing a national repository of operational and aeronautical data.
- Providing a standard, reliable system for processing obstruction notices.

In 1995, the FAA asserted, "ODMS will provide a more efficient and effective automated system to manage the collection, validation, and timely dissemination of aeronautical data to meet the operational needs of the National Airspace System elements and the aviation user community..."

"The initial module of ODMS, the Aeronautical Information Subsystem, will replace and extend the capabilities of two current systems: the Aeronautical Information System and the U.S. Notice to Airmen System. A second module, the National Operational Data Archive, will be a national repository of raw data that are currently being recorded by operational, air traffic management and control systems. A third component, the Obstruction Evaluation of Airports and Airspace Analysis will provide a standard, reliable system for processing and tracking obstruction notices. Installation of initial operating capability for the Aeronautical Information Subsystem is scheduled at the National Flight Data Center. Eventually, thousands of users will have online access to ODMS data."

Funds for this program appear in the FAA's 2001 budget, and National Airspace System Resources interface with the HOST computer is scheduled to take place during 2001. NASR interfaces with Controller Pilot Data Link Communications, Standard Terminal Automation Replacement System and Terminal Doppler Weather Radar are to be developed in the coming year.

pFAST

Passive Final Approach Spacing Tool

The pFAST program is an integral component of Free Flight Phase I. It uses automation to maximize runway utilization by providing terminal arrival controllers with aircraft sequence numbers and runway assignments. It makes recommendations based on flight plan information, wind data, aircraft characteristics and weight class and airport and airspace configuration. Testing shows that current atmospheric information, especially local wind data, and accurate aircraft track and flight plan information, are critical to system performance.

The key site for pFAST is Dallas-Fort Worth TRACON . Limited deployment currently planned beyond Dallas-Fort Worth includes Southern California, St. Louis, Minneapolis-St. Paul, Chicago TRACON and Atlanta TRACON.

PRM

Precision Radar Monitoring

PRM is a non-rotating, non-mechanical circular phased array antenna, which is electronically scanned to increase airport capacity, reduce delays and increase the safety of parallel operations. It scans four to five times faster than existing surveillance radars and tracks and displays each aircraft and updates position and velocity every second. Using PRM, controllers are able to monitor the progress of each aircraft in real time and issue directions as required to maintain safe aircraft separation

Two production systems are in use at the Minneapolis-St. Paul and Lambert-St Louis International Airports. Additional systems have been contemplated for the John F. Kennedy, Philadelphia, San Francisco and Atlanta/Hartsfield International Airports.

RVSM (Oceanic)

Reduced Vertical Separation Minima (Oceanic)

RVSM is the use of reduced vertical separation of 1,000 feet (from the current 2,000 feet) for approved aircraft operating between Flight Levels 290 and FL390 in designated airspace. The RVSM program is specifically intended to increase airspace capacity and safely fly more optimum route profiles in oceanic airspace. Planning began in 2000 on the best use of reduced vertical separation in domestic airspace.

The Western Atlantic Route System region is a complex and high traffic area that is comprised mostly of fixed routes with a significant number of crossings. There are two dominant traffic flows in the WATRS region between North America and the Caribbean, Bermuda and South America and between the Americas and Europe WATRS traffic has been increasing at an approximate rate of 2 8 percent per year, leading the Federal Aviation Administration and the users to agree that RVSM is necessary to accommodate the increased demand for optimum altitudes and routes.

Phase I expands the FAA designated transition areas to U.S. facilities adjacent to the New York Flight Information Region, with the exception of the San Juan Combined Center Radar Approach Control. Transition airspace is planned to extend into adjacent radar-controlled portions of Miami, Jacksonville and Washington Centers.

Phase II will involve the implementation of RVSM for all approved aircraft in the New York FIR portion of WATRS and the expansion of RVSM transition airspace to include the San Juan CERAP and any remaining portion of Miami Oceanic. The Phase II plan creates an exclusive equipage environment in the New York FIR portion of WATRS where only RVSM approved aircraft will be allowed to operate within the RVSM altitude stratum.

SATDS

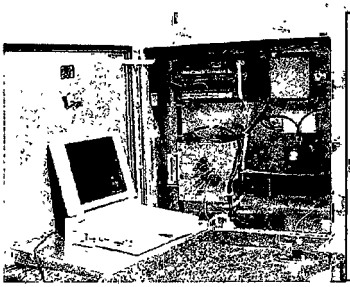
Stand - Alone Tower Display System

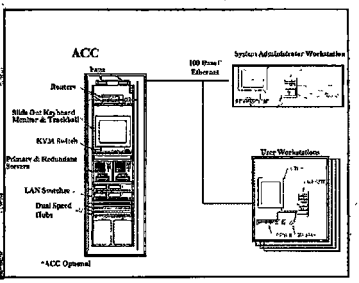
SATDS is part of the D-BRITE Relocation project. Sixteen sites do not have a terminal Automated Radar Terminal System facility available for ARTS. These sixteen sites will utilize Air Route Surveillance Radar sites and a "stand alone" ARTS system to provide the controllers of these Visual Flight Rules towers with a useable radar system The first two towers on the Stand Alone list are Grand Canyon and Prescott, Ariz.

SAWS

Stand - Alone Weather System

SAWS is intended to serve as backup equipment for the Automated Surface Observation System It will provide wind, temperature, dew point and altimeter in case of instrument failure of the ASOS and is required by the ASOS memorandum of understanding. It will be deployed at 270 Service Level C ASOS sites. It may also be used as a replacement for existing analog wind indicators and the Digital Altimeter





(above right) A SAWS sensor unit (above left) A diagram describing SAWS technology

Setting Indicator. Operational testing is being conducted at the Hanscom Air Force Base, Mass., Tower.

SNA

Satellite Navigation Aviation Reference S

SNARS is a grid system under development in the New England Region. Grid systems are being evaluated as a possible means of providing greater granularity within the National Airspace System. The SNARS architecture would allow adjacent centers to perform automated handoffs more frequently, without relying on the current fix posting area system. It also allows controllers to approximate flight trajectories more easily. SNARS relies upon the Global Positioning Satellite system to form the basis of its grid.

The Federal Aviation Administration funded a study of the Flight Management System Air Traffic Management Next Generation Operational Concept, the government and aviation industry entered a cooperative agreement and conducted the research and completed the study in 1997. One of its key assumptions stated, "Aviation will transition from a ground based grid of radio-navigation aids providing limited coverage to a worldwide satellite-based navigation system that provides high accuracy and high levels of availability. The capabilities and performance of this system are perpetually evolving." But while satellite navigation systems may be expected to become the norm, nothing guarantees that they will be able to share information readily since the references upon which they are based are not necessarily the same SNARS and similar navigational systems that do not rely upon conventional latitude/longitude orientation need to be tracked to ensure their operations are transparent to their users, both on position and in the cockpit, and that they remain mutually compatible. GPS uses the World Geodetic System 1984 as its world reference system, although software programs supplied with GPS inputs allow other mapping conventions to be used. This is important because latitudes and longitudes can differ by several hundred meters for the same point on the earth's surface depending on whether you use WGS 84 or another convention such as geodetic datum. There are over 240 other geodetic datums currently in use.

The FAA, as well as the UK's Civil Aviation Authority, ICAO and other groups is continuously concerned about the possibility of confusing users with different reference systems. This creates a need to start reduce, rather than increase, the numbers of unique or proprietary reference systems derived from GPS data. Eurocontrol already has decided to use WGS 84 for its ATC work and it is likely that future airfield, runway and approach datums will use WGS 84 figures to provide worldwide standardization and to make

STARS

Standard Terminal Automation Replacement System

STARS is a joint Federal Aviation Administration/Department of Defense procurement program intended to replace all FAA Automated Radar Terminal Systems -IIE, -IIIA and –IIIE installations with modern automation and display systems. It also will be installed at nine FAA Operational Support Facilities, as well as at 199 military locations worldwide. Key sites are Syracuse, N.Y., El Paso, Texas, and Eglin Air Force Base,

An example of a STARS interface

Fla. At the FAA sites, the Early Display Configuration, a hybrid of next-generation STARS automation and the existing ARTS, is in use for operational purposes.

STARS is intended to receive and process digital radar inputs such as those provided by the Air Surveillance Radar - 11; if analog radar provides the input, a "digitizer" must be provided to enable display of traffic information. STARS also is intended to incorporate Integrated Terminal Weather System inputs.

TDWR

NAL DOPPLER WEATHER RADAR

TDWR is designed to provide timely and accurate detection of hazardous wind shear in and near airport terminal approach and departure corridors. The TDWR emits a pencil-beam signal that airborne moisture particles reflect. The system detects the reflection and measures the Doppler shift (the frequency change that occurs when a signal bounces off a moving particle) The system then calculates the wind speeds and alerts air traffic controllers to sudden, potentially hazardous air currents. TDWR will be installed at 45 high-activity airports.

S

DATA LINK SERVICES

TDLS is an integrated, high-availability platform designed to support applications programs for 58 high-density towers' operations. The system was designed to be temporary until data communications services were provided through the Advanced Automation System or other Federal Aviation Administration programs.

TDLS consists of Pre-Departure Clearance Service, Flight Data Input/Output and Digital Automatic Terminal Information Service modules. It will be updated through a technology refreshment program The system is expected to transition from Aeronautical Radio Incorporated contract maintenance to FAA maintenance sometime in the 2001 - 2002 timeframe.

TCAS

TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM

TCAS is currently mandated for use in the U.S. on all commercial aircraft with more than 10 seats. Two different systems currently exist -- TCAS I and TCAS II.

TCAS I is a less expensive system that provides the pilot information on the position of nearby aircraft The system also issues traffic alerts on aircraft that may be a collision threat. TCAS I is mandated on aircraft with 10 to 30 seats performing scheduled air carrier operations under Federal Aviation Regulation Part 121, although the more expensive TCAS II may be installed instead.

TCAS II is a more sophisticated system that provides the information of TCAS I and analyzes the projected flight path of approaching aircraft It issues resolution advisories to the pilot to resolve potential mid-air collisions. TCAS II is required in aircraft with more than 30 seats performing scheduled air carrier operations under FAR Part 121, but may be installed on smaller planes

The international community adopted a standard for the Airborne Collision Avoidance System based on the Radio Technical Commission for Aeronautics TCAS standard Differences in the two systems have been addressed by revisions to the TCAS standard Several countries are mandating the installation of

ACAS on larger aircraft.

Cargo aircraft operating under FAR Part 91 have begun equipping their fleets voluntarily as the aircraft undergo heavy maintenance, "classic" jets (like the Boeing 727 and DC-8) are typically the last to be outfitted with TCAS, and many of those airframes may be retired rather than undergoing the costly TCAS modification.

TMA

Traffic Management Advisor

TMA is a key component of Free Flight Phase I. It consists of center Traffic Management Unit hardware and software that merges HOST radar and flight data and current meteorological data to generate arrival aircraft schedules. Graphical displays provide Traffic Management Coordinators flow visualization and planning tools for up to ninety minutes of future traffic. Repeater displays present this information to the TRACON TMU, enhancing coordination between centers and TRACONs.

TMCs update the system with current airport configuration, acceptance rates and any other volume constraints. It calculates scheduled times of arrival over arrival fixes and runway thresholds that reflect these constraints while also providing appropriate wake vortex and radar separation requirements. Aircraft STA and delay information is displayed to controllers and updated in real time. Testing and operational use has determined that use of TMA advisories results in an overall delay reduction and a smoother, more predictable workload for controllers working complex arrival environments.

Transponder Landing S

TLS is intended to provide course guidance to pilots similar to that of the Instrument Landing System. An operator on the ground provides the system with the inbound aircraft's transponder code. The system then locates the aircraft squawking that code and provides appropriate course guidance relative to a designated final approach course and glide path.

There are few components in the TLS system. The most visible are four units mounted in a 50-meter radius alongside the runway, a base station unit, a Calibration/Built-in-Test unit that monitors station accuracy and integrity and two angles of arrival antennas. Controllers can define the flight path from the transponder system as it nears the runway using the localizer and glideslope angle of arrival Airport Operations Area sensors. A central processor in the base station computes the aircraft position in three dimensions, calculates where it should be in relation to the approach and transmits corrections to the aircraft over the localizer and glideslope transmitter. The resulting approach can be curved, segmented, dogleg or whatever is necessary to avoid any obstacle along the approach path.

One of the limitations and a principal hazard of TLS is only one aircraft can be guided in at a time while using the equipment. Other aircraft attempting to tune in on the TLS would receive apparently valid cockpit indications for azimuth and glide path generated on the basis of the first aircraft's position. Hence, the manufacturer advertises TLS as a low traffic volume system. Another problem with the system is referred to as "synchronous overlap." Testing at Watertown, Wis., revealed that if two aircraft were on similar headings and differed less than 43 knots in air speed, the computer became confused and stopped providing guidance.

In the FY1999 Omnibus appropriations bill, Congress directed the Federal Aviation Administration to establish a TLS test program and recommended six airport test locations. The agency initiated the testing at the Watertown, Wis airport as TLS had already been installed. Additional testing was conducted at Atlantic City, N.J., airport. The latter test's results have yet to be delivered to the program team. A new system has recently been installed at the Moscow/Pullman, Wash., airport and an additional system is to be installed at the Rhinelander, Wis., airport in early spring.

URET

User Request Evaluation Tool

URET is a key capability under the Free Flight Phase One concept of operations. It comprises a set of en route decision support capabilities, including:

- Flight plan-based conflict probe that continuously checks for strategic conflicts.
- Trial planning function that allows a controller to evaluate resolutions or pilot requests before they are issued as clearances.
- Electronic flight data displays that provide an effective means of managing flight information at the sector.

The URET prototype is the basis for the Free-Flight Phase 1 conflict probe that will be deployed for large-scale national trials. The prototype has been in daily use at Radar Associate sector positions since 1997 in the Indianapolis and Memphis Centers.

The D-side controller will primarily use the URET's capabilities for strategic problem detection (defined generally as a 20-minute look-ahead period). These capabilities will allow the sector team to approve more user requests and impose fewer altitude and speed restrictions in the participating sectors. The basis for URET's strategic planning capabilities is information on each aircraft's flight intent, including flight plan information, track data, forecast winds and temperatures, aircraft performance characteristics and facility adaptation. With this data, the progress of each aircraft is continuously monitored, problems are detected, and controllers are notified of possible conflicts between the current flight and other aircraft and/or adapted airspace. In addition, when the pilot requests a new clearance, the controller will be able to use URET to identify any possible conflicts.

CS/VTABS

SWITCHING AND CONTROL SYSTEM/VSCS TRAINING AND BACKUP M

VSCS is a voice communication system in operation at 21 centers in the continental U.S and Alaska. VSCS provides controllers air-to-ground and ground-to-ground voice communication capability. It interfaces with radio control equipment, enabling the air traffic controller to utilize remote radio equipment located hundreds of miles away from the center. VSCS also provides intercom voice communication between controllers within the center, and interphone voice connectivity with controllers in designated towers and TRACONs. Finally, VSCS provides controllers in a center with interphone voice connectivity with controllers in similar facilities

VSCS is a computer-controlled, highly distributed integration program. It allows controllers to access all frequencies available at the center, which in turn permits positions to be opened in any area to handle surge requirements or in response to outages. Therefore, one of the primary benefits of VSCS is its ability to increase productivity by centralizing resource access at a few positions during low levels of air traffic and decentralizing it during peak periods Switchovers resulting from automatic fault detection, isolation and resolution are done without breaks in communications, so failures are transparent to controllers.

VSCS Training and Backup System was installed as an integral part of the Display System Replacement program. Its primary mission is to provide an "independent path to radios" in DSR-equipped control rooms. However, VTABS also provides communications for the DSR training facility, presenting the same functionality as VSCS for training purposes Thus, VTABS is both a training resource and a backup system designed to protect against loss of communications resulting from a catastrophic failure of VSCS or the site power system.

VST/TVSR

VOICE SWITCHING FOR TERMINAL/TERMINAL VOICE SWITCH REPLACEMENT

Two distinct programs were executed by the Federal Aviation Administration to provide voice-switching capability at terminal facilities to replace the aging Integrated Communications Switching System:

The Enhanced Terminal Voice Switch contract procures Litton Denro's Model 400D integrated communications switching systems to provide non-blocking voice communications between air traffic control operator positions, radio channels, and interphone land lines The ETVS replaces obsolete electronic mechanical and aging electronic voice switching and recording systems in towers, small TRACONs, and military radar approach control facilities. Procurement of 241 ETVS systems is planned, with the first 10 to be purchased in 2001.

The Rapid Deployment Voice Switch, Model IIA contract procures integrated digital voice switching systems to provide non-blocking voice communications between air traffic control operator positions, radio channels and interphone land lines. The RDVS IIA contract procures up to 50 units of the Litton Large Baseline Systems which can support up to 144 positions.

WARP

Weather and Radar Processor

WARP is an automated system that collects, processes and disseminates Next – Generation Weather Radar data and other weather data to controllers, traffic management specialists, area supervisors, meteorologists and other users. The system provides mosaics of multiple NEXRAD images to the controller's display system replacement workstation for display with aircraft targets. This is intended to allow air traffic controllers to optimize flight routing and reduce en route air traffic delays.

WARP development and deployment will occur in three stages. The initial stage, Stage 0, leases commercial hardware/software components to replace the Meteorological Weather Processor. Stage 1/2 will be a Federal Aviation Administration-owned system that will be upgraded to receive and process NEXRAD data, and distribute it to controller consoles via DSR. Stage 3 will implement upgraded National Weather Service model data algorithms and add National Air System interfaces for cost-effective weather data sharing. Stage 1 Phase 1 installations are in progress.

WSP

Weather System Proc

WSP will provide improved local weather depiction for 33 airports equipped with Air Surveillance Radar, Model 9 systems not scheduled to receive Terminal Doppler Weather Radar. It applies an algorithm to distinguish temperature and moisture gradients from ground clutter, then extracts as much Doppler information as possible from the ASR-9 return to depict weather returns with far greater accuracy than provided by current systems.

WSP is designed to interact with the National Weather Service's Advanced Weather Interactive Processing System. AWIPS is an integrated suite of automated data-processing equipment that supports analysis, interactive processing, display of data and the rapid dissemination of warnings and forecasts. AWIPS is replacing antiquated legacy systems. It will acquire and process data from a variety of sensors, including Automated Surface Observing System and other facility-level sources, and will disseminate warnings and forecasts more rapidly and reliably than current systems.

WSP is intended to replace the Low-Level Windshear Alerting System.

National Air Traffic Controllers Association
AFL-CIO

John S. Carr
President

John Carr is serving his first term as NATCA's president. John joined the FAA in 1982. Prior to his election in September 2000, he worked as an air traffic controller at the Chicago TRACON and, most recently, at Cleveland Hopkins Airport.

John's involvement in the formation of a national air traffic controllers' union began in 1986. He is one of NATCA's remaining active founding members. When the organization became certified in 1987, he held many influential positions where he helped shape its foundations, procedures and policies.

Throughout the past 13 years, John has served in numerous leadership positions, including pivotal committees and work groups, as a member of the union's 1998 contract negotiating team and president of the Chicago TRACON local.

John's background in air traffic control goes back to 1977, when he served in the U.S. Navy for three years.

From Capitol Hill to the White House, government agencies to the myriad of industry trade groups and commercial providers, NATCA's strong presence in the aviation community has earned many grassroots successes. Combining those with strong citizen support for NATCA's issues, the organization's stature has solidified in all arenas.

By speaking up in industry settings, during congressional testimony, and in high-level policy meetings, John stands at the forefront of a long-standing effort to bring the public into the aviation debate.

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National Air Traffic Controllers Association
AFL-CIO

July 31, 2001

Honorable Hal Rogers, Chairman
Appropriations Transportation Subcommittee
2358 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Rogers:

As President of the National Air Traffic Controllers Association, I will present oral testimony to the Appropriations Transportation Subcommittee on Thursday, August 2, 2001. Since I am considered a nongovernmental witness, I must abide by the requirement of clause 2(g)(4) of Rule XI of the Rules of the House of Representatives. This clause states that:

"The Committee on Appropriations requires, to the greatest extent practicable, each nongovernmental witness who plans to give oral testimony to submit a written statement including a curriculum vitae and a disclosure of the amount and source by agency and program, of any Federal grant or subgrant thereof, or contract or subcontract thereof, received during the current fiscal year or either of the two previous fiscal years by the witness or by an entity represented by the witness."

Neither I nor any entity represented by me has received any Federal grant or subgrant thereof, or contract thereof, during the current fiscal year or either of the two previous fiscal years.

Sincerely,

John Carr

John S. Carr
NATCA President

1325 Massachusetts Ave , N W. Washington, D.C. 20005 (202) 628-5451 (202) 628-5767 FAX www.natca.org

DELAY PANEL CONSENSUS ON RESOLUTION

Mr. ROGERS. Thank you very much. Thank you for your testimony. I would like to thank all of you for being here again with us.

First off, before any of us ask questions, it might be helpful if any of you wanted some rebuttal time to rebut something somebody else said. Does anybody want to make a point that somebody else may have made on the panel? We can have a conversation here.

[No response.]

Mr. ROGERS. Do I take that to mean that each of you agree with everything the other said?

Mr. MERLIS. Mr. Chairman.

Ms. GARVEY. You go get them, Ed.

Mr. MERLIS. I am not prepared to agree with everything that the airline pilots said, particularly with respect to flight time/duty time, the litigation which ATA has brought, but I am not sufficiently versed to rebut him. I do not want my silence to be perceived as concurrence.

CAUSES OF DELAYS

Mr. ROGERS. Well, what I meant to do here was start a conversation amongst you because you are the experts in the field more so certainly than us; not necessarily to rebut an argument, but to make a point that somebody else may have made that you would like to play off of.

Mr. Mead.

Mr. MEAD. It is not in the nature of rebuttal, but I would like to say I identified six of what I think are key action items for the subcommittee. I think that is consistent with our role and the commitments.

Now, there are a couple of those that I believe are really important, but I believe the Department, the Secretary, the Deputy Secretary, and Ms. Garvey have discussed them. One of them had to do with tracking the causes of delay. I think you should hear from Mr. Jackson directly on what the plans are for that because I think you will see that that is getting accelerated, that the pedal will go to the medal, so to speak.

I also mentioned, in regard to tracking new runways, the Detroit runway and that it is important that that runway go operational as scheduled this year and that the needed navigational aids are in place. Ms. Garvey has assured me that that will happen.

Mr. JACKSON. Mr. Chairman, it shows how the Inspector General and the Department are in concurrence about using his advice to guide management decisions and this was the one point that I wanted to make. That is just to give you a little bit of an update on our views at the Department on tracking the cause for delay and where we are.

The four party pilot test that we did was very, very useful. I am very, impatient to move from a pilot project and talking about it to doing it. I am also eager to move to a requirement that airlines provide us this type of data. We have talked to the industry, and I believe they will be supportive of that. We have a regulatory proc-

ess that has to happen, but we are committed in August to have a meeting with the industry to talk about how to get everybody onto a base of being able to do this on a voluntary basis much sooner.

We have also instructed our General Counsel and the FAA to work together with me to find the most expeditious way to get to a rule making. We are looking at negotiated rule making processes. We are looking at interim final rules. We want to start with a conversation that tells us where is the bottom line, and how do we get there and then move as fast as possible towards this.

I think this is a very important point that the Inspector has made, and it is one that the Secretary and I have absolute commitment to move as rapidly as possible to accomplish.

DELAY INFORMATION MANDATE

Mr. ROGERS. Well, it is also a point that Congress made when we wrote the AIR–21 law.

Mr. JACKSON. Absolutely.

Mr. ROGERS. You are required by law——

Mr. JACKSON. That is right.

Mr. ROGERS [continuing]. To modify current reporting regulations "to disclose more fully to the public the nature and source of delays and cancellations." That is the law that AIR–21 exacted. That is to include the establishment of categories reflecting the reasons for delays and a requirement that airlines include such categories in reports to the DOT on airline delays. A requirement.

I am told now that four airlines—American, Southwest, United and Delta—are participating in a pilot program where they report on a test basis the causes of delays using a standardized format agreed to by the FAA and the industry, but to date 16 months after enactment of that mandate in the law by the Congress DOT has not announced yet plans to formalize that method of reporting and, to my knowledge, has not begun the rule making process.

We hear that you want to do a pilot program. I do not know what incentives an airline would have to participate in a pilot program or the fact that a pilot program would last any time or be worth anything. This is the law. We are not going to play around with this one. We are not going to give you much leeway. You have had 16 months. You have not, but the Department has.

Mr. Secretary, you are new on the job, but you are Mr. Airline Delay down there. The Congress has said put a system in place. The airlines have been told to participate. We want to know. We want to know the causes, and we want to know the information about delays. This is one we are not going to turn loose on.

I am chagrined that we do not have anything in place. Like the Inspector General has said, that is the whole problem here. If we had a system in place where FAA knew from the airlines that we have delays, a delay, and we have a system of determining the causes of the delay, then we can announce that to the world, and consumers can buy their tickets accordingly.

I understand why the airlines do not want to give that information out. They need to understand why we are going to insist that they give it out. We cannot make this thing work without it. Airline delays will continue to be a problem until we eliminate the

problem and the causes for the problem. I think the market will take care of it after that.

If a person buying a ticket is told and can find out that the flight they want to buy a ticket for is 40 percent consistently late and they still want to buy the ticket, then that is an informed purchase. The market has taken care of that. They may choose something else. At any rate, they have had the choice. They do not have that choice now.

The law says they are entitled to know. The way I see it, it is this subcommittee's obligation to make that law happen. I will just tell you. We got a hold of you, and we are not going to turn loose.

Mr. JACKSON. Mr. Chairman, I want to be right next to you on this one. I agree 100 percent. The pilot is over. The next meeting with the industry is to tell them what they are going to have to do and to listen one last time as we refine our regulatory approach to mandate that process and the parameters of the type of data they are going to submit to us.

You have my personal commitment. I am going to handle this one through the regulatory process to get it done.

Mr. ROGERS. Hey, a commitment.

Mr. JACKSON. And I say that with full knowledge of what things bring, and I am happy to have it.

DELAY DATA INTERIM FINAL RULE

Mr. ROGERS. The next question I have is what kind of date can we put behind that promise?

Mr. JACKSON. Mr. Chairman, I had a conversation on that topic with our General Counsel this morning again to try to get closure on it. We are working on three different options to look at it, and I will provide an update for you as soon as we have made a decision, which will be very shortly, in the next several weeks, about how we can bring this to closure fastest.

My requirement in the Department is to do it right, but using the regulatory mechanism that gets it done fastest. We are looking at an interim final rule, we are looking at a negotiated rule making process, and we are looking at an expedited rule making as well. These are the three options that we are assessing.

Mr. ROGERS. I am just looking for when can we expect to see what we mandated in AIR–21? When can we see that? I mean, that is not a complicated thing.

Mr. JACKSON. No.

Mr. ROGERS. Did I hear you say you are not going to decide how you are going to proceed for several weeks yet?

Mr. JACKSON. No, sir. We have decided where we want to go. We are looking at how to be able to cut that time line down to the smallest number of days.

The Inspector General's testimony says that we are going to do this by fall of next year, and that is just totally unacceptable to me and so we are working through how we can get this done. Our proposal is to request that this be done immediately on a voluntary basis and to implement an obligation to provide us this data as fast as the Department can legally do so.

I will provide you an interim update on that schedule as soon as we nail that down in the next several weeks.

Mr. ROGERS. It is going to take you several weeks to nail down an estimate?

Mr. JACKSON. We are looking at the various options, and we wanted to have this meeting with the industry to asses how fast we could bring this into closure.

To get you a complete answer and an answer on a date that I am going to stick with and that you can put down as a commitment of the Department, I do need a couple of weeks more.

Mr. ROGERS. A couple of weeks?

Mr. JACKSON. Yes, sir.

Mr. ROGERS. Before you tell me——

Mr. JACKSON. The exact date and how long we think the regulatory process is going to take us to get to closure.

Mr. ROGERS. The 16th of August?

Mr. JACKSON. Done.

PILOT PROGRAM KEY DELAY INDICATORS

Mr. ROGERS. Now, you have a pilot program that I have been briefed on. Ms. Garvey, do you want to proceed and tell us what you have? I am looking at the charts here. Do you have those charts with you?

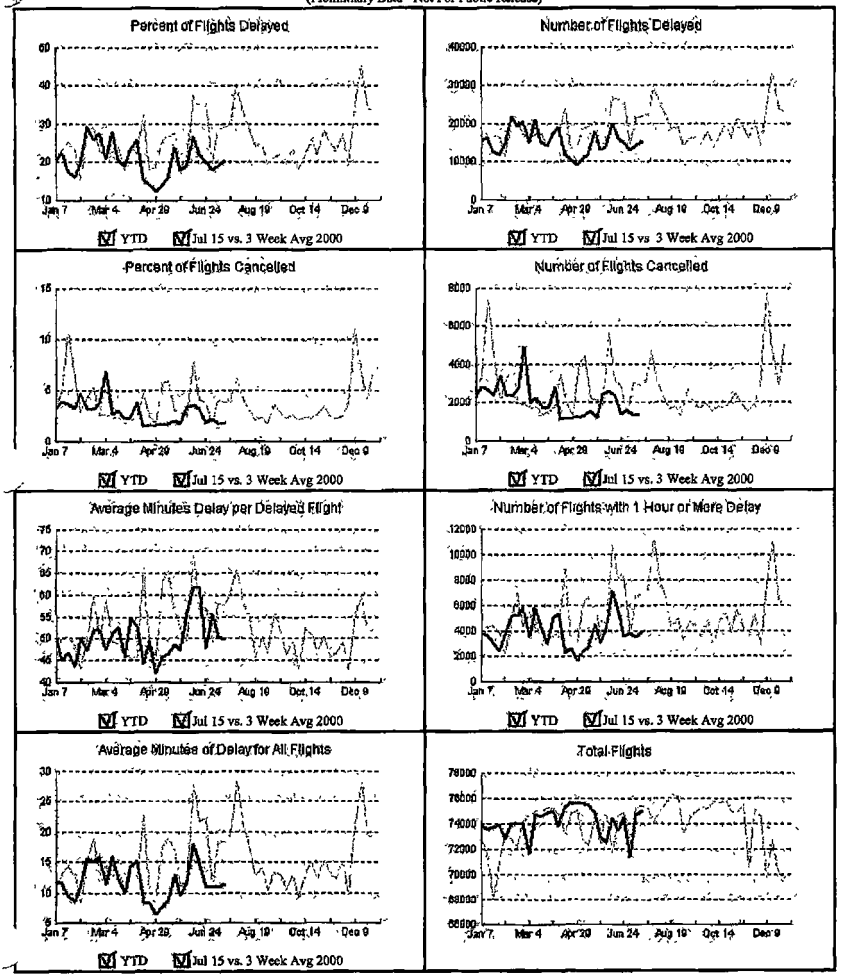
Ms. GARVEY. I do have the charts, and I believe all of the Members have them as well. Here is a larger display of them.

[The information follows:]

Key Delay Indicators
Weekly Data : Jan 7 thru Jul 15
10 Major Airlines
32 DOT Reportable Airports
(Preliminary Data - Not For Public Release)

2001
2000

☑ Better than 2000
☒ Worse than 2000



Notes for Key Delay Indicator Graphs

General Notes:

1. All the data presented is for the 10 major airlines arriving at the DOT 32 reportable airports

2. The data is extracted as a subset from Aviation System Performance Metrics (ASPM)

3. All data is presented as a weekly average (week runs Sunday through Saturday)

4. Graphs and Tables compare latest available weekly data to the average of 3 weeks of data in 2000. A comparison is also made for year to date values.

5 The data is preliminary, but the values will be very close to the final values as generated by the Bureau of Transportation Statistics (BTS) once monthly Ontime data is received from the airlines

Graphs:

1. Percent of Flights Delayed – number of flights arriving at the gate 15 minutes or more late divided by total flights arriving at the DOT 32 airports

2. Number of Flights Delayed – number of flights for the 10 carriers at the 32 airports that arrived 15 minutes or more late when compared to schedule

3. Percent of Flights Cancelled - number of flights departing the 32 airports that were cancelled divided by the total flights departing the 32 airports

4. Number of Flights Cancelled - number of flights departing the 32 airports that were cancelled

5. Average Minutes of Delay per Delayed Flight - total minutes of delay (actual arrival at gate compared to scheduled arrival at gate) for flights arriving 15 minutes or more late divided by the number of flights arriving 15 minutes or more late

6. Number of Flights with 1 Hour or More Delay - the count of the number of flights that arrived at the gate 15 minutes or more late when compared to the scheduled gate arrival

7. Average Minutes of Delay for All Flights - the total minutes of delay (actual arrival at gate compared to scheduled arrival at gate) for all flights divided by the total number of flights

8. Total Flights - count of all flights arriving at the DOT 32 reportable airports for the 10 major carriers

Ms. GARVEY. It essentially shows and tracks the delays of this year and the delays last year. As you can see, the red is 2001, and the blue is——

Mr. ROGERS. You are talking about the upper left chart?

Ms. GARVEY. That is right.

Mr. ROGERS. Right?

Ms. GARVEY. Yes.

Mr. ROGERS. And the red shows the 2001 percent of flights delayed?

Ms. GARVEY. Percent of flights delayed. That is correct, Mr. Chairman.

Mr. ROGERS. And the blue is 2000, the same period?

Ms. GARVEY. That is correct. We are seeing, as you can see, the percent of flights delayed. The next box is the number of flights.

Mr. ROGERS. That is on the top right?

Ms. GARVEY. The top right. It also shows the percent of flights canceled, and the number of flights canceled. Essentially as we said in all of our testimony, as you can see, the trends are heading in the right direction. This is something, the key delay indicator, that is very accessible. I think we have a great opportunity to introduce to you the staff person who had worked so hard on this, but it is something we would like to provide to the committee on a regular basis and certainly provide to the Secretary and the Deputy Secretary.

Mr. ROGERS. Now, these are just four airlines, right?

Ms. GARVEY. Actually, this is broader, Mr. Chairman. This now has 10 of the airlines at the top 32 airports, so we have some good information here. I think the pilot program will identify the causes, which is what we are talking about a little bit further.

Mr. ROGERS. I see. So these figures are all airlines?

Ms. GARVEY. These are the 10 airlines. We eventually would like, of course, to expand it even further, but it is the 10 carriers at 32 airports, those top 32 airports that we keep focusing on.

Mr. ROGERS. And how timely are these?

Ms. GARVEY. These are actually very timely. We get this information daily, so we are getting some very good information from those 10 airlines.

Mr. ROGERS. It looks to me like the latest figures we have on the chart I have here looks to be the 1st of July. Is that correct? Is that the latest information?

Ms. GARVEY. I am sorry. This is through July 15. Yes. As I mentioned earlier in my testimony, the preliminary numbers for July are showing turnarounds in the same direction.

Ken, you have worked on this as well.

Mr. MEAD. What you essentially have here is the red line is the 2001 number. For every one of the metrics, you will see that that is trending below the blue line. The blue line, of course, is 2000.

These are the delay and cancellation data. In our opinion, the Department and FAA have moved many mountains in actually capturing delay and cancellation data compared to where we were last year.

The question on the pilot program pertains to the causes, capturing the causes of delays and cancellations. That is where we are falling short right now.

Mr. ROGERS. Right, but this is a big deal.
Mr. MEAD. A big deal.
Ms. GARVEY. It is very, very exciting for us.
Mr. ROGERS. Why is it such a big deal?
Ms. GARVEY. It does not take much, Mr. Chairman, for some of us. [Laughter.]
Sorry.

KEY DELAY INDICATORS

Mr. ROGERS. When we first had these hearings and you told me you had been working on defining the word delay for 11 years, I was shocked, but then I do not know what the word means either.
Why is this such a big deal to for the first time apparently see on a graph a depiction of delays and cancellations? Mr. Mead?
Mr. MEAD. Well, I think there are a couple of reasons. They had to bring the Bureau of Transportation statistics together with FAA, essentially two different agencies, and then they had to realize that they were going to manage by this. That is what is being done now.
Also, you will recall the capacity benchmarks. The capacity benchmarks were sensitive because they showed very graphically how many flights could be handled by a particular airport. If you were above that line, it showed that you were scheduling too many flights at that airport. It could not be handled.
Those are out now, and I think that is a very significant development, too, because it has allowed FAA to develop their Operational Evolution Plan, which is based on what these individual airports can handle. I thought the capacity benchmarks were a very significant milestone, but the resistance there was very, very serious, and it was significant.
Ms. GARVEY. Mr. Chairman, there is one other I think very significant piece of this. We had a lot of this data, sometimes people say the government is very data rich, but information poor. We had a lot of this information, but I think what Carlton Wine has been able to do is to put it in very understandable form so that people can look at it and can see it on a real time basis. We are getting the information daily from the airlines. The fact is that it is, first of all, much more precise and much more accurate because it is real time, and then secondly the fact that it is understandable as all of us are looking at it I think is significant as well.
Mr. JACKSON. Mr. Chairman, I would just like to add that while it is a big deal, it should not have had to take a big deal to get us this data. This is core information which the public needs to know and should have, so it is a commentary on where we have been that it is a big deal. It is absolutely the type of thing that the public should have a right to see and do, and we are committed to providing this type of information in a timely fashion.
Mr. ROGERS. Well, it is a huge step because it gives lay people like us a chance to quickly grasp whether or not we are making any progress or not and for the public to judge as well.
As I pointed out a few minutes ago now, what we really need now are the causes for those delays from the airlines so that we can begin to assess blame. If a certain airline has got a problem, they are going to pay for it at the ticket counter.

Mr. JACKSON. Right. It is assessing blame, but it is also being able to manage our way through problems so that we know what exactly to spend our time on and where the biggest benefit is to go looking at both particular airlines and also in the system itself.

I think it is a tool for us to know what we in the government need to do, but it is a broader tool to help us move forward in some real way on fixing the problems.

CAUSES OF DELAY

Mr. ROGERS. Before I turn the mike over, Mr. Merlis, will the airlines cooperate with DOT and the FAA on getting the causes of delays reported?

Mr. MERLIS. Absolutely. We have four carriers in this pilot program providing the information, and the rest are mindful that the results will be some regulatory guidance or otherwise that this will now be the way that data is collected and submitted to the government.

I am under the impression that some of those people who are providing the data feel very comfortable that the terminology, the rationale, makes good sense. The Department has to review the causes and decide which ones are going to be required, which terminology will be required, and then we will do it. We are there.

Mr. ROGERS. All right. Thank you.

Mr. Sabo.

Mr. SABO. Thank you, Mr. Chairman.

Since we started these hearings, I follow a little bit more closely what happens whenever I get in a plane. I happen to be lucky. I really do not have many delayed flights. They are close to being on time, but there are still things as I observe.

I think back to my last flight a week ago. I got on the plane here right on time. It was 25 minutes later before we took off. We taxied out and waited and waited and moved forward a little bit. Twenty-five minutes later we were finally in the air. They told us the in-air time was two hours and 15 minutes.

Then we flew. We got over Lake Michigan about Eau Claire. We got an announcement we were circling because of delays getting into Minneapolis Airport. Then all of a sudden we took off again and saw the airport down below. We kept going and going. They do that for flight patterns at times, but about the time I expected we should turn around they kept going. We were way out in the country for a while. All of a sudden we turned around and came back.

The air time was supposed to be two hours and 15 minutes. From the time we left here to the time I got to the gate was three hours and 15 minutes. The schedule always accommodates a little more time, so it was only 15 minutes late. No big deal.

Why so long to taxi out? Is that because the gates need to be available? Is it first come/first served as you get out there? You know, I do not know. If we knew that there is slowness getting in—can you hold somebody here longer? You are probably not relating so much to our convenience, but I assume lots of fuel is wasted when you are circling for a period of time, flying a hundred extra miles. What happens? Why?

Mr. CARR. Mr. Sabo, if I might, I will take a shot at part of that question anyway.

The practical application of getting that airplane from the gate to the gate, and from the time you push off that gate until the time you pull into the next gate is the job of the air traffic controllers that I represent. And I can tell you that it is anything from a smooth transition and a routine operation to herding cats. It just depends on a number of factors—weather, equipment, other airports, weather enroute.

So when you came off the gate the airline was ready to aviate. You then got in a queue of other airlines ready to aviate. And any number of things could occur on your way to the runway. A departure gate could be shut off because of volume or because of traffic or because of an accident or because of weather enroute which would cause aircraft that are in front of you in that line to not be able to depart.

For instance, maybe the weather was bad enroute to Minneapolis, perhaps it was weather between Washington and Cincinnati, for instance. So everybody between you and the end of the runway that was going south or southwest, could not go. So it requires a rearranging of all the aircraft.

So 25 minutes is not, in my mind's eye anyway, an extraordinary amount of time to get 300,000 pounds of people, baggage, mail and fuel to the end of the runway in concert with all of the other things that occur to get you out there, number one, ready to go.

Then enroute, it really is an extraordinarily dynamic environment in which——

AIRPORT CAPACITY

Mr. SABO. I am always curious, though, as we get to that runway. We always see this long lineup.

Mr. CARR. Well, that is a function of staffing, but it is also a function of the capacity of the airport itself, whether or not the single runway is being used for departures and arrivals or whether there are two runways which can be used in concert or in tandem. Perhaps there was a shutoff of traffic because the departure controller had an emergency. There could be an emergency on a controller's frequency that he is working and he just shuts off traffic to devote his pure and undivided attention to that emergency. Well, that leaves people on the ground on a clear day like today who wonder why they are being delayed, when in fact the event may be 50 or 60 miles away. But it is still worthy of that controller's undivided attention. So it is just a compendium of things that come to bear on every moment of activity from the moment you push off that gate until you step back off that airplane.

LOW FREQUENCY NOISE

Mr. SABO. Mr. Merlis, you said your association was involved in the low frequency noise issue.

Mr. MERLIS. Yes, sir.

Mr. SABO. A question to you and Administrator Garvey. Where are we at at that issue?

Mr. MERLIS. I do not think it is resolved yet.

Mr. SABO. That is what I am afraid of. It has been going and going. It clearly is a major new type of issue that relates to people living parallel to airports, not necessarily under the flight ban.

Ms. GARVEY. Congressman——

Mr. SABO. It is slow and tedious.

Ms. GARVEY. You are absolutely right. As I mentioned to you a little earlier, I met with some of the folks from your communities who have a real interest in it. We have submitted some additional information that they have, which we are eager to take a look at and told them we would be getting back to them very quickly.

You are absolutely right. This is an issue that is relatively new to us, and we certainly have not dealt with in this kind of depth before. We are interested to look at what information they provided and had a very good discussion with them yesterday. So we will be getting back to you as soon as we have a chance to look at that and talk a little bit further with them.

[The information follows:]

The Federal Interagency Committee on Aviation Noise (FICAN) is reviewing the subject of low frequency aircraft noise.

At its meeting on June 27, 2001, FICAN invited the Richfield (MN)—Metropolitan Airports Commission (MAC) Low Frequency Noise Expert Panel to present their views of the low frequency aircraft noise issue. In December 1998, the City of Richfield and the MAC agreed to convene a low-frequency noise expert panel to undertake detailed studies of existing and potential impacts of low-frequency aircraft noise in communities around Minneapolis-St. Paul International Airport. The panel concluded its work in September 2000 with the submission of a final report, entitled "Findings of Low-Frequency Noise Expert Panel of the Richfield-MAC Noise Mitigation Agreement of December 17, 1998, Volumes 1 through 111, September 30, 2000." The panel came to consensus on the following areas:

- Effects of low-frequency noise.
- Descriptor of low-frequency noise.
- Relationship between low-frequency noise and annoyance.
- Criteria for acceptability of low-frequency noise in residential areas.

There are three main technical points on which the panel did not come to consensus:

- Low-frequency noise from thrust reverse.
- The measure of "dose" in the Low-Frequency Sound Level (LFSL).
- Remedial treatment measures.

FICAN also is reviewing technical comments that Northwest Airlines made on the expert panel's report. In addition, FICAN will be considering comments from its member agencies, previous reports on the issue, and other documents. FICAN expects to issue a statement by the end of the year.

LABOR RELATIONS CONTRACT

Mr. SABO. Thank you.

A question, Mr. Jackson. It is not directly related to delays but it is related to operations.

My understanding is the FAA negotiated with AFSCME a contract, and my understanding is federal labor relations authorities issued a complaint that finds that the FAA chief negotiators agreed to a contract with AFSCME but the FAA has never implemented the contract. My understanding is that the problem may be above the level of the FAA. So we have 2,000 employees working without a contract. My understanding is they have not received their 2001 pay raise yet while other FAA employees have. And I find this upsetting. When can we, do you think this situation will be resolved?

Mr. JACKSON. There is a hearing next week in this dispute, and we hope to learn something from that hearing and decide what the next steps need to be for that.

The approval process for all of the FAA labor negotiations within the department, as I understand it, is within FAA, which had the special labor negotiating authority granted to it. It has always involved a process of obtaining OMB approval at the end gate. This one ran afoul of that final approval, but that has always been baked into this process.

So we are very eager to see this worked through, find an equitable way to move forward, and are eager to participate in this hearing next week and see what the next steps might be.

Mr. SABO. I would appreciate a report.

Mr. ROGERS. Let me interrupt you. We have just a couple of minutes left on a vote.

Mr. SABO.

Mr. ROGERS. Let us recess, and then you will be recognized as soon as we return.

Mr. SABO. Okay.

Mr. ROGERS. We will stand in brief recess.

[Recess.]

WEATHER DELAYS

Mr. WOLF. He said he was on his way back. I passed him as we were running.

Let me begin by asking a question before he comes back.

One, I want to congratulate the subcommittee for having this hearing. Too often there have been times that you asked questions in budget hearings and they said they are going to get back and they never really even get back. So I think to have this on a constant basis where there is an accountability is very, very important. Also I think you all should be congratulated, obviously I believe the figures.

Have you factored in the fact that if you had the same weather as last year and the economy were growing this year as it was last year, how would these numbers stay? There are ways of doing it with computer models. Can anyone answer that?

Ms. GARVEY. Congressman, I am not sure we have done that yet, but you are right. We can certainly try. I can tell you that last June, for example, we had 19 consecutive just terrible weather days that really put us on our heels, and this year we certainly saw much different weather patterns. But we can run the models and see what it would be like.

Interestingly enough, even though the economy is a little soft, if you look at those key hubs we are still finding they are very busy. And we are finding the aircraft, and I may have more information on this, but at least some of the numbers I have seen indicate the load factors are still pretty solid, but there are not as many business travelers. So for the airlines economic bottom line it is tougher, but from our perspective of moving aircraft through the system in those busy hubs, we are still finding them pretty busy.

AIR TRAFFIC VOLUME

Mr. WOLF. Are there as many aircraft moving this year as—I know your profits are down in certain areas and the tickets are topping. Are there as many planes flying now?

Mr. MERLIS. Virtually. I think as opposed to the rate of growth and the increased flights which was somewhat more in previous years. There still is some measure of growth that has taken place because you cannot just turn this off on a dime.

So I do not think we have reduced by any order of magnitude system wide the number of flights that are out there. We may have even increased a little bit because you have additional regional jets entering the system which, of course from an air traffic control standpoint, add a little measure of complication.

Mr. WOLF. Well I would just be interested to see, and I do want to congratulate you. I mean if you look at this, obviously there has been some significant improvement but I think it would be helpful to factor in what the weather was last year and what it could be or should have been or could have been. For instance, the weekends we have had around here have almost been like this is Maine or Massachusetts. At 80, 82, very few thunderstorms. So if there would be a way of factoring that in, I think it would be helpful.

Mr. MEAD. In the Eastern United States this year there has been a six percent reduction in what they call significant meteorological events, which are hazardous to aircraft. There is no question that when you have one of these events that it slows the system down no matter what you are doing otherwise. So those are down. But you recall the discussion earlier about the importance of capturing causal data for these delays and the need to put the system in place. A more informed, quantitative answer to your question will be possible once that system is in place.

MODEL ENHANCEMENT

Mr. WOLF. That was the other thing. Is there anything else that you should be doing to make this model fairer? Is there anything else that is being left out, factors that you all know that we do not know, or that somebody out there knows that if that were factored in the numbers would not be quite as improving as they are? Is there anything else out there?

Ms. GARVEY. I do not think so, Congressman. I think what would be interesting, and I do not know if we can do it, but I think we can. It would be interesting to run the model with last year's weather, but take into account some of the procedural changes we have made and some of the improvements we have made to see if last year might even have been better had we had some of those procedures in place.

Mr. WOLF. That would be helpful.

[The information follows:]

The FAA has asked Mitre/CAASD to perform an analysis to determine what the impact of last year's weather would have had on this year's traffic if the procedural/airspace initiatives being used this year would have been in place. Because, this involves extensive modeling, we expect to have this analysis available to the committee on or about September 5, 2001.

Ms. GARVEY. We have, for example, an agreement with Nav Canada this year that has opened up Canadian airspace to allow us, in bad weather to use about 200 aircraft.

The military has been wonderful at helping us open up some of the military airspace.

Mr. WOLF. That would be helpful if you could do both of them. I think that would be better.

Secondly, one other question before I make a comment, but do you have the run stock with regard to runway improvements? Is there a one stop office that they go to without having to get a permit here, a permit there? Is it or is it not——

Ms. GARVEY. Yes. The answer is yes. There is a one shop——

Mr. WOLF [continuing]. That you go for the whole——

Ms. GARVEY. Yes, but I think we will still have a lot of work to do. In other words, we know what all the programs are. We have an airport guidance panel that works for you, everything you have to get at the federal level. Where I think and where the Secretary is so helpful and will be so helpful is coordination among the federal agencies. In other words, my friends in Seattle that have tried so hard to get a runway through finally got through all the federal process, but at the end there were some additional issues. We knew that they had to get the permit. I think what we still need to do is more coordination at the federal level.

Mr. WOLF. Years ago there was a one stop. It seems to me that if you had one stop whereby when they came to the FAA, that window, you then dealt with the Army Corps of Engineers, if there was a wetlands problem, you dealt with EPA (Environmental Protection Agency) if there was a problem, you dealt with whoever the case may be, but a one-stop office in the Federal Aviation Administration who had that.

Ms. GARVEY. That is a great suggestion. We are not there yet. We know what the issues are and what the permits are, but we have not been able to coordinate that. We have really just been dealing with that offer and the Secretary has really been very helpful at identifying some of the other key agencies to work with.

Mr. JACKSON. Yes, Congressman. You are absolutely right about needing to consolidate, a place to go to have an advocate that helps move people through the federal maze. I will tell you that President Bush has issued an Executive Order exactly on the point that you are discussing now on the land infrastructure and major energy related infrastructure improvements so that through the Council on Environmental Quality we have—I attended my first meeting representing the Transportation Department a week ago or so—an organization and an effort to try and identify major projects and move them through the pipeline.

At the Department we have consolidated the Department's resources in one shop, but we have more to do still to be an advocate within the federal government for moving the various parts of the approval process together in a coherent and simultaneous fashion.

So we are having conversations in the Administration about the appropriate processes we can use. I have talked to my counterpart at the EPA, for example, about this as an issue. So it is absolutely on point and very important.

Mr. WOLF. A last question, and it is not a question, it is almost a statement. Again, Mr. Chairman, when you were not here I just said I want to congratulate you and the staff and the subcommittee for having this hearing and doing it on a continual basis because

there have been many times that you have an oversight hearing and then everyone goes away and everything is submitted for the record, and sometimes it is not and there is no followup. So by having a regular series of these oversights, it does require that. So I want to congratulate you.

Also, I congratulate the members of the panel for the significant, or what appears to be significant progress. We asked if we could run them based on the weather pattern that we have had in the past to see if that would have made any difference. Ms. Garvey is going to see what the weather was last year, and if you had not made the changes that were made, would it have made a difference from last year.

I think there is an opportunity—my intention is that the Administration ought to seize the initiative on maybe modernizing or streamlining the FAA. In 1996 the committee did give full authority with regard to procurement, with hiring. My sense is, and this can be controversial, but that maybe the FAA ought to be an independent agency, set up similar to NASA, still under this subcommittee's jurisdiction. But together in a certain way—and I would urge you, and nobody has to answer this, but Ms. Garvey, this is your last year. You have an opportunity to be bold and creative and show initiative and nobody can do anything to you, you know, I do not think anybody can be that critical of you so you have an opportunity. Sometimes in the last year you can be bold and kind of try things.

Also I think with regard to the Administration. This is an opportunity. Secretary Card is now at the White House, understands this probably as well as anybody that has been in the White House having been the Secretary. Secretary Mineta having been up here for so many years, understands the problem and the circumstances.

I really think it all comes together with Mr. Mineta and Mr. Card and Ms. Garvey, and Mr. Bennett, you have been at the department in the past, and maybe see if there could not be something that is so creative and so different.

I have a piece of legislation, it is not going to pass, we set up a base closing commission concept where by 21–25 people connected to the industry, somebody from every area, comes together and fashions a plan, sends it up to the Congress with almost an up or down vote, similar to what we have done on base closing whereby the Congress has to either take it or has to leave it.

But I would urge the Administration that the changes have been a good impetus. This is very, very important. Mr. Rogers is very active, you have to know why.

One of my children lives up in New York City. It seems the flight that they generally take on Sunday out of Dulles Airport is almost always late, and many times it never goes. I am not going to mention the airlines here, but I think——

Mr. ROGERS. Tell us who it is. [Laughter.]

Mr. WOLF [continuing]. Later.

To have that information just is very, very important, and as Mr. Rogers in the marketplace, I mean if he is told at the time he is buying, 40 percent of the time, 43 percent,the flight does not go or it is late, maybe he will clearly leave the first one out Monday morning or do something else. But I would urge the Administra-

tion, the window of opportunity is closing. Ms Garvey has how many more months?

Ms. GARVEY. Actually, it is a year today. [Laughter.]

Mr. WOLF. When I was in the Army I had, in my Army hat I had all the days of my last month, and I would get up in the morning and strike it, and it was very good just to knock it off, another day. Are you doing that at home?

Mr. SERRANO. I was going to ask if you still have that hat?

Mr. WOLF. Yeah, but it does not fit anymore.

But this is your last year and you really could do a great, great service and I think it would be appreciated. Not in a negative way, but in a positive way. And I think the department with the President talking about the economy, talking about all of these things, and with Mr. Card and Mr. Mineta and yourself, I think you ought to seize the initiative, and I think the opportunity to do it will sort of run out at the end of this year.

So I would urge you to think about being bold and creative, and let this be an opportunity and all of you together, Mr. Rogers, you have all forgotten more about this issue than he knows, but collectively put your heads together and really try and do something dramatic and dynamic that would really make both for safety, for scheduling, for on time, for all of that, to really make it good for the economy and good for the passengers.

I would throw a challenge down to you that you do that. Otherwise I think we make incremental progress, but as you know, runway incursions. Two years ago we came to that big thing at the Washington Hilton, now runway incursions are up. So something bold I think can make all that work.

Thank you for your testimony, and I appreciate Mr. Rogers having this series of hearings and I hope he continues because it just forces, it is like a hot compress on a boil. It just forces it to come out and for people to have to address these issues not only one time but on a continuing basis.

Thank you.

Mr. ROGERS. Thank you, Mr. Chairman. And it is great to have you back in your old haunts over here. And thanks for the nice compliments.

Mr. Sabo was interrupted earlier.

CONTROLLER WORKFORCE

Mr. SABO. Well thanks, Mr. Chairman.

I just had one further question. Maybe, as the Chairman indicated, he would like some dialogue, and that relates to the question of our future controller work force that Mr. Carr raised and projections for a significant need for new controllers in the near future. I am just curious how you would react, Ms. Garvey.

Is the need going to be as quick and great as Mr. Carr is suggesting? And do we have the capacity to get those people trained and on board pursuant to what may or may not happen?

Ms. GARVEY. Exactly. Congressman, actually we spent a lot of time during May with folks who work with us on this issue. We are in sync up to the year 2005. Our numbers are pretty solid together. In other words, we have looked at it and I think our numbers are pretty much in sync. I think beyond that we had some dif-

ferences, but we think we can, and we are, monitoring it very closely and have opportunities with it.

We are a little bit concerned about next year. We want very much to work with the committee and make sure that the members that are included in next year's budget will adequately be able to deal with what we anticipate will be necessary numbers.

You are right, the critical piece for us is the training. So every time we look at hiring, we also have to look at how much time we need for training. When can we run them through Oklahoma, so on and so forth.

We would like to work very much with the committees, and continue obviously the work with the controllers to make sure we are monitoring staffing needs carefully.

The controllers have done a terrific job of joining us in all of the technology committees we have on modernization. It also means a lot of those controllers who were ordinarily on the boards are now very intricately involved in modernization. So those members are necessary. We have to manage that and keep up with that.

CONTROLLER ATTRITION

Mr. SABO. How do you sort out how many—eligible to retire and actually retiring is two different things.

Ms. GARVEY. John may have a different assessment of this, but from our perspective, what we generally do is look at what has been the historical data and use that as the base because in many ways we are really just making estimates. Not only just track it, give people plenty of opportunity to let us know ahead of time and track it as we go. So far we have been close to, as I understand it, to what our projections have been.

John, if you have something else to add——

Mr. CARR. Actually I do, thank you. We do not use historical data because we do not believe that it is accurately reflected. It is a different workforce now than maybe five or ten or 15 or certainly 20 years ago, and the only historical data the FAA can really refer to with respect to controllers is 20 years old, because 20 years ago everybody who does what I am doing got fired.

So historical perspectives we do not believe accurately reflect the changing workforce, 401Ks, people with smartness about their own retirements and their own futures.

We surveyed the work force, and asked them what the difference was between estimated and actual and eligible, because we acknowledge that there is a difference between eligible and actual. And as the administrator correctly described, our numbers are fairly well in sync until about 2005 and then our numbers diverge. We believe more people would hire than the administration currently does.

The only other thing I would probably add is that air traffic controllers are very much like runways. First of all, the more of them you have the happier I am.

Second of all, you cannot make one overnight. It takes between three and five years to make either a good runway or an air traffic controller. The training begins at the lowest possible level, and there are many casualties of that training process along the way. At one time the larger facilities like New York and Chicago had at-

trition rates of about 80 percent. It is just not an easy thing to do in those large terminal environments.

So we are concerned that in light of the fact that we have undertaken choke point sectors, national airspace redesign initiatives, participation of 65 different technical work groups and things of that nature, we are concerned that we continue to funnel in a pipeline of controllers that will allow for even perhaps an overstaaffing as a bubble towards that coming wave of controller retirements.

The collective bargaining agreement which we entered into with the FAA in 1998 is a five year agreement. We stand by the agreement we signed. We probably would not enter again into a written numerical value of the number of controllers we will need five years hence because that was not wise on our part.

AIR TRAFFIC OPERATIONS

Mr. MEAD. Mr. Sabo.

Mr. SABO. Yes.

Mr. MEAD. A wild card here is that as a result of the controllers agreement, the controllers got a substantial increase in pay. And the wild card is that a number of the controllers will have their high pay in soon. And we do not know how many of those people will say well, I have got my high pay now, I am going to go. It is much much more than we would otherwise have gotten.

I would add that I think the administrator makes a good point about what is ahead in the immediate term. They do have a pipeline of controllers that they will be hiring.

Secondly, you do have some safety valves available. For example, right now there is a mandatory retirement age of 56 years old. I do not know why you cannot be an air traffic controller after 56 years old if you want to be.

Mr. JACKSON. Mr. Sabo, can I just provide a clarification on a question we were discussing on the AFSCME contract?

Mr. SABO. Sure.

Mr. JACKSON. The contract is before the Fair Labor Practices Board for adjudication. The meeting that I mentioned next week is an internal meeting to try to make sure that we are moving this process along. We have not been advised on a hearing date for a formal hearing on that.

The other question you asked about was whether the employees covered under this negotiation had received a raise this year. They did, I am told, receive the basic federal raise that everyone in the federal government got, and then any increment above that that might result from a negotiation would be above and beyond what the basic——

Mr. SABO. But the basic pay increase of federal employees they had. Thank you.

Mr. JACKSON. Yes.

Mr. SABO. Thank you. Thank you, Mr. Chairman. It is a good hearing.

Mr. ROGERS. Thank you.

Mr. Olver.

Mr. OLVER. Thank you very much, Mr. Chairman.

Mr. ROGERS. Before you proceed, you may not have noticed that we are doing the lunch hour here. We do plan to finish fairly quick-

ly so we can get this over with so you can be gone, rather than come back after a lunch, if that is okay.

Mr. Olver.

Mr. OLVER. Thank you, Mr. Chairman.

It has been I think, since March 15th, it is just a little over four months since the first of the discussions on this, and this is now the third. And I would say this has been an enormous learning process for me and I suspect other members who are on this side of the table.

I also want to echo what Congressman Wolf, our former chairman had said. I really want to commend the chairman for bringing this process together. I think for us on this side it is an enormous learning process because we rarely get a chance to see a lot of the different facets of the same problem being talked about by the key people that are there.

We do have a lot of experience, speaking of something that Mr. Carr mentioned, at herding cats, sometimes sheep, sometimes we are the herders, sometimes we are the herdees on this side. But it is a learning process and it has been a good one.

On your side I think it has been, I suspect looking at it, I think it has been both a learning process and a problem-solving process. And I think I am going to characterize this in a way—and Ms. Garvey, I will get around to the question here sometime.

You I think are the universal joint in this process of actually making things go in a problem solving effort, and I want to comment you very strongly for what has been accomplished in these last several months.

It merely takes a will to do it and a the drive that has been provided by the Chairman to do it.

Now just let me say, just one example about the learning process. Early on in this process I thought disbursal in choke points, particularly, and I used the example way back then of the New York city area because I know where Islip and where White Plains and where Stewart and so forth, and Teterboro are.

I am not so sure that that is such a good idea as I listen more and have talked with some other people about it because goodness, one might think so, but if you are going to disburse, then you have probably 359 to 360 passengers for all regional jets going into an area to disburse what might otherwise be headed into a 150 person jet or whatever going into one of those, taking that city that i know the geography of a little bit, might be a lot more expensive for the airline, might be considerably more costly in terms of fuel, and obviously in the total amount of traffic that is going to be there. It becomes more difficult in a variety of different kinds of ways.

I suspect, and somewhere you may want to comment, different of you may want to comment on it if you have a chance, but I suspect that the disbursal of general aviation in some of the smaller hubs might be a lot easier where the individual decision is on the basis of hey, we finally figured out that it is easier to change your own usage patterns that have been there for a long period of time than discover from an individual's point of view that you recognize and conserve your interests that are by disbursal outlook a little bit up to general aviation.

I am never quite sure how much of general aviation is involved in all of these delays and what you are doing at some of the airports. It undoubtedly is in some. I should imagine it would not be very much involved in the biggest airports because we did not expect that general aviation would be in doubt. But that is just of an evolution of my own thought process in this learning process.

I wanted to ask you, Ms. Garvey, and Mr. Sabo has already covered some of the grounds that relate to professional workforce issues as well, I wanted to ask you a more general kind of a question.

Clearly we have good data for the first part of this year. Some of it may be weather and some of it may be better labor relations. You have indicated some initiatives and in a general broad way, the initiatives are flight phase and choke point initiatives.

The choke point initiatives were 21 different initiatives, and then the national operations plan. Well, I want to ask you, what maybe three of those things, which ones do you think of the initiatives under the flight plan, the free flight or the choke point 21 might have been most significant? You might say, you might even tell me that you have been praying for better weather, and that might be very important. It might improve all of our use of that medium.

But clearly the National Operations Plan which has to do with long range infrastructure cannot have had anything significant to do with this.

I want you to think what might be the things that have been most significant of what you have been that universal joint in.

You gave also a list of six sort of generalized areas that need more work. Are there some specific things in that that you think of as most promising? Just something for your thought process here, but what seem to have been the most helpful things, the most important things in producing that if it was not just prayer and good weather. And then what you think might be most promising of the relatively specific sorts of things that you are working on in this universal joint process.

Ms. GARVEY. I will give you a quick reaction. But I may think about it and come back to you later.

The choke point initiatives that focus on the New York area have been in some ways certainly among the most promising because that is such a difficult area for us. I think that sort of clustering of initiatives has been extremely helpful.

The second one is perhaps a little bit harder to quantify, but I have to say I really do think the kind of collaboration, the collaboration you are having with the airlines from the command center. That conversation that is happening every two hours, sometimes even going around the clock, 24 hours a day. I think those have—because what it has resulted in is very specific, agreed upon plans, and their actions are entirely going to be handled today. I think that real time collaboration has been extraordinarily helpful.

Congressman Sabo mentioned a little bit earlier the issue about how long are the ground stops. The implication is the fuel, if you are in a holding pattern or whatever. He was right.

Rather than our making those decisions, we are doing it very much in collaboration with the airlines. Do we want a ground stop

here? Do we want to put people into a holding pattern? Do we want to try to fly lower altitudes.

The collaboration with the airlines which I is really unprecedented and is absolutely critical.

By the way, I think one of the most interesting processes, to critique the people after a bad day. After a terrible day, it wasn't going well, they get on the phone and yell at each other. What did we screw up on? What should we do differently? It's pretty open. I have heard those conversations, I have read the transcripts. They are very open, very direct, and very productive.

I think the third piece that is the most critical and has the most promising operation, because it is all of that commitment. In the past there may have been nothing great about putting out wonderful pools of technology that are associated primarily with the government. This is everyone's commitment. It is broken down into short term, so a lot of the choke points or free flight that we have talked about can be included in this. It has got mid-term issues for all of us and long term. So I think that holds the greatest hope for the future. What is critical is our standard course as an industry. The coalition in a consensus has expressed some competitive interest to industry. It is going to be absolutely essential that it be maintained.

DATA COLLECTION

Mr. OLVER. Just briefly, you have kind of pushed really the things that have worked, that produced the most of what has happened in the past and what might be the most promising in the future.

I suspect that just getting that data, which was all available, has produced now some of the embarrassment that the airports and the airlines end up with things getting worse again unless there is very good reason. That is a first cut at data. One obviously needs good data in order to do any good planning.

My guess is that if DOT finally gets through this process of deciding what it is that are going to be the data collection procedures, the comparable data in the case of the actual reasons for delay, you will find that has a big, positive effect in the future, because I suspect that again the airports and the airlines and all concerned in the problem solving aspect will find that they do not want to be caught on the short end of whatever is the particular criterion that is being set forward.

Ms. GARVEY. Absolutely.

Mr. OLVER. I do think that that will be a very good driver of good behavior all the way around.

It took me a long time to get to a question, and I will pass back, Mr. Chairman. I know you would like to move on.

DELAY REPORTING REQUIREMENTS

Mr. ROGERS. Well, thank you Mr. Olver.

Let me ask just a couple of questions in closing, and then we will have a little ceremony.

I noticed a briefing paper that DOT or FAA had which describes the three categories of delays or cancellations that is being discussed, and I assume this is the route that you intend to go.

One of the three categories that airlines would be required to report and which FAA or DOT would then publicize broadly. One, air carriers control problem; two, extreme weather; or three, national aviation system which would be a closed runway or a taxiway at an airport, air traffic control equipment problems, normal but disruptive weather patterns, volume of traffic in the system exceeds capacity, and that type of thing.

Air carrier control would be unavailability of an airplane because of maintenance or other operating problems.

Is this where we are headed?

Mr. JACKSON. Yes, sir. This is the result of the pilot work.

Mr. ROGERS. So this is what we will expect eventually the airlines to be required to report routinely.

Mr. JACKSON. Yes, sir.

Mr. ROGERS. Suppose an airline says on Flight 43 to Chicago out of Dallas we had a problem backing off the gate because, the controllers would not let us out because of some problem on the runway. And the controllers say no, no, no, it is the weather. And the airport people say no, the pilot did not show up. How do we know who is telling the truth?

Mr. CARR. I am, sir. [Laughter.]

Mr. ROGERS. Is there going to be a referee of this system so we can have some confidence in the data that we get?

Mr. MEAD. I do not want the Office of Inspector General to be a permanent referee on this system, but I think initially that will happen. The example you described can be expected to happen. Weather is a good example. Somebody will say it is a weather caused delay. Actually the weather prevented the plane from being at Airport B and at Airport B the airline pulled up an alternate aircraft and the alternate aircraft was broken or had a maintenance problem. It is sort of a chicken or egg thing.

The process is going to need a mechanism to sort through, to adjudicate differences of view. And that is what I rather hoped we would have been through by this summer, but we are still going to have to go through that phase because it will happen.

DATA COLLECTION VALIDATION

Mr. ROGERS. How are we going to police this thing?

Mr. MEAD. I do not know how we are going to police it exactly. But if I were in charge of it, I would have a committee set up that would screen the data and that would try to resolve data discrepancies. Then I would make sure that you had your inspector general audit that process periodically.

I think you are going to need a permanent mechanism to synthesize the data and to resolve disagreements. Right now, since we do not have a system in place, we do not really know whether or the extent to which the disagreements will occur.

Mr. ROGERS. We have not come very far then. We are still going to be blaming each other?

Ms. GARVEY. Mr. Chairman, if I could, just speaking from the pilots experience, we are running into some of these. But it has been interesting to me, but I do not think we have run into as many as we thought. People actually have been pretty good. We have four good airlines who are reporting information.

We are looking at it now on a daily basis with them, so in a sense we are dealing with those issues. The Inspector General has a very excellent staff person who is working with us on this and has been helping sort through those. I think your point about having a process is right. Mr. Mead's suggestion about a subcommittee of three to resolve some of the differences, is something that perhaps could be the topic of the Deputy Secretary's next meeting.

Mr. JACKSON. These are all particulars about how to make a process work on a routine basis and guarantee that the outcome is reliable and accurate and all of these points are well taken. Your question, sir, absolutely on point, and it is part of what we have to address in a final way in a rulemaking process so that it is very clear how we are going to adjudicate and audit. I welcome the Inspector General's willingness to help us keep the system honest.

I have been told that from BTS' perspective which has been the sort of central point of this pilot exercise, that they feel the conversation back and forth amongst the parties has been robust and constructive and that the amount of disputes have been moderately small.

So it is a very important point to focus on. That is part of what the rulemaking has to do.

CAUSES OF DELAY

Mr. ROGERS. Well, I mean, the last problem I had a couple of days ago or whenever, I think I got all three reasons from the desk. It's a weather problem, well, no, we had a crew member that did not report for work. All of this to the same flight, the same airline. The third reason, I forgot what it was, but it was——

VOICE: Volume?

Mr. ROGERS. Yeah, it was air traffic control volume. Whatever that means. And I am a consumer out here, and we are getting told everything, and people have no confidence in what they are being told and they get mad and frustrated and the ulcer level is increasing. We have to get a handle on this.

If we do not have a system in place that forces an answer to who really caused that delay that is objective and is fair, then the flying public will not have the same information out there, and that is where we come in.

Mr. Merlis.

Mr. MERLIS. Mr. Chairman, I think you have identified the reason we are so supportive of this process. Because using two of the three and not knowing the circumstances, if a pilot or crew member is late because of weather, which category does it go in? We want someone to tell us. We will put it in whatever category you want it to go in. But both of those may have been accurate. We were short a pilot because he did not get in on the inbound plane because of weather. Tell us which one you want and we will put it in that category and we will disclose it.

Mr. ROGERS. Good point.

Okay, you are going to work on that.

Mr. JACKSON. Yes, sir.

Mr. CARR. Mr. Chairman.

Mr. ROGERS. Yes.

AIR TRAFFIC OPERATIONS

Mr. CARR. I would also like to mention that, and I neglected to mention it when Mr. Sabo asked the question about his flight, because it is extraordinarily difficult to describe these circumstances so that it is easily understandable, but I would like to extend an invitation to any member of the subcommittee or their staffs who would like to visit any of the air traffic control facilities right here in the Washington area. National is right down the street, Dulles or the Center out in Leesburg.

I think it would be helpful not only on days like today when the sun is out and everything is running relatively smoothly, but also on a critical weather day when not only the controllers but the airport operators and the pilots as well are really struggling to sort out how to get from Point A to Point B and it descends into herding cats quite quickly.

The invitation is open any time, and I would be happy to facilitate any one on the subcommittee or their staffs in making those visits.

Mr. ROGERS. We appreciate that, and no doubt some of us will take you up on it in due course of time. We appreciate the invitation and we will try and do it without being in your way. Anyone else, anything before we begin to wrap this up here?

[No response.]

AIRLINE DELAY PROBLEMS

Mr. ROGERS. Again, let me thank you for another appearance. As Mr. Olver said, this is a terrific education experience for us at least because when we talk about, focus on airline delays it seems like we are slashing across the whole body of air traffic because you encounter all of the difficulties that each of you have in your respective roles when we talk about that one topic.

So it is a good education for all of us and I hope some of you on other parts of the industry that perhaps you do not experience on a day to day basis.

But we started out with these hearings with the focus of trying to solve or help solve the airline delay problem that is infecting the country and causing so much turmoil.

I think we are beginning to identify the choke points in the process. It seems to me like we are making some progress for probably a variety of reasons. But I would hope that these hearings contribute somewhat to the betterment.

We still have a long ways to go but we are beginning to make some progress, and at least we can see whether or not we are making an impact.

So congratulations on some good work, and this will not be the last meeting of this group. You all seem to enjoy your company and we want to facilitate your friendship. [Laughter.]

AIRLINE DELAY PROGRESS REPORT

We will provide you another opportunity one of these days to get back together and celebrate.

Now, it is hard to judge what is going on as it relates to the overall picture, but we started out with this rating system and I think we need to keep it up.

So Rich, if you will help me out here.

The Secretary's office, Mr. Jackson, we are going to let you stand in for the Secretary in this procedure.

On your work to establish the process to balance the flight schedules with airport capacity, we want to give you a smiley face because you are making some progress there. We want to reward good work. You are not there yet, so a star is not in order, but a smiley face certainly is and we congratulate you for that.

Ms. Garvey, we want to continue to encourage you on the choke point initiative and the ability to measure the results so we want to give you another smiley face to join the one you got in May on that point. And also the same for number three, your Free Flight Phase I and Phase II, that is on track. That is a major initiative that we think will be of great importance and you have it on track. We want to give you a smiley.

You have in fact accomplished now the agreement with our airlines on the national operations plan, number four. That is a fact. And for that you get a star. And you know we rarely give out stars here.

And your streamlining of the approval procedures for airports, number five, we want to continue to encourage you with a smiley face on that one.

Now Mr. Mead, we want to give you a star for continuing to monitor the progress of all of these things, and you are sort of our resident critic, if you will, to keep us on track, so we want to reward you with a star for that ongoing effort, it is not done. As well as number three, the monitoring of the construction costs for runways and the schedule status, 1 a star as well.

And a smiley face for continuing, number four, to monitor the FAA's progress in meeting its obligations, keeping track of its promises.

Mr. Merlis, we want to commend you for your group's putting in place the recommendations of the delay reporting advisory committee. For that we give you a smiley face.

And this pains me, but we are going to have to give out the first frowny face on number three. In our very original hearing we were told that you would do this immediately. That we would, that you would begin immediately to transfer the aircraft position and delayed data directly to gate agents so that the public could see that the aircraft has not even landed in Chicago yet, or that it is delayed 45 minutes.

We were led to believe and promised that that data would be relayed directly to gate agents across the country, and here we are five months later, or 90 days later—I am sorry months later, and we are told that that process will be agreed upon within 90 days. That is just not acceptable. So I hate to do this, but a frowny face.

Mr. Barclay, we want to reward you for the effort to advocate FAA's ability to provide the support staff to airports. You advocated strongly and the committee agreed that airports ought to be able to pay for and provide staff to help the FAA speed up, process applications for airports. We wrote that into our bill, as a matter

of fact, on your recommendation and others. Unfortunately, it as temporarily stricken out on the floor, but the idea still lives, and for that we give you a star. A very well deserved one.

We want to give you a smiley face for your number three. As an advocate for scheduling committees.

And for airports now getting better information out to their customers, as you say, through the CNN monitors and other displays in the airports, we think we are seeing some really good progress there and we want to give you a star for that. That is an important one.

And then Captain Dolan, you will need to share this with Captain Woerth. We want to give you a star, give Captain Woerth a star, for developing a stronger alliance with NATCA.

But on number three, after five months we were told, urgently, that the airline dispatchers would be brought into this alliance, and five months later still no action taken. WE are told a meeting is being planned. Do you want to protest?

Mr. DOLAN. No, sir. We signed the formal letter cosigned by our colleagues at NATCA with the dispatchers, that they are members of the alliance now. We had scheduled a meeting on the 5th of July, had already been scheduled before that was completed, and they were unable to attend the meeting. Maybe I was not clear on that.

Mr. ROGERS. But you have signed a letter and the dispatchers are——

Mr. DOLAN. They have agreed to participate in the liaison effort, yes, sir.

Mr. ROGERS. And they have signed the letter with you?

Mr. DOLAN. Yes, sir.

Mr. ROGERS. Can we seek the letter? Can you file it for the record for us?

Mr. DOLAN. Absolutely.

Mr. ROGERS. Please do that.

Okay, we will withhold action on that item then until we have had a chance to work on it.

[The information follows:]

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL
1625 MASSACHUSETTS AVENUE, N.W. □ WASHINGTON, D.C. 20036 □ 703-689-2270
FAX 202-797-4052

August 8, 2001

The Honorable Harold Rogers
Chairman
Transportation Appropriations Subcommittee
Room 2358 RHOB
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Pursuant to my testimony and our subsequent discussion at last week's hearing on delays in the aviation system, I am enclosing the documentation you requested regarding the inclusion of the airline dispatchers as part of the ALPA-NATCA liaison. I hope these documents are responsive to the questions you had regarding the status of this relationship.

As I told you after the hearing, both ALPA and NATCA already consider the ADF as part of our liaison and hope to conduct a joint meeting in the near future. In my discussions with Mr. O'Keeffe, it is evident that this relationship will be very productive in getting to the bottom of the issues we have all been struggling with these many years.

If I can be of any further assistance please don't hesitate to contact me

Respectfully submitted,

Dennis J. Dolan

Captain Dennis J. Dolan
First Vice President

Enclosure

JUN-19-2001 TUE 08:47 PM NATCA NATIONAL OFC FAX NO. 2026593991 P. 01

AIR LINE PILOTS ASSOCIATION, INTERNATIONAL
535 HERNDON PARKWAY □ P.O. BOX 1169 □ HERNDON, VIRGINIA 20172-1169 □ 703-689-2270
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June 19, 2001

Mr. Giles O'Keeffe
President
Airline Dispatchers Federation
Metro Center, Suite 950
700 13th Street, N.W.
Washington, DC 20005

Dear Mr. O'Keeffe:

Recently, NATCA and ALPA have renewed our efforts to maintain an active liaison between our organizations with the goal to identify and work on issues that we can jointly support. Of prime importance is to improve the efficiency of air traffic operations and especially to identify and work on issues that could improve the safety of those operations.

Both organizations realize the important role that airline dispatchers have in implementing the capacity enhancing procedures that industry and FAA support. It goes without saying that the planning for each flight is a key to an efficient ATC operation.

Accordingly, we invite your organization to become part of this liaison effort so that all of our organizations can be as proactive and productive as possible.

We would appreciate your thoughts on this and would welcome your participation at our next liaison meeting scheduled for July 5, 2001 at 1:00 PM on July 5, 2001, in the ALPA Board Room located at 1625 Massachusetts Avenue N.W., Washington, DC 20036.

The tentative agenda includes a discussion of a proposed process for development and deployment of capacity enhancement initiatives, a briefing on the ALPA NAS Modernization Initiative, the planning for the upcoming Communicating for Safety Conference and technical issues including volcanic ash tracking. If you agree to join us we would welcome agenda items from you also.

We hope that you will favorably consider this invitation. Please contact Captain Dolan at 202-797-4023.

Sincerely,

Ruth Marlin
Executive Vice President
NATCA

Captain Dennis J. Dolan
First Vice President
ALPA

ADF
AIRLINE DISPATCHERS FEDERATION
Member of IFALDA

20 June 2001

Captain Dennis J. Dolan
First Vice President
ALPA
535 Herndon Parkway
P.O. Box 1169
Herndon, Virginia, 20172-1169

Captain Dolan:

Thank you for your kind invitation to join your liaison meeting with NATCA on July 5th.

As you are probably aware, ADF is an all-volunteer organization, and that sometimes makes it difficult for us to attend each meeting to which we are invited. However, as a long-time preacher about the Safety PAD, the three-legged stool comprised of Pilot, Air traffic controller and Dispatcher, I would be remiss in my duties if I did not accept your invitation. I will do all possible to attend.

ADF is intensely interested in the items on your tentative agenda. We have been participants in the Collaborative Decision Making process since its inception, and in its predecessor, FADE. ADF has been a leader in the Collaborative Routing process, we have a seat on the Free Flight Steering Committee and we regularly attend the S2K.1 meetings. We even have a volcanic ash "expert" in our midst. For additional information, please visit the ADF website at www.dispatcher.org

ADF has been fighting for the modernization of the NAS alongside NATCA and ALPA. We look forward to continuing that battle, and I consider your liaison meeting an important step. I look forward to being there on July 5th.

Sincerely,

Giles OKeeffe
President, ADF

700 13TH ST., NW, PMB 950 WASHINGTON, D.C. 20005
(800) OPN-CNTL • FAX (202) 434-4599

ADF
AIRLINE DISPATCHERS FEDERATION
Member of IFALDA

06 July 2001

Captain Dennis J. Dolan
First Vice President
ALPA
535 Herndon Parkway
P.O. Box 1169
Herndon, Virginia, 20172-1169

Dear Dennis:

Well, I regret that I was unable to make the meeting yesterday, and a short explanation is in order. I only had one day off this week, so I was trying to catch a flight that would have put me into DCA just before one o'clock. I had called you office to let you know that I might be a little late for the meeting, but I was confident that I could get there no later than 1:30.

As luck would have it, the aircraft assigned to the flight turned up with a mechanical, and the substitute aircraft would have put me into DCA at around 3-PM or later. At that point, I cancelled the attempt and informed your assistant that I was unable to attend.

I apologize to you and NATCA, but, as an all-volunteer organization with very limited resources, ADF is never able to attend all the meetings in which we have an interest. I just want to make sure you know that we consider pilots and air traffic controllers our primary partners when it comes to aviation safety, and I will take action to ensure that I get to the next meeting. Please let me know as early as possible in advance so that I can make the arrangements.

Thank you, again, for the invitation, and I look forward to the next meeting.

Sincerely,

Giles OKeeffe,
President, ADF

700 13TH ST., NW, PMB 950 WASHINGTON, D.C. 20005
(800) OPN-CNTL • FAX (202) 434-4599

Mr. ROGERS. Now then Mr. Carr, on your number one item, monitoring other ideas for safety impact, we want to give you a star on that.

Mr. CARR. Thank you.

Mr. ROGERS. Good job.

And obviously your number two, request for more controller staffing, I know that was difficult for you to do. [Laughter.]

Mr. CARR. I do what I can.

Mr. ROGERS. That is really sacrificing. We are going to give you a star for that.

If any of you have any problems with these let us know and we will take it under review.

[The information follows:]

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEM

Commitments Made March 15 and April 25, 2001

	PROGRESS		
Norman Y. Mineta, Secretary, U.S. Department of Transportation			
1. Work to establish process to balance flight schedules with airport capacity		☺8-2-01	
2. Speed up airport construction and permitting process			
3. Address airway choke points			
4. Work with airports to disperse flights off peak hours & to underused airports			
5. Develop incentives/disincentives for airlines & airports to disperse flights			
Jane F. Garvey, Administrator, Federal Aviation Administration			
1. Complete choke point initiative and measure results	☺5-3-01	☺8-2-01	
2. Use capacity benchmarks to determine action plan at top 10 airports	★5-3-01		
3. Keep free flight phase 1 and phase 2 on track		☺8-2-01	
4. Reach agreement with airlines on national operations plan	☺5-3-01	★8-2-01	
5. Streamline approval procedures for airport capacity projects	☺5-3-01	☺8-2-01	
6. Develop standard definition of delays	★3-28-01		
Kenneth M. Mead, Inspector General, U.S. Department of Transportation			
1. Monitor progress of causal tracking system for delays		★8-2-01	
2. Track dispersal of flights from hubs to smaller airports	☺5-3-01		
3. Monitor runway construction cost and schedule status	☺5-3-01	★8-2-01	
4. Monitor FAA's progress in meeting its 6 commitments		☺8-2-01	
5. Analyze options for demand management changes in short term			
Edward A. Merlis, Senior Vice President, Air Transport Association of America			
1. Better utilize FAA's daily conference call at flow control facility			
2. Put in place recommendations of Delay Reporting Advisory Committee	☺5-3-01	☺8-2-01	
3. Transfer aircraft position and delay data directly to gate agents	☺5-3-01	☹8-2-01	
4. Identify airport capacity projects and ways to implement them			
5. Petition DOT to change the denied boarding compensation rules	★5-3-01		

WHAT I WILL DO TO HELP SOLVE THE AIRLINE DELAY PROBLEM Commitments Made March 15 and April 25, 2001	PROGRESS		
Charles Barclay, President, American Association of Airport Executives			
1. Advocate streamlining of runway construction process	☺5-3-01		
2. Advocate FAA's ability to provide support staff to airports	☺5-3-01	★8-2-01	
3. Advocate lifting the cap on passenger facility charges (PFCs)		☺8-2-01	
4. Advocate flexibility for off-airport environmental remediation			
5. Get better information to airport customers		★8-2-01	
6. Become involved in coordination of air traffic control operations			
Captain Duane E. Woerth, President, Air Line Pilots Association			
1. Develop a single list of aviation needs from aviation industry			
2. Develop stronger alliance with NATCA	☺5-3-01	★8-2-01	
3. Bring airline dispatchers into that alliance			
4. Standardize flight and duty time industry wide	☺5-3-01		
5. Work to improve airport capacity where possible			
John Carr, President, National Air Traffic Controllers Association			
1. Monitor other ideas for safety impact	☺5-3-01	★8-2-01	
2. Request more controller staffing		★8-2-01	
3. Reach agreement with FAA on airspace redesign	★5-3-01		
4. Study, with others, ability to reduce separation standards	☺5-3-01		
5. Fill the labor seat on the MAC with a NATCA representative			

KEY: ★ COMPLETED; ☺ PROGRESS; ☹ FAILED TO ACT

CLOSING REMARKS

Mr. ROGERS Thank you for your work, being here today. I know this is a tough, tough issue for you. Airlines, airports are besieged with tons of people, and equipment is expensive and complicated and people obviously are concerned about safety, and rightly so.

Sometimes we are dealing with procedures that date back to the Wright brothers. That could stand some modernization. Yet government agencies are very reluctant to shake the status quo and yet we have got to. So I am hoping that the separation standards can be worked on, that we get this new equipment on board as quickly as we can, that the controllers accept the equipment, and that the airlines and airports will begin to disburse super hubs into surrounding areas in order to relieve the traffic.

There is no way that the building of runways is going to solve this problem. It takes so long to build them; and number two, by the time you get it built the capacity is going to be again under challenge.

So I suggest to you that there is lots of concrete laying out there unused in these adjacent cities that airlines we expect to utilize. I do not think it is fair for the airlines who devised the hub system, to then come to us and say you have got a capacity problem so we want zillions of dollars to build a new runway. And our hub city, while you have runways that we built laying unused within a couple or few miles of that airport. So we expect disbursal of capacity. And to utilize the assets that we have already on the ground ready and paid for.

Is it Belleville, Illinois that is this side of St. Louis? The St. Louis airport, we are having to build a $2.3 billion runway and yet there is a beautiful new airport at Belleville, Illinois, maybe 10 or 15 miles or so, on the plains of Illinois that is sitting there practically unused, terrific capacity, soon to be linked up with a metro commuter line that we are paying for to link up that airport with the city and the other main airport.

I do not see why TWA does not use that airport, and others. But they expect us to spend $2.3 billion for one runway at their regular airport while it sits out there unused as we talk.

Thank you for coming. We will see you next time.

QUESTION FOR THE RECORD FOR THE FAA FROM CONGRESSMAN ADERHOLT

Mr. Aderholt. Several constituents that I represent, including myself, have experienced the fact that airlines do not post timely information on their departure and arrival monitors when a flight is delayed sometimes to leave much later and sometimes to leave earlier than posted. This often prevents passengers from having the information they need to book a flight on another airline when they are in this situation.

What can the FAA do to ensure that the traveling public has the most accurate and timely arrival and departure information available? Could FAA "push" the airlines to provide more timely information or could FAA provide more accurate departure and arrival information directly to the public?

[The information follows:]

Improving customer service is an important issue and certainly has our attention. About 40 percent of the complaints the Department of Transportation receives involve flight problems: cancellations, misconnections and aviation delays. There are examples that all of us have when we weren't given all the information we needed or got all our questions answered. We believe that public attention to this issue has led to improvements. Airport status information has been available for more than a year at the FAA's web site: www.Fly.faa.gov, but this past spring, the coverage was expanded from 39 to almost 300. In addition, a new information service for passengers was begun: travelers with pagers, cell phones or personal digital assistants can now get that same information from a free e-mail service provided by the FAA. The availability of these consumer services by the FAA has been extensively announced through a Public Service Announcement that has been running continuously on CNN throughout the summer. In June, immediate information on airport delays began airing as a "ticker" on the bottom of screens on CNN Airport Network. In an effort to provide timely airport delay status information to travelers, this new information service for passengers was launched through a collaborative effort with industry and government. CNN Airport Network is now offered in 35 of the nation's busiest airports, covering more than 1,600 gates and other viewing areas. We've had four consecutive months – March through June—of decreases in aviation delays this year compared with last year. Further, airline consumer complaints filed with Department of Transportation for the first six months of this year are down about 20 percent from last year.

QUESTIONS FOR THE RECORD FOR THE FEDERAL AVIATION ADMINISTRATION FROM CHAIRMAN ROGERS

INTERNATIONAL AVIATION SAFETY

Mr. Rogers. This Committee directed the Federal Aviation Administration (FAA) to submit a report on international aviation safety, security and system efficiency back in fiscal year 2000. One year ago, we were advised that the report was still undergoing executive review (p. 124). How long does it take the Executive Branch to make a final decision on a report such as this?

[The information follows:]

The new administration has this report under review along with a number of regulatory decisions, executive orders and congressional reports.

COST ACCOUNTING SYSTEM

Mr. Rogers. Please update the table on page 191 of last year's hearing record showing costs to develop and implement the agency's cost accounting system.

[The information follows:]

The figures in the following table reflect the past and projected expenditures for implementation of the cost accounting system.

For fiscal years 2000, 2001, and 2002, the cost accounting program was expanded to include cost and performance management and labor distribution reporting:

Cost Accounting System (Dollars in Thousands)

	FY97	FY98	FY99	FY00	FY01	FY02
Program Management/ Technical Direction [1]	$418	$738	$680	$770	$1,601	$2,315
General Functional Requirements				542		
Detailed Functional Requirements	748	967	1,111	1,365	921	1,362
Software Selection					214	
Vendor Training						
Software Procurement	776	2			133	
Vendor Support	276	472	1,096	892		
Travel/Other Direct Costs	3	5	39	25	32	48
Hardware	474	96	31	117	26	
Accounting Design/ Documentation/ Training	707	996	855	1,716	937	1,277
Technical Development/ Testing	511	1,131	957	825	1,392	1,428
System Operation			876	1,364	1,169	2,294
Technical Support		79	399	485	200	376
Total	$3,913	$4,486	$6,044	$8,101	$6,625	$9,100

1/ Fiscal year 2001 and fiscal year 2002 include cost and performance management initiatives

AIRPORT AND AIRWAY TRUST FUND STATISTICS

Mr. Rogers. Please update the table on page 194 of last year's hearing record showing revenues and expenditures from the Airport and Airway Trust Fund (AATF) by providing data for fiscal years 2000 through 2002.

[The information follows:]

(Millions of Dollars)	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
Cash Balance, Start of Year	12,444	13,934	15,634
Excise taxes	9,739	10,414	11,183
Interest on cash balance	805	871	996
Offsetting collections	144	96	96
Total Trust Fund Revenue	10,688	11,381	12,275
Expenditures (Outlays)			
Airport Improvement Program (AIP)	-1,578	-2,174	-2,764
Facilities and Equipment	-2,077	-2,066	-2,376
Research, Engineering & Development	-166	-200	-211
Operations	-5,222	-5,145	-5,777
Offsetting collections	-144	-96	-96
Office of airline information	0	0	-4
Total Outlays	-9,187	-9,681	-11,228
Permanently Cancelled Balances	-11	0	0
Cash Balance, End of Year	13,934	15,634	16,681
Unobligated Balance	-1,173	-636	-368
Obligated Balance	-5,687	-6,499	-7,487
Total Commitments	7,074	8,499	8,826

Mr. Rogers. Assuming passage of your budget request, when combined with estimates of prior year outlays, would total cash outlays from the Aviation Trust Fund exceed revenues in fiscal year 2002?

[The information follows:]

Under the fiscal year 2000 President's budget, total outlays from the Aviation Trust Fund would not exceed total revenues. Fiscal year 2002

estimated revenues total $12.2 billion, with $11.2 billion derived from excise taxes and $1.0 billion from interest on the cash balance. Total outlays in fiscal year 2002 are estimated at $11.1 billion.

Mr. Rogers. Please update the monthly trust fund cash flow table as shown on pages 196 and 197 of last year's hearing record by providing estimates for fiscal years 2001 and 2002.

[The information follows:]

TRUST FUND REVENUES AND OUTLAYS FOR FY 2001 ($Millions)													
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Excise Taxes													
Passenger Ticket	$341	$602	$545	$379	$313	$443	$389	$423	$389	$327	$353	$770	$5,273
Passenger Flight Segment	$33	$58	$52	$169	$140	$198	$173	$189	$173	$146	$157	$343	$1,831
Rural Airports	$2	$4	$4	$9	$9	$9	$9	$9	$9	$9	$9	$9	$92
Waybill Freight and Mail	$22	$39	$36	$58	$48	$68	$51	$55	$50	$42	$45	$125	$639
General Aviation Fuel	$10	$18	$17	$30	$24	$71	$32	$36	$56	$4	$2	$39	$339
Commercial Fuel	$31	$54	$49	$58	$58	$58	$58	$58	$58	$58	$58	$58	$656
International Departure/Arrival	$48	$85	$77	$137	$111	$210	$137	$152	$137	$28	$30	$259	$1,411
Frequent Flyer Taxes	$8	$15	$13	$13	$11	$15	$13	$15	$13	$11	$12	$27	$167
Total Excise Taxes	$496	$876	$793	$854	$714	$1,073	$863	$937	$885	$626	$667	$1,630	$10,414
Interest on Cash Balances	$3	$7	$219	$7	$11	$11	$19	$11	$518	$9	$9	$46	$870
Total Trust Fund Revenues	$499	$883	$1,012	$861	$725	$1,084	$881	$948	$1,403	$635	$676	$1,676	$11,283
Expenditures (Outlays)													
Airport Improvement Program	$192	$221	$158	$122	$118	$194	$185	$173	$201	$202	$199	$209	$2,174
Facilities & Equipment (F&E)	$127	$130	$198	$178	$142	$208	$204	$141	$171	$189	$181	$197	$2,066
Research, Engineering & Development	$9	$15	$14	$13	$13	$16	$21	$18	$19	$20	$20	$22	$200
Operations	$329	$48	$54	$1,503	$393	$403	$403	$403	$403	$402	$402	$402	$5,145
Total Outlays	$657	$414	$424	$1,816	$666	$821	$813	$735	$794	$813	$802	$830	$9,585
Net Change In Cash Balance	($158)	$469	$588	($955)	$59	$263	$68	$213	$609	($178)	($126)	$846	$1,698

TRUST FUND REVENUES AND OUTLAYS FOR FY 2002 ($Millions)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
Excise Taxes													
Passenger Ticket	$372	$656	$594	$399	$329	$466	$409	$445	$409	$344	$371	$810	$5,604
Passenger Flight Segment	$36	$63	$57	$190	$157	$223	$195	$213	$195	$164	$177	$387	$2,057
Rural Airports	$3	$5	$4	$9	$9	$9	$9	$9	$9	$9	$9	$9	$93
Waybill Freight and Mail	$24	$43	$39	$62	$51	$72	$54	$59	$53	$45	$48	$133	$683
General Aviation Fuel	$11	$20	$18	$32	$26	$75	$34	$39	$59	$5	$2	$41	$362
Commercial Fuel	$34	$59	$54	$60	$60	$60	$60	$60	$60	$60	$60	$60	$687
International Departure/Arrival	$52	$93	$84	$148	$120	$227	$148	$164	$148	$30	$33	$280	$1,527
Frequent Flyer Taxes	$9	$16	$15	$13	$11	$15	$14	$15	$14	$11	$12	$27	$172
Total Excise Taxes	$541	$955	$864	$913	$763	$1,148	$923	$1,003	$947	$668	$712	$1,747	$11,184
Interest on Cash Balances	$3	$7	$219	$9	$13	$13	$22	$13	$620	$11	$11	$55	$996
Total Trust Fund Revenues	$544	$962	$1,083	$922	$777	$1,161	$945	$1,016	$1,567	$679	$723	$1,802	$12,181
Expenditures (Outlays)													
Airport Improvement Program	$230	$276	$264	$235	$210	$260	$204	$191	$222	$223	$220	$231	$2,766
Facilities & Equipment (F&E)	$155	$172	$199	$160	$175	$210	$246	$170	$206	$228	$218	$237	$2,376
Research, Engineering & Development	$10	$16	$14	$17	$19	$20	$20	$17	$18	$19	$19	$21	$210
Operations	$481	$482	$481	$482	$481	$482	$482	$482	$482	$481	$481	$481	$5,778
Total Outlays	$876	$946	$958	$894	$885	$972	$952	$860	$928	$951	$938	$970	$11,130
Net Change In Cash Balance	($332)	$16	$125	$28	($108)	$189	($7)	$156	$639	($272)	($215)	$832	$1,051

Mr. Rogers. How did your estimates for fiscal years 2000 and 2001 shown on pages 196 and 197 of last year's hearing record compare to current estimates for those years?

[The information follows:]

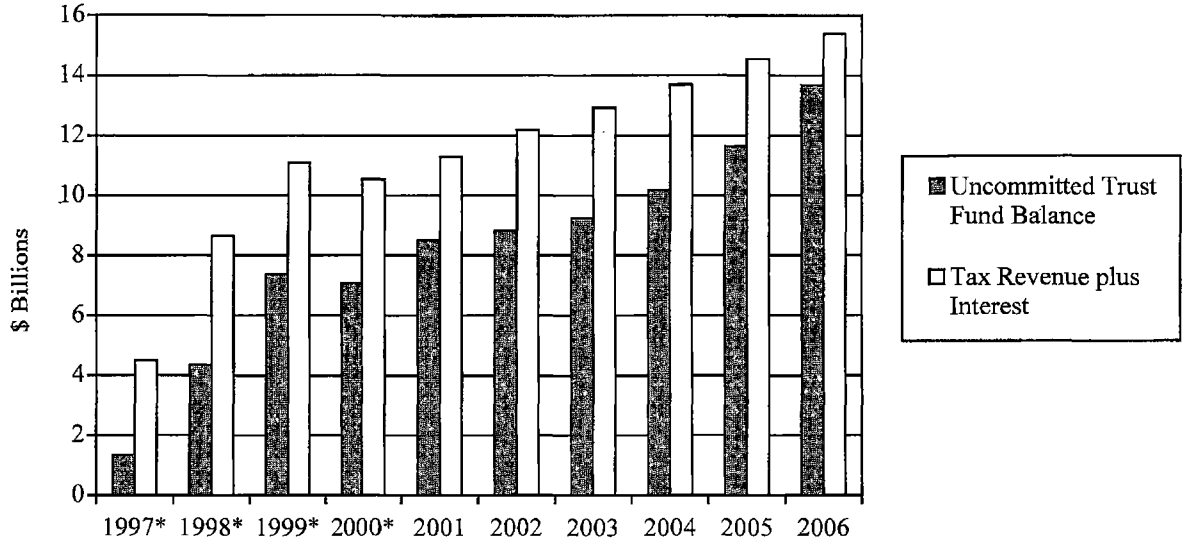
The table below shows the comparison of estimates for fiscal years 2000 and 2001.

TRUST FUND REVENUES AND OUTLAYS COMPARISON TABLE ($Millions)					
		FY2000 estimates submitted in FY2000	Actual FY2000	FY2001 estimates submitted in FY2000	FY2001 estimates submitted in FY2001
Excise Taxes					
Passenger Ticket		$4,850	$5,103	$4,912	$5,603
Passenger Flight Segment		$1,594	$1,655	$1,809	$2,057
Rural Airports		$54	$87	$57	$97
Waybill Freight and Mail		$443	$500	$479	$683
General Aviation Fuel		$242	$236	$250	$362
Commercial Fuel		$612	$651	$628	$682
International Departure/Arrival		$1,286	$1,349	$1,367	$1,528
Frequent Flyer Tax		$141	$159	$144	$172
Total Excise Tax		$9,222	$9,740	$9,646	$11,184
Interst on Cash Balances		$762	$805	$801	$997
Total Trust Fund Revenues		$9,984	$10,545	$10,447	$12,181
Expenditures (Outlays)					
Airport Improvement Program		$1,895	$1,579	$1,899	$2,765
Facilities & Equipment (F&E)		$1,805	$2,077	$1,973	$2,376
Research, Engineering		$194	$166	$199	$211
& Development					
Operations 1/		$5,193	$5,221	$6,524	$5,777
Total Outlays		$9,087	$9,043	$10,595	$11,129
Net Chang In Cash Balance		$897	$1,502	-$151	$1,052
1/ FY 2000 estimates do not include $75,000,000 in supplemental appropriations provided by P.L. 106-246.					

Mr. Rogers. Please update the bar chart found on page 199 of last year's hearing record showing estimated uncommitted trust fund balances by providing data for fiscal years 1997 through 2006, assuming the President's budget for fiscal year 2002 and outyear planning estimates included in that submission.

[The information follows:]

Comparison of Actual and Projected Uncommitted Trust Fund Balances and Aviation Excise Tax Revenues (Assumes Passage of the Administration's Fiscal Year 2002 Budget)



*/ Actual uncommitted balances and aviation tax revenues plus interest.
During 1997, FAA temporarily lost its authority to tax. In fiscal year 2000, the FAA was 100 percent trust fund financed.

OVERSEAS PERSONNEL

Mr. Rogers. Please update the listing of FAA personnel stationed overseas shown on pages 200-207 of last year's hearing record.

[The information follows:]

City	Country	Position Title	Plan	Series	Grade	
Buenos Aires	Argentina	Security Liaison Officer	FM	1801	14	
		Secretary	PSC			*
Sydney	Australia	Security Liaison Officer	FM	1801	14	
		Secretary	PSC			
Vienna	Austria	Security Liaison Officer	FG	1801	14	
		Secretary	PSC			
Brussels	Belgium	Office Director	ES	0340	02	*
		Office Deputy Director/FAA Rep	FV	0130	K	
		Secretary	PSC			*
		Executive Officer	FV	0301	J	
		Technical Assistant	AD	0301		*
		Administrative Assistant	AD	0301		
		Computer Support	CN			
		FAA Representative-Moscow	FV	0130	K	
		Secretary	AD			
		Intl Tech Assistance Program Manager	FV	0801	K	
		Technical Systems Specialist	FV	2186	K	
		Assistant Chief Counsel	ES		K	
		Administrative Assistant	PSC			
		Certification Manager	FV	0861	K	
		Administrative Assistant	AD	0301		
		Aerospace Engineer	FG	0861	14	*
		Aviation Safety Inspector	FG	1825	15	
		Aerospace Engineer	FG	0861	14	*
		Aerospace Engineer	FG	0861	14	
		Aerospace Engineer	FG	0861	14	
		Aerospace Engineer	FG	0861	14	

City	Country	Position Title	Plan	Series	Grade	
Brussels	Belgium	Aerospace Engineer	FG	0861	14	
		Secretary	PS	0322		*
		Secretary	AD	0322		
		Technical Support Clerk	AD	105		*
		ASI Manager	FM	1825	K	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	*
		ASI	FG	1825	14	*
		ASI	FG	1825	14	
		Secretary	FP			*
		Secretary	PSC		08	
		Program Analyst	FG	0301	14	
		ATC Manager	FV	2152	K	
		ATC Specialist	FG	2152	14	
		Administrative Assistant	FV	0303	E	
		Secretary	PSC			
		Security Manager	FV	1801	K	
		Deputy Security Manager	FM	1801		*
		Hazmat Program Manager	FG	1801	14	
		Secretary	PSC			
		Administrative Officer	FV	0341	H	
		Computer Support	CN			
		Security Manager (Operations Branch)	FV	1801	K	
		Secretary	PSC			
		Security Officer	FG	0080	14	
		Principal Security Inspector	FG	1801		
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		Security (CASIFO) Manager	FV	1801	J	
		Staff Assistant	FG	0303	08	
		CAS Specialist	FG	1801	13	

City	Country	Position Title	Plan	Series	Grade	
Brussels	Belgium	CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		Hazmat Specialist	FG	1801	13	
		Hazmat Specialist	FG	1801	13	
		Security Liaison Officer	FG	1801	14	
		Security Liaison Officer	FG	1801	14	*
Bimini	Bahamas	AF Technician	FW	4749	10	*
Beijing	China	FAA Representative	FV	0130	K	
		Administrative Assistant	PSC			
		Technical Assistant	PSC			
Paris	France	FAA Representative	FV	0130	K	
		Administrative Assistant	AD			
		Security Liaison Officer	FM	1801	14	
		Secretary	PSC			
Frankfurt	Germany	Safety Manager	FV	1825	K	
		Assistant Manager	FV	1825	K	
		ASI	FV	1825	K	
		ASI	FV	1825	K	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FM	1825	14	
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		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FV	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	

City	Country	Position Title	Plan	Series	Grade	
Frankfurt	Germany	ASI	FG	1825	14	*
		ASI	FG	1825	14	*
		LAN Administrator	PSC			
		Administrative Officer	PSC			
		Aviation Safety Assistant	PSC			
		Aviation Safety Assistant	PSC			
		Aviation Safety Assistant	PSC			*
		Aviation Safety Assistant	PSC			*
		Aviation Safety Assistant	PSC			*
		Security Manager	FG	1801	J	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		Security Liaison Officer	FG	1801	14	*
		CAS Specialist	FG	1801	14	*
		CAS Specialist	FG	1801	14	*
		Secretary	PSC			
		Secretary	PSC			
		AVN Security Assistant	PSC			
Athens	Greece	Security Liaison Officer	FG	1801	14	
		Secretary	PSC		07	
Rome	Italy	FAA Representative	FM	0301		*
		Administrative Assistant	AD	0318		
		Security Manager	FG	1801		*
		Secretary	PSC			
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		Hazmat Specialist	FG	1801	13	*
		Security Liaison Officer	FG	1801		
Tokyo	Japan	FAA Representative	FV	0130	K	
		Administrative Clerk	AD		04	
		Civil Aviation Specialist	AD			
		Security Liaison Officer	FM	1801	14	
		Secretary	PSC			
Kwajalein	Marshall Islands	ATC Manager	FG	2152	13	
		ATC Specialist	FG	2152	11	

City	Country	Position Title	Plan	Series	Grade	
Kwajalein	Marshall Islands	ATC Specialist	FG	2152	11	
		ATC Specialist	FG	2152	11	
		ATC Specialist	FG	2152	11	
Manila	Philippines	Security Liaison Officer	FG	1801	14	
		Secretary	PSC			*
		Driver	PSC			
Moscow	Russia	Civil Aviation Specialist	PSC			
Jeddah	Saudi Arabia	Tech Assistance Manager	FV	1825	K	
		Secretary	PSC			
		Driver	PSC			
Dakar	Senegal	FAA Representative	FV	0130	K	
		Secretary	PSC			
Singapore	Singapore	Office Director	EV	0340		
		Executive Officer	PSC	301	11	
		Technical Assistant	AD	0301		
		Office Assistant	PSC			
		FAA Representative	FV	0301	K	
		Secretary	PSC			
		Safety Manager	FV	1825	K	
		Secretary	PSC			
		Administrative Officer	PSC			
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		LAN Administrator	PSC			
		Info Systems Assistant	CN			*
		Certification Intl Liaison	FG	0861	14	
		Security Manager	FG	1801	J	
		Secretary	PSC			
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	
		CAS Specialist	FG	1801	13	

City	Country	Position Title	Plan	Series	Grade	
Singapore	Singapore	Security Liaison Officer	FG	1801	14	
Madrid	Spain	Security Liaison Officer	FG	1801	14	
		Secretary	PSC			
		Tech Assistance Manager	FV	0801	K	
		Secretary	AD	0318		
		ATC Specialist	FC	2152		*
		Aerospace Engineer	FC	0861		*
		Aerospace Engineer	FC	0861	J	
		Civil Engineer	FV	0810	J	
		Budget Assistant	AD	0560		
Bangkok	Thailand	Security Liaison Officer	FG	1801	14	
		Secretary	PSC			
London	United Kingdom	FAA Representative	FV	0130	K	
		Administrative Assistant	AD	105	06	
		Safety Manager	FV	1825	K	
		Deputy Safety Manager	FV	1825	K	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	
		ASI	FG	1825	14	*
		ASI	FG	1825	14	*
		ASI	FG	1825	14	*
		LAN Administrator	PSC			
		Administrative Officer	PSC			
		Administrative Clerk	PSC			*
		Security Liaison Officer	FG	1801	14	
		Secretary	PSC			
		Quality Assurance Specialist	FV	1910	I	

Acronyms Used			
Titles		Pay Plan	
AF	Airways Facilities	FC	Foreign compensation plan (U.S. direct hire)
ASI	Aviation Safety Inspector	FG/ FM	FAA equivalent to general schedule (U.S. direct hire)
ATC	Air Traffic Control	FW	FAA equivalent to wage grade (U.S. or overseas direct hire)
CAS	Civil Aviation Security	AD	Foreign national (overseas direct hire)
COM	Commercial Contractor	* Denotes position currently vacant.	
LAN	Local Area Network		
PSC	Personal services contractor (overseas hire-US or FN)		

Mr. Rogers. Please update the information on overseas FAA offices shown on pages 207 through 213 of last year's hearing record.

[The information follows:]

ATHENS

Title of Office: Civil Aviation Security Liaison Office (CASLO)
Address: FAA/CASLO
c/o American Embassy
91 Vasilissis Sophias Blvd.
10160 Athens Greece
Person in charge: Wendell Sims
Personnel assigned: Two (One US Hire)

BANGKOK

Title of office: Civil Aviation Security Liaison Office
Address: American Embassy, FAA Box 63
120-122 Wireless Road
Bangkok 10330, Thailand
Person in charge: George B. Brennan
Personnel assigned: Two (One US Hire)

BEIJING
Title of office: Senior FAA Representative
Address: FAA
c/o U.S. Embassy
3 Xiu Shui Bei Jie
Beijing, China 100600
Person in charge: Beth Keck
Personnel assigned: Three (One US Hire)

BRUSSELS
Title of office: International Area Office-Europe, Africa and Middle East
Person in charge: Paul Feldman, Acting Director
Personnel assigned: Eight in API organization; Two from other organizations (Six US Hires)

Office of Assistant Chief Council
Person in charge: Carey Terasaki
Personnel assigned: Two (One US Hire)
Aircraft Certification Office
Person in charge: John Colomy
Personnel assigned: Ten (Eight US Hires)

Flight Standards International Field Office
Person in charge: Sam Rosen
Personnel assigned: Seven (Five US Hires)

Air Traffic Services Field Office
Person in charge: Gerald Richard
Personnel assigned: Three (Two US Hires)

Civil Aviation Security Division and Civil Aviation Security Liaison Officers
Person in charge: Loretta Mcneir
Personnel assigned: Twenty-five (Twenty-two US Hires)

Address for all Brussels offices:
Federal Aviation Administration
c/o American Embassy
27 Blvd du Regent
B-1000 Brussels Belgium

BUENOS AIRES
Title of office: Civil Aviation Security Liaison Office
Address: Federal Aviation Administration
Embassy of the United States of America
Avenida Colombia 4300
1425 Buenos Aires, Argentina
Person in charge: Hector Vela
Personnel assigned: Two (One US Hire)

DAKAR
Title of office: Senior FAA Representative
Address: FAA
c/o American Embassy
Boite Postale 49
Avenue Jean XXIII
Dakar Senegal
Person in charge: Edward Jones
Personnel assigned: Two (One US Hire)

FRANKFURT
Title of office: Civil Aviation Security International Field Office
Person in charge: David Orochena
Personnel assigned: Eight (Six US Hire)
Address: Federal Aviation Administration
FRA-CASIFO
Platenstrasse 9
60320 Frankfurt am Main
Germany

Title of office: Flight Standards International Field Office
Person in charge: John Barbagallo
Personnel assigned: Twenty-seven (Twenty-one US Hire)
Address: FAA/IFO
Rhein-Main Airbase, Unit 7580
60549 Frankfurt am Main
Germany

JEDDAH
Title of office: Civil Aviation Assistance Group
Address: FAA/CAAG
co US Consulate General
P.O. Box 149 Ruwais
Jeddah 21411 Saudi Arabia
Person in charge: John Waltz
Personnel assigned: Two (One US Hire)

LONDON
Title of office: Senior FAA Representative
Person in charge: Joseph Teixeira
Personnel assigned: Two (One US Hire)

Title of office: Civil Aviation Security Liaison Office
Person in charge: Elizabeth Mullikin
Personnel assigned: Two (One US Hire)

Title of office: Flight Standards International Field Office
Person in charge: Anthony Kijek
Personnel assigned: Fourteen (Eleven US Hire)

Address for the above offices:
Federal Aviation Administration
c/o American Embassy
24 Grosvenor Square
London W1A 1AE United Kingdom

MADRID
Title of office: Civil Aviation Security Liaison Office
Person in charge: Ismael Galvan
Personnel assigned: Two (One US Hire)

Title of office: Civil Aviation Assistance Group
Person in charge: Miriam Santana
Personnel assigned: Five (Three US Hire)

MADRID

Address the above both offices:
Federal Aviation Administration
c/o American Embassy
Serrano 75
28006 Madrid Spain

MANILA

Title of office: Civil Aviation Security Liaison Office
Person in charge: Richard Hyman
Personnel assigned: Two (One US Hire)
Address: Federal Aviation Administration
U.S. Embassy Manila
1201 Roxas Blvd.
Metro Manila
Republic of the Philippines

PARIS

Title of office: Senior FAA Representative
Person in charge: Kurt Edwards
Personnel assigned: Two (One US Hire)

Title of office: Civil Aviation Security Liaison Office
Person in charge: Jesus Presas
Personnel assigned: Two (One US Hire)

Address for the above offices:
Federal Aviation Administration
c/o American Embassy
2 Avenue Gabriel
75382 Paris Cedex 08
France

ROME

Title of office: Senior FAA Representative
Person in charge: Vacant
Personnel assigned: Two (One US Hire)

ROME
Title of office: Civil Aviation Security Field Unit
Person in charge: Daniel Prevo
Personnel assigned: Five (Four US Hire)

Address for the above offices:
Federal Aviation Administration
c/o American Embassy
Via Veneto, 119/A
00187 Rome Italy

SINGAPORE
Title of office: International Area Office-Europe, Africa and Middle East Office
Person in charge: Elizabeth Erickson, Director
Personnel – Six in API organization; One from another organization (Three US Hires)

Title of office: Flight Standards (IFG) Office
Person in charge: David Hegy
Personnel assigned: Eleven (Eight US Hires)
Title of office: Civil Aviation Security Division & International Field Office
Person in charge: Wilson Fisher
Personnel assigned: Seven (Six US Hires)

Address: American Embassy
FAA Asia & Pacific Office
27 Napier Road
Singapore 258508

SYDNEY
Title of office: Civil Aviation Security Liaison Office
Person in charge: Donald Slechta
Personnel assigned: Two (One US Hire)
Address: Federal Aviation Administration
U.S. Consulate General
MLC Centre, Level 59
19-29 Martin Place
Sydney, NSW 2000
Australia

TOKYO
Title of office: Senior FAA Representative
Person in charge: Robert Jensen
Personnel assigned: Three (One US Hire)

Title of office: Civil Aviation Security Liaison Office
Person in charge: Vacant
Personnel assigned: Two (One US Hire)

Address for both offices:
Federal Aviation Administration
U.S. Embassy - Tokyo
1-10-5, Akasaka
Minato-ku, Tokyo
Japan 107-8420

VIENNA – Closing in June 2001
Title of office: Civil Aviation Security Liaison Office
Person in charge: Amelia Becke
Personnel assigned: Two (One US Hire)
Address: FAA/CASLO
c/o American Embassy
Boltzmanngasse 16
A-1091 Vienna Austria

WORKERS' COMPENSATION

Mr. Rogers. Please update the data on page 214 of last year's hearing record showing the number of FAA employees receiving workers' compensation payments, and associated costs, by providing data for each of the fiscal years 1998 through 2002.

[The information follows:]

(Dollars in Thousands)

Fiscal Year Charged	Cost	Cases	FECA Chargeback Year
2002	$83,701	3,566	2000 *
2001	$84,337	3,506	1999
2000	$83,828	3,562	1998
1999	$78,087	3,523	1997
1998	$77,935	3,430	1996

* Federal Employees Compensation Act (FECA) Chargeback Year (CBY) 2000 is July 1, 1999 through June 30, 2000.

Mr. Rogers.. Please update the breakdown of workers' compensation recipients by age shown on page 214 of last year's hearing record.

[The information follows:]

Age	Number of Employees on OWCP Series 2152	All Other
60-69	498	283
70-79	328	188
80 and above	85	90

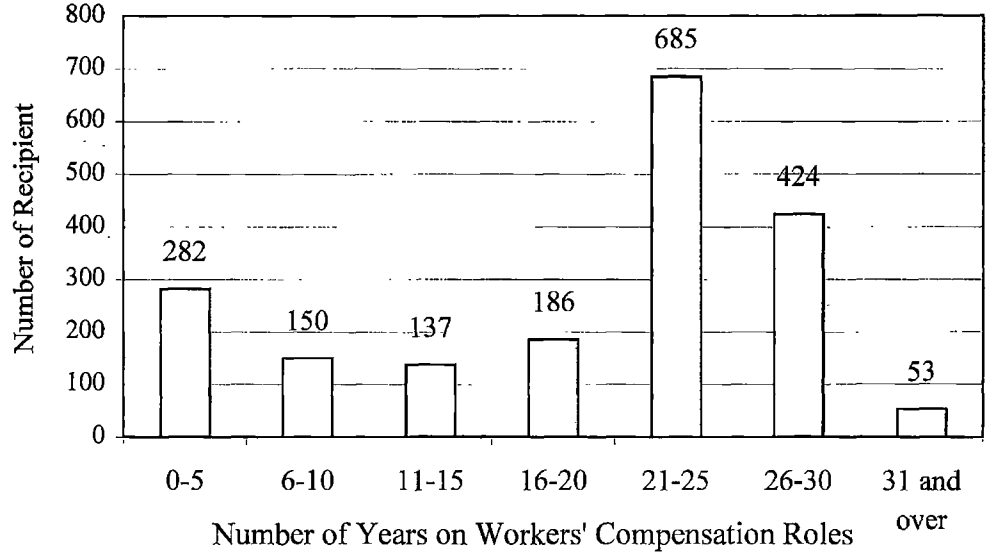
* FECA CBY 2000 is July 1, 1999 through June 30, 2000.

Mr. Rogers. Please update the graph showing the distribution of worker's compensation recipients by length of time on the worker's compensation rolls, shown on page 215 of last year's hearing record.

[The information follows:]

Year 2000 (July 1, 1999 through June 30, 2000)

CBY 2000 Distribution of Workers' Compensation Recipients



Mr. Rogers. Please update the data on page 215 of last year's hearing record showing the average workers' compensation payment for employees in job series 2152, and comparing that to the government-wide average.

[The information follows:]

Chargeback Year 2000 (July 1, 1999 through June 30, 2000)

	Average Payment
Job Series 2152	$44,240
Other FAA	$31,832
Government-wide	$27,500

Mr. Rogers. How much has the average workers' compensation payment for job series 2152 risen since 1998, when new pay tables were implemented for the controller workforce? What is the average cost for new cases in that job series?

[The information follows:]

The average workers' compensation payment during chargeback year 1998 for job series 2152 was $44,209. The average payment during chargeback year 2000 was $44,240, an increase of .07 percent.

Mr. Rogers. Please update the table on page 216 of last year's hearing record showing chronological statistics on your workers' compensation program by providing data for calendar years 1987 through 2000.

[The information follows:]

CY	Cost	Change	Percent Change	Number Of Cases	Case Change	Percent Change
00**	$83,701	($636)	(0.8)	3,566	60	1.7
99	84,337	509	0.6	3,506	(56)	(1.6)
98	83,828	5,741	7.4	3,562	39	1.1
97	78,087	152	0.2	3,523	93	2.7
96	77,935	(443)	(0.6)	3,430	(67)	(1.9)
95	78,378	(169)	(0.2)	3,497	(113)	(3.1)
94	78,547	1,354	1.8	3,610	212	6.2
93	77,193	(756)	0	3,398	13	0
92	77,949	6,201	8.8	3,385	120	3.7

CY	Cost	Change	Percent Change	Number Of Cases	Case Change	Percent Change
91	71,748	1,648	(2.2)	3,265	72	2.0
90	73,395	8,398	12.9	3,193	14	0
89	64,998	1,017	2.0	3,179	7	0
88	63,980	2,615	4.0	3,172	(161)	(5.0)
87	61,365	(3,788)	(6.0)	3,333	(117)	(3.0)

**Calendar Year = FECA Chargeback Year 2000 which is July 1, 1999 through June 30, 2000

Percent Change in Costs (Chargeback Year 2000):

	FAA	DOT	Government-wide
Medical	9.4	9.4	16.7
Compensation	(1.7)	(1.1)	2.9
Death Benefits	(0.5)	(0.5)	(0.2)
Total	(0.8)	(0.1)	6.1

Mr. Rogers. Last year, your total rise in workers' compensation costs were up only 0.6 percent (p. 217). However, masked by the small overall increase was a 4.5 percent increase in death benefits. This compared to 1.8 percent government-wide. Why was this particular cost so much higher than the government-wide average, and was that relationship repeated in the end of year statistics for 2000?

[The information follows:]

FAA did see a 4.5 percent increase in death benefits paid during FECA fiscal year 1999. This was due to the fact that a $81,200 recovery was made by OWCP during FECA fiscal year 1998, which was credited to that years total chargeback bill. Without that one large recovery credited to the 1998 bill, our chargeback bill for death cases actually decreased by .6 percent during 1999, when we had one less death case on our chargeback bill than during 1998. This trend continued during FECA fiscal year 2000, where we experienced another decrease of .5 percent in payment of death benefits.

ONBOARD STAFFING BY OFFICE

Mr. Rogers. Please provide a listing, by line of business and by major organization within each line of business, comparing the current onboard staffing levels to those shown in both the fiscal year 2001 column and the fiscal year 2002 column of the President's budget, similar in format to that shown on page 219 of last year's hearing record.

[The information follows:]

Comparison of March 2001 Staffing to Budget Estimates

Appropriation	March 2001 Employment	Fiscal year 2001 of fiscal year 2002 Pres. Budget	Fiscal year 2002 Col. Of fiscal year 2002 Col. Of Pres. Budget
Operations:			
Air Traffic Services			
Air Traffic	23,876	23,868	24,393
NAS Logistics 1/	490	508	508
Systems Maintenance	8,937	9,229	9,231
ARS	180	182	182
Flight Inspection 1/	700	748	748
Subtotal, Air Traffic Services	34,183	34,535	35,062
Aviation Regulation & Certification:			
Flight Standards	4,393	4,630	4,631
Aircraft Certification	1,006	1,048	1,049
Planning, Direction & Evaluation	87	95	95
Aviation Medicine	286	294	294
Subtotal, AVR	5,772	6,067	6,069
Civil Aviation Security	1,130	1,221	1,221
Research & Acquisitions	501	529	508
Commercial Space Transportation	30	69	69
Region & Center Operations	940	974	615*
Human Resource Management	156	156	488*
Financial Services	117	130	130
Staff Offices			
Office of the Administrator	51	52	52
Civil Rights	17	33	84
Government and Industry Affairs	7	10	10
Public Affairs	31	33	33
Policy, Planning, and Int'l Av.	122	156	156
Chief Counsel	270	263	264
System Safety	31	36	36
Information Services/CIO	51	75	69
Subtotal, Staff Offices	580	658	704
Total Operations	43,409	44,339	44,866

* Decrease in Regional Office staffing and increase in Human Resources staffing in fiscal year 2002 is due to the proposal to straight-line regional human resource staff to the Assistant Administrator for Human Resources.

TRANSPORTATION ADMINISTRATIVE SERVICE CENTER

Mr. Rogers. How much is included in your fiscal year 2002 request for activities of the TASC, and how does that compare to fiscal year 2001?

[The information follows:]

The fiscal year 2002 request includes $23.7 million for payments to the Transportation Administrative Services Center (TASC), an increase of $1.8 million above the fiscal year 2001 estimate of $21.9 million.

ASSESSMENTS BY OST

Mr. Rogers. Please update the table on pages 242 and 243 of last year's hearing record on OST assessments by providing data for fiscal years 1997 through 2001.

[The information follows:]

Assessments/Reimbursables by Fiscal Year

Line of Business	FY 1997 Actual	FY 1998 Actual	FY 1999 Actual	FY 2000 Actual	FY 2001 Estimate
AVR					
Drug & Alcohol Policy & Compliance	64,400	63,200	63,200	74,254	87,658
Subtotal	64,400	63,200	63,200	74,254	87,658
AHR/ABA					
Depart News Letter	111,070	84,340	71,690	71,690	71,690
Payroll Policy	206,085	212,336	137,322	128,000	122,896
IPPS*				4,900,000	5,090,000
CPMIS*				520,000	409,000
DAFIS*				5,843,919	6,460,776
Nat'l Ctr for Inov and Pub Fin	-	-	-	-	50,000
Garrett-Morgan	-	-	100,000	50,000	-
Coast Guard Health Clinic	6,917	11,329	12,100	29,360	31,388
Subtotal	324,072	308,005	321,112	11,542,969	12,235,750
Staff Offices					
ACR					
Minority Barriers Study	-	-	-	38,000	-
Subtotal	-	-	-	38,000	-
API					
OST Delay Study	-	-	-	-	125,000
Subtotal	-	-	-	-	125,000

AGC					
Honors Attorney	45,000	31,550	54,605	47,070	63,400
Admin Law Judges	-	700,000	476,499	513,809	498,020
Child Safety Campaign	25,280	25,000	-	-	-
Subtotal	70,280	756,550	531,104	560,879	561,420
ACS					
Gore Commission	400,000	-	-	-	-
Subtotal	400,000	-	-	-	-
Vision Initiative	-	21,000	107,000	127,000	-
White House Conference on Transportation Safety	-	-	118,000	6,000	-
Open Skies Conference	-	-	-	250,000	-
International Symposium	-	-	-	235,000	178,900
West Hem Ministerial	-	-	15,000	-	-
Av Conference (Chicago)	-	-	-	267,000	-
DOT Cent for Clim Change	-	-	-	118,000	270,000
First Gov Initiative	-	-	-	32,335	102,783
Volpe Exec. Ldrship Institute	-	-	-	-	247,900
BTS Customer Survey	-	-	-	-	175,000
Subtotal	-	21,000	240,000	1,035,335	974,583
Total Assessments/Reimbursables	858,752	1,148,755	1,155,416	13,251,437	13,984,411

* These items were included in TASC prior to FY 2000.

Mr. Rogers. What is the "Vision Initiative" for which $127,000 was assessed in fiscal year 2000?

[The information follows:]

The TASC assessed the FAA $126,880 for "Strategic Planning/Vision Initiative" in fiscal year 2000. These funds, along with other departmental funds, were used to develop the Department's strategic and performance goals as required under the Government Performance and Results Act.

Mr. Rogers. In fiscal year 2000, you were assessed $267,000 to support an Open Skies Conference and $235,000 to support an International Symposium (p. 243). What line of business paid these expenses, and what type of document was used to make the request and communicate the approval?

[The information follows:]

Open Skies Conference

Line of Business: Office of the Administrator/Deputy Administrator

Type of Document: Purchase Requisition

International Symposium

Line of Business: Policy, Planning, and International Aviation

Type of Document: Interagency Agreement

Mr. Rogers. What guidelines are in place to stipulate the ground rules under which OST can make or request assessments such as these?

[The information follows:]

There are no absolute ground rules. The Office of the Secretary makes the final decision, usually at the Secretarial or Assistant Secretary for Budget and Programs level. The Assistant Secretary for Budget also determines the individual modal shares of the total cost, dependent usually on estimates of benefits from and/or participation in the activity or event. Decisions always involve prior consultation with modes or review by the Secretary's Management Council.

BUDGET REQUESTS TO OST AND OMB

Mr. Rogers. The agency is required, pursuant to 49 U.S.C. 48109, to submit to Congress data on the internal budget submissions of the agency to OST and OMB. Please provide a copy of this information relative to the fiscal year 2002 budget, similar to that shown on pages 245 through 247 of last year's hearing record.

[The information follows:]

Because OMB Circular A-11, section 36.2, provides that Executive Branch communications that lead to the President's budget decisions will not be disclosed either by the agencies or by those who have prepared the budget, the data on the internal budget submissions of the agency to OST and OMB is not provided.

OTHER SERVICES

Mr. Rogers. Please provide a breakdown of your fiscal year 2002 "other services" request, similar in format to that shown on pages 249 through 251 of last year's hearing record.

[The information follows:]

Other Services – Operations Appropriation
(Amounts in Thousands)

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
A-76 contractual services	87	92	96
Aeronautical charting services _1/	26,595	0	0
Aircraft/simulator rental	10,372	13,944	13,944
Audio visual services	47	42	44
Automation support contract	19,384	25,983	26,688
Center weather services - FAA/NOAA	8,094	7,800	8,100
Air transportation oversight system	4,319	3,925	3,925
Contract maintenance _2/	78,129	122,117	131,796
Contract physicians	276	280	280
Contractual data processing service	20,421	19,254	19,704
Contractual studies	4,378	3,765	3,814
Contractual time-sharing teleprocessing	1,301	152	155
Contractual training services _3/	31,873	49,071	64,635
Effective secretarial services (ESS)	40	0	0
Employee assistance program services	1,588	1,500	1,500
Flight/nonflight training	13,447	27,798	28,563
Flight training	1,128	1,550	1,551
General working agreement at Transportation Systems Center	18,263	19,076	19,476
Information Security	6,670	19,101	19,496
Janitorial and guard services	29,371	36,482	37,870
Contract for Administrative Support	7,477	11,237	11,582
Leased telecommunications _2/	44,942	46,743	51,640
Maintenance of host computer	25,234	32,120	32,172
Medical clinic service for ARTCC's	140	140	140
Medical examinations	98	81	82
Handbooks	538	1,002	1,026

	FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate
NAS resources subsystem (NASR) maintenance support	700	1,000	1,000
NAS supply support	35,997	9,628	9,922
Not otherwise classified _4/	127,522	205,521	219,829
Office of automation technology & services (OATS)	738	661	675
Operation of federal contract towers _5/	55,987	63,674	70,467
Contract tower cost sharing _6/	1,213	5,000	0
Overhaul of aircraft engines	1,894	0	0
Physical examinations	1,484	1,533	1,590
Random drug testing (TASC)	2,783	2,857	2,900
Hanger 6 support	2,333	2,315	2,315
Regulatory analysis	985	733	794
Reimbursable to DOT for IPPS/CPMIS	5,479	5,750	5,800
Repair and maintenance of ADP equips.	3,346	3,563	3,553
Repair/maintenance administrative, operating, working, and test equipment	2,135	27,810	27,840
Repair, maintenance and inspection of equipment and buildings	24,481	29,018	29,610
Security investigations	1,274	1,140	1,184
Storage of household effects	1,064	1,159	1,400
Substance abuse program	200	70	70
Traffic management system/Enhanced traffic management system	2,079	3,537	3,997
USAF training of K-9 teams	7,888	7,507	7,643
Vulnerability Assessments	52	200	204
Weather observation services	39,367	34,945	30,946
TASC	22,031	18,999	20,806
Y2K Contracts	1,889	0	0
Total, Other Services	697,132	869,876	920,822

1/ Aeronautical Charting and Cartography (AC&C) Program was transferred to the FAA from DoC on October 1, 2000. Resources for this program are included under subobject class codes according to the purpose for which they are used (that is 1111 - Personnel Compensation for full-time permanent appointments, 2523 - Contractual Services, Other).

2/ Contract maintenance and Leased Telecommunications increases from fiscal year 2001 to fiscal year 2002 are due to operationally required

increases included in the budget request to fund non-pay operational support costs.
3/ Contract training services increase reflects the Air Traffic Service budget request to provide initial training at the Academy for 600 new students in order to meet the hiring goals for air traffic control specialists.
4/ This line item includes miscellaneous items not identified by a descriptive object class code. The increase from fiscal year 2000 to fiscal year 2001 is due to the expansion of the franchise fund to include the activities of the FAA Logistics Center. Resources to be used, by the other lines of business, to procure replacement parts, spares, and supplies are recorded in the financial plan under this subobject class for the Operations appropriation.
5/ Operation of contract Air Traffic Center towers increase from fiscal year 2001 to fiscal year 2002 is due to new contracts that were signed in August 2000 and wage determination implemented in FY 2001.
6/ Contract tower cost sharing decrease reflects the Air Traffic Service budget request to discontinue this program in fiscal year 2002.

SPECIAL PAYS

Mr. Rogers. Please provide a breakout of FAA special pays for each of fiscal years 2000 through 2002, similar in format to that shown on page 253 of last year's hearing record.

[The information follows:]

Federal Aviation Administration Operations
Appropriation Special Pay (Amounts in thousands)

	FY 2000	FY 2001	FY 2002
Operational Resp. Differential Pay	24,673	11,172	12,010
Premium Pay-Loss Of Meal	498	492	510
Operational Currency Pay	455	470	487
Training in Excess of 40 Hours	0	0	0
Premium Pay-OJT	2,146	2,578	2,670
Pay Demonstration	2	0	0
Interim Incentive/Controller Incentive Pay	38,460	37,324	38,759
Overtime Pay	52,968	53,147	55,509
Holiday Pay	54,293	63,587	65,808
Sunday Differential	49,350	54,811	57,244

	FY 2000	FY 2001	FY 2002
Night Differential	43,343	46,829	48,474
Hazardous Duty Pay	336	223	228
Post Differential	240	252	261
Fixed Premium Compensation	4,290	4,738	5,685
Physicians Comp. Allowance	359	97	100
Cash Awards	5,929	5,357	5,766
Controller-in-Charge	6,705	8,030	8,319
Supervisory Differential	0	0	0
Staffing Differential	0	0	0
Regular Premium Pay	0	0	0
Compensated Telephone Availability	0	121	124
OSI Lump Sum	0	166	177
SCI Lump Sum	0	0	0
Short Term Incentives	34	350	333
Total, Special Pay	284,082	289,735	306,464

Mr. Rogers. Which of these special pays is FAA obligated to pay under federal law, given the flexibilities of personnel reform?

[The information follows:]

FAA is obligated by federal law to provide overtime pay to those employees who work extra hours and are covered by the Fair Labor Standards Act. In addition, with the exception of cash awards and physicians comparability allowance, FAA has agreements with various labor unions that provide for payment of all other special pays.

Mr. Rogers. The Committee understood that "interim incentive pay (IIP) was intended to be in place until a new reclassification plan could be put in place for air traffic controllers. Although this was put in place as part of the 1998 National Air Traffic Controllers Association (NATCA) agreement, IIP continues. Which air traffic personnel still receive interim incentive pay, and why?

[The information follows:]

There is no IIP for the NATCA bargaining unit or for Series 2152 Managers, Supervisors, or Staff (MSS) in the terminal and en route options. The 1998 NATCA agreement implemented the new terminal and en route facility classification system and provided for an associated compensation

package known as the Air Traffic Pay Plan. This system replaced the IIP for NATCA bargaining unit members and field management personnel in air traffic terminal and en route facilities with a controller incentive pay differential using existing IIP funds and additional funding specified in the 1998 NATCA agreement.

All other air traffic personnel not associated with the NATCA bargaining unit or involved in the field terminal and en route management structure that were receiving IIP are still receiving IIP (for example, Flight Service Station employees). Some of these other air traffic personnel receiving IIP are in various stages of negotiations between the FAA and their respective unions.

Mr. Rogers. What purpose does this pay serve for airways facilities and security staff, and how is its continuation justified?

[The information follows:]

Interim Incentive Pay was implemented in 1996 for Airway Facilities staff at six key field facilities that were determined to have critical impact on the national aviation system. Interim Incentive Pay was intended to ensure that we would be able to recruit and retain the critical skills at those facilities necessary to operate and maintain the systems and equipment directly involved in the control of air traffic. Sufficient and stable staffing at these facilities continues to be critical to ensuring that the systems and equipment at these critical facilities are operated and maintained at the maximum effectiveness possible. The current contract, which was negotiated in 2000, continues payment of IIP to these employees.

FAA pays a different premium pay, federal air marshal (FAM) premium pay, to security staff that are assigned as federal air marshals, using the IIP programs in our automated personnel and payroll systems. This premium pay was implemented in 1998 to recognize the unique demands of the occupation on the personal lives of the employees and to provide a pay incentive to improve our ability to recruit and retain employees in this critical safety-related occupation.

Mr. Rogers. Currency differential pay is paid for all hours in a pay status for non-operational controllers who maintain currency in controlling air traffic. How much time is required, on a monthly basis, to maintain currency?

[The information follows:]
On a monthly basis, 16 hours is required to maintain currency.

Mr. Rogers. Once the employee reaches currency, is he entitled for the differential for all remaining hours he works during the month, or only for those hours in which he is training to remain current?

[The information follows:]
Staff air traffic control specialists and supervisors or managers above first-line in air traffic control centers and terminals are eligible for the 1.6 percent currency differential. In order to be paid the differential, they must maintain a current medical certification and voluntarily control live air traffic in accordance with proficiency standards. However, if the position requires that the employee maintain currency, then the differential is not paid. Employees eligible for the 1.6 percent currency are entitled to the differential for all non-overtime hours worked.

Mr. Rogers. How much does this special pay cost the agency in an average year?

[The information follows:]
In an average year, the currency differential pay costs the agency approximately $476,000.

Mr. Rogers. Please update the breakdown of special pays by line of business found on page 256 of last year's hearing record.

[The information follows:]

Federal Aviation Administration Operation Appropriation Special Pay By Line Of Business
In Fiscal Year 2002 Budget Request (000's)

Special Pay By Line of Business	AT	AF	ARS	AVR	ACS	ARA	AST	ARC	ABA	AHR	Staff Offices	Total
Operational Resp. Differential Pay	7,461	4,406	0	143	0	0	0	0	0	0	0	12,010
Premium Pay-Loss of Meal	510	0	0	0	0	0	0	0	0	0	0	510
Operational Currency Pay	487	0	0	0	0	0	0	0	0	0	0	487
Training in Excess of 40 Hours	0	0	0	0	0	0	0	0	0	0	0	0
Premium Pay-OJT	2,667	3	0	0	0	0	0	0	0	0	0	2,670
Pay Demonstration	0	0	0	0	0	0	0	0	0	0	0	0
Interim Incentive/Controller Incentive	35,205	3,095	0	0	459	0	0	0	0	0	0	38,759
Overtime Pay	40,997	16,175	0	858	711	135	12	345	95	82	99	59,509
Holiday Pay	59,247	6,073	0	180	87	28	2	121	2	8	60	65,808
Sunday Differential	53,161	3,672	0	194	62	10	0	110	0	0	35	57,244
Night Differential	43,653	4,197	0	351	88	15	0	132	0	0	38	48,474
Hazardous Duty Pay	0	206	0	22	0	0	0	0	0	0	0	228
Post Differential	153	53	0	0	25	0	0	0	0	0	30	261
Fixed Premium Compensation	3,665	2,020	0	0	0	0	0	0	0	0	0	5,685
Physicians Comp. Allowance	0	0	0	100	0	0	0	0	0	0	0	100
Cash Awards	213	1,317	74	1,859	658	354	80	368	95	255	493	5,766
Controller-in-Charge	8,319	0	0	0	0	0	0	0	0	0	0	8,319
Supervisory Differential	0	0	0	0	0	0	0	0	0	0	0	0
Staffing Differential	0	0	0	0	0	0	0	0	0	0	0	0
Regular Premium Pay	0	0	0	0	0	0	0	0	0	0	0	0
Compensated Telephone Availability	0	124	0	0	0	0	0	0	0	0	0	124
OSI Lump Sum	0	3	0	0	174	0	0	0	0	0	0	177
SCI Lump Sum	0	0	0	0	0	0	0	0	0	0	0	0
Short Term Incentives	0	219	0	0	0	64	0	50	0	0	0	333
Total Special Pay	255,738	41,563	74	3,707	2,264	606	94	1,126	192	345	755	306,464

CONTROLLER INCENTIVE PAY

Mr. Rogers. One special pay is the "controller incentive pay" (CIP), which was previously called the "cost of living differential." What is the CIP designed to motivate the controller who receives it to do, and how is it structured to achieve that end?

[The information follows:]

Controller incentive pay is a pay allowance that is granted to certain air traffic terminal and en route employees who are employed in recognized, independently defined high cost of living areas. It is not designed to motivate employees to perform any specific duties but is used to provide additional retention and recruitment incentives beyond the normal variation in locality pay.

Mr. Rogers. Are facilities to receive CIP in fiscal year 2002 the same as those listed on pages 257 through 261 of last year's hearing record?

[The information follows:]

It is very possible that the listing of CIP facilities will change during fiscal year 2002. Under the provisions of a November 23, 1999, Memorandum of Understanding between the FAA and the NATCA, the facilities receiving CIP will change dependent upon the results of a new Runzheimer International study that is required to be conducted during calendar year 2001.

Mr. Rogers. How often will the agency review, through substantive analysis, needed changes in the locations to be granted CIP pay?

[The information follows:]

Under the provisions of a November 23, 1999, MOU between the FAA and the NATCA regarding CIP, the parties are required to conduct a new study in calendar year 2001. The original contractor, Runzheimer International, will conduct this independent study based upon criteria jointly agreed to by the parties and using standard industry models for cost of living measurement via individual facility locations.

ANNUAL LEAVE

Mr. Rogers. Please update the table on page 262 of last year's hearing record regarding annual leave consumption of FAA employees by providing final data for fiscal year 2000.

[The information follows:]

2000 leave year	Annual Leave, average in days
Controller Work Force (CWF)	23.2
Non-CWF Air Traffic Control Specialists (ATCS)	25.3
Non-ATCS	22.4
Total FAA	23.0

Mr. Rogers. Please update the Office of Personnel Management (OPM) data on annual leave usage government-wide shown on page 263 of last year's hearing record by providing data for leave year 1994 through leave year 2000.

[The information follows:]

Leave Year	Average Annual Leave Consumed per Employee*
1999	22.33
1998	20.21
1997	20.68
1996	20.91
1995	20.12
1994	21.07

The government-wide information for leave year 2000 is not available.

*Chart reflects number of annual leave days consumed per employee, based on eight-hour day.

SICK LEAVE

Mr. Rogers. Please update the OPM and FAA data on sick leave shown on page 264 of last year's hearing record by providing the most recent leave year data available.

[The information follows:]

1999 Leave Year	Days*
Controller Work Force (CWF)	12.5
Non-ATCS	9.3
Total FAA	10.7
Government-wide	10.0

2000 Leave Year	Days*
CWF	13.3
Non-ATCS	10.0
Total FAA	11.4
Government-wide	Not Available

*Days: Based on eight-hour day

Mr. Rogers. Last year, you told us the data were inconclusive about whether the sick leave "buyback" option in the NATCA labor agreement has had an effect on sick leave usage rates. However, data provided last year indicated that sick leave among controllers rose the year following the NATCA agreement (p. 264), which is the opposite of the desired effect. Do the current sick leave statistics show a more favorable result?

[The information follows:]

The sick leave usage for controllers rose from 12.5 days in leave year 1999 to 13.3 in 2000. There are a variety of reasons for the upward trend in government-wide sick leave usage, but the primary reason is the changing demographics of the federal workforce. Specifically, the workforce is aging and more diverse. In addition, recent statutory and regulatory changes have broadened the eligible uses of sick leave.

SUNDAY PREMIUM PAY

Mr. Rogers. Please update the table on page 265 of last year's hearing record regarding FAA's financial obligations if the limitation on Sunday premium pay is lifted.

[The information follows:]

	Financial Obligation If Limitation Is Lifted				
	9/30/98	9/30/99	9/30/00	9/30/01	9/30/02
Sunday Premium back pay _1/	$146,000	$146,000	$146,000	$146,000	$146,000
Accrued interest _2/	150,260	173,585	199,152	226,764	$256,585
Total	$296,260	$319,585	$345,152	$372,764	$402,585

1/ Assumes no additional claims are forthcoming.
2/ The current rate of 8 percent was used for calculations after April 1, 1997.

CONTROLLER STAFFING

Mr. Rogers. The NATCA agreement calls for a freeze on controller FTE at 15,000 for the fiscal years 1999-2001. How many additional controller FTEs (above estimated attrition) does the agreement call for in fiscal year 2002, and is that the level assumed in your budget request?

[The information follows:]

The agreement calls for a 300 full-time equivalent (FTE) increase in fiscal year 2002 and that increase is included in the FAA budget request.

Mr. Rogers. Are these additional FTEs funded on a one-half year basis? If not, why not?

[The information follows:]

The additional 300 FTEs requested in the budget are funded on a one-half year basis. This is consistent with the method used in requesting all staffing increases.

Mr. Rogers. What is the average FTE cost assumed for the additional staff in fiscal year 2002?

[The information follows:]

The average cost for the additional 300 controller FTEs in fiscal year 2002 is $79,380, which covers their base pay and benefits.

Mr. Rogers. Similar to the information shown on page 322 of last year's hearing record, how does this fiscal year 2002 figure deviate from the systematically-derived requirement figure for fiscal year 2002 which would be indicated by your staffing standards model?

[The information follows:]

The staffing standards call for 15,457 controllers in fiscal year 2002. The NATCA agreement calls for 15,300 full-time equivalent positions in fiscal year 2002.

Mr. Rogers. Please update the table showing CWF end-of-year employment for fiscal years 1998 through 2002, similar in format to that shown on page 325 of last year's hearing record.

[The information follows:]

The following table provides the information requested. Please note that this table differs from that provided in previous years, as it excludes Traffic Management Supervisor (TMS) positions. Previously, FAA allocated specific numbers of supervisors to each facility function regardless of the facility workload associated with a particular function, such as, traffic management, training, and automation. However, this process did not take into account individual facility needs, such as an increased need for training supervisors in facilities with more developmental controllers. Therefore, in an effort to improve efficiency, the FAA now allocates a pool of supervisors as part of facility overhead, which allows individual facilities to determine the roles and assignments.

	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001 Estimate	Fiscal Year 2002 Estimate
Center					
Controllers	6,639	6,607	6,614	6,622	6,889
Ops Supervisors (1st Line Sup)	812	790	781	741	710
TMC	393	420	434	508	508
Center Controller Workforce	7,844	7,817	7,829	7,871	8,107
Towers					
Controllers	8,327	8,295	8,290	8,298	8,631
Ops Supervisors (1st Line Sup)	1,276	1,177	1,116	1,059	1,015
TMC	157	180	188	232	232
Tower Controller Workforce	9,760	9,652	9,594	9,589	9,878
Centers/Towers Combined					
Controllers	14,966	14,902	14,904	14,920	15,520
Ops Supervisors (1st Line Sup)	2,088	1,967	1,897	1,800	1,725
TMC	550	600	622	740	740
Total Controller Workforce	17,604	17,469	17,423	17,460	17,985

Note: Data above does not include Traffic Management Supervisors

Mr. Rogers. Please update the table on page 326 of last year's hearing record showing authorized positions and employment for each of your en route centers.

[The information follows:]

Air Traffic Controller Workforce Center Positions And Employment – As Of March 31, 2001				
Location	Center Code	2001 Staffing Standard	Current Onboard Staffing	CPC's Onboard
Anchorage, AK	ZAN	130	126	105
Kansas City, MO	ZKC	462	430	319
Washington, DC	ZDC	513	455	347
New York, NY	ZNY	403	386	270
Chicago, IL	ZAU	524	507	379
Indianapolis, IN	ZID	509	449	319
Minneapolis, MN	ZMP	406	337	276
Cleveland, OH	ZOB	553	484	384
Boston, MA	ZBW	360	314	258
Denver, CO	ZDV	418	332	277
Salt Lake City, UT	ZLC	304	242	189
Seattle, WA	ZSE	234	246	198
Jacksonville, FL	ZJX	397	348	281
Miami, FL	ZMA	336	278	232
Memphis, TN	ZME	426	376	284
San Juan, PR	ZSU	66	71	45
Atlanta, GA	ZTL	519	467	375
Albuquerque, NM	ZAB	370	334	228
Ft. Worth, TX	ZFW	427	432	336
Houston, TX	ZHU	380	378	298
Honolulu, HI	HCF*	109	104	86
Los Angeles, CA	ZLA	383	345	251
Oakland, CA	ZOA	368	300	215
Agana, GU	ZUA	17	14	11

* Effective October 22, 2000, Honolulu Tower and Honolulu Center were combined into one air traffic control facility, Honolulu Consolidated Facility. Staffing for entire facility shown here.

Note: Staffing standard and current onboard staffing refers to total controller workforce excluding traffic management supervisors, reference FAA Order 1380.55.

The staffing standard is a guide, which provides facility staffing to be plus or minus 10 percent. At times there are extenuating circumstances that will cause the region to staff a facility greater than the 10 percent deviation,

such as higher anticipated retirements, increase of operational areas, and increase of operational activity.

Mr. Rogers. Please update the table on pages 327 and 328 of last year's hearing record showing CWF actual on-board levels for each of your terminal radar approach control (TRACON) facilities.

[The information follows:]

TRACONS – CWF Actual On-Board

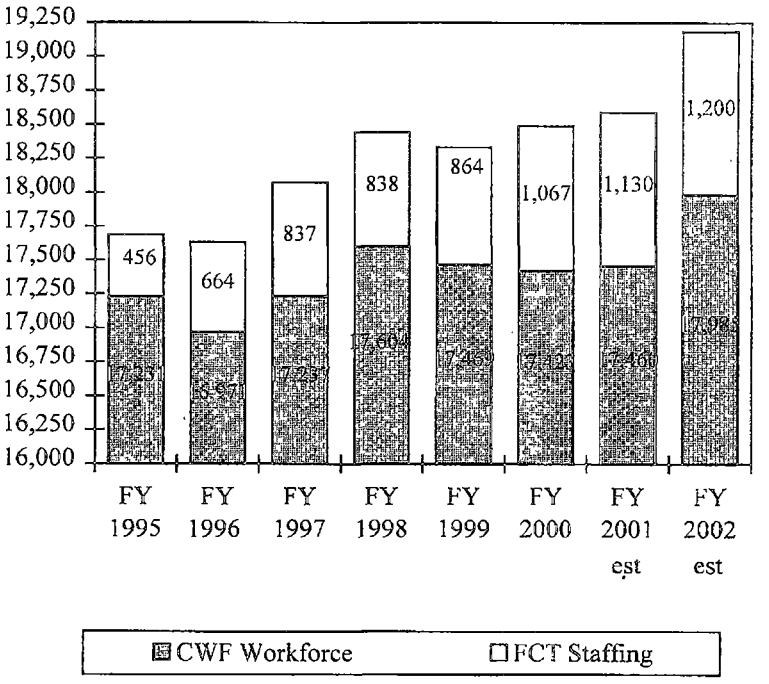
Facility Name	Ident	Start of FY 2000	Start of FY 2001
Anchorage TRACON	A11	35	33
Boston TRACON	A90	51	55
Cape (Falmouth) TRACON	K90	26	24
Chicago O'Hare TRACON	C90	112	107
Dallas/Fort Worth TRACON	D10	126	126
Denver TRACON	D01	70	70
Detroit TRACON	D21	66	71
High Desert TRACON	E10	33	30
Houston TRACON	I90	85	79
Las Vegas TRACON	L30	63	65
Minneapolis TRACON	M98	72	76
New York TRACON	N90	303	277
Oakland Bay TRACON	O90	96	86
Omaha TRACON	R90	19	18
Pensacola TRACON	P31	45	46
Phoenix TRACON	P50	56	59
Portland TRACON	P80	33	38
S. California TRACON	SCT	309	331
Sacramento TRACON	MCC	46	54
Salt Lake City TRACON	S56	59	65
Seattle TRACON	S46	67	67
St. Louis TRACON	T75	64	66
Tucson TRACON	U90	26	26
Yankee (Bradley) TRACON	Y90	36	37

Mr. Rogers. Please update the bar chart on page 329 of last year's hearing record regarding end-of-year employment of the controller workforce by providing data for fiscal years 1995 through 2002. Please maintain that portion of the chart that shows total controller levels, including those FTEs procured under the contract tower program.

[The information follows:]

The contract controller workforce is a mix of full-time, part-time, and seasonal employees. Without the details of the contract controller staffing mix, we are unable to determine the full-time equivalent at the FAA contract tower locations. The following chart provides end-of-year on-board staffing numbers. The FAA controller workforce data no longer includes traffic management supervisors, reference FAA Order 1380.55.

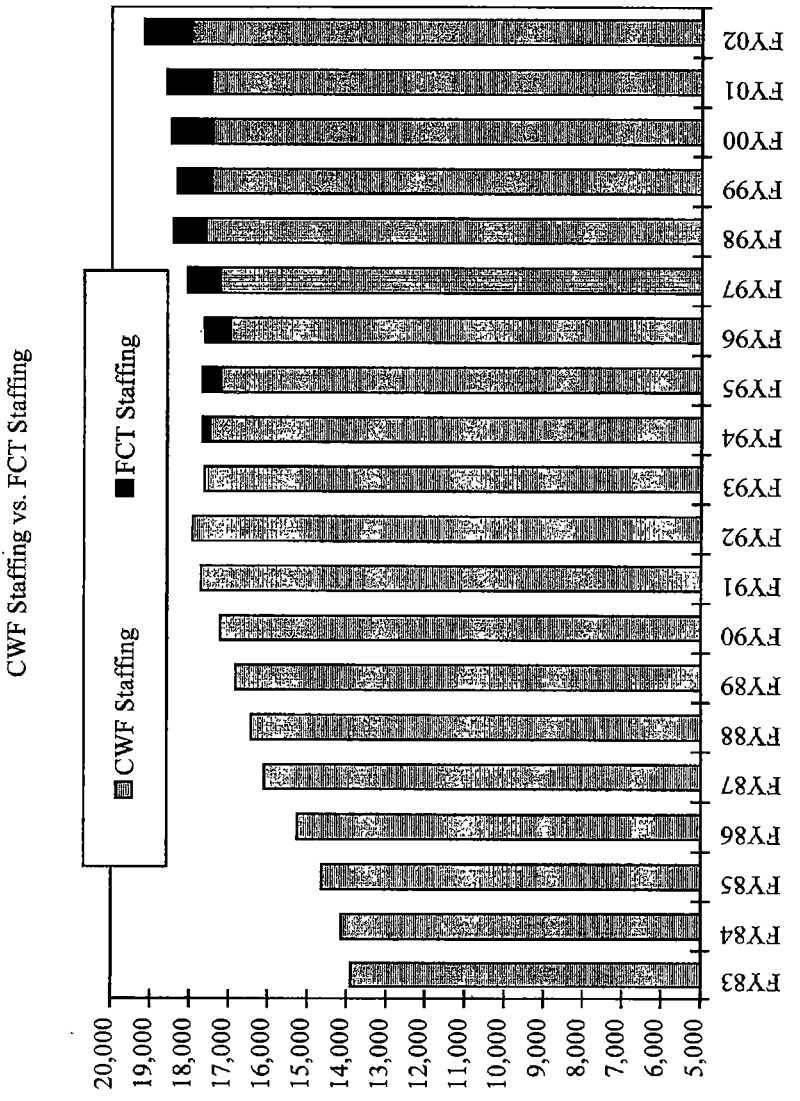
End-of-Year Controller Workforce
vs Contractor Staffing at FCT



Mr. Rogers. Please update the bar chart and accompanying data regarding the CWF shown on pages 330 and 331 of last year's hearing record by providing data for fiscal years 1983 through 2002.

[The information follows:]

Records were not kept on contractor staffing at FAA Contract Tower (FCT) locations prior to the award of the national FCT contract in September 1994. The following chart provides end-of-year on-board staffing numbers.


CWF Staffing vs. FCT Staffing
CWF Staffing
FCT Staffing
20,000
19,000
18,000
17,000
16,000
15,000
14,000
13,000
12,000
11,000
10,000
9,000
8,000
7,000
6,000
5,000
FY83
FY84
FY85
FY86
FY87
FY88
FY89
FY90
FY91
FY92
FY93
FY94
FY95
FY96
FY97
FY98
FY99
FY00
FY01
FY02

Fiscal Year	Work Force (CWF)	FCT Staffing	Total Staffing
FY 1981	8,917	195	17,687
FY 1982	13,437		
FY 1983	13,891		
FY 1984	14,141		
FY 1985	14,636		
FY 1986	15,260		
FY 1987	16,104		
FY 1988	16,436		
FY 1989	16,832		
FY 1990	17,266		
FY 1994	17,721		
FY 1992	17,947		
FY 1993	17,640		
FY 1994	17,492	195	17,687
FY 1995	17,231	456	17,687
FY 1996	16,971	664	17,635
FY 1997	17,237	837	18,074
FY 1998	17,604	838	18,442
FY 1999	17,469	864	18,333
FY 2000	17,423	1,067	18,490
FY 2001 (est.)	17,460	1,130	18,590
TY 2002 (est.)	17,985	1,200	19,185

Mr. Rogers. Please update the table on page 333 and 334 of last year's hearing record showing percentage of onboard staff to the staffing standard for each of your en route centers.

[The information follows:]

The following table, current as of March 28, 2001 provides the requested information.

Comparison of ATCS Staffing Standards with Onboard Levels					
Location	ARTCC Ident.	FY 2001 ATCS Staffing Standard	Total ATCS Onboard	Certified Prof. Controller Onboard	Percentage On Board vs. Staffing Std.
Anchorage, AK	ZAN	112	105	105	93.7%
Kansas City, MO	ZKC	397	372	319	93.7%
Washington, DC	ZDC	427	396	347	92.7%
New York, NY	ZNY	343	337	270	98.3%
Chicago, IL	ZAU	451	439	379	97.3%
Indianapolis, IN	ZID	437	390	319	89.2%
Minneapolis, MN	ZMP	348	284	276	81.6%
Cleveland, OH	ZOB	504	419	384	83.1%
Boston, MA	ZBW	294	260	258	88.4%
Denver, CO	ZDV	349	287	277	82.2%
Salt Lake City, UT	ZLC	239	204	189	85.4%
Seattle, WA	ZSE	197	204	198	103.6%
Jacksonville, FL	ZJX	323	298	281	92.3%
Miami, FL	ZMA	266	235	232	88.4%
Memphis, TN	ZME	370	325	284	87.8%
Atlanta, GA	ZTL	432	400	375	92.6%
Albuquerque, NM	ZAB	320	288	228	90.0%
Ft. Worth, TX	ZFW	366	361	336	98.6%
Houston, TX	ZHU	305	319	298	104.6%
Los Angeles, CA	ZLA	322	295	251	91.6%
Oakland, CA	ZOA	326	249	215	76.4%
Totals:		7,128	6,459	5,810	90.6%

Note: Staffing standard and current onboard staffing refers to total air traffic control specialists (ATCS) – developmentals and certified professional controllers. The staffing standard provides a guide that FAA uses to estimate total controller staffing requirements on a nationwide level. It also uses the staffing standards to allocate regional staffing in accordance with the union contract. The controller requirements stated in the contract and the requirements generated by the staffing standards, although they are generally very close, are not necessarily the same. For example, this fiscal year the contract requires a controller staffing level of 15,000 FTE's while the staffing standards generated a requirement for 15,246 positions. Also, as recognized in a 1997 study by the National Academy of Sciences, the staffing standards are not an accurate stand alone tool for determining facility-level staffing requirements and therefore must be supplemented with regional and

facility input. This latter process is facilitated by Art. 94 of the labor contract which requires the FAA to work in conjunction with the union on the distribution of staffing at the national, regional, and facility levels. Hence, working within these parameters differences between the staffing standards and actual on board staffing at a particular location may not necessarily be a true indication of staffing imbalances based on actual need.

CONTROLLER ATTRITION

Mr. Rogers. Please provide a table showing the attrition rate among air traffic controllers for each of the past five years.

[The information follows:]

The FAA does not use an attrition rate to calculate retirements, resignations, removals, and death. The information in the following table reflects actual attrition of air traffic control specialists from the en route and terminal option.

	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000
Retirements	119	151	158	147	135
Resignations	64	65	75	59	79
Removals	16	21	28	19	28
Death	5	16	10	13	4
Totals	204	253	271	238	246

Mr. Rogers. On average, what has been the time difference between retirement eligibility and retirement for the controller workforce?

[The information follows:]

The average time difference between retirement eligibility and actual retirement is 6.6 years.

Mr. Rogers. Public Law 92-297, enacted in 1972, requires an air traffic controller to retire at the age of 56. The law allows the Secretary to promulgate regulations exempting controllers with "exceptional skills and experience" from the automatic retirement provision, and allow them to work until age 61. What was the history behind this legislation?

[The information follows:]

The Department of Transportation and the FAA, over the decade prior to passage of Public Law 92-297, consistently supported legislative authority for early retirement tailored especially to meet the needs of aviation safety and the controller workforce.

This legislation was deemed necessary because air traffic control was seen as a unique occupation, requiring very high physical and mental standards. There was an accumulating body of published research prior to passage of the law that showed the ability to control air traffic declined with age.

Generally, the reduction in ability to control traffic was judged to be most significant after reaching age 50. However, it was also recognized that people aged at different rates and there was the possibility that occasionally a controller could be retained beyond age 56. Accordingly, the Secretary was accorded discretion in promulgating regulations to retain controllers of exceptional skills and experience for an additional 5 years beyond age 56.

Mr. Rogers. Does FAA have current research to demonstrate a decline in critical performance abilities for controllers above the age of 56?

[The information follows:]

Public Law 92-297, enacted by Congress, describes the profession. Among other things, it provides for the establishment of a maximum entry age and a mandatory retirement age for FAA air traffic control specialist.

The following two executive summaries from the FAA's Civil Aeromedical Institute address the effects of age on controller performance: (1) Air Traffic Control Specialist Age and Cognitive Test Performance, dated August 1999, and (2) An Investigation of the Relationship Between Chronological Age and Indicators of Job Performance for Incumbent Air Traffic Control Specialist, dated June 1999.

Mr. Rogers. Over the past few years, FAA has hired over 700 former PATCO controllers. The average age of these controllers is above FAA's mandatory retirement age of 56, and some of them are well into their 60's. Have these individuals, as a group, committed more errors or demonstrated generally lower performance than controllers under the age of 56?

[The information follows:]

The FAA has rehired 840 former PATCO controllers through April 26, 2001; of those hired, 765 are still on-board and 190 of those are currently over the age of 56 in positions with air traffic control responsibilities.

Also, there are 648 air traffic controllers over the age of 56 in positions with air traffic control responsibilities. Air traffic control specialists over the age of 56 are exempt from the maximum age retention requirement under the provisions of 5 USC 8335 if they are covered under the Civil Service Retirement System. The examples include:

1. Appointment by the Department of Transportation as an air traffic controller actively engaged in the separation and control of air traffic with the Department of Transportation prior to May 16, 1972;
2. Appointment by the Department of Defense, in a civilian capacity, as an air traffic controller prior to September 12, 1980; or
3. Appointment by Department of Transportation to an air traffic controller position that provided preflight, in-flight, or airport advisory service to aircraft operations prior to January 1, 1987.

Operational errors are not tracked by group, such as the rehired controllers. However, an analysis of the fiscal year 2000 operational error database reveals that out of the 838 controllers over the age of 56, a total of 27 controllers had operational errors.

Mr. Rogers. Likewise, many of FAA's contract tower controllers are above the age of 56. Yet, FAA statistics do not indicate higher safety problems at these facilities. Is that correct?

[The information follows:]

Yes. There are contract tower controllers who are above the age of 56. However, statistics do not indicate any higher level of safety problems at contract towers.

Mr. Rogers. My understanding is that military air traffic controllers, including those who may be asked to control Air Force One, have no age restrictions, and that commercial pilots may fly until age 60. Doesn't this also call into question the need for a mandatory retirement age of 56 for FAA air traffic controllers?

[The information follows:]

Although there are no specific age restrictions associated with serving as a military Air Traffic Control Specialist (ATCS), the nature of the military ensures that military ATCSs do not actively control airplanes beyond age 56.

Most military air traffic controllers are found in the enlisted ranks and enter the service between 18 and 21 years of age. The military services follow an "up or out policy" which means that enlisted personnel who are not promoted at the rank of E-6 must retire after 20 years of service; E-7 must retire after 24 years of service; E-8 must retire after 26 years of service; and E-9 must retire after 30 years of service.

In the officer ranks, air traffic control managers must have a college degree before entering the occupation. Consequently, most enter the service between ages 21 and 22. Officers are required to progress through the ranks or are separated. Officers who are not promoted from Officer-3/Officer-4 must retire after 20 years of service; Officer-5 must retire after 28 years of service; Officer-6 must retire after 30 years of service. At the higher ranks, officers are managing facilities and are not actually controlling airplanes.

Both enlisted and officer personnel may voluntarily retire after 20 years of active service. Most military personnel retire between age 40 and age 45.

Although commercial pilots may fly until age 60, their occupation is different from that of an air traffic controller and requires different skills and abilities. Therefore, the mandatory separation age is based on differing factors and cannot be directly compared.

Mr. Rogers. Some have speculated that the rising "wave" of retirement eligibility for post-PATCO controllers could create a controller shortfall at the agency. For those being forced to leave a "covered" position under the mandatory retirement provision of Public Law 92-297, however, it is possible that the agency could continue to employ those individuals under non-covered positions within the FAA. However, won't the disparity in pay between NATCA bargaining unit and non-NATCA employees such as

managers, supervisors, and specialists mean that many of these individuals would have to take a pay cut to transition to a non-covered position?

[The information follows:]

It is possible that such an individual may take a pay cut upon transition to a non-covered position. It is also possible that such an individual could retain his or her field pay or qualify for a promotional increase. However, the pay setting associated with individuals leaving "covered positions" for non-covered positions in field facility, regional, and headquarters positions, is completely dependent upon the employment history of the individual and the actual position to which the individual is being assigned.

There are several individual bargaining units representing air traffic controller positions within regional and headquarter offices, and pay setting for individuals taking those positions is subject to the Collective Bargaining Agreement (CBA) for those positions.

Under current Air Traffic directives for movement into non-bargaining unit positions, employees are entitled to keep their field level pay as long as their initial movement from the field is considered career progression. If the individual has completed a tour of duty in a non-covered position, any subsequent return to a similar field level position would not be considered as career progression and employee pay would be capped by the pay band for that career level and position.

CONTROLLER IN CHARGE

Mr. Rogers. Please describe the status of the transition to the controller-in-charge (CIC) concept. In particular, explain how many facilities and positions have been converted, and explain how many remain to be converted.

[The information follows:]

All 316 terminal and en route facilities have implemented the expanded CIC program. Approximately 56 percent of the NATCA's bargaining unit employees are eligible to be assigned CIC duties. Eligibility is defined as being selected for additional training, completing the training, and being certified as capable of performing the full range of duties for the position by their supervisor or manager.

Mr. Rogers. Why has the agency not responded to the Inspector General's (IG) written letter of concern sent several months ago?

[The information follows:]

We have had on-going discussions with the IG on the status of this program and met with him on May 1, 2001. We will conduct a comprehensive evaluation beginning in June 2001. Specifically, this evaluation will focus on the safety risks, benefits, and utilization rates to determine whether adjustments are warranted based on the conclusions of the evaluation.

Based on the results of our May 1 meeting with the IG, we are finalizing our response.

Mr. Rogers. Please provide details to the Committee explaining how the agency is honoring the assurances made to the Committee about appropriate training and quality control in the controller-in-charge program.

[The information follows:]

Before being certified as a CIC, all bargaining unit employees receive extensive training on the expanded CIC program. Training includes computer-based instruction, three days of classroom training, which includes locally developed modules, and on-the-job training conducted by an operations supervisor. Based on the successful completion of the required training, a skills check leading to certification is performed by a supervisor.

The FAA's quality control efforts in the CIC program include:

- Ongoing review and evaluation by facility management as to the impact of CIC on the facility. Managers are required to take appropriate and timely action to deal with any identified problems. Based on a successful evaluation result, facility managers will certify to the Director of Air Traffic that their facility can support the reduction in operational supervisors called for in their regional 10:1 plan.
- The FAA has placed special emphasis on reviewing facility quality assurance processes as part of scheduled facility evaluations done by Air Traffic's quality assurance staff.
- On a daily basis, facility, regional, and headquarters management closely scrutinize air traffic operations, particularly those that impact safety. The impact of watch supervision, in general, and CIC, in particular, are examined closely in that daily analysis.

- The FAA plans to conduct a formal evaluation of the CIC expansion starting in June 2001. Specifically, this evaluation will focus on the safety risks, benefits, and utilization rates to determine whether adjustments are warranted based on the conclusions of the evaluation. The evaluation will include visits to a variety of air traffic facilities and will validate whether or not facility-level implementation of the CIC expansion took place as intended.

MAINTENANCE STAFFING

Mr. Rogers. As of February 2000, your maintenance staffing was 71 percent of that called for in your staffing standard (p. 380). What is that figure today?

[The information follows:]

Based on our field maintenance employment as of February 2001, we are at 64 percent of the staffing standard.

DEPOT SPARE FUNDING REQUESTS

Mr. Rogers. Please update the table on page 385 of last year's hearing record regarding depot spare funding requests by providing data for fiscal years 1996 through 2002.

[The information follows:]

Breakdown of Allowance (Dollars in Thousands)

	Request	Actual Obligations	Commercial Repair	Stock Acquisition	Other
FY 1996	96,791.5	79,215.1	23,530.0	52,323.7	3,361.4
FY 1997	85,970.1	82,974.3	24,275.3	54,838.0	3,861.0
FY 1998	87,930.7	69,780.3	29,081.5	36,942.3	3,756.5
FY 1999	84,802.9	84,597.9	37,592.8	43,225.2	3,779.9
FY 2000	104,773.3	73,395.9	31,775.8	37,785.0	3,835.1
FY 2001	103,282.6	94,182.4 *	40,838.9	46,460.6	6,882.9
FY 2002	95,329.0		41,369.8	47,064.6	6,894.6

*Estimate

CONTRACT MAINTENANCE SUPPORT CONTRACTS

Mr. Rogers. Please update the listing of major contracts for maintenance of NAS equipment and systems, similar in format to that shown on page 386 of last year's hearing record.

[The information follows:]

Program	Description	FY 2001 Adjusted	FY 2002 Estimate
ALDARS	Automated Lightning Detection and Reporting System	189,000	191,457
AOAS	Advanced Oceanic Automation System	850,900	861,962
ASOS	Automated Surface Observation System	10,644,607	10,782,987
CCOM	Classified Communication System	181,000	183,353
CDM	Collaborative Decision Making	56,000	56,728
DMN	Data Multiplexing Network	454,077	459,980
DOTS	Dynamic Ocean Tracking System	350,000	354,550
DSR	Display System Replacement	2,494,000	2,526,422
FSDPS	Flight Service Data Processing System Computer	968,588	981,180
FSDPS	Flight Service Data Processing System Power Cond.	105,043	106,409
HCS	Harmonic Cancellation System	573,637	581,094
HOST	Maintenance of HOST Computer	4,000,000	4,052,000
CSS	Integrated Communications Switching System	9,894,336	9,969,967
ITWS	Integrated Terminal Weather System	3,000	3,039
MPS	Maintenance Processor System	1,874,414	1,898,781
NARACS	National Radio Communication System	564,943	572,287
ODAPS	Oceanic Display and Planning System	182,214	184,583
ODMS	Operational Database Management System	4,668,954	4,729,650
OSTS	Operational Support Telephone System	354,484	359,092

Program	Description	FY 2001 Adjusted	FY 2002 Estimate
	Pre-Departure Clearance		
PDC/TDLS	System/Tower Data Link System	1,646,000	1,667,398
TMS	Traffic Management System	2,374,000	2,404,862
VSCS	Voice Switching and Control System	533,930	540,871
WARP	Weather and Radar Processor	488,776	495,130
CM Support	Contract Maintenance Support	1,493,997	1,566,418
	Total	44,945,900	45,530,200

Mr. Rogers. Please update the chronological data on contract maintenance costs shown on page 388 of last year's hearing record.

[The information follows:]

Fiscal Year:	(Dollars in Thousands)
1998	$44,195.0
1999	$42,467.1
2000	$40,759.8
2001	$44,945.9
2002	$45,530.2

FIELD MAINTENANCE – "OTHER OBJECT" COSTS

Mr. Rogers. Please update the table on field maintenance "other object" costs as shown on page 388 of last year's hearing record by providing data for fiscal years 2001 and 2002.

[The information follows:]

(Dollars in Thousands)

	FY 2001 Estimate	FY 2002 Estimate
Travel	27,925	27,925
(Technical Training)	(17,746)	(17,746)
Transportation	13,670	13,670
RC&U	73,847	73,847
Printing & Reproduction	151	151
Other Services	135,869	141,961
Supplies And Materials	130,440	130,440
(Stocks and Stores)	(114,171)	(114,171)
Equipment	3,595	3,595
Lands And Structures	869	869
Insurance Claims And Indemnities	179	179
Total	386,545	392,637

COMMISSIONED FACILITIES

Mr. Rogers. Please provide a table, similar in format to that shown on pages 390 through 392 of last year's hearing record, which compares the President's budget assumptions regarding commissioned facilities to end of year actuals for fiscal year 2000.

[The information follows:]

2000 Commissioned Facilities *

Facility Name	Fiscal Year 2000 Congressional Submission	Change	Fiscal Year Column Of Fiscal Year 2001 Congressional Estimates	Change	Fiscal Year 2000 Column Of Fiscal Year 2002 Congressional Actual
Air Route Surveillance Radar – FAA and Military (ARSR)	0	2	2	0	2
Full Radar Approach Control Tower	0	0	0	1	1
Airport Surface Detection Equipment (ASDE)	1	3	4	-4	0
Airport Surveillance Radar (ASR)	2	3	5	-4	1
Radio Communications Link Repeater (RCLR)	0	0	0	5	5
Radio Communications Link Terminal (RCLT)	1	-1	0	0	0
MODE S	0	0	0	1	1
Automated Flight Service Station	0	0	0	1	1
Terminal Doppler Weather Radar (TDWR)	2	1	3	-1	2
Remote Center Air/Ground Communications Facility	0	13	13	-7	6
Remote Communications Outlet (RCO)	6	1	7	1	8

Facility Name	Fiscal Year 2000 Congressional Submission	Change	Fiscal Year Column Of Fiscal Year 2001 Congressional Estimates	Change	Fiscal Year 2000 Column Of Fiscal Year 2002 Congressional Actual
Approach Lighting System	2	3	5	-2	3
Instrument Landing System (ILS)	9	29	38	-20	18
Runway End Identification Light (REIL)	4	-4	0	1	1
Runway Visual Range (RVR)	7	-7	0	7	7
VHF Omni directional Range	1	11	12	-11	1
Precision Approach Path Indicator (PAPI)	24	18	42	-20	22
VHF Omni directional Range	1	11	12	-11	1
Precision Approach Path Indicator (PAPI)	24	18	42	-20	22
Total	59	72	131	-52	79

* Information based on Regional Tracking Program

AMASS COMMISSIONINGS

Mr. Rogers. Please update the data on pages 395 and 396 of last year's hearing record regarding planned commissioning dates for the AMASS system.

[The information follows:]

The following table reflects AMASS delivery dates and first and last operational suitability demonstration (OSD) dates. Following the April 2001 completion of the In-Service Review Decision, OSDs between San Francisco and Andrews Air Force Base will be in an order prioritized by Air Traffic and are expected to occur at a rate of approximately three every eight weeks. Commissionings are expected to occur, depending on site-specific requirements, one to three months after a site's OSD start date.

City	Delivery Date	OSD Date
Detroit	8/29/97	6/01
St. Louis	1/16/98	7/01
FAA Technical Center	3/8/99	NA
San Francisco	6/15/99	6/01
FAA Academy	6/22/99	NA
Chicago	8/5/99	8/01
Boston	8/16/99	9/01
Los Angeles #1	8/25/99	7/01
Los Angeles #2	9/2/99	7/01
Salt Lake City	9/10/99	8/01
Cleveland	9/16/99	9/01
Seattle	10/8/99	6/02
Newark	10/12/99	10/01
Miami	11/2/99	10/01
Minneapolis	11/5/99	11/01
Program Support Facility *	11/18/99	NA
New York - Kennedy	12/10/99	11/01
Cincinnati	1/10/00	2/02
Kansas City	1/12/00	12/01
Portland	1/19/00	1/01
Pittsburgh	2/2/00	12/01
Memphis	2/10/00	2/02
Baltimore	3/6/00	3/02
Philadelphis	3/6/00	4/02

City	Delivery Date	OSD Date
New Orleans	3/16/00	3/02
Louisville	3/22/00	5/02
Las Vegas	4/10/00	4/02
Denver #1	4/19/00	6/02
San Diego	4/3/00	5/02
Dallas/Ft. Worth #1	5/22/00	7/02
Dallas/Ft. Worth #2	7/17/00	7/02
Anchorage	5/11/00	6/02
Denver #2	5/2/00	6/02
Charlotte	6/13/00	9/02
New York – La Guardia	6/28/00	8/02
Dulles	6/6/00	8/02
Houston	7/5/00	10/02
Contractor Facility **	7/00	NA
Washington Reagan National ***	TBD	TBD
Andrews Air Force Base	11/28/00	9/02

* Oklahoma City

** Government Furnished Equipment (GFE) for interim contractor depot level support (ICDLS)

*** Receiving FAA Technical Center refurbished system

CIVIL AVIATION SECURITY – SCREENER RULEMAKING

Mr. Rogers. For the past two years, the FAA has stated that it would issue a final rule requiring the certification of airport baggage screening companies no later than March 2001. As you know, this is substantially later than directed by the Congress. It is now past that time. Did the agency meet this important deadline?

[The information follows:]

All pending rules are under review within the new Administration. However, the Certification of Screening rule is linked to and references the pending revisions of Parts 107 and 108 of the Federal Aviation Regulations. To minimize confusion over references, FAA is placing a priority on the pending Parts 107 and 108 revisions.

CIVIL AVIATION SECURITY STATISTICS

Mr. Rogers. Please update the civil aviation security statistics shown on page 399 of last year's hearing record.

[The information follows:]

Civil Aviation Security Airline Passenger Screening Results
1996 – 2000

Year	CY 1996	CY 1997	CY 1998	CY 1999	CY 2000
Persons Screened (Millions)	1,496.9	1,659.7	1,666.5*	1,767.0	1,811.5
Weapons Detected:					
Firearms	2,155	2,067	1,515	1,552	1,937
Handguns	1,999	1,905	1,401	1,421	1,643
Long guns	156	162	114	131	294
Persons Arrested:					
Carriage of Firearms/explosives	999	924	660	633	600
Giving false Information	131	72	86	58	61

*This figure has been updated with corrected data since previous year's hearing.

OFFICE OF FINANCIAL SERVICES

Mr. Rogers. Please update the listing of positions in this office found onpages 401 through 405 of last year's hearing record.

[The information follows:]

Series	Title	Grade	Salary
0340	Asst Admin for Finl Svcs	SES	145,100
0340	Dep Asst Adm for Finl Svcs	SES	138,338
0510	Director Office of Financial Mgt *	SES	129,192

Series	Title	Grade	Salary
0340	Director, Office of Budget	SES	129,192
0340	Director Ofc of Cost & Perf Mgt *	SES	129,192
0343	Supy Mgt & Prog Analyst	K	125,282
0510	Supy Accountant	K	116,002
0510	Accounting Officer	K	116,002
0501	Supv Fin'l Admin & Prog Spec	K	116,002
0501	Supvy Fin'l Admin & Prog Spec	K	116,002
0334	Supv Computer Sys Analyst	K	116,002
0301	Special Projects Ofcr	K	116,002
0343	Supy Mgt & Prog Analyst	K	115,032
0343	Mgt & Prog Analyst	15	114,224
0334	Supy Computer Spec	K	114,098
0343	Supy Mgt & Prog Analyst	K	114,097
0334	Supvy Computer Spec	K	111,807
0343	Supy Mgt & Prog Analyst	K	111,623
0343	Mgt & Prog Analyst	15	111,295
0343	Supy Mgt & Prog Analyst	K	111,124
0510	Supy Systems Acct	K	110,777
0510	Supy Systems Acct	15	110,626
0510	Supy Systems Acct	K	110,626
0343	Supy Mgt & Prog Analyst	K	109,142
0501	Supvy Fin'l Admin & Prog Spec	K	108,642
0510	Staff Accountant	J	108,577
0510	Staff Accountant	15	105,437
0343	Supy Mgt & Prog Analyst	K	104,390
0510	Staff Accountant	J	104,219
0510	Supy Systems Acct	K	104,219
0510	Supy Systems Acct	K	103,475
0343	Supy Mgt & Prog Analyst	K	102,960
0501	Supvy Fin'l Admin & Prog Spec	K	102,788
0510	Systems Accountant	15	102,508
0501	Supvy Fin'l Admin & Prog Spec	K	100,157

Series	Title	Grade	Salary
1515	Operations Res Analyst	14	97,108
0560	Budget Analyst *	14	97,108
0510	Accountant	14	97,108
0343	Mgt & Prog Analyst	14	97,108
0343	Management Analyst	14	97,108
0343	Mgt & Prog Analyst	14	97,108
0343	Management Analyst *	15	96,651
0510	Systems Accountant	14	94,618
0343	Mgt & Prog Analyst	14	94,618
0343	Mgt & Prog Analyst	14	94,618
0560	Budget Analyst	14	92,128
0560	Budget Analyst	14	92,128
0560	Budget Analyst	14	92,128
0510	Systems Accountant	14	92,128
0343	Program Analyst	14	92,128
0343	Mgt & Prog Analyst	14	92,128
0343	Mgt Analyst	14	92,128
0334	Computer Spec	15	90,793
0510	Systems Accountant	14	89,638
0510	Operating Acct	14	89,638
0510	Systems Accountant	14	89,638
0510	Systems Accountant	14	89,638
0343	Mgt & Prog Analyst	14	89,638
0343	Management Analyst	14	89,638
0343	Program Analyst	14	89,638
0343	Mgt & Prog Analyst	14	89,638
0334	Computer Spec	14	89,638
0334	Computer Spec	14	89,638
0560	Budget Analyst	14	87,148
0343	Mgt & Prog Analyst	14	87,148
0343	Mgt & Prog Analyst	14	87,148
0560	Budget Analyst	14	84,658

Series	Title	Grade	Salary
0560	Budget Analyst	14	84,658
0510	Systems Accountant	14	84,658
0510	Operating Acct	14	84,658
0510	Operating Acct	14	84,658
0343	Management Analyst	14	84,658
0343	Mgt & Prog Analyst	14	84,658
0510	Systems Accountant	14	82,168
0510	Systems Accountant	14	82,168
0510	Operating Acct	14	82,168
0510	Systems Accountant	14	82,168
0510	Systems Accountant	14	82,168
0510	Systems Accountant	14	82,168
0510	Systems Accountant	14	82,168
0510	Operating Acct	14	82,168
0343	Mgt & Prog Analyst	14	82,168
0343	Mgt & Prog Analyst	14	82,168
0343	Management Analyst	14	82,168
0343	Mgt & Prog Analyst	14	82,168
0334	Computer Spec	14	82,168
0560	Budget Analyst *	14	79,678
0560	Budget Analyst *	14	79,678
0343	Mgt & Prog Analyst	I	77,417
0334	Computer Spec	14	77,187
0510	Operating Acct	13	75,857
0343	Mgt & Prog Analyst	I	72,301
0510	Operating Acct	13	69,534
0510	Systems Accountant	13	69,534
0510	Operating Acct	13	69,534
0510	Operating Acct	13	69,534
0510	Operating Acct	13	69,534
0510	Operating Acct	13	69,534
0510	Operating Acct	13	69,534

Series	Title	Grade	Salary
0510	Operating Acct	12	69,099
0560	Budget Analyst *	13	67,427
0510	Systems Accountant	13	63,211
0334	Computer Spec	13	63,211
0343	Management Analyst	12	62,013
0510	Operating Acct	12	56,699
0334	Comp Spec (Sys Anlst)	12	54,928
0510	Operating Acct	12	53,156
0301	Program Spec	12	53,156
0301	Staff Assistant	G	52,175
0501	Lead Fiscal Spec	11	50,265
0318	Secretary (OA)	10	49,789
0343	Mgt & Prog Analyst	11	48,787
0501	Lead Fiscal Spec	11	47,309
0501	Lead Fiscal Spec *	11	47,309
0510	Operating Acct	11	45,830
0501	Lead Fiscal Spec	11	45,830
0501	Lead Fiscal Spec	11	45,830
0344	Mgt Assistant	8	43,147
0343	Mgt & Prog Analyst	9	42,763
0318	Secretary (Typing)	9	42,763
0344	Mgt Assistant	8	40,934
0318	Secretary (OA)	9	40,320
0344	Mgt Assistant	8	39,827
0318	Secretary (Typing)	7	38,954
0525	Acct Tech (Data Tran)	7	36,957
0343	Management Analyst *	9	36,656
0525	Acct Tech (Data Tran)	7	35,958
0525	Acct Tech (Data Tran)	7	34,959
0318	Secretary	E	30,123
0501	Fiscal Spec	5	24,192

* Vacant Positions

HUMAN RESOURCE MANAGEMENT POSITIONS

Mr. Rogers. Please update the listing on pages 407 through 411 of last year's hearing record showing FAA's human resource management positions in Washington, D.C.

[The information follows:]

Position Title	PP	Series	Grade	Salary
Assistant Administrator for Human Resource Management	EV	340	1	$145,100
Deputy Assistant Administrator for Labor Relations	EV	340	2	138,338
Deputy Assistant Administrator for Human Resource Management	EV	340	2	136,980
Manager, Center for Management Development	EV	340	2	128,613
Program Director, Personnel	EV	201	2	125,885
Director, FAA Accountability Board	EV	340	2	120,225
Director, Learning & Development	EV	340	2	120,225
Program Director, Labor Employee Relation	EV	201	2	118,056
Supervisory Financial Administration & Program Specialist	FV	501	K	116,002
Supervisory Personnel Management Specialist	FV	201	K	115,963
Supervisory Computer Specialist	FV	334	K	114,285
Personnel Management Specialist	FV	201	J	113,523
Personnel Management Specialist	FV	201	J	113,108
Program Evaluation Specialist	FV	301	J	108,566
Supervisory Personnel Management Specialist	FV	201	K	108,184
Supervisory Personnel Management Specialist	FV	201	K	104,619
Supervisory Public Affairs Specialist	FM	1035	15	103,976
Personnel Management Specialist	FV	201	J	102,674
Supervisory Personnel Management Specialist	FV	201	K	102,160
Diversity Advocate	FV	301	J	101,638

Position Title	PP	Series	Grade	Salary
Supervisory Personnel Management Specialist	FV	201	K	101,301
Supervisory Personnel Management Specialist	FV	201	K	101,301
Supervisory Personnel Management Specialist	FV	201	K	99,814
Supervisory Psychologist	FV	180	K	99,644
Program Analyst	FV	343	J	98,614
Personnel Management Specialist	FV	201	J	98,614
Personnel Management Specialist	FV	201	J	98,614
Personnel Management Specialist	FV	201	J	98,614
Personnel Management Specialist	FV	201	J	97,415
Management & Program Analyst	FV	343	J	96,345
Personnel Management Specialist	FV	201	J	96,086
Personnel Management Specialist	FV	201	J	95,729
Organization Development Specialist	FV	301	J	94,887
Personnel Management Specialist	FV	201	J	94,470
Program Analyst	FV	343	J	93,949
Organization Development Specialist	FV	301	J	93,752
Supervisory Management and Program Analyst	FV	343	K	93,638
Personnel Management Specialist	FV	201	J	93,388
Personnel Management Specialist	FV	201	J	93,202
Personnel Management Specialist	FV	201	J	93,202
Management & Program Analyst	FV	343	J	93,202
Organizational Development Specialist	FV	301	J	92,878
Management and Program Analyst	FV	343	J	92,785
Personnel Management Specialist	FV	201	J	92,391
Program Systems Analyst	FV	301	J	92,294
Management & Program Analyst	FV	343	J	92,261
Supervisory Personnel Management Specialist	FV	201	J	91,710
HBCU Manager	FV	301	J	91,516
Personnel Information System Analyst	FV	301	J	91,516
Supervisory Personnel Management Specialist	FV	201	J	91,516
Program Analyst	FV	343	J	91,224
Psychologist	FV	180	J	91,094

Position Title	PP	Series	Grade	Salary
Program and Management Analyst	FV	343	J	91,094
Personnel Management Specialist	FV	201	J	90,758
Supervisory Personnel Management Specialist	FV	201	J	90,623
Organizational Development Specialist	FV	301	J	90,496
Management and Program Analyst	FV	343	J	90,496
Personnel Management Specialist	FV	201	J	89,799
Labor Relations Specialist	FV	201	J	89,720
Labor Relations Specialist	FV	201	J	89,286
Computer Specialist	FV	334	J	89,230
Personnel Management Specialist	FV	201	J	89,230
Psychologist	FV	180	J	89,036
Personnel Management Specialist	FV	201	J	88,988
Program Management Specialist	FV	301	J	88,402
Personnel Management Specialist	FV	201	J	88,402
Management & Program Analyst	FV	343	J	87,821
Program Management Specialist	FV	301	J	87,214
Program Management Specialist	FV	301	J	87,214
Personnel Management Specialist	FV	201	J	87,137
Management & Program Analyst	FV	343	J	86,752
Personnel Management Specialist	FV	201	J	86,460
Personnel Management Specialist	FV	201	J	86,460
Program Management Specialist	FV	301	J	86,169
Management & Program Analyst	FV	343	J	85,535
Management & Program Analyst	FV	343	J	84,952
Organization Development Specialist	FV	301	J	84,710
Personnel Management Specialist	FV	201	J	84,632
Program Specialist	FV	301	J	84,514
Management & Program Analyst	FV	343	J	84,174
Personnel Management Specialist	FV	201	J	83,543
Computer Systems Analyst	FV	334	I	83,452
Personnel Management Specialist	FV	201	J	83,251
Supervisory Personnel Management Specialist	FV	201	J	82,862
Personnel Management Specialist	FV	201	J	82,862
Operations Support Specialist	FV	301	I	82,628
Personnel Management Specialist	FV	201	I	82,188
Personnel Management Specialist	FV	201	J	82,084

Position Title	PP	Series	Grade	Salary
Personnel Management Specialist	FV	201	I	81,725
Personnel Management Specialist	FV	201	I	81,339
Accountability Board Consultant	FV	301	J	81,306
Personnel Management Specialist	FV	201	J	81,306
Management & Program Analyst	FV	343	J	81,112
Personnel Management Specialist	FV	201	I	80,078
Personnel Management Specialist	FV	201	J	79,847
Personnel Management Specialist	FV	201	I	78,872
Personnel Management Specialist	FV	201	I	78,021
Personnel Management Specialist	FV	201	I	77,633
Personnel Management Specialist	FV	201	I	77,389
Personnel Management Specialist	FV	201	J	77,373
Personnel Management Specialist	FV	201	J	77,320
Management and Program Analyst	FV	343	J	77,126
Personnel Management Specialist	FV	201	J	76,930
Program Specialist	FV	301	I	76,540
Personnel Management Specialist	FV	201	I	76,416
Personnel Management Specialist	FV	201	J	76,055
Personnel Management Specialist	FV	201	I	73,948
Personnel Management Specialist	FV	201	I	73,577
Computer Systems Analyst	FV	334	I	73,453
Personnel Management Specialist	FV	201	I	73,453
Personnel Management Specialist	FV	201	I	72,837
Personnel Management Specialist	FV	201	I	72,343
Management & Program Analyst	FV	343	I	72,343
Computer Systems Analyst	FV	334	I	72,137
Management & Program Analyst	FV	343	I	71,808
Personnel Management Specialist	FV	201	I	71,172
Personnel Management Specialist	FV	201	I	71,149
Personnel Management Specialist	FV	201	I	70,286
Personnel Management Specialist	FV	201	I	70,016
Personnel Management Specialist	FV	201	I	69,545
Management & Program Analyst	FV	343	I	69,544
Personnel Management Specialist	FV	201	I	68,639
Personnel Management Specialist	FV	201	I	67,144
Personnel Management Specialist	FV	201	I	63,521
Personnel Management Specialist	FV	201	H	63,395
Administrative Officer	FV	341	H	61,354

Position Title	PP	Series	Grade	Salary
Computer Specialist	FV	334	I	59,498
Computer Specialist	FV	334	I	57,540
Correspondence Specialist	FV	301	H	56,407
Personnel Management Specialist	FV	201	H	54,192
Staff Assistant	FV	301	H	54,192
Staff Assistant	FV	301	G	50,963
Personnel Management Specialist	FV	201	H	49,895
Correspondence Specialist	FV	301	G	48,103
Secretary (Stenography)	FV	318	F	48,011
Technographer	FV	301	G	47,468
Technographer	FV	301	G	47,410
Computer Specialist	FV	334	H	47,178
Program Assistant	FV	344	F	45,943
Personnel Assistant	FV	203	E	43,813
Program Assistant (OA)	FV	344	F	42,691
Program Assistant (OA)	FV	344	F	40,519
Personnel Assistant (OA)	FV	203	E	39,559
Secretary (Typing)	FV	318	E	39,559
Secretary (Typing)	FV	318	E	39,559
Personnel Assistant (Typing)	FV	203	E	39,559
Secretary (Stenography)	FV	318	E	39,559
Management Assistant	FV	344	F	37,985
Secretary (Typing)	FV	318	E	37,583
Personnel Assistant (OA)	FV	203	E	37,271
Employee Relations Assistant	FV	203	E	36,497
Personnel Management Specialist	FV	201	F	36,376
Personnel Assistant (Typing)	FV	203	E	35,094
Personnel Management Specialist	FV	201	F	34,860
Clerk (OA)	FV	303	D	28,267
Personnel Clerk	FV	203	D	25,022
Clerk (Office Automation)	FV	303	D	25,022
Miscellaneous Clerk and Assistant	FV	303	C	22,879
Clerk (OA)	FV	303	C	21,882
Clerk (OA)	FV	303	C	21,826

CORE COMPENSATION

Mr. Rogers. Last year at this time, only 1,200 of the agency's employees were covered by the core compensation plan (p. 422). What is the corresponding figure today?

[The information follows:]

There are currently 8,000 employees in the Core Compensation Plan. In addition, there are 8,420 union employees in negotiated pay plans that are modified versions of the Core Compensation Plan.

USER FEES

Mr. Rogers. Please update the table of user fees credited to the Operations appropriation shown on page 266 of last year's hearing record by providing the data for fiscal year 2000 and estimates for 2001 and 2002.

[The information follows:]

User Fees

Fees	Fiscal Year 2000 Collections	Estimated Fiscal Year 2001 Collections	Estimated Fiscal Year 2002 Collections
Civil Aviation Registry Fees	$590,307	$565,000	$580,000
Foreign Repair Station Fees	2,373,263	2,553,000	2,600,000
Security Fingerprint Fees	310,534	312,000	314,000
Air Taxi Registration Fees	1,848	2,000	2,100
Charting Fees *	0	21,000,000	19,500,000
Total Amount Collected	$3,275,952	24,432,000	$22,996,100

* The aeronautical charting program was transferred to the FAA from the National Oceanographic and Atmospheric Administration (NOAA) on October 1, 2000. Therefore, fee revenue of nearly $20 million collected by NOAA in fiscal year 2000 is excluded from this table.

Mr. Rogers. What are the "foreign repair station fees", which are the second largest of the estimated user fee collections?

[The information follows:]

"Foreign repair station user fees" are charges of FAA inspectors for services they have provided outside of the United States.

Advisory Circular Number 187-1, lists the fees charged for each service. In most cases, the inspectors are from the Flight Standards Service. However, inspectors from outside Flight Standards could participate as needed.

U.S. Department of Transportation
Federal Aviation Administration

Advisory Circular

Subject: FLIGHT STANDARDS SERVICE SCHEDULE OF CHARGES OUTSIDE THE UNITED STATES

Date: 3/31/95 Initiated by: AFS-50

AC No: 187-1 Change:

1. **PURPOSE.** This advisory circular (AC) transmits a schedule of charges for services of Federal Aviation Administration (FAA) Flight Standards aviation safety inspectors outside the United States. The methodology for determining these charges and the initial charges developed by this methodology were established by rulemaking action to Federal Aviation Regulation (FAR) Part 187, Docket No. 27809; Notice No. 94-24, Fees for Certification Services and Approvals Performed Outside the United States. The rulemaking established that these fees would be published in an advisory circular.

2. **RELATED FAR SECTIONS.** Each charge listed in Appendix 1 refers to an FAA activity described in the FAR. Specific FAR reference is listed beside each category of service and charge. Generally, these charges refer to: FAR Part 187, Appendix A - Methodology for Computation of Charges; FAR Parts 61, 63, and 65 - Airman certification; FAR Parts 141, 142, 145, and 147 - Air agency certification; and FAR Part 183 - Designees.

3. **APPENDIX CHANGES.** FAA plans to review the actual costs incurred in the services listed in Appendix 1, at the beginning of each fiscal year, using the same fee methodology described in FAR Part 187, Appendix A. FAA will amend the schedule of charges on an annual basis to either increase or decrease fees, as needed. Each amended schedule would be published in the Federal Register and updated in a change to this AC.

4. **COMMENTS AND INQUIRIES.** Comments or inquiries regarding this publication should be directed to:

Federal Aviation Administration
International Liaison Staff, AFS-50
800 Independence Avenue, NW
Washington, DC 20591

Thomas C. Accardi
Director, Flight Standards Service

Appendix 1

Schedule of Services Flight Standards Service		
Category of Service	**14 CFR Reference**	**Charge**
I. TRANSPORTATION AND SUBSISTENCE CHARGES		
All Categories of Services		
Transportation and subsistence will be assessed to applicants in addition to the charge published below for certification actions requiring travel from the duty station		actual cost
II. AIRMAN CERTIFICATION		
All Categories of Airmen		
Authorizations for written or practical tests (if different from those specified below)	Parts 61, 63, 65	$40
Special medical check	Part 67	$160
FA Act Section 609 re-exam	Parts 61, 63, 65	$208
Inspector review for all tests, approvals, ratings given by designated examiners and evaluators	Parts 61, 63, 65	$40
Pilots		
Each written test, including tests for initial issue or renewal of a certificate or rating, restriction and limitation removals, reissuances, determination of knowledge based on military experience in the categories below:		
Private Pilot	Part 61.103	$40
Recreational Pilot	Part 61 96	$40
Commercial Pilot	Part 61.123	$40
Airline Transport Pilot	Part 61 153 or Part 61 159	$40
Instrument Rating	Part 61.65 or Part 61.75	$40
Flight Instructor		
Fundamental of Instructing	Part 61.183	$40
Written, other than gyroplane	Part 61 183	$40
Written for gyroplane	Part 61.183	$40
Ground instructor	Part 143 3	$40
Each practical test (oral, flight, simulated flight increments, or combined), for initial award, renewal of a certificate or rating, restriction & limitation removals, reissuances, determination of knowledge based on military competence in the categories below		
Student pilot	Part 61.83	$32
Recreational Pilot	Part 61.96(e)	$248
Private pilot	Part 61.103	$248
Commercial pilot	Part 61.123	$248
Commercial Pilot limited to VFR	Part 61 129(a)	$248
Commercial pilot reissue certificate	Part 61.11	$248
Airline transport pilot	Part 61.157 or Part 61.163	$400
Airline transport pilot, applicant without IFR rating	Part 61.157 or Part 61.163 or Part 61.65	$400
Instrument rating	Part 61.65 or Part 61.75	$256
Flight instructor		
Instrument rating	Part 61.191 or Part 61 65	$288

Appendix 1

Added category rating	Part 61.191 or Part 61.63	$248
Added class rating	Part 61.191 or Part 61.63	$248
Renewal	Part 61.197	$160
Reinstatement	Part 61.199(b)	$160
Ground instructor	Part 143 3	$40
Type rating with instrument rating	Part 61 63 or Part 61.157 or Part 61.163	$368
Type rating without instrument rating	Part 61 63	$368
Category rating	Part 61 63 or Part 61.165	$368
Class rating	Part 61.63	$368
Special purpose pilot on basis of foreign certificate	Part 61 75	$68
Special purpose pilot on basis of aircraft lease	Part 61.77(e)(4)	$68
Pilot proficiency check - 12 month	Part 61 56(b)	$296
Pilot proficiency check - 24 month	Part 61 56(c)	$296
Instrument Competency check	Part 61.57	$320
Statement of demonstrated ability	Part61 13(d)	$320
Category II authorization	Part 61.57	$320
Category III authorization	Part 61.58	$320
Pilot-in-command in lieu of type rating (LOA) authorization	Part 61.31(b) or Part 61.31(h)(3)	$464
Aerobatic competence authorization	Part 91	$320
Pilot knowledge/skill authorization	Parts 91, 125, 133, 135, 137	$320
Flight instructor simulator authorization	Parts 121, 135	$320
Flight Engineers		
Each written test, including initial, renewal, added ratings, restriction removals, reissuances, and tests based on military competence	Part 63.65(a) & (b)	$40
Each practical test (oral, flight, or combined) for initials, renewals, added ratings, simulators, restriction removals, reissuances, including tests based on military competency	Part 63.33(b)(1)	$400
Special purpose flight engineer based on foreign license (initial, renewal, VFR or IFR, with or without medical)	Part 63 42	$68
Special purpose flight engineer based on aircraft lease (initial, renewal, VFR or IFR,with or without medical)	Part 63 23	$68
Flight Navigators		
Each written test, including: initial, renewal, added ratings, restriction removals, reissuances, and tests based on military competence	Part 63.53(a)	$40
Each practical test (oral, flight, or combined) for initials, renewals, added ratings, simulators, restriction removals, reissuances, including tests based on military competency	Part 63.57	$400
Aircraft Dispatchers		
Each written test, including: initial, renewal, added ratings, restriction removals, reissuances, and tests based on military competence	Part 63.55(a)	$40
Each practical test (oral, flight, or combined) for initials, renewals, added ratings, simulators, restriction removals, reissuances, including tests based on military competency - competency for airplane or helicopter	Part 65.59	$400
Mechanics		
Each written test, including initial, renewal, added ratings, restriction removals, reissuances, and tests based on military competence - general, airframe, or powerplant	Part 65 71(a) or Part 65.77	$40
Each practical test for initials, renewals, added ratings, restriction removals, reissuances - airframe or powerplant	Part 65.79	$504

Appendix 1

Inspection Authorization		
Inspection Authorization (IA) - initial	Part 65.91	$392
Inspection Authorization (IA) - renewal	Part 65.93	$72
Repairmen		
Initial, renewal, added rating	Part 65.101	$152
Parachute Riggers		
Each written test, including: Initial, renewal, added ratings, restriction removals, reissuances, and tests based on military competence - senior or master	Part 65.115(a); Part 65 117, Part 65.119(b)	$40
Each practical test for initials, renewals, added ratings, restriction removals, reissuances, including tests based on military competence	Part 65 115(c)	$440
Designation of Examiners		
For all categories - includes written and practical tests, initials, added ratings, renewals, restriction removals, reissuances in the categories below:		
Pilot examiners.	Part 183 23	
Large turbine		$960
Pilot proficiency		$440
Written test examiner		$640
Airmen certification representative		$400
Other types as the FAA may designate	Part 183.11(b)	$960
Aircraft dispatch examiner (DADE)	Part 183.25(f)	$960
Flight engineer examiner (DFEE)	Part 183 25(d)	$960
Flight navigator examiner (DFNE)	Part 183.25(e)	$960
Designated airworthiness Representative (DAR) - initial	Part 183.33	$440
Designated Airworthiness Representative (DAR) - renewal	Part 183 33	$160
Designated Mechanic Examiner (DME) - initial	Part 183 25(a)	$504
Designated Mechanic Examiner (DME) - renewal	Part 183 25(a)	$184
Designated Parachute Rigger Examiner (DPRE) - initial	Part 183.25(b)	$504
Designated Parachute Rigger Examiner (DPRE) - renewal	Part 183.25(b)	$184
Other designees as the FAA may designate	Part 183.11(b)	$504
III. AIR AGENCIES		
Repair station certification/approval/authorization/inspection actions	Part 145, Subpart C	$80 per inspector hour
Pilot school certification/approval/authorization/inspection actions	Part 141	$80 per inspector hour
Airmen training centers certification/approval/authorization/inspection actions	Part 142	$80 per inspector hour
Aviation maintenance technician schools certification/approval/authorization /inspection actions	Part 147	$80 per inspector hour
NOTE: Current fees for the services described in the Schedule of Services are published in the "Notices" section of this Federal Register. Future changes to the current fees also will be published in the "Notices" section of the Federal Register. A fee is effective on the date of its publication in the "Notices" section of the Federal Register		

*U.S. G.P.O.:1995-387-549:122

Mr. Rogers. What is the status of implementation of overflight fees, and how much is assumed for collection in fiscal years 2001 and 2002?

[The information follows:]

The FAA established new overflight fees via an Interim Final Rule published June 6, 2000, effective August 1, 2000. Seven international carriers and the Air Transport Association of Canada filed suit in the United States Court of Appeals for the District of Columbia Circuit to overturn the rule. Oral arguments were held on May 14, 2001.

The fiscal year 2002 budget assumes $36 million in collections during fiscal year 2001 and $40 million during fiscal year 2002 (difference largely due to lag between billing and collection).

AVERAGE FULL-TIME EQUIVALENT COSTS

Mr. Rogers. Please update the data on agency-wide average full-time equivalent (FTE) costs shown on page 267 of last year's hearing record by providing data for fiscal years 1999 through 2002.

[The information follows:]

For the Operations Appropriation, the costs per FTE for fiscal years 1999 through 2002 are as follows:

FY 1999 Actual	FY 2000 Actual	FY 2001 Estimate	FY 2002 Request
$90,410	$99,370	$106,870	$112,220

Note: The figures displayed above were calculated excluding workers' compensation and permanent change of station costs.

AVERAGE FULL-TIME EQUIVALENT COSTS FOR CONTROLLERS

Mr. Rogers. For fiscal year 2002 only, what are the average FTE costs for controllers covered by the 1998 NATCA labor agreement, and how does that compare to the average of all other FAA employees?

[The information follows:]

The average full-time equivalent cost for controllers in fiscal year 2002 is $135,505. The average for all FAA employees, excluding controllers, is $100,560.

Mr. Rogers. How many controllers received compensation in excess of $100,000 in fiscal year 2000, and what was the highest level of compensation?

[The information follows:]

The number of controllers with total compensation in excess of $100,000 in fiscal year 2000 is 9,589. The highest level of total compensation, for an individual controller, was $174,731.

Mr. Rogers. How many controllers received compensation in excess of that received by the FAA Administrator in fiscal year 2000?

[The information follows:]

In calendar year (tax year) there were 52 controllers with a gross income in excess of $145,100.

HEALTH BENEFITS

Mr. Rogers. Please update the FAA's budget for health benefits for employees shown on page 268 of last year's hearing record by providing data for fiscal years 1996 through 2002.

[The information follows:]

Health Benefits (Amounts in Thousands)

	Operations	Facilities & Equipment	Research, Engineering, & Development	Airport Improvement Program	Total
FY 1996 Actual	119,714	5,667	1,564		126,945
% change 95-96	-8.7%	-2.2%	-7.0%	See	-8.4%
FY 1997 Actual	121,175	5,853	1,597	Note	128,625
% change 96-97	1.2%	3.3%	2.1%		1.3%
FY 1998 Actual	128,218	6,019	1,653		135,890
% change 97-98	5.8%	2.8%	3.5%		5.6%
FY 1999 Actual	142,341	7,978	1,072		151,391
% change 98-99	11.0%	32.5%	-35.1%		11.4%
FY 2000 Actual	152,421	8,755	1,365	1,498	164,039
% change 99-00	7.1%	9.7%	27.3%	N/A	8.4%
FY 2001 Estimate	160,973	9,366	1,367	1,607	173,313
% change 00-01	5.6%	7.0%	0.1%	7.3%	5.7%
FY 2002 Estimate	168,700	10,965	1,456	1,725	182,846
% change 00-01	4.8%	17.1%	6.5%	7.3%	5.5%

NOTE: Funding for airports staff was transferred to the Airport Improvement Program in fiscal year 2000. Large percentage changes from fiscal year 1998 to fiscal year 1999 for Facilities and Equipment (F&E) and Research and Development (R&D) occurred due to the transfer of approximately 275 staff to F&E for the Advanced Technology Development and Prototyping.

GSA RENT

Mr. Rogers. How much is included in your fiscal year 2002 request for GSA rent, and how does that compare to fiscal year 2001?

[The information follows:]

GSA Rental Payments (Dollars in thousands)

Administration	Fiscal Year 2000 Actual	Budgeted Amounts Fiscal Year 2001 Enacted	Fiscal Year 2002 Estimated
FAA	$79,514	$89,654	$96513

TRANSIT SUBSIDY BENEFIT PROGRAM

Mr. Rogers. Please update the data on the transit subsidy benefit program shown on page 241 of last year's hearing record.

[The information follows:]

Estimated Costs For FAA Participation In The Transit Benefit Program-Fiscal Year 1996 – 2001

Fiscal Year	Headquarters	Regions	Admin Ex. *	Total
1996	$1,210,360	$225,408	$59,506	$1,495,274
1997	$1,313,022	$274,406	$94,181	$1,681,609
1998	$1,486,887	$309,165	$83,804	$1,879,856
1999	$1,529,804	$320,095	$102,460	$1,952,359
2000	$1,526,613	$329,218	$112,603	$1,968,434
2001	$1,655,652	$345,888	$116,014	$2,117,554

Note: The 2001 data are projections. The headquarters and regions costs are based primarily on actual data for the period (October 2000 through February 2001).

* The Administrative expense is for headquarters only.

Current Number 0f Enrollees In FAA's Transit Benefit Program
By Metropolitan Area

Washington	2,197	Los Angeles	42
Chicago	103	Atlanta	14
Kansas City	34	Ketchikan, AK	40
Seattle	135	New York	63
San Francisco	26	Boston	42
Honolulu	2	Miami	8
Salt Lake City	21		
Denver	11	Total	2,738

Note: Based on February 2001 data.

TRAVEL – OPERATIONS FUNDED

Mr. Rogers. Please update the table on travel costs shown on page 223 of last year's hearing record by providing data for fiscal years 2000 through 2002.

[The information follows:]

Federal Aviation Administration Operations Appropriation
Travel and Transportation

Dollars in Thousands	Fiscal Year		
	2000 Actual	2001 Estimate	2002 Estimate
Training Travel	$26,527	$36,107	$38,063
Job Performance Travel	50,611	56,268	57,258
Other Travel	6,662	8,015	7,786
Transportation of Things	20,095	18,800	18,868
Total	$103,895	$119,190	$121,975

Mr. Rogers. Please update the travel expenditures by object class shown on pages 225 and 226 of last year's hearing record by providing data for fiscal years 1999 and 2000.

[The information follows:]

TRAVEL AND TRANSPORTATION EXPENDITURES
OPERATIONS APPROPRIATION

	OBJECT CLASS CODES	FY 1999	FY 2000
2100	Continental US Travel - Site Visit	$28,015,124	$28,910,693
2101	Continental US Travel - Information Meeting	$4,722,841	$4,277,450
2102	Continental US Travel - Speech or Presentation	$257,965	$345,344
2103	Continental US Travel - Conference Attendance	$1,116,888	$924,912
2104	Continental US Travel - Relocation of Employees	$331,550	$198,002
2105	Continental US Travel - to Seek Residence Quarters	$259,988	$172,361
2106	Nonforeign US Travel - To Seek Residence Quarters	$2,527	$22,637
2107	Continental US Travel - Special Mission Travel	$181,127	$303,544
2108	Continental US Travel - Emergency Travel	($164,796)	($162,915)
2109	Continental US Travel - Other Travel	$8,838,463	$8,785,260
2110	Overseas Travel - Site Visit	$7,262,226	$6,785,972
2111	Overseas Travel - Information Meeting	$578,631	$545,711
2112	Overseas Travel - Speech or Presentation	$52,100	$114,257
2113	Overseas Travel - Conference Attendance	$34,249	$27,715
2114	Overseas Travel - Relocation (PCS)	$47,779	$76,219
2116	Overseas Travel - Entitlement	$199,092	$261,319
2117	Overseas Travel - Special Mission	$0	$0
2118	Overseas Travel - Emergency	$3,509	$3,209
2119	Overseas Travel - Other	$416,771	$406,419
211A	Continental US Travel - Expenses for Interviews	$10,881	$33,980
211B	Continental US Travel - Relocation of New Appointees and Student Trainees	$0	$1,500
211C	60% Optional Reduced Rate (TDY)	$0	$785
211D	80% Optional Reduced Rate (TDY)	$5,260	$139,685
2130	Training Travel - Non-Gov Long-Term (LT) College	$74,513	$27,313
2131	Training Travel - Non-Gov LT Private	$30,110	$1,159
2132	Training Travel - Non-Gov Short-Term (ST) College	$147,945	$113,751
2133	Training Travel - Non-Gov ST Private	$4,908,785	$3,446,448
2134	Training Travel - Gov LT - Internal	$90,461	$18,058

TRAVEL AND TRANSPORTATION EXPENDITURES
OPERATIONS APPROPRIATION

	OBJECT CLASS CODES	FY 1999	FY 2000
2135	Training Travel - Gov LT - Interagency	$38,383	$9,944
2136	Training Travel - Gov ST - Internal	$27,106,832	$22,701,503
2137	Training Travel - Gov ST - Interagency	$356,971	$229,541
2170	Lease of Aircraft	$13,684	$2,880
2171	Rental of Motor Vehicles, Government	$4,776,549	$4,456,881
2172	Rental of Motor Vehicles, Commercial	$567,160	$619,346
2180	OH Dist - Travel	$0	$0
2197	Lost Discounts - Travel	$43	$16
2198	Discounts Not Cost Effective - Travel	$0	$69
2199	Late Payment Interest Penalty - Travel	$6,772	$158
2200	OH Dist - Transp	$8,203	$2,870
2201	Mail & Messenger Services - Freight	$398,184	$442,342
2202	Mail & Messenger Services - Freight WCF	$466	$127
2204	Rental - Trucks & Other Equipment	$12,813,510	$13,165,442
2210	Transp. of ADP Equipment	$11,505	$2,640
2211	Transp. of Government Property	$4,093,326	$3,622,603
2212	Transp. of Government Exhibits	$367	$45
2221	Transp. of Household Goods For Employees	$3,080,113	$2,649,634
2222	Transp. of Privately-Owned Vehicles	$184,408	$156,061
2223	Transp. of Things - Other	$63,020	$33,930
222A	Trans of HHG-New Appoint/Student Trainees	$0	$16,500
2297	Lost Discounts - Transp.	$242	$482
2299	Late Payment Interest Penalty - Transp	$5,092	$2,198
Travel and Transportation Total		$110,948,819	$103,896,000

Mr. Rogers. Please update the table on non-routine overseas travel shown on pages 227 through 240 of last year's hearing record by providing data from the last entry of last year's table to the current time.

[The information follows:]

NON-ROUTINE OVERSEAS TRAVEL
March 1, 2000 – April 3, 2001

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Penny Mefford	Melbourne, Australia	3/02-3/10/00	Served as FAA representative to industry-sponsored workshops with Air services Australia and Airways Corporation of New Zealand on cost accounting and cost management	9	$4,080
Christian Lewerenz	Hanau, Germany	3/15-3/17/00	Attended NTSB hearing on an airman's appeal of an Emergency Order of Revocation revoking the Airframe-Powerplant Mechanic Certificate	3	$2,000
Joseph Standell	Rome, Italy	3/18-4/01/00	Participated in a UNIDROIT meeting to consider an international convention and protocol concerning universal registration of aircraft	14	$1,800
Angela Elgee	Vancouver, British Columbia, Canada	3/27-3/29/00	Spoke at annual FAA/CAA/Transport Canada Human Factors Symposium	3	$1,250
Melchor Antuñano Stephen Veronneau Charles DeJohn Alex Wobrink	Beijing, China	4/07-4/16/00	Conducted FAA course, "Medical Aspects of Aircraft Accident Investigation"	10	$20,893
Bruce R. Butterworth	Amsterdam, The Netherlands; Brussels, Belgium	4/10-4/13/00	Participated in two panels during the annual International Air Transport Association Conference on Dangerous Goods in Amsterdam, and observing/participating in security and dangerous goods inspections in Brussels	4	$2,500

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
David Traynham	Brussels, Belgium	4/15-4/19/00	Met with European Commission and Parliament to continue discussions on environmental policy, air traffic and safety	5	$2,000
Ed C. Cleary	Amsterdam,The Netherlands	4/15-4/22/00	Attended 2000 International Bird Strike Committee meeting	8	$2,000
Steven D. Smith	Toulouse, France	4/16-4/20/00	Attended Future Hazards Working Group meeting	5	$2,854
Cathal L. Flynn David C. Leach	Singapore	4/25-4/29/00	Participated in 5th Asia Pacific Aviation Security Conference and Exhibition	5	$1,568.00
George Sakai Donald Willis Robert Frazier Michael Richmond	Istanbul, Turkey	5/08-5/19/00	Participated in the International Telecommunication Union's World Radiocommunications Conference	12	$18,800
David Traynham	Quito, Ecuador	5/09-5/11/00	Gave presentation on Noise Issues at the Latin American Civil Aviation Commission 51st Executive Committee meeting	3	$1,000
Thomas E. McSweeny Nick Lacey	Montreal, Quebec, Canada	5/15/-5/17/00	Attended the fourth meeting with International Civil Aviation Organization's (ICAO) Air Navigation Commission and Industry Universal Safety Oversight Audit Program	3	$1,858
Geoffrey R. McIntyre	Ispra, Italy	5/20-5/27/00	Gave presentation at the International Workshop conducted by Joint Research Center of the European Commission	7	$1,800
Beverly J. Sharkey	United Kingdom and Denmark	5/20-6/7/00	Conducted Suspected Unapproved Parts seminars to: Rolls Royce, Scotland, Lucas Aerospace, England, GE Aircraft Engines, Wales, and British Airways	19	$7,070

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Philip L. Vittetoe	Quebec, Canada	6/04-6/14/00	Attended training Course 28999, Class 00034	10	$2,800
Glenda M. Tate	Barcelona, Spain	6/04-6/10/00	Attended IBM Knowledge Management Conference	6	$2,500
John F. Hennigan	Vancouver, British Columbia	6/08-6/10/00	Spoke at the Air Traffic Control Association 2000	2	$1,400
George Sakai Donald Willis Robert Frazier Michael Richmond	Istanbul, Turkey	5/08-5/19/00	Participated in the International Telecommunication Union's World Radiocommunications Conference	12	$18,800
David Traynham	Quito, Ecuador	5/09-5/11/00	Gave presentation on Noise Issues at the Latin American Civil Aviation Commission 51st Executive Committee meeting	3	$1,000
Thomas E. McSweeny Nick Lacey	Montreal, Quebec, Canada	5/15/-5/17/00	Attended the fourth meeting with International Civil Aviation Organization's (ICAO) Air Navigation Commission and Industry Universal Safety Oversight Audit Program	3	$1,858
Geoffrey R. McIntyre	Ispra, Italy	5/20-5/27/00	Gave presentation at the International Workshop conducted by Joint Research Center of the European Commission	7	$1,800
Beverly J. Sharkey	United Kingdom and Denmark	5/20-6/7/00	Conducted Suspected Unapproved Parts seminars to: Rolls Royce, Scotland, Lucas Aerospace, England, GE Aircraft Engines, Wales, and British Airways	19	$7,070
Philip L. Vittetoe	Quebec, Canada	6/04-6/14/00	Attended training course 28999, Class 00034	10	$2,800

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Glenda M. Tate	Barcelona, Spain	6/04-6/10/00	Attended IBM Knowledge Management Conference	6	$2,500
John F. Hennigan	Vancouver, British Columbia	6/08-6/10/00	Spoke at the Air Traffic Control Association 2000	2	$1,400
Chris Hart	Paris, France	6/13-6/16/00	Participated in the Fourth Global Aviation Information Network World Conference	3	$2,300
Jack Wojciech, Chris Pokorski	Paris, France	6/11-6/16/00	Participated in the Fourth Global Aviation Information Network World Conference	6	$4,600
Carolyn Edwards	Paris, France	6/11-6/20/00	Participated in the Fourth Global Aviation Information Network World Conference	10	$2,300
Earl L. Webb	Montreal, Quebec, Canada	6/13-6/23/00	Attended training course 28999, Course 00032	10	$4,700
Joseph R. Standell, Carol Moffat	Paris, France	6/17-6/24/00	Represented the FAA at various UNIDROIT and ICAO conventions	8	$2,500
John F. Rodgers, Jeffrey C. Wharff, Duncan Monaco	Montreal, Quebec, Canada	6/18-6/28/00	Represented U.S. at the International Civil Aviation Organization Conference on the Economics of Airports and Air Navigation	10	$6,000
Steven D. Smith	Paris, France	6/19-24/6/00	Attended the Future Hazards Working Group Meeting	6	$1,906
Randall S. Fiertz	Montreal, Canada	6/20-6/24/00	Participated as a member to the U.S. Delegation to ICAO	4	$1,967
Lyle K. Streeter	Gaborone, Botswana	6/26-6/30/00	Gave presentation at the International Aviation Safety Seminar	4	$6,550
David Traynham, Audrey Smerkanich	Stasbourg, France	6/29-6/30/00	Attended 24th Plenary Session of the European Civil Aviation Conference (ECAC)	2	$4,200
Cathal L. Flynn, David Leach	Moscow, Russia	6/12-6/15/00	Met with U.S. Embassy Officials, Russian Federal Aviation Authority	3	$4,800

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Daniel W. Allison, Alex A. Keleman	Vancouver, British Columbia, Canada	7/16-8/2/00	Attended A-320 Systems Training	18	$12,150
Thomas E. McSweeny	Brussels, Belgium	7/29-8/1/00	Meeting on Extended Twin-Engine Over Water Operations	4	$6,700
Joseph R. Standell	Montreal, Canada	8/03-8/04/00	Attended Aeronautical Center Counsel Panel	2	$1,100
David Traynham, Angela Conley, Lorna John	Sun City, South Africa, Antananarivo, Madagascar	8/09-8/19/00	Attended Africa/U.S. Airport Infrastructure Workshop	10	$8,000
Izia Ickovitz, Donald J. Williams	Vancouver, British Columbia, Canada	8/13-8/29/00	Attended training course 28482, Class 00007	12	$10,940
Charles E. Martin	Ontario, Canada	8/14-8/22/00	Attended training course 28196, Class 00002	8	$2,700
Joseph R. Standell	Montreal, Canada	8/28-8/8/00	Represented FAA at various UNIDROIT conventions	12	$3,000
Tamra Thompson, Ross Demmel	Vancouver, British Columbia, Canada	8/13-8/30/00	Attended A-320 Systems Training at Canadian Airlines International	17	$18,200
Steven D. Smith	Amsterdam, Holland	8/28-8/31/00	Attended Future Hazardous Working Group meeting	4	$1,490
Ava L. Mims, Lynn A. Jensen	San Jose, Costa Rica	8/30-9/2/00	Attended Inauguration of the new Safety Agency for Central America	4	$2,500
David Traynham, Cecilia Capestany	San Jose, Costa Rica	9/01-9/3/00	Presented a speech on Importance of Aviation Safety to Economic Development	3	$3,000

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Jane F. Garvey, David Traynham, Thomas McSweeny, Steven Brown, William Davis, William Withycombe, John Hancock, Shannon Ballard	Tokyo, Japan	9/08-9/14/00	Participated in the Fourth Annual FAA-Japan Civil Aviation Bureau Bilateral Meeting	6	$59,400
David Traynham, Thomas McSweeny, John Hancock, William Withycombe	Beijing, China	9/10-9/18/00	Bilateral meetings with the Civil Aviation Administration of China	8	$25,000
Kenneth J. Reilly	Belguim, Brussels	9/11-9/15/00	Spoke at the Annual Aircraft and Safety Conference	4	$1,941
Cathal Flynn, William Davis, David Leach, Lee Longmire, Jan Brecht-Clark	Ottawa, Canada	9/12-9/15/00	Meetings with the Associate Administrator for Civil Aviation Security	3	$3,500
Jon L. Jordan	Rio de Janeiro, Brazil	9/17-9/21/00	Participated in the 48th International Congress of Aviation and Space Medicine	4	$2,953
Thomas Enyart	Turin, Italy	9/17-9/22/00	Presented a paper at the Society of Flight Test Engineers	5	$3,022
Michael T. Benedict, Clifford D. Colvin	Toronto, Canada	9/18-10/20/00	Attended training DHC-8 Q400, course 28422	33	$19,000

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
William E. Traylor	Spain	9/22-9/30/00	Participated in the TRAINAIR Training Conference	8	$5,500
Kenneth J. Reilly	Amsterdam, Netherlands	9/23-9/29/00	Spoke at the 9th Annual Aero-Engine Overhaul Conference	6	$2,600
John F. Hennigan	Cascais, Portugal	9/26-9/30/00	Participated in the North Atlantic Economic and Financial Group Meeting	4	$1,351
Randal S. Fiertz	Cascais, Portugal, Brussels, Belgium	9/26-10/4/00	Participated in the North Atlantic Economic and Financial Group Meeting	10	$2,848
Penny L. Mefford	Brussels, Belgium	9/29-10/4/00	Meeting of Eurocontrol Performance Review Commission	6	$1,960
William C. Malone	Vancouver, Canada	9/30-10/6/00	Attended DC-10 Recurrent Qualification Training	7	$3,980
Lyle K. Streeter, Frank Del Gandio, Robert Matthews	Shannon, Ireland	10/02-10/06/00	Attended the International Society of Air Safety Investigations (ISASI) Seminar	5	$3,694
Thomas Brown	London, England	10/02-10/07/00	Presented paper on Internet E-Business Challenges Facing Aviation Regulators	5	$2,800
Lyle K. Streeter, Christopher A. Hart	Mexico City, Mexico	10/16-10/20/00	Gave presentation at ICAO	4	$3,900
Mark Blazy	Mexico City, Mexico	10/17-10/19/00	Gave presentation at ICAO	3	$1,850
Allen T. Shelby	Toronto, Canada	10/22-11/25/00	Training DHC-8 Q400, course 28422	35	$8,000
Thomas McSweeny, Louise Maillet, Elizabeth Erickson, Nick Lacey	London, England	10/23-10/28/00	Attended the JAA Executive Board Meeting	5	$10,000

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Frank P. Paskiewicz	Toulouse, France, Brussels, Belgium	11/05-11/10/00	Brussels with AEU staff Toulouse with Int'l Aerospace Quality Group	5	$6,000
Max T. McArthur	Montreal, Canada	11/12-11/17/00	Attended course PW100, course 28999, Class 01044	5	$1,574
Ross Hamory, Elizabeth Erickson, Maureen Woods, Theodore Davies, Lancet Davies	Wellington, New Zealand	11/12-11/17/00	Represented the U.S. & FAA at the 37th DGCA Meeting	5	$14,000
Steven D. Smith	Amsterdam, Holland	11/14-11/17/00	Attended the Future Hazards Working Group meeting	3	$1,490
Randall S. Fiertz	Montreal, Canada	11/27-11/30/00	Attended the North Atlantic Economic and Financial Group meeting	3	$937
Steven D. Smith	Amsterdam, Holland	1/01-1/05/01	Attended the Future Hazards Working Group meeting	4	$1,490
James Erickson, John Rodgers, Carl Burleson, Howard Wesoky, Gary O'Toole, Thomas Connor, Curtis Holsclaw	Montreal, Quebec, Canada	1/06-1/18/01	Represented U.S. at the Fifth Meeting of the International Civil Aviation Organization's (ICAO) Committee on Aviation Environment Protection (CAEP) meetings	12	$16,000
James J. Stevenson	Ontario, Canada	1/08-1/18/01	Training course DHC-8, course 28196, Class 01001	10	$2,900
Beverly J. Sharkey	Amsterdam, Holland	1/27-2/01/01	Spoke at the Safe Air 2001 Conference	6	$1,925

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Thomas McSweeny	Brussels, Belgium, London, England	1/28-2/02/01	Discussed proposal to create a European Aviation Safety Agency in Brussels	6	$3,700
James C. Jones, Brian Yanez, Randall Petersen, Maddie Miguel, Ron Atmur, Lester Cheng, Chris Gavriel, Gerry Lakin, Sharon Miles, Richard Jennings	Hoofddorp, The Netherlands	2/03-2/10/01	Attended the FAA Joint Aviation Authorities (JAA) and Transport Canada Civil Aviation (TCCA) Changed Product Rule meeting	7	$25,000
Steven D. Smith	Belgium, Brussels	2/04-2/09/01	Attended the Future Hazards Working Group meeting in Amsterdam	5	$2,600
Ross Hamory, Drazen Gardilic, Carey Fagan, Michelle Westover	Montreal, Quebec, Canada	2/06-2/08/01	Represented the U.S. in the fourth meeting of the All Planning and Implementation Regional Group (ALLPIRG) of the International Civil Aviation Organization (ICAO)	2	$4,000
Monte R. Belger	Maastricht, The Netherlands	2/19-2/25/01	Attended the Air Traffic Control 2001 Maastricht Conference	6	$2,500
Win Charles Karish	Toronto, Canada	2/23-2/25/01	Represented the FAA at the North East Council of Airshows (NECAS) convention	2	$800

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Emily A. White, Eric Van Opstal, Lyle G. Wink, Brian Yanez, Dorenda Baker, Kristin Larson Carpenter, Michael K. Dahl, Brenda D. Courtney	Hoofddorp, The Netherlands	2/27-3/17/01	Attended the semi-annual FAA/JAA Harmonization Management Team meeting at the Headquarters of the European Joint Aviation Authorities (JAA)	18	$21,000
Steven D. Smith	Belgium, Brussels	3/04-3/09/01	Attended the Future Hazards Working Group meeting	5	$2,600
Christopher A. Hart	Rio De Janeiro, Brazil	3/06-3/10/01	Participated as a speaker in the Latin American/U.S. Airport Best Practices Conference and Trade Show in Rio De Janeiro, Brazil	4	$2,000
John R. Toy	St. Laurent, Quebec, Canada	3/11-3/17/01	Attended CL-65 Aircraft Systems Familiarization Training at Bombardier Aerospace	6	$2,950
Patricia Grace Smith, Herbert Bachner	Beijing, China	3/16-3/23/01	Attended the Annual U.S. Trade Representative (USTR) Consultation with China on Commercial Space Launch Trade Agreement	7	$5,000
John Hennigan, Randy Fiertz	Reykjavik, Iceland	3/20-3/25/01	Participated in the North Atlantic Economic and Financial Group meeting	5	$7,506
Ross Demmel	London, England, United Kingdom	3/25-3/30/01	Attended 15th Symposium on Human Factors in Aviation Maintenance	5	$1,850

Names of Travelers	Destination	Dates	Purpose	Duration (Days)	Estimated Cost
Christopher A. Hart	Santa Cruz, Bolivia	3/31-4/03/01	Spoke at the ICAO/FAA Accident Investigation and Prevention Seminar for the Caribbean and South America Region		

OBLIGATION PLAN VERSUS ACTUAL – FISCAL YEAR 2000

Mr. Rogers. Please provide a copy of your final quarterly direct obligations report for fiscal year 2000, showing the final breakdown of operating funds by line of business, similar in format to that shown on page 272 of last year's hearing record.

[The information follows:]

Operations Fiscal Year 2000 Quarterly Direct Obligations (in thousands)

Operation of Activity	(1) FY 2000 Approp A/	(2) Adjusted FY 2000 Approp B/C/	(3) Financial Plan C/	(4) First Quarter	(5) Second Quarter	(6) Third Quarter	(7) Fourth Quarter	(8) Total Obligation	(9) Percent Of Plan Obligated
Air Traffic Services	4,666,766	4,702,091	4,672,612	1,116,154	1,164,968	1,146,187	1,238,496	4,665,805	99.85%
Aviation Regulation & Certificati	667,416	648,844	644,615	151,042	161,381	159,923	171,602	643,948	99.90%
Aviation Security	138,642	131,641	135,621	27,438	37,802	29,847	40,467	135,554	99.95%
Research & Acquisitions	168,305	173,353	173,160	46,986	40,938	40,807	44,280	173,011	99.91%
Administration of Airports	0	0	0	11,181 D/	11,162 D/	-12,519	-9,824	0	0.00%
Commercial Space Transportation	6,838	6,560	6,520	2,502	1,235	1,052	1,694	6,483	99.43%
Regional Coordination	97,831	82,160	84,786	23,333	23,530	22,845	14,995	84,703	99.90%
Human Resources	48,736	65,532	66,531	11,236	13,127	6,289	35,566	66,218	99.53%
Financial Services	42,054	39,703	40,031	7,756	8,030	13,060	11,037	39,883	99.63%
Staff Offices	78,789	73,086	75,988	23,835	20,936	18,321	12,596	75,688	99.61%
Essential Air Service	0	50,000	50,000	0	15,000	9,000	26,000	50,000	100.00%
Account Wide Adjustments	-15,377	0	0	0	0	0	0	0	0.00%
Subtotal Programmed Funds	5,900,000	5,972,970	5,949,864	1,421,463	1,498,109	1,434,812	1,586,909	5,941,293	99.86%
Carryover of FY 2000 Multi-Year Supplemental Funds Into FY 200			23,106						
Total Available Funds	5,900,000	5,972,970	5,972,970	1,421,463	1,498,109	1,434,812	1,586,909	5,941,293	N/A

A/ Fiscal year 2000 appropriation is $5,900,000 (P.L. 106-69).

B/ Includes a reduction of $6,610,000 related to the Transportation Administrative Service Center (Section 319 of P.L. 106-69). Also reflects emergency supplemental for $75,000,000 (P.L. 106-246). In addition, Congress agreed to FAA's reprogramming request.

C/ Includes revenue of $579,000 for quarters and subsistence; $590,000 for registry fees; $2,373,000 for foreign repairs; $311,000 for fingerprint fees; $161,000 for travel rebates and $566,000 for miscellaneous fees.

D/ Reflects continued support during lapse in Airports' reauthorization.

POSITIONS BY OFFICE

Mr. Rogers: Please update the table showing number of positions assigned to each of your offices and regions, similar in format to that shown on pages 274 through 277 of last year's hearing record.

[The information follows:]

FAA Distribution Of Full-Time Equivalents (FTE's)			
Operations Appropriation (Direct)			
	FY 2000	FY 2001	FY 2002
Office	Estimate	Estimate	Estimate
Administrator (Including Deputy Admin. & Comm. Ctr.)	50	59	59
Chief Counsel	275	266	267
Assistant Administrator for Civil Rights	16	26	88
Assistant Administrator for Government & Industry Affairs	11	11	11
Assistant Administrator for Public Affairs	32	34	34
Assistant Administrator for System Safety	34	34	34
Assistant Administrator for Policy, Planning, and International Aviatio	9	10	10
--Office of Aviation Policy & Plans	53	55	55
--Office of Environment and Energy	33	33	33
--Office of International Aviation	17	18	18
--International Area Offices	16	17	17
Assistant Administrator for Commerical Space Transportation	29	52	69
Assistant Administrator for Financial Services/CFO	127	126	134
Assistant Administrator for Human Resource Management	157	159	159
Assistant Administrator for Region/Center Operations	10	14	18
Assistant Administrator For Information Services/CIO	0	60	62
Regional Offices:			
--New England	1,812	1,781	1,814
--Eastern	5,088	5,046	5,072
--Southern	7,331	7,311	7,340
--Southwest	5,033	5,068	5,098
--Great Lakes	6,246	6,251	6,278
--Central	2,343	2,388	2,420
--Northwest Mountain	3,957	3,934	3,965
--Western-Pacific	5,319	5,304	5,332
--Alaskan	1,262	1,260	1,292
--Mike Monroney Aeronautical Center	1,820	1,244	1,262
--International	84	84	84
Associate Administrator for Civil Aviation Security	89	94	141
--Office of Civil Aviation Security Intelligence	37	37	37
--Office of Civil Aviation Security Operations	74	74	74
Office of Civil Aviation Security Policy & Planning	47	47	47
Associate Administrator for Regulation and Certification	21	24	24
--Aircraft Certification Service	147	170	170
--Flight Standards Service	233	304	304
--Office of Aviation Medicine	89	98	98
--Office of Rulemaking	26	28	28
--Office of Accident Investigation	27	30	30
--Office of Suspected Unapproved Parts	15	15	15

FAA Distribution Of Full-Time Equivalents (FTE's)			
Operations Appropriation (Direct)			
	FY 2000	FY 2001	FY 2002
Office	Estimate	Estimate	Estimate
Associate Administrator for Air Traffic Services	13	13	13
--Director of Air Traffic Program	12	101	101
--Air Traffic Airspace Management	76	75	75
--Air Traffic Operations	136	156	156
--Air Traffic Plans and Performance	92	96	96
--Air Traffic Resource Management	95	95	95
--Free Flight	0	19	19
--Director of Airway Facilities	53	53	53
--NAS Transition and Integration	17	20	20
--Operational Support Service	15	21	21
--Resource Management Service	75	78	78
--NAS Operations Service	130	181	277
--Spectrum Policy and Management Service	22	22	22
--Flight Inspection and Procedures	597	744	744
--NAS Logistics Support	10	12	12
Office of System Capacity and Requirements	12	12	12
Air Traffic Systems Requirements Service	169	182	182
Associate Administrator for Research and Acquisitions	11	12	12
Office Of Business Management	25	25	25
Office of Acquisitions	217	196	197
FAA Technical Center	856	867	862
Total	44,601	44,546	45,065

EXECUTIVE POSITIONS

Mr. Rogers. Please update the listing of all executive positions at the FAA shown on pages 278 through 286 of last year's hearing record, including the summary table at the end of the listing.

[The information follows:]

As of March 28, 2001 the FAA had the following encumbered executive level positions. FJ, EV-1 and EV-2 correspond to executive pay plans/rates. FT pay plan and EV-3 pay plan/level indicate Chief Scientists.

Executive Positions

Name	Pay Grade	Level Step		Position Title
Accardi, Thomas C	EV	2		Program Director, Aviation System Standards Program
Alles, Jeri L	EV	2		Manager, Airports Division, Great Lakes Region
Andersen, Drucella A	EV	2		Deputy Assistant Administrator for Public Affairs
Andriesen, Lawrence B	EV	2		Regional Administrator, Northwest-Mountain Region
Antunano, Melchor J	EV	2		Director, Civil Aeromedical Institute
Archilla, Joaquin	EV	2		Director, International Area Office
Barnes, Terence J	FT	0	8	Chief Scientific & Technical Advisor for Flight Loads/Aeroelasticity
Bartanowicz, Robert S	EV	2		Regional Administrator, New England Region
Bauerlein, Joan W	EV	2		Special Advisor to the Assistant Administrator
Beaudette, Daniel C	EV	2		Manager, Certification, Standardization & Evaluation Team (CSET)
Belger, Monte R	EV	1		Associate Administrator for Air Traffic Services
Bennett, David L	EV	2		Director, Airport Safety & Standards
Bliss, Herman C	EV	2		Manager, Airports Division, Western-Pacific Region
Blum, Carolyn C	EV	2		Regional Administrator, Southern Region
Blum, Christopher R	EV	2		Manager, Air Traffic Division, Great Lakes Region
Boshnack, Barry M	EV	2		Manager, Airway Facilities Division, Eastern Region
Bowles, Norman	EV	2		Program Director, FAA Logistics Center
Bradford, Steven W	EV	3		Chief Scientific and Technical Advisor for Architecture and Systems Development

Executive Positions

Name	Pay Grade	Level Step		Position Title
Brecht-Clark, Jan M	EV	2		Deputy Director, Office of Aviation Research
Brown, Steven J	EV	1		Deputy Associate Administrator for Air Traffic Service
Broz, Alfred L	FT	0	6	Chief Scientific and Technical Advisor for Nondestructive Evaluation
Burke, Gregory D	EV	2		Deputy Director, System Architect and Investment Analysis
Burleson, Carl E	EV	2		Director, Environment and Energy
Byrne, Donald P	EV	2		Assistant Chief Counsel
Canavan, Michael A	EV	1		Associate Administrator for Civil Aviation Security
Canoles, John D	EV	2		Manager, Evaluations and Accident Investigations
Carey, Edwin Fenton	EV	2		Special Assistant for Policy at NASA Ames
Challan, Peter H	EV	1		Deputy Associate Administrator for Air Traffic Service
Chapman, Nancy Lee	EV	2		IPTL for Enroute
Chapman, Wendie F	EV	2		Manager, Airway Facilities Division, Central Region
Chin, David K	EV	3		Chief Scientific and Technical Advisor for Investment Analysis and Operations Research
Cirillo, Michael A	EV	2		Program Director for Air Traffic Systems Development
Clancy, John G	EV	2		Manager, Air Traffic Division, Western-Pacific Region
Costilla, Marcos Jr	EV	2		Manager, Airway Facilities Division, Southwest Region
Cusimano, Louis C	EV	2		Manager, Flight Standards Certification Program Office
Davis, William Scott	EV	2		Deputy Associate Administrator for Civil Aviation Security

Executive Positions

Name	Pay Grade	Level Step		Position Title
Degaetano, Dennis N	EV	2		Deputy Associate Administrator for Research and Acquisitions
Devey, Gilbert Jr	EV	2		Director, Office Of Acquisitions
Dillman, James S	EV	2		Assistant Chief Counsel for Litigation
Dix, Mary Ellen	EV	2		Deputy Assistant Administrator for Human Resource Management
Duncan, Thomasenia P	EV	2		Senior Legal Advisor to the Administrator
Dvorak, Gregg W	EV	2		Program Director, Operational Support Program
Eastin, Robert G	FT	0	7	Chief Scientific and Technical Advisor for Fracture Mechanics/Metallurgy
Edwards, Roger M	EV	2		Program Director for Personnel
Elgee, Angela B	EV	2		Manager, Continuous Airworthiness Maintenance
Ellis, Billie H	EV	2		Manager, Air Traffic Division, New England Region
Erickson, Elizabeth E	EV	2		Director, Asia/Pacific Office
Fainberg, Michael Anthony	EV	2		Director, Office of Civil Aviation Security Policy and Planning
Fazio, Anthony F	EV	2		Director, Office of Rulemaking
Feldman, Arlene I	EV	2		Regional Administrator, Eastern Region
Ford, David W	EV	2		IPTL for Advanced Technologies
Freeman, Darlene Marie	EV	2		Director for Safety and Special Studies
Fujisaki, Norman T	EV	2		Deputy Director, Office of System Architecture and Investment Analysis
Galis, Paul L	EV	2		Deputy Associate Administrator for Airports
Gallagher, Michael	EV	2		Manager, Small Airplane Directorate

Executive Positions

Name	Pay Grade	Level Step	Position Title
Gilligan, Margaret M	EV	1	Deputy Associate Administrator for Regulation and Certification
Gilliom, David C	EV	2	Manager, Flight Standards Division
Gonzalez, Henry I	EV	2	IPTL for Terminal
Graham, Nancy J	EV	2	IPTL for Ocean and Offshore Systems
Gray, Theron A	EV	2	Director, Office of Information Technology (detailed to Howard University)
Gregory, Lauraline	EV	2	Director, Office Of Business Management
Griffith, Jeffrey L	EV	2	Program Director for Air Traffic Operations
Harmory, Ross E	EV	2	Director, Office of International Aviation
Hanley, David E	EV	2	Manager, Flight Standards Division, Great Lakes Region
Harlan, Anne	EV	2	Director, FAA Technical Center
Harrell, Eric	EV	2	Manager, Terminal and EnRoute Procedures Division
Harris, Melvin	EV	2	Program Director, Labor and Employee Relations
Harrison, Michael J	EV	2	Program Director for Architecture and Systems Engineering Division
Hart, Christopher A	EV	1	Assistant Administrator for System Safety
Hatfield, Franklin D	EV	2	Manager, Air Traffic Division, Eastern Region
Hawkins, Joseph A	EV	2	Deputy Assistant Administrator for Commercial Space Transportation
Hedges, Daniel C	EV	2	Deputy Assistant Administrator for System Safety
Hennigan, John F Jr	EV	2	Deputy Assistant Administrator for Financial Services
Hevelone, James L	EV	2	Deputy Director, Air Traffic System Requirements Service

Executive Positions

Name	Pay Grade	Level Step		Position Title
Hickey, John J	EV	1		Director, Aircraft Certification Service
Hill, Eugene G	FT	0	7	Chief Scientific and Technical Advisor for Flight Environmental Icing
Hmara, Jeffrey L	EV	2		Deputy Director Free Flight Phase II
Huettner, Charles H	EV	2		Director for Aviation Safety
Hunziker, Cecelia L	EV	2		Regional Administrator, Great Lakes Region
Ilcewicz, Larry B	FT	0	8	Chief Scientific and Technical Advisor for Composite Materials
Isham, Brian	EV	2		Manager, Contracts Division
Johnson, David	EV	2		Program Director, NAS Transition and Implementation Program
Johnson, Lowell H	EV	2		Manager, Airports Division, Northwest Mountain Region
Jones, James C	EV	2		Manager, Aircraft Engineering Division
Jordan, Jon L	EV	2		Federal Air Surgeon
Kalinowski, Nancy Blagg	EV	2		Deputy Program Director for Air Traffic Airspace Management
Kansier, Joann	EV	2		Program Director, Requirements Development
Kaulia, Sabra W	EV	2		Deputy Program Director for Air Traffic Operations
Keegan, Charles E	EV	1		Director, Free Flight Phase 1
Khaled, Tarek	FT	0	5	Chief Scientific and Technical Advisor for Metallurgy
Kinder, Daniel V	EV	2		Program Director, Investment Analysis and Operations Research
Koehler, Dennis T	EV	2		Manager, Air Traffic Division, Southern Region
Kraft, Thomas F	FT	0	5	Chief Scientific and Technical Advisor for Metallurgy
Lacey, Lawrence N Jr	EV	1		Director, Flight Standards Service

Executive Positions

Name	Pay Grade	Level Step	Position Title
Lambregts, Anthony A	FT	0 8	Chief Scientific & Technical Advisor for Advanced Control Systems
Lang, Catherine M	EV	2	Director, Office of Airport Planning and Programming
Larsen, Hals Norman	FT	0 10	Chief Scientific and Technical Advisor for Propulsion Control Systems
Laydon, Terry M	EV	2	Director, National Aero Chartering Office
Leverenz, Ruth Ann	EV	1	Assistant Administrator for Regions and Center Operations
Lewis, Chester Martin Jr	FT	0 6	Chief Scientific and Technical Advisor for Engine System Dynamics and Safety
Lewis, Paula Riley	EV	2	Director, Office Of System Capacity
Lindsey, William L	EV	2	Manager, Airway Facilities Division, Southern Region
Link, James C	EV	2	IPTL for Surveillance and Weather
Lipski, Vi Leah	EV	2	Manager, Transport Airplane Directorate
Lobue, Nancy D	EV	2	Assistant Chief Counsel for Airports and Environmental Law
Loewenstein, Jack	EV	2	IPTL for Aircraft and Navigation/Avionics
Long, Raymond M	EV	2	Director, Operational Support Program
Long, Robert D Jr	EV	2	Deputy Director, Airway Facilities Service
Longanbach, Jan Paul	EV	2	Program Director for Training
Longmire, Lee S	EV	2	Deputy Director, Civil Aviation Security Operations
Lyddane, George H	FT	0 6	Chief Scientific and Technical Advisor for Flight Management
Lynch, Peter J	EV	2	Assistant Chief Counsel for Enforcement

Executive Positions

Name	Pay Grade	Level Step		Position Title
Lyons, Herman J Jr	EV	2		Manager, Air Traffic Division, Central Region
Maillett, Louise E	EV	2		Deputy Assistant Administrator for Policy, Planning and International Aviation
Malotky, Lyle O	FT	0	5	Chief Scientific and Technical Advisor for Civil Aviation Security Intelligence
McCullough, Carl P	EV	2		Director, Air Traffic Systems Development
McLean, Donna Rae	EV	1		Assistant Administrator for Financial Services
McNall, Patricia Ann	EV	2		Assistant Chief Counsel, Procurement Law Division
Mehan, Daniel J	EV	1		Chief Information Officer
Mendez, Robert B	EV	2		Manager, Airports Division, Eastern Region
Michael, Gregory L	EV	2		Manager, Air Transportation Division
Mims, Ava L	EV	2		Deputy Director, Flight Standards Service
Molar, Barry L	EV	2		Manager, Airports Financial Assistant Division
Moore, Alan R	EV	1		Director, Airway Facilities Service
Moy, Edward P	EV	2		Manager, Airway Facilities Division, Northwest Region
Murphy, Douglas R	EV	2		Manager, Air Traffic Division, Southwest Region
Nager, Jack	EV	2		Program Director, NAS Implementation Program
Nobles, Rubert E	EV	2		Manager, Airway Facilities Division, New England Region
Osmus, Lynne A	EV	2		Special Advisor to the Assistant Administrator
Pakull, Barton	FT	0	6	Chief Psychiatrist

Executive Positions

Name	Pay Grade	Level Step		Position Title
Pardee, Jay J	EV	2		Manager, Engine and Propeller Directorate
Paskiewicz, Frank P	EV	2		Manager, Production and Airworthiness Certification Division
Peacock, Billy G	EV	2		Director, Air Traffic Service
Pearson, Bradley D	EV	2		Manager, Flight Standards Division, Northwest Region
Phillips, Alexander M	EV	2		Director, Independent Operational Test and Evaluation
Poe, Patrick N	EV	2		Regional Administrator, Alaskan Region
Polski, Paul A	EV	2		Program Director, Aviation Security R&D Division
Poole, Robert S	EV	2		Manager, Medical Specialties Division
Potter, Marshall R	EV	3		Chief Scientific and Technical Advisor for Information Technology
Pourbabai, Ben	FT	0	8	Chief Scientific and Technical Advisor for Manufacturing & Quality Assurance Technology
Powers-King, Mary E	EV	2		Director, Technical and Special Programs
Pyster, Arthur B	EV	2		Deputy Chief Information Officer
Rediess, Herman A	EV	2		Director, Office of Aviation Research
Rierson, Leanna K	FT	0	2	Chief Scientific and Technical Advisor for Aircraft Computer Software
Riley, Jeffrey Brian	EV	2		Director, Office of Budget
Ritz, Barbara G	EV	2		Director, Aeronautical Center
Rivera, Fanny	EV	2		Assistant Administrator for Civil Rights
Rodgers, John M	EV	2		Director, Office of Aviation Policy and Plans
Rodgers, Mark D	EV	3		Chief Scientific and Technical Advisor for Human Factors Division

Executive Positions

Name	Pay Grade	Level Step		Position Title
Rodine, Richard L	EV	2		Deputy Director, Aeronautical Center
Rothschild, Steven I	EV	2		Program Director, Resource Management Program
Sabatini, Nicholas A	EV	2		Manager, Flight Standards Division, Eastern Region
Sakai, George K	EV	2		Program Director, Spectrum Policy and Management Program
Salvano, Daniel P	EV	2		Deputy Director, Office Communication, Navigation and Surveillance System
Saunders, Naomi L	EV	2		Manager, Airports Division, Southwest Region
Scardina, John A	EV	2		Director, System Architecture and Investment Analysis
Seher, Chris C	EV	2		Program Director, Airport and Aircraft Safety R&D Division
Shellabarger, Nancy Ellen	EV	2		Deputy Director, Office of Aviation Policy and Plans
Singer, Bruce M	EV	2		Deputy Director, FAA Technical Center
Smith, Barbara J	EV	2		Director, FAA Accountability Board
Smith, Patricia G	EV	1		Associate Administrator for Commercial Space Transportation
Smith, Quentin J Jr	EV	2		Assistant Director for Special Programs
Soltis, Stephen J	FT	0	7	Chief Scientific and Technical Advisor for Crash Dynamics
Sprague, David R	EV	2		Program Director for Air Traffic Resource Management
Stadtler, Donald A	EV	2		IPTL for Weather
Staples, John T	EV	2		Program Director for Plans and Performance
Strong, Robert M Jr	EV	2		Manager, Airway Facilities Division, Western-Pacific Region

Executive Positions

Name	Pay Grade	Level Step		Position Title
Stuckey, Thomas E	EV	2		Manager, Flight Standards Division, Southwest Region
Sullivan, Suzanne	EV	2		Senior Advisor to the Administrator
Tate, Glenda M	EV	1		Assistant Administrator for Human Resource Management
Thoman, Raymond B	EV	2		Deputy Assistant Administrator for Labor Relations
Thomas, Ivor	FT	0	8	Chief Scientific and Technical Advisor for Fuel System Design
Tilton, Frederick E	EV	2		Deputy Federal Air Surgeon
Traylor, William E	EV	2		Superintendent, FAA Academy
Treacy, James J	FT	0	7	Chief Scientific and Technical Advisor for Advanced Avionics/Electrical
Tucker, Joseph R Jr	EV	2		Program Director, NAS Programming and Financial Management Division
Turner, John E	EV	2		Regional Administrator, Central Region
Voss, Robert S	EV	2		Deputy Director, Free Flight Phase I
Voss, William R	EV	2		Director, Office Of Air Traffic System Development
Walen, David B	FT	0	6	Chief Scientific and Technical Advisor for Electromagnetic Interference
Walker, John S	EV	2		Program Director for Air Traffic Airspace Management
Wallace, Steven B	EV	2		Director, Office of Accident Investigation
Washington, James H	EV	2		Director, Office Air Traffic System Requirements Service
Wesoky, Howard L	FT	0	4	Chief Scientific and Technical Advisor
Whitlow, James W	EV	2		Deputy Chief Counsel
Williams, James H	EV	2		IPTL for Communications

Executive Posirions

Name	Pay Grade	Level Step	Position Title
Wilson, Deborah A W	EV	2	Deputy Director, Office of Acquisition
Withycombe, William C	EV	2	Regional Administrator, West-Pacific Region
Wojnar, Ronald T	EV	2	Deputy Director, Aircraft Certification Service
Wong, Alice A	EV	2	Program Director for Communications, Navigation, Surveillance and Infrastructure
Woods, Maureen	EV	2	Deputy Director, Air Traffic Service
Woodward, Winifred	EV	2	Manager, Center for Management Development
Wright, Robert A	EV	2	Manager, Technical Programs Division
Zaidman, Steven B	EV	1	Associate Administrator for Research and Acquisitions

Pay levels:	EV-1	EV-2	EV-3	Total
FJ (Political)	0	0	0	0
EV (Executives)	16	154	0	170
EV (Senior Professionals)	0	0	4	4

Pay steps:	1	2	3	4	5	6	7	8	9	10	Total
FT (Senior Professionals)	0	1	0	1	3	5	4	5	0	1	20

Grand Total	194

EXECUTIVE COMPENSATION SYSTEM

Mr. Rogers. Under FAA's new Executive Compensation System, which went into effect in April 2000, executives would receive annual pay adjustments in January not automatically, but based on individual performance and overall contribution (p. 424). In addition, typically 15 percent of executives will receive a Superior Contribution Increase (SCI). Specifically, against what basis did FAA rate its executives for pay adjustments and SCI increases this past January?

[The information follows:]

FAA first looked to the federal SES to see what percentage amount the President approved for annual pay adjustments for SES members. FAA executives who had been on-board or in position for at least 90 days and whose performance and conduct met expectations were granted an annual adjustment equal to that approved for the SES. In addition, the Administrator personally awarded SCI's for a very small number of executives (five) whose leadership and accomplishments were exceptionally outstanding during fiscal year 2000. SCI's recognized exceptional leadership in taking initiative and following through to ensure that highly visible, critical agency efforts were successfully accomplished. These five executives were rewarded for their leadership on such efforts as the successful conduct of the LaGuardia slotting lottery and the establishment of the FAA Terminal Business Unit concept and operation.

Mr. Rogers. What were the five highest increases, in dollar value?

[The information follows:]

The five highest increases were awarded to those executives who received both an annual adjustment of 2.7 percent and a SCI. Those executives received either $3,000 or $4,000 additional base salary as an SCI. Their total base salary increases, including the annual adjustment plus the SCI amounted to: $5,867; $6,002; $6,048; $6,073; and $7,299. Base salary increases for all other executives ranged from $2,708 to $3,550, with an average increase of $3,100.

EXECUTIVE BONUS AWARDS

Mr. Rogers. Please update the listing of FAA's SES bonus awards shown on pages 286 through 291 of last year's hearing record by providing

data for fiscal years 1999, 2000 and thus far in 2001. To the extent the SES bonuses were replaced by Short Term Incentives or other similar bonuses, please so note in the record.

[The information follows:]

Fiscal Year 1999 Bonuses:

Name	Position Title	Amount	Type
Andersen, Drucella A	Deputy Assistant Administrator For Public Affairs	$10,000	Bonus
Bartanowicz, Robert S	Regional Administrator	$3,000	Bonus
Bauerlein, Joan W	Director, Office of International Aviation	$3,000	Bonus
Belger, Monte R	Associate Administrator For Air Traffic Services	$14,000	Bonus
Bennett, David L	Director, Airport Safety & Standards	$6,000	Bonus
Bermingham, Paul B	Deputy Assistant Administrator for System Safety	$3,000	Bonus
Blum, Carolyn C	Regional Administrator, Southern Region.	$10,000	Bonus
Brown, Steven J	Deputy Associate Administrator For Air Traffic Services	$12,000	Bonus
Butterworth, Bruce R	Director, Civil Aviation Security Operations	$3,000	Bonus
Canoles, John D	Manager, Evaluations & Accident Investigations	$6,000	Bonus
Dillman, James S	Assistant Chief Counsel For Litigation	$3,000	Bonus
Erickson, Elizabeth E	Director, Aircraft Certification Service	$8,000	Bonus
Erickson, James D	Director, Environment & Energy	$3,000	Bonus
Fainberg, Michael Anthony	Director, Office of Civil Aviation Security Policy & Planning	$3,000	Bonus

Fiscal Year 1999 Bonuses

Name	Position Title	Amount	Type
Galis, Paul L	Deputy Associate Administrator For Airports	$8,000	Bonus
Gassert, Thomas	Program Director, NAS Operations	$3,000	Bonus
Byrne, Donald P	Assistant Chief Counsel	$3,000	Bonus
Gilligan, Margaret M	Deputy Associate Administrator For Regulation & Certification	$12,000	Bonus
Gilliom, David C	Manager, Flight Standards Division	$3,000	Bonus
Jordan, Jon L	Federal Air Surgeon	$3,000	Bonus
Lacey, Lawrence N Jr	Director, Flight Standards Service	$8,000	Bonus
Lang, Catherine M	Director, Office Of Airport Planning & Programming	$6,000	Bonus
Leverenz, Ruth Ann	Assistant Administrator For Region/Center Operations	$12,000	Bonus
Maillett, Louise E	Deputy Assistant Administrator For Policy, Planning, & International Aviation	$8,000	Bonus
McDonnell, Patrick T	Director, Office Of Civil Aviation Security Intelligence	$3,000	Bonus
McSweeny, Thomas E	Associate Administrator For Regulation & Certification	$12,000	Bonus
Mehan, Daniel J	Chief Information Officer	$10,000	Bonus
Miller, Clyde	Director, Free Flight Program	$3,000	Bonus
Moore, Alan R	Deputy Director, Airway Facilities Service	$8,000	Bonus
Nobles, Rubert E	Manager, Airway Facilities Division	$3,000	Bonus
Pardee, Jay J	Manager, Engine & Propeller Directorate	$3,000	Bonus
Paskiewicz, Frank P	Manager, Production & Airworthiness Certification	$3,000	Bonus

Fiscal Year 1999 Bonuses

Name	Position Title	Amount	Type
Peacock, Billy G	Manager, Air Traffic Division	$12,000	Bonus
Pearson, Bradley D	Manager, Flight Standards Division	$3,000	Bonus
Phillips, Alexander M	Director, Office of Independent Operational Test & Evaluation	$3,000	Bonus
Ritz, Barbara G	Director, Aeronautical Center	$6,000	Bonus
McNall, Patricia Ann	Assistant Chief Counsel	$3,000	Bonus
Rivera, Fanny	Assistant Administrator For Civil Rights	$3,000	Bonus
Rivers, Stanley	Director, Airway Facilities Service	$8,000	Bonus
Rodgers, John M	Director, Office Of Aviation Policy & Plans	$3,000	Bonus
Rodine, Richard L	Deputy Director, Aeronautical Center	$3,000	Bonus
Sabatini, Nicholas A	Manager, Flight Standards Division	$6,000	Bonus
Smith, Patricia G	Associate Administrator For Commercial Space Transportation	$6,000	Bonus
Tate, Glenda M	Assistant Administrator For Human Resource Management	$12,000	Bonus
Thoman, Raymond B	Program Director, Labor & Employee Relations	$8,000	Bonus
Washington, James H	Director, Air Traffic Systems Requirement Service	$8,000	Bonus
Whitlow, James W	Deputy Chief Council	$3,000	Bonus
Wojnar, Ronald T	Deputy Director, Aircraft Certification	$6,000	Bonus
Woods, Maureen	Deputy Director, Air Traffic Service	$6,000	Bonus
Woodward, Winifred	Manager, Center For Management Development	$12,000	Bonus
Fiscal year 1999 Total Bonuses		$309,000	

Fiscal Year 2000 Short Term Incentives:

Please note that Short Term Incentive (STI) payments are made for accomplishments in the previous fiscal year. Thus, the STI payments shown here are for 1999 accomplishments and reflect the individuals who participated in the initial pilot of the STI program.

Name	Position Title	Amount	Type
Brecht-Clark, Jan M	Deputy Director, Office Of Aviation Research	$ 6,720	STI
Burke, Gregory D	Deputy Director, Air Traffic Systems Development	$2,210	STI
Challan, Peter H	Deputy Associate Administrator For Air Traffic Services	$5,686	STI
DeGaetano, Dennis N	Deputy Associate Administrator for Research & Acquisitions	$9,976	STI
Devey, Gilbert Jr	Director, Office Of Acquisitions	$8,260	STI
Fujisaki, Norman T	Deputy Director, System Architecture & Investment Analysis	$3,540	STI
Graham, Nancy J	IPTL For Ocean & Offshore Systems	$2,258	STI
Harlan, Anne	Director, FAA Technical Center	$6,720	STI
Harrison, Michael J	Program Director	$2,305	STI
Hmara, Jeffrey L	Integrated Product Team Leader	$5,355	STI
Huettner, Charles H	Director For Aviation Safety	$4,720	STI
Loewenstein, Jack	IPTL, Aircraft & Navigation Avionics	$5,730	STI
Polski, Paul A	Program Director, Aviation Security R&D	$7,840	STI
Pyster, Arthur B	Deputy Assistant Administrator, Information Services	$7,070	STI
Rediess, Herman A	Director, Office Of Aviation Research	$7,080	STI
Salvano, Daniel P	Deputy Director, Communication, Navigation & Surveillance Systems	$6,720	STI
Scardina, John A	Director, System Architecture & Investment Analysis	$7,296	STI

Name	Position Title	Amount	Type
Seher, Chris C	Program Director, A/P Safety R&D Division	$7,497	STI
Singer, Bruce M	Deputy Director, FAA Technical Center	$7,080	STI
Tucker, Joseph R Jr	Program Director NAS Program & Financial Management	$5,900	STI
Voss, William R	Director, Office Of Air Traffic System Development	$5,156	STI
Wilson, Deborah A W	Deputy Director, Office Of Acquisitions	$5,623	STI
Zaidman, Steven B	Associate Administrator for Research & Acquisitions	$10,000	STI
Total: Fiscal Year 2000		$140,742	

Fiscal Year 2001 Short Term Incentives:

Because Short Term Incentive (STI) payments are made for accomplishments in the previous fiscal year, the STI payments shown here are for 2000 accomplishments. Please note that payments reflect a 50 percent reduction of the total incentive earned.

Name	Position Title	Amount	Type
Accardi, Thomas C	Program Director, Aviation System Standards	$8,248	STI
Alles, Jeri L	Manager, Airports Division	$5,421	STI
Andersen, Drucella A	Deputy Assistant Admim. for Public Affairs	$7,506	STI
Andriesen, Lawrence	Regional Administrator, Northwest Mountain Region	$8,721	STI
Archilla, Joaquin	Director, International Area Office	$1,836	STI
Armstrong, Henry A	Manager, Rotorcraft Directorate	$6,104	STI
Bartanowicz, Robert S	Regional Administrator, New England Region	$8,706	STI
Beaudette, Daniel C	Manager, Certification Standardization & Evaluation Team	$6,873	STI
Belger, Monte R	Associate Administrator For Air Traffic Services	$10,441	STI

Name	Position Title	Amount	Type
Bennett, David L	Director, Airport Safety & Standards	$3,665	STI
Bliss, Herman C	Manager, Airports Division	$5,956	STI
Blum, Christopher R	Manager, Air Traffic Division	$3,052	STI
Blum, Carolyn C	Regional Administrator, Southern Region.	$8,721	STI
Boshnack, Barry M	Manager, Airway Facilities Division	$3,584	STI
Bowles, Norman	Program Director, FAA Logistics Center	$6,105	STI
Brecht-Clark, Jan M	Deputy Director, Office Of Aviation Research	$7,995	STI
Brill, Stephen A	Manager, Airports Division	$5,956	STI
Brown, Steven J	Deputy Associate Administrator For Air Traffic Services	$7,227	STI
Burke, Gregory D	Deputy Director, Air Traffic Systems Development	$5,827	STI
Burleson, Carl E	Director, Environment & Energy	$5,178	STI
Byrne, Donald P	Assistant Chief Counsel	$5,968	STI
Canoles, John D	Manager, Evaluations & Accident Investigations	$4,124	STI
Challan, Peter H	Deputy Associate Administrator For Air Traffic Services	$7,279	STI
Chapman, Nancy Lee	IPTL For Enroute	$4,373	STI
Chapman, Wendie F	Manager, Airway Facilities Division	$6,672	STI
Clancy, John G	Manager, Air Traffic Division	$3,924	STI
Collins, William E	Director, Civil Aeromedical Institute	$9,164	STI
Costilla, Marcos Jr	Manager, Airway Facilities Division	$6,977	STI
Cusimano, Louis C	Manager, Flight Standards Certification Program Office	$5,004	STI
Davis, William Scott	Deputy Associate Administrator, Civil Aviation Security	$8,103	STI
DeGaetano, Dennis N	Deputy Associate Administrator for Research & Acquisitions	$7,763	STI
Devey, Gilbert Jr	Director, Office Of Acquisitions	$5,512	STI

Name	Position Title	Amount	Type
Dillman, James S	Assistant Chief Counsel For Litigation	$5,958	STI
Dix, Mary Ellen	Deputy Assistant Administrator For Human Resource Management	$8,621	STI
Edwards, Roger M	Program Director, Personnel	$6,672	STI
Elgee, Angela B	Manager, Continuous Airworthiness Maintenance Division	$3,512	STI
Erickson, Elizabeth E	Director, Asia/Pacific Office	$11,933	STI
Erickson, James	Director, Environment & Energy	$7,332	STI
Feldman, Arlene I	Regional Administrator, Eastern Region	$8,721	STI
Ford, David W	IPTL For Advanced Technologies	$8,285	STI
Fujisaki, Norman T	Deputy Director, System Architecture & Investment Analysis	$8,118	STI
Galis, Paul L	Deputy Associate Administrator For Airports	$6,416	STI
Gallagher, Michael	Manager, Small Airplane Directorate	$6,104	STI
Gassert, Thomas	Program Director, NAS Operations	$7,332	STI
Gilligan, Margaret M	Deputy Associate Administrator For Regulation & Certification	$7,955	STI
Gilliom, David C	Manager, Flight Standards Division	$3,925	STI
Gonzalez, Henry I	IPTL For Terminal	$6,639	STI
Graham, Nancy J	IPTL For Ocean & Offshore Systems	$3,595	STI
Gregory, Lauraline	Director, Office Of Business Management	$7,343	STI
Griffith, Jeffrey L	Program Director, Air Traffic Operations	$4,164	STI
Hamory, E Ross	Director, Office Of International Aviation	$1,744	STI
Hanley, David E	Manager, Flight Standards Division	$2,617	STI

Name	Position Title	Amount	Type
Harlan, Anne	Director, FAA Technical Center	$8,949	STI
Harrell, Eric	Manager, Terminal & Enroute Procedures Division	$3,790	STI
Harrison, Michael J	Program Director, Archit. and System Engineering	$6,648	STI
Hatfield, Franklin D	Manager, Air Traffic Division	$3,924	STI
Hart, Christopher A	Assistant Administrator For System Safety	$13,770	STI
Hawkins, Joseph A	Deputy Assistant Administrator For Commercial Space Transportation	$7,566	STI
Hennigan, John F Jr	Deputy Assist. Adm. for Financial Services	$5,957	STI
Hevelone, James L	Deputy Dir., Air Traffic Requirements Service	$5,233	STI
Hickey, John J	Director, Aircraft Certification Service	$7,848	STI
Hmara, Jeffrey L	Deputy Director, Free Flight Phase II	$3,686	STI
Howell, Thomas B	Program Director, AT Systems Development	$6,977	STI
Hunziker, Cecelia L	Regional Administrator, Great Lakes Region	$8,721	STI
Isham, Brian S	Manager, Contracts Division	$3,595	STI
Johnson, Lowell H	Manager Airports Division	$5,956	STI
Jones, James C	Manager, Aircraft Engineering Division	$4,796	STI
Jordan, Jon L	Federal Air Surgeon	$8,707	STI
Kalinowski, Nancy Blagg	Deputy Program Director For Air Traffic Airspace Management	$2,919	STI
Kansier, Joann	Program Dir. Requirements	$7,850	STI
Kaulia, Sabra W	Deputy Program Director For Air Traffic Operations	$3,964	STI
Keegan, Charles E	Director, Free Flight Phase 1	$14,434	STI
Koehler, Dennis T	Manager, Air Traffic Division	$3,924	STI

Name	Position Title	Amount	Type
Lacey, Lawrence N Jr	Director, Flight Standards Service	$6,364	STI
Lang, Catherine M	Director, Office Of Airport Planning & Programming	$8,286	STI
Leverenz, Ruth Ann	Assistant Administrator For Region/Center Operations	$15,116	STI
Lewis, Paula Riley	Director, Office Of System Capacity	$6,978	STI
Lindsey, William L	Manager, Airway Facilities Division	$6,977	STI
Link, James C	IPTL For Surveillance	$7,791	STI
Lobue, Nancy D	Assistant Chief Counsel	$5,670	STI
Loewenstein, Jack	IPTL, Aircraft & Navigation/ Avionics	$2,231	STI
Long, Raymond M	Director Of Information System Security	$6,166	STI
Long, Robert D Jr	Deputy Director, Airway Facilities Service	$7,550	STI
Longanbach, Jan Paul	Director, Learning & Development	$5,902	STI
Longmire, Lee S	Deputy Director, Civil Aviation Security Operations	$7,923	STI
Lynch, Peter J	Assistant Chief Counsel	$5,670	STI
Lyons, Herman J Jr	Manager, Air Traffic Division	$3,753	STI
Maillett, Louise E	Deputy Assistant Administrator For Policy, Planning, & International Aviation	$5,957	STI
McCullough, Carl P	Director, Communication, Navigation, & Surveillance Systems	$6,761	STI
McDonnell, Patrick T	Director, Office Of Civil Aviation Security Intelligence	$5,670	STI
McLaurin, Hugh	Program Director, Research & Development	$4,459	STI
McLean, Donna Rae	Assistant Administrator For Financial Services	$10,425	STI
McNall, Patricia Ann	Assistant Chief Counsel	$5,670	STI
McSweeny, Thomas E	Associate Administrator For Regulation & Certification	$8,030	STI

Name	Position Title	Amount	Type
Mehan, Daniel J	Chief Information Officer	$11,243	STI
Mendez, Robert B	Manager, Airports Division	$5,669	STI
Michael, Gregory L	Manager, Air Transportation Division	$4,409	STI
Mims, Ava L	Deputy Director, Flight Standards Service	$6,416	STI
Molar, Barry L	Manager, Airports Financial Assistance Division	$5,176	STI
Moore, Alan R	Director, Airway Facilities Service	$10,850	STI
Morgan, Ronald	Director, Air Traffic Service	$7,160	STI
Moy, Edward P	Manager, Airway Facilities Division	$6,977	STI
Murphy, Douglas R	Manager, Air Traffic Division	$3,924	STI
Nager, Jack	Program Director, NAS Implementation Program	$7,413	STI
Nobles, Rubert E	Manager, Airway Facilities Division	$6,672	STI
Osmus, Lynne A	Special Advisor To The Assistant Administrator	$5,508	STI
Pardee, Jay J	Manager, Engine & Propeller Directorate	$7,849	STI
Paskiewicz, Frank P	Manager, Production & Airworthiness Division	$7,369	STI
Peacock, Billy G	Director, Air Traffic Service	$3,862	STI
Pearson, Bradley D	Manager, Flight Standards Division	$4,797	STI
Phillips, Alexander M	Director, Office of Independent Operational Test & Evaluation	$3,207	STI
Poe, Patrick N	Regional Administrator, Alaska Region	$8,706	STI
Polski, Paul A	Program Director, Aviation Security R&D	$8,722	STI
Poole, Robert S	Manager, Medical Specialties Division	$8,339	STI
Powers-King, Mary E	Director, Technical & Special Programs	$3,329	STI
Pyster, Arthur B	Deputy Assistant Administrator, Information Services	$6,903	STI

Name	Position Title	Amount	Type
Rediess, Herman A	Director, Office Of Aviation Research	$8,730	STI
Riley, Jeffrey Brian	Director, Office Of Budget	$3,753	STI
Ritz, Barbara G	Director, Aeronautical Center	$8,721	STI
Rivera, Fanny	Assistant Administrator For Civil Rights	$10,693	STI
Rodgers, John M	Director, Office Of Aviation Policy & Plans	$5,957	STI
Rodine, Richard L	Deputy Director, Aeronautical Center	$8,707	STI
Rothschild, Steven I	Program Director, Resource Management Program	$8,248	STI
Sabatini, Nicholas A	Manager, Flight Standards Division	$7,849	STI
Sakai, George K	Program Director, Spectrum Policy & Management Program	$1,175	STI
Salvano, Daniel P	Deputy Director, Communication, Navigation, and Surveillance Systems	$7,605	STI
Saunders, Naomi L	Manager, Airports Division	$5,669	STI
Scardina, John A	Director, System Architecture & Investment Analysis	$8,517	STI
Seher, Chris C	Program Director, A/P Safety R&D Division	$8,564	STI
Shellabarger, Nancy	Deputy Director, Policy & Plans	$2,740	STI
Singer, Bruce M	Deputy Director, FAA Technical Center	$9,189	STI
Smith, Barbara J	Director, FAA Accountability Board	$7,566	STI
Smith, Patricia G	Associate Administrator For Commercial Space Transportation	$15,235	STI
Smith, Quentin J Jr	Assistant Director For Special Programs	$1,775	STI
Sprague, David R	Program Director For Air Traffic Resource Management	$3,924	STI
Stadtler, Donald A	IPTL For Weather	$6,541	STI
Staples, John T	Program Director For Plans & Performance	$6,541	STI

Name	Position Title	Amount	Type
Strong, Robert M Jr	Manager, Airway Facilities Division	$6,105	STI
Stuckey, Thomas E	Manager, Flight Standards Division	$6,541	STI
Tate, Glenda M	Assistant Administrator For Human Resource Management	$15,258	STI
Thoman, Raymond B	Deputy Assistant Administrator For Labor Relations	$8,705	STI
Tilton, Frederick E	Deputy Federal Air Surgeon	$6,181	STI
Tom, Donald	Manager, Airway Facilities Division	$6,976	STI
Traylor, William E	Superintendent, FAA Academy	$8,286	STI
Tucker, Joseph R Jr	Program Director, NAS Program & Financial Management	$8,728	STI
Turner, John E	Regional Administrator, Central Region	$8,721	STI
Voss, Robert S	Deputy Director, Free Flight Phase I	$7,849	STI
Voss, William R	Director, Terminal Business Service	$5,121	STI
Walker, John S	Program Director, Air Traffic Airspace Management	$3,052	STI
Wallace, Steven B	Director, Office Of Accident Investigation	$1,141	STI
Washington, James H	Director, Air Traffic Systems Requirements Service	$5,675	STI
Whitlow, James W	Deputy Chief Council	$6,416	STI
Williams, James H	IPTL For Communications	$3,912	STI
Wilson, Deborah A W	Deputy Director, Office Of Acquisitions	$4,376	STI
Withycombe, William	Regional Administrator, Great Lakes Region	$8,721	STI
Wojnar, Ronald T	Deputy Director, Aircraft Certification	$6,415	STI
Wong, Alice A	Program Director For Communication, Navigation, Surveillance, and Infrastructure	$7,850	STI

Name	Position Title	Amount	Type
Woods, Maureen	Deputy Director, Air Traffic Service	$4,124	STI
Woodward, Winifred	Manager, Center For Management Development	$9,711	STI
Wright, Robert A	Manager, Technical Programs Division	$6,106	STI
Zaidman, Steven B	Associate Administrator for Research & Acquisitions	$13,088	STI
Total fiscal year 2001		$1,072,791	

Mr. Rogers. Under FAA's new Executive Compensation System, which went into effect last year, is the FAA still paying SES bonuses? If not, what types of bonuses have replaced them and under what guidelines and procedure will they be distributed?

[The information follows:]

The FAA is no longer paying executive bonuses. The STI program replaced the SES bonus system. The objectives of the STI program are to: (1) underscore the importance of FAA organizational success in particularly FAA corporate success; (2) create incentives to achieve organizational success; and (3) provide meaningful incentive rewards for leading the success of the organization in meeting goals and objectives.

The program's guidelines and procedures focus on setting goal expectations, measuring the results and accomplishment of those expectations, and determining a reward for the results and accomplishments. Under the STI program, each fiscal year the Administrator, in conjunction with the FAA Management Board, establishes key agency level objectives and their success criteria. These agency objectives are drawn from the FAA Strategic Plan and focus on outcomes in the major mission areas of safety, security, and system efficiency. Additionally, lines of business (LOB) establish objectives and expected outcomes based on commitments made in the FAA Strategic Plan, LOB business plans, the FAA Performance Plan, as well as commitments and priorities set by the Administrator.

Each executive has an individual STI plan outlining accountability or shared responsibility for an average of five to seven of these goals. The STI plan also documents the potential reward for goal accomplishment. Progress toward goal achievement is measured throughout the year. At the end of the year, final outcomes and results are measured. The amount of incentive

payment made to each executive reflects the degree of successful achievement of the predetermined goals.

Mr. Rogers. In last year's hearing record, you advised that the new system would result in a payout of executive bonuses of between $700 thousand and $1 million, and that this was far less than the estimated $2.25 million, which would be permissible to FAA and in line with other agencies' budgets for SES bonuses (p. 291). If FAA is cutting back its executive bonuses so drastically relative to other agencies, won't it have a negative effect on retention?

[The information follows:]

FAA is not cutting back on its executive bonuses. In fact, our STI program is structured to allow a total pool of incentive payments comparable to the amount permissible under the SES bonus program. During the pilot and first several years under the new system, we are taking a conservative approach to program implementation while we experience and make adjustments for lessons learned. For this reason, incentives have thus far been paid out at 50 percent of the earnings.

We are confident that our new STI program is a recruitment and retention advantage relative to other agencies. The STI program clearly establishes goals and the incentive reward for achieving those goals. It also establishes the consequence of no incentive payment if the goals are not achieved. Every executive has an individual short-term incentive plan that provides for a clear opportunity to earn an incentive award. Executives know up-front at the beginning of the year what are expected and the reward or consequences of meeting or not meeting those expectations. Long-standing executives have expressed a higher satisfaction with this new program and newly recruited executives have expressed enthusiasm about the opportunity to participate in the program.

Mr. Rogers. Please provide a table, by line of business, showing the extent to which FAA met its performance plan goals for fiscal year 2000, and itemizing by line of business employee the bonuses provided to executives in January 2001.

[The information follows:]

FY 2000 Performance Goals

FY 2000 Performance Goals	Target	Actual	Line of Business
Commercial aviation fatal accident rate per 100,000 flight hours.	.033	.022*	Regulation and Certification (AVR)
Number of general aviation fatal accidents.	379	369*	AVR
Number of runway incursions.	248	429	Air Traffic Services (ATS)
Rate of operational errors and deviations per 100,000 activities.	.486 Errors .097 Deviations	.684 Errors .210 Deviations	ATS
Percent of runways in good or fair condition at all commercial service airports and reliever airports, as well as selected general aviation airports.	93%	95%	Airports
Percent of flights aircraft are able to fly off ATC-preferred routes.	80%	79.1%	ATS
Total # of published GPS airport approaches.	2,453	2,488	ATS
Aviation delays per 100,000 activities.	171	250	ATS
People in the U.S. (in thousands) exposed to significant aircraft noise (65 decibels or more).	600	448	Policy, Planning, and International Aviation (API)
Detection rate for explosives and weapons that may be brought aboard aircraft.	**	**	Security
*Preliminary data **Detection rates are sensitive information protected under 14 CFR Part 191. The 1998 baseline and targeted increases will be made available to appropriate parties upon request.			

Fiscal Year 2001 Executive Bonuses For Fiscal year 2000 Performance Goals

LOB	Name	Position Title	Amount	Type
ACS	Davis, William Scott	Deputy Associate Administrator, Civil Aviation Security	$8,103	STI
ACS	Longmire, Lee S	Deputy Director, Civil Aviation Security Operations	$7,923	STI
ACS	McDonnell, Patrick T	Director, Office Of Civil Aviation Security Intelligence	$5,670	STI
	Total ACS		$21,696	
API	Archilla, Joaquin	Director, International Area Office	$1,836	STI
API	Erickson, James	Director, Environment & Energy	$7,332	STI
API	Hamory, E Ross	Director, Office Of International Aviation	$1,744	STI
API	Maillett, Louise E	Deputy Assistant Administrator For Policy, Planning, & International Aviation	$5,957	STI
API	Osmus, Lynne A	Special Advisor To The Assistant Administrator	$5,508	STI
API	Rodgers, John M	Director, Office Of Aviation Policy & Plans	$5,957	STI
API	Shellabarger, Nancy	Deputy Director, Policy & Plans	$2,740	STI
	Total API		$31,074	
ARP	Alles, Jeri L	Manager, Airports Division	$5,421	STI
ARP	Bennett, David L	Director, Airport Safety & Standards	$3,665	STI
ARP	Bliss, Herman C	Manager, Airports Division	$5,956	STI
ARP	Brill, Stephen A	Manager, Airports Division	$5,956	STI
ARP	Galis, Paul L	Deputy Associate Administrator For Airports	$6,416	STI
ARP	Johnson, Lowell H	Manager Airports Division	$5,956	STI
ARP	Lang, Catherine M	Director, Office Of Airport Planning & Programming	$8,286	STI
ARP	Mendez, Robert B	Manager, Airports Division	$5,669	STI
ARP	Molar, Barry L	Manager, Airports Financial Assistance Division	$5,176	STI
ARP	Saunders, Naomi L	Manager, Airports Division	$5,669	STI
	Total ARP		$58,170	

Fiscal Year 2001 Executive Bonuses For Fiscal year 2000 Performance Goals

LOB	Name	Position Title	Amount	Type
ATS	Accardi, Thomas C	Program Director, Aviation System Standards	$8,248	STI
ATS	Belger, Monte R	Associate Administrator For Air Traffic Services	$10,441	STI
ATS	Blum, Christopher R	Manager, Air Traffic Division	$3,052	STI
ATS	Boshnack, Barry M	Manager, Airway Facilities Division	$3,584	STI
ATS	Brown, Steven J	Deputy Associate Administrator For Air Traffic Services	$7,227	STI
ATS	Canoles, John D	Manager, Evaluations & Accident Investigations	$4,124	STI
ATS	Challan, Peter H	Deputy Associate Administrator For Air Traffic Services	$7,279	STI
ATS	Chapman, Wendie F	Manager, Airway Facilities Division	$6,672	STI
ATS	Clancy, John G	Manager, Air Traffic Division	$3,924	STI
ATS	Costilla, Marcos Jr	Manager, Airway Facilities Division	$6,977	STI
ATS	Gassert, Thomas	Program Director, NAS Operations	$7,332	STI
ATS	Griffith, Jeffrey L	Program Director, Air Traffic Operations	$4,164	STI
ATS	Harrell, Eric	Manager, Terminal & Enroute Procedures Division	$3,790	STI
ATS	Hatfield, Franklin D	Manager, Air Traffic Division	$3,924	STI
ATS	Hevelone, James L	Deputy Director, Air Traffic System Requirements Service	$5,233	STI
ATS	Howell, Thomas B	Program Director, AT Systems Development	$6,977	STI
ATS	Kalinowski, Nancy B	Deputy Program Director For Air Traffic Airspace Management	$2,919	STI
ATS	Kansier, Joann	Program Director, Requirements Development	$7,850	STI
ATS	Kaulia, Sabra W	Deputy Program Director For Air Traffic Operations	$3,964	STI
ATS	Koehler, Dennis T	Manager, Air Traffic Division	$3,924	STI
ATS	Lewis, Paula Riley	Director, Office Of System Capacity	$6,978	STI

Fiscal Year 2001 Executive Bonuses For Fiscal year 2000 Performance Goals

LOB	Name	Position Title	Amount	Type
ATS	Lindsey, William L	Manager, Airway Facilities Division	$6,977	STI
ATS	Long, Robert D Jr	Deputy Director, Airway Facilities Service	$7,550	STI
ATS	Lyons, Herman J Jr	Manager, Air Traffic Division	$3,753	STI
ATS	Morgan, Ronald	Director, Air Traffic Service	$7,160	STI
ATS	Moy, Edward P	Manager, Airway Facilities Division	$6,977	STI
ATS	Murphy, Douglas R	Manager, Air Traffic Division	$3,924	STI
ATS	Nager, Jack	Program Director, NAS Implementation Program	$7,413	STI
ATS	Nobles, Rubert E	Manager, Airway Facilities Division	$6,672	STI
ATS	Peacock, Billy G	Director, Air Traffic Service	$3,862	STI
ATS	Phillips, Alexander M	Director, Office of Independent Operational Test & Evaluation	$3,207	STI
ATS	Rothschild, Steven I	Program Director, Resource Management Program	$8,248	STI
ATS	Sakai, George K	Program Director, Spectrum Policy & Management Program	$1,175	STI
ATS	Sprague, David R	Program Director For Air Traffic Resource Management	$3,924	STI
ATS	Staples, John T	Program Director For Plans & Performance	$6,541	STI
ATS	Strong, Robert M Jr	Manager, Airway Facilities Division	$6,105	STI
ATS	Tom, Donald	Manager, Airway Facilities Division	$6,976	STI
ATS	Voss, William R	Director, Terminal Business Service	$5,121	STI
ATS	Walker, John S	Program Director, Air Traffic Airspace Management	$3,052	STI
ATS	Washington, James H	Director, Air Traffic Systems Requirements Service	$5,675	STI
ATS	Wong, Alice A	Program Director For Communication, Navigation, Surveillance, and Infrastructure	$7,850	STI
ATS	Woods, Maureen	Deputy Director, Air Traffic Service	$4,124	STI
	Total ATS		$245,719	

Fiscal Year 2001 Executive Bonuses For Fiscal year 2000 Performance Goals

LOB	Name	Position Title	Amount	Type
AVR	Armstrong, Henry A	Manager, Rotorcraft Directorate	$6,104	STI
AVR	Beaudette, Daniel C	Manager, Certification Standardization & Evaluation Team	$6,873	STI
AVR	Collins, William E	Director, Civil Aeromedical Institute	$9,164	STI
AVR	Cusimano, Louis C	Manager, Flight Standards Certification Program Office	$5,004	STI
AVR	Elgee, Angela B	Manager, Continuous Airworthiness Maintenance Division	$3,512	STI
AVR	Erickson, Elizabeth E	Director, Asia/Pacific Office	$11,933	STI
AVR	Gallagher, Michael	Manager, Small Airplane Directorate	$6,104	STI
AVR	Gilligan, Margaret M	Deputy Associate Administrator For Regulation & Certification	$7,955	STI
AVR	Gilliom, David C	Manager, Flight Standards Division	$3,925	STI
AVR	Hanley, David E	Manager, Flight Standards Division	$2,617	STI
AVR	Hickey, John J	Director, Aircraft Certification Service	$7,848	STI
AVR	Jones, James C	Manager, Aircraft Engineering Division	$4,796	STI
AVR	Jordan, Jon L	Federal Air Surgeon	$8,707	STI
AVR	Lacey, Lawrence N Jr	Director, Flight Standards Service	$6,364	STI
AVR	McSweeny, Thomas E	Associate Administrator For Regulation & Certification	$8,030	STI
AVR	Michael, Gregory L	Manager, Air Transportation Division	$4,409	STI
AVR	Mims, Ava L	Deputy Director, Flight Standards Service	$6,416	STI
AVR	Pardee, Jay J	Manager, Engine & Propeller Directorate	$7,849	STI
AVR	Paskiewicz, Frank P	Manager, Production & Airworthiness Division	$7,369	STI
AVR	Pearson, Bradley D	Manager, Flight Standards Division	$4,797	STI
AVR	Poole, Robert S	Manager, Medical Specialties Division	$8,339	STI
AVR	Sabatini, Nicholas A	Manager, Flight Standards Division	$7,849	STI
AVR	Smith, Quentin J Jr	Assistant Director For Special Programs	$1,775	STI
AVR	Stuckey, Thomas E	Manager, Flight Standards Division	$6,541	STI

Fiscal Year 2001 Executive Bonuses For Fiscal year 2000 Performance Goals

LOB	Name	Position Title	Amount	Type
AVR	Tilton, Frederick E	Deputy Federal Air Surgeon	$6,181	STI
AVR	Wallace, Steven B	Director, Office Of Accident Investigation	$1,141	STI
AVR	Wojnar, Ronald T	Deputy Director, Aircraft Certification	$6,415	STI
AVR	Wright, Robert A	Manager, Technical Programs Division	$6,106	STI
	Total AVR		$174,123	

Mr. Rogers. Does FAA base the award of these bonuses on achievement of performance plan results, achievement of measures cited in executive performance agreements, or on other factors?

[The information follows:]

The awarding of STI payments is based on the executive's individual STI plan. The STI program rewards executives for leading the achievement of annual, predetermined agency and LOB goals and objectives.

STI plans include agency and LOB goals and objectives based on commitments made in the FAA Strategic Plan, LOB business plans, the FAA Annual Performance Plan, as well as additional commitments or priorities set by the Administrator. STI objectives are expected to meet the following criteria:

- Have high visibility and payoff to FAA;
- Be of great interest to Congress and the public;
- Be clear (stated in terms the public can understand);
- Be linked to commitments which have been public (FAA Strategic Plan goals, FAA Corporate Projects, FAA Performance Plan targets, the Administrator's Performance Agreement with the Secretary, and Line of Business Plans);
- Focus on results;
- Be difficult to accomplish; and
- Reflect improvements and show innovation.

At the end of the year, actual outcomes for each objective are measured. The amount of the lump sum cash incentive payment reflects the degree of successful achievement of objectives.

EXECUTIVE POSITIONS UNFILLED

Mr. Rogers. Please update the listing on pages 292 and 293 of last year's hearing record showing the title, grade and salary, of each executive and political appointee position in the agency which is currently unfilled by a permanent incumbent.

[The information follows:]

As of March 28, 2001 the following executive positions were unfilled. The grade and salary of the position will depend on the person selected. The salary range for executives in FAA's Executive System is $101,200 to $145,100.

Political Appointee Positions

Deputy Administrator, Office of the Administrator
Assistant Administrator for the Office of Government and Industry Affairs
Assistant Administrator for Public Affairs
Chief Counsel
Assistant Administrator for Policy, Planning, and International Aviation
Associate Administrator for Airports

Positions with pending appointments or filled as of April 30, 2001

Director, Office of Information Systems Security
Director, Europe, Africa, and Middle East Office
Director, Office of Civil Aviation Security Operations
Manager, Airway Facilities Division, Great Lakes Region
Manager, Rotorcraft Directorate
Manager, Flight Standards Division, Central Region

Positions with recruitment activities underway as of April 30, 2001

Director, Free Flight Phase 2
Deputy Director, Office of Airport Planning and Programming
Manager, Airports Division, Southern Region
Director, Office of Performance Management
Manager, Flight Standards Division, Southern Region

Other vacant positions

Program Director, NAS Operations
Program Director, Air Traffic Tactical Operation
Program Director, Research Division
Director, Air Traffic Systems Development

Mr. Rogers. Two years ago, there were 15 unfilled executive positions. Last year, there were 19. Has the agency been able to turn this trend around this year to a more positive result?

[The information follows:]

The FAA has aggressively pursued filling its critical executive positions. At any given point over the past year, FAA has had an average of 12 unfilled positions either in the recruitment, selection, or appointment process, including an average of two positions with appointments pending. Of the unfilled positions reported for March 28, 2001 FAA has nine uncommitted vacancies that are in various stages of recruitment as of April 30, 2001. This excludes positions that are designated to fill by political appointment.

All FAA political positions were unfilled as of March 28, 2001 as the Administration transitions. With regard to our non-political positions, FAA has experienced a number of losses due to retirement and other unplanned attrition resulting from career changes. We then experience a "ripple effect" when current executives fill vacant positions; their former position then also needs to be filled. A number of our current vacancies are either the direct result of a retirement or to the reassignment of a current executive resulting in a new vacant position.

FAA is launching an executive workforce planning process this year that will provide a systematic process for anticipating future executive requirements and preparing current executives and senior management with the skills necessary to meet future needs. Furthermore, this systematic analysis will assist us in proactively identifying areas in which external recruitment would be of benefit.

With regard to our current situation, it should be noted that the FAA, like the rest of the federal government, has been operating under hiring guidelines established by the current Administration earlier this year. These guidelines require a careful review and Departmental approval prior to filling any management position, including those at the executive level. This has slowed, but not halted, our executive staffing process.

POSITIONS AND EMPLOYMENT SUMMARY

Mr. Rogers. Please update the table on positions and employment shown on pages 294 through 296 of last year's hearing record.

[The information follows:]

FEDERAL AVIATION ADMINISTRATION EMPLOYMENT AND FTE'S

APPROPRIATION	FISCAL YEAR 2000 ACTUAL FULL-TIME EQUIVALENTS (FTE'S)	END OF YEAR EMPLOYMENT
OPERATIONS		
Air Traffic Services		
Air Traffic	24,013	23,966
NAS Logistics	1,103	1,024
Systems Maintenance	9,200	8,962
ARS	169	169
Flight Inspection	597	593
Subtotal, Air Traffic Services	35,082	34,714
Aviation Regulation & Certification		
Flight Standards	4,502	4,454
Aircraft Certification	1,002	1,020
Accident Investigation	29	28
Rulemaking	24	26
Planning, Direction & Evaluation	36	34
Aviation Medicine	279	296
Subtotal, AVR	5,872	5,858
Civil Aviation Security	1,164	1,166
Research & Acquisitions	548	503
Airports	0	0
Commercial Space Transportion	29	26
Financial Services	127	123
Human Resources	323	487
Region & Center Operations	903	650
Staff Offices	553	525
SUBTOTAL, OPERATIONS	44,601	44,052
Prior Year Adjustment	70	
FACILITIES & EQUIPMENT	2,668	2,706
GRANTS-IN-AID FOR AIRPORTS	474	441
RESEARCH, ENGR. & DEVELOPMENT	437	398
AVIATION INSURANCE:	2	2
Total, Direct	48,252	47,599
Total, Reimbursable	388	351
Unidentified	0	0
TOTAL, FAA	48,640	47,950

FEDERAL AVIATION ADMINISTRATION EMPLOYMENT AND FTE'S

	FISCAL YEAR 2001 ESTIMATE	
APPROPRIATION	FULL-TIME EQUIVALENTS (FTE'S)	END OF YEAR EMPLOYMENT
OPERATIONS		
Air Traffic Services		
Air Traffic	24,131	23,868
NAS Logistics	539	508
Systems Maintenance	9,152	9,229
ARS	182	182
Flight Inspection	744	748
Subtotal, Air Traffic Services	34,748	34,535
Aviation Regulation & Certification		
Flight Standards	4,567	4,630
Aircraft Certification	1,063	1,048
Accident Investigation	30	29
Rulemaking	28	27
Planning, Direction & Evaluation	39	39
Aviation Medicine	297	294
Subtotal, AVR	6,024	6,067
Civil Aviation Security	1,186	1,221
Research & Acquisitions	542	529
Airports	0	0
Commercial Space Transportion	52	69
Financial Services	126	130
Human Resources	159	156
Region & Center Operations	1,079	974
Staff Offices	630	658
SUBTOTAL, OPERATIONS	44,546	44,339
Prior Year Adjustment		
Carry-over Supplemental Funds	30	0
FACILITIES & EQUIPMENT	2,884	2,938
RESEARCH, ENGR. & DEVELOPMENT	455	411
GRANTS-IN-AID FOR AIRPORTS	501	476
AVIATION INSURANCE	3	3
Total, Direct	48,419	48,167
Total, Reimbursable	1,405	1,345
Unidentified	0	0
TOTAL, FAA	49,824	49,512

FEDERAL AVIATION ADMINISTRATION EMPLOYMENT AND FTE'S

	FISCAL YEAR 2002 ESTIMATE	
APPROPRIATION	FULL-TIME EQUIVALENTS (FTE'S)	END OF YEAR EMPLOYMENT
OPERATIONS		
Air Traffic Services		
Air Traffic	24,394	24,393
NAS Logistics	539	508
Systems Maintenance	9,249	9,231
ARS	182	182
Flight Inspection	744	748
Subtotal, Air Traffic Services	35,108	35,062
Aviation Regulation & Certification		
Flight Standards	4,608	4,631
Aircraft Certification	1,089	1,049
Accident Investigation	30	29
Rulemaking	28	27
Planning, Direction & Evaluation	39	39
Aviation Medicine	304	294
Subtotal, AVR	6,098	6,069
Civil Aviation Security	1,233	1,221
Research & Acquisitions	519	508
Airports	0	0
Commercial Space Transportion	69	69
Administration	0	0
Financial Services	134	130
Human Resources	513	488
Region & Center Operations	696	615
Staff Offices	695	704
SUBTOTAL, OPERATIONS	45,065	44,866
Prior Year Adjustment		
FACILITIES & EQUIPMENT	3,049	3,141
RESEARCH, ENGR. & DEVELOPMENT	455	405
GRANTS-IN-AID FOR AIRPORTS	519	493
AVIATION INSURANCE	3	3
Total, Direct	49,091	48,908
Total, Reimbursable	1,405	1,345
Unidentified	0	0
TOTAL, FAA	50,496	50,253

FORECASTS AND STATISTICS OF INDUSTRY ACTIVITY

Mr. Rogers. Please update the table on FAA forecasts of industry activity shown on page 298 of last year's hearing record by providing data for the past four years.

[The information follows:]

Workload Indicator Fiscal Year	1999	2000	2001	2002
Forecast Made in March 1998:				
Domestic Aviation Fuel Consumption (Billions of Gallons)	15.1	15.4	16.0	16.6
Revenue Passenger Miles (Billions) 1/	660.7	688.5	720.3	755.2
General Aviation Hours Flown (Millions)	27.3	27.8	28.3	28.8
IFR Aircraft Handled (Millions)	42.6	43.2	44.2	45.2
Total Operations at Airports with FAA and Contract Towers (Millions)	65.0	65.9	67.0	68.2
Instrument Operations Handled by FAA and Contract Towers (Millions)	49.8	50.6	51.6	52.6
Forecast Made in March 1999:				
Domestic Aviation Fuel Consumption (Billions of Gallons)	14.9	15.3	15.7	16.2
Revenue Passenger Miles (Billions)	647.4	671.5	698.0	732.3
General Aviation Hours Flown (Millions)	28.7	29.2	29.8	30.4
IFR Aircraft Handled (Millions)	44.2	45.2	46.2	47.3
Total Operations at Airports with FAA and Contract Towers (Millions)	66.5	67.7	69.0	70.4
Instrument Operations Handled by FAA and Contract Towers (Millions)	50.9	51.9	52.9	54.1

Workload Indicator				
Fiscal Year	1999	2000	2001	2002
Forecast Made in March 2000:	ACT 2/			
Domestic Aviation Fuel Consumption (Billions of Gallons)	15.4	16.1	16.6	17.2
Revenue Passenger Miles (Billions)	652.1	681.1	709.3	738.1
General Aviation Hours Flown (Millions)	29.8	30.4	31.1	31.9
IFR Aircraft Handled (Millions)	44.7	45.7	46.8	48.0
Total Operations at Airports with FAA and Contract Towers (Millions)	68.2	69.5	70.9	72.4
Instrument Operations Handled by FAA and Contract Towers (Millions)	51.8	52.9	54.1	55.3
Forecast Made in March 2001:	ACT	ACT 2/		
Domestic Aviation Fuel Consumption (Billions of Gallons)	15.2	15.8	16.4	17.1
Revenue Passenger Miles (Billions)	652.1	693.3	720.2	752.6
General Aviation Hours Flown (Millions)	31.8	32.1	32.8	33.7
IFR Aircraft Handled (Millions)	44.7	46.0	47.0	48.1
Total Operations at Airports with FAA and Contract Towers (Millions)	68.2	68.7	71.0	74.4
Instrument Operations Handled by FAA and Contract Towers (Millions)	51.8	53.0	54.1	55.3

1/ U.S. commercial air carriers (domestic and international) and regionals/commuters total scheduled passenger traffic.

2/ Preliminary.

Mr. Rogers. Please update the information on page 300 of last year's hearing record regarding general aviation instrument operations.

[The information follows:]

Total Combined General Aviation Instrument Operations
At Airports With FAA And Contract Traffic Control Service 2/ (In Thousands)

Year	General Aviation Instrument Operations	Total Operations	General Aviation Instrument Operations as a Percent of Total
1994	18.1	46.9	38.6
1995	18.2	47.4	38.4
1996	18.1	47.2	38.3
1997	19.1	48.8	39.1
1998	19.9	50.0	39.8
1999	20.9	51.8	40.3
2000 E	21.3	53.0	40.2
2001 1/	21.7	54.1	40.1
2002 1/	22.1	55.3	40.0

1/ Forecasts

2/ In 1996 the FAA in "FAA Aviation Forecasts Fiscal Years 1996-2007," began reporting air traffic activity for combined FAA and contract towers to make the forecast series consistent with historical data.

WORKLOAD MEASURES AND INDUSTRY TRENDS

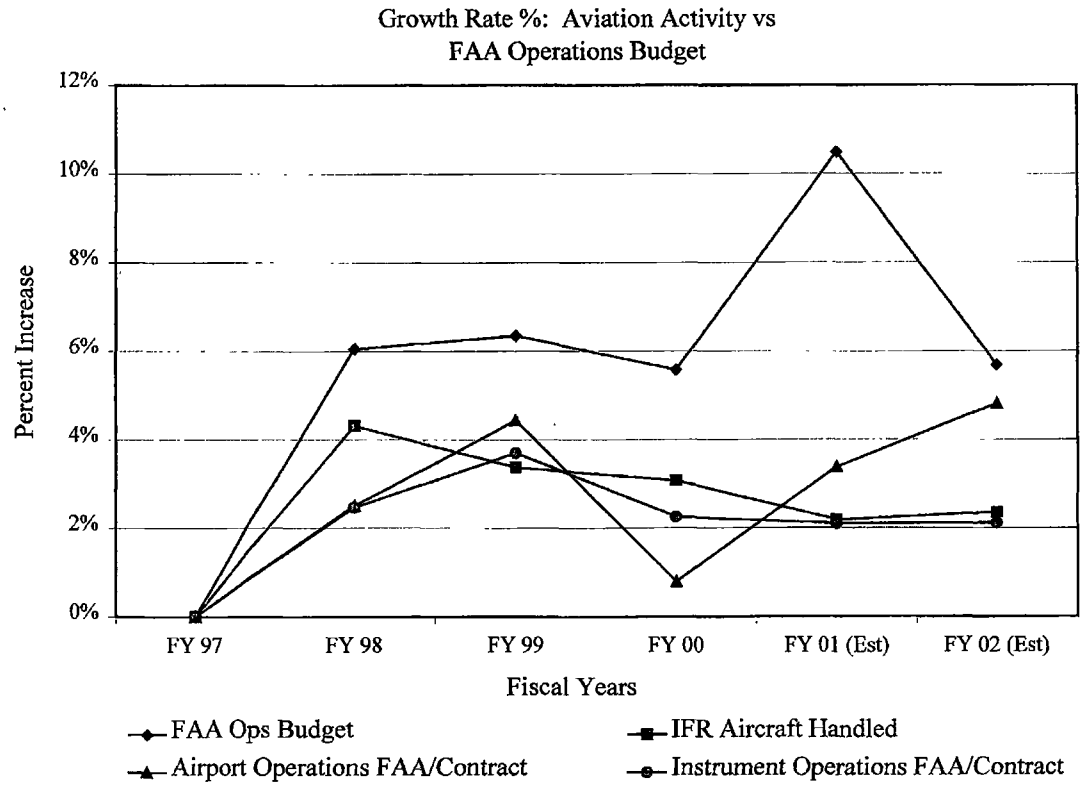
Mr. Rogers. Please update the line graph on page 301 of last year's hearing record and the line graph on page 302, which compares the FAA's operating budget to selected aviation activity indicators by providing data for fiscal years 1997 through 2002.

[The information follows:]

Data For Line Graph On Growth In FAA Operations Budget And Aviation Activity

Fiscal Year	FAA Ops Budget	IFR Aircraft Handled	Airport Operations FAA/Contract	Instrument Operations FAA/Contract
1997	4,954,912,000	41,411,800	63,666,300	48,778,900
1998	5,302,540,000	43,195,900	65,258,300	49,980,500
1999	5,586,071,000	44,654,700	68,150,100	51,829,900
2000	5,857,590,000	46,024,800	68,685,500	52,997,600
2001 (Est)	6,515,838,000	47,027,600	71,006,000	54,110,500
2002 (Est)	6,886,000,000	48,132,400	74,419,100	55,252,300

Fiscal Year	FAA Ops Budget	IFR Aircraft Handled	Airport Operations FAA/Contract	Instrument Operations FAA/Contract
1997	-	-	-	-
1998	6.05%	4.31%	2.50%	2.46%
1999	6.35%	3.38%	4.43%	3.70%
2000	5.58%	3.07%	0.79%	2.25%
2001 (Est)	10.48%	2.18%	3.38%	2.10%
2002 (Est)	5.68%	2.35%	4.81%	2.11%


Growth Rate %: Aviation Activity vs
FAA Operations Budget
12%
10%
8%
6%
4%
2%
0%
Percent Increase
FY 97
FY 98
FY 99
FY 00
FY 01 (Est)
FY 02 (Est)
Fiscal Years
FAA Ops Budget
IFR Aircraft Handled
Airport Operations FAA/Contract
Instrument Operations FAA/Contract

Mr. Rogers. Please update the chart on page 304 of last year's hearing record by providing data for fiscal years 2000 through 2002.

[The information follows:]

Comparison of FAA Air Traffic Funding and Workload Measures
(Volume of Activity in Millions) (Dollars in Thousands)

	Fiscal Year 2000 Actual Funding & Workload Measures	% Change (Fiscal Year 2000 – Fiscal Year 2001)	Fiscal Year 2001 Estimated Funding & Workload Measures	% Change (Fiscal Year 2001 – Fiscal Year 2002)	Fiscal Year 2002 Estimated Funding & Workload Measures
Centers:					
Funding	$1,174,875	9.73%	$1,289,249	5.74%	$1,363,289
IFR Aircraft	46.0	2.17%	47.0	2.34%	48.1
Towers:					
Funding	$1,273,521	7.60%	$1,370,267	5.84%	$1,450,320
Aircraft Ops	68.7	3.35%	71.0	4.79%	74.4
Stations:					
Funding	$292,175	6.97%	$312,528	4.67%	$327,110
Flight Svcs.	30.5	-0.33%	30.4	-0.33%	30.3

Mr. Rogers. Please update the table on page 305 of last year's hearing record, which compares CWF staffing to instrument operations (IOPS) at terminals and centers by providing data for fiscal years 1999 through 2002.

[The information follows:]

The chart below reflects the actual and forecasted controller work force and the projected IOPS (in thousands) at airports with FAA traffic control service. The column on the far right is the instrument operations (in thousands) at air route traffic control centers (ARTCC's).

YEAR	CWF*	IOPS (Terminals)	IOPS (ARTCC's)
1999	17,469	51,110.2	44,654.7
2000	17,423	52,152.8	46,024.8
2001	17,460	53,248.8	47,027.6
2002	17,985	54,374.0	48,132.4

*CWF data does not include Traffic Management Supervisors.
Source of IOPS: FAA Aviation Forecasts Fiscal Years 2001-2012, March 2001 edition.

Mr. Rogers. Please update the table on page 306 showing the percentage change in CWF and IOPS over that time period.

[The information follows:]

Below is the chart representing percentage change between fiscal year 1997 and fiscal year 2002. Fiscal year 1997 is the base year and therefore has no percentage change.

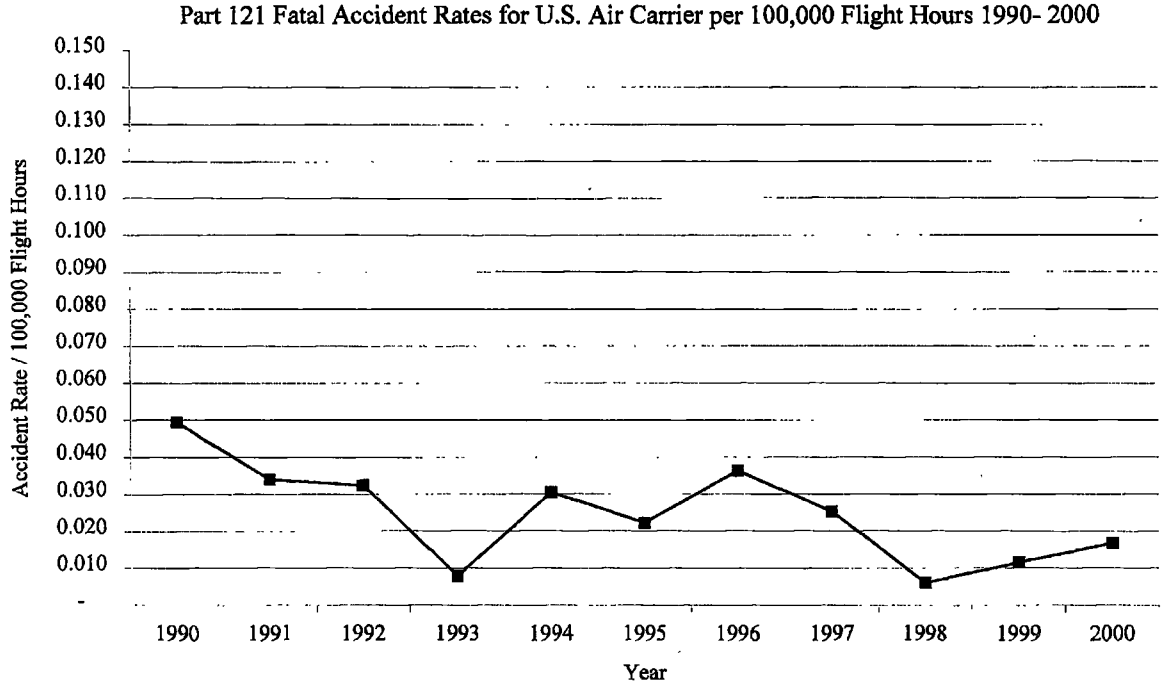
Year	CWF*	Percent Change	IOPS (Terminals)	Percent Change	IOPS (ARTCC's)	Percent Change
1997	17,237		48,128.2		41,411.8	
1998	17,604	2.13%	49,272.8	2.38%	43,195.9	4.31%
1999	17,469	-0.77%	51,110.2	3.73%	44,654.7	3.38%
2000	17,423	-0.26%	52,152.8	2.04%	46,024.8	3.07%
2001	17,460	0.21%	53,248.8	2.10%	47,027.6	2.18%
2002	17,985	3.01%	54,374.0	2.11%	48,132.4	2.35%

*CWF data does not include Traffic Management Supervisors
Source of IOPS: FAA Aviation Forecasts fiscal years 2001-2012, March 2001 edition.

ACCIDENT STATISTICS

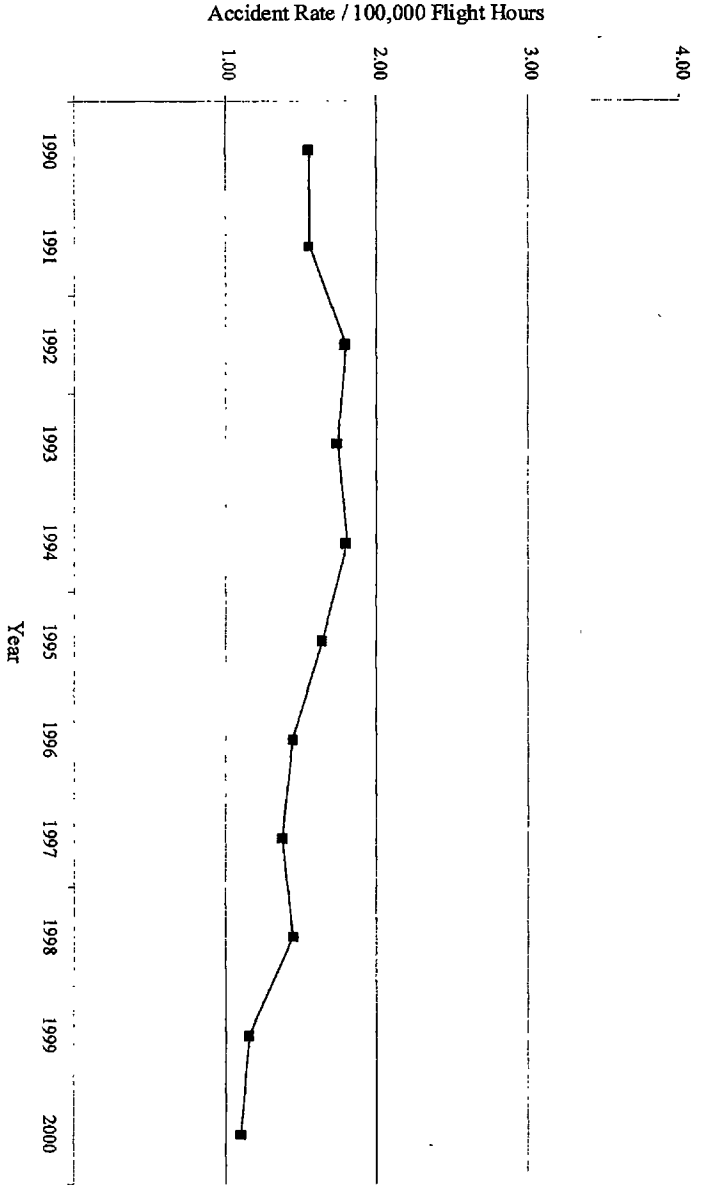
Mr. Rogers. Please update the line graph showing the rate of accidents per 100,000 departures for part 121 air carriers shown on page 317 of last year's hearing record providing data for each of the past ten years.

[The information follows:]


Part 121 Fatal Accident Rates for U.S. Air Carrier per 100,000 Flight Hours 1990- 2000
Accident Rate / 100,000 Flight Hours
0.150
0.140
0.130
0.120
0.110
0.100
0.090
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
-
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
Year

Mr. Rogers. Please update the line graph on page 319 of last year's hearing record showing the general aviation accident rate by providing data for each of the past ten years.

[The information follows:]


Accident Rate / 100,000 Flight Hours
1.00
2.00
3.00
4.00
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
Year

RUNWAY INCURSION STATISTICS

Mr. Rogers. Please update the data shown on pages 347 through 350 of last year's hearing record on runway incursions by providing data for fiscal year 1997 through 2000.

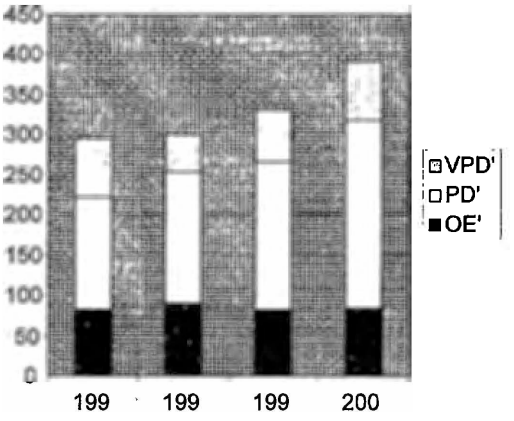
[The information follows:]

Pilot Deviation Runway Incursions By Operation Type
1997-2000

Operation	Year			
Type	1997	1998	1999	2000
Part 91	90	119	135	197
Part 121	25	42	11	9
Part 135	8	14	33	50
Other	9	8	3	3
Total	132	183	182	259

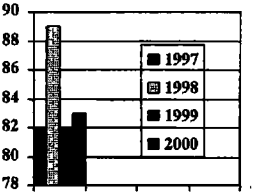
Runway Incursion Data
Fiscal year 1997-2000

Reports	Operational Errors (OE)	Pilot Deviations (PD)	Vehicle/ Pedestrain Deviations (VPD)	Total Runway Incursions
1997	82	140	73	295
1998	89	164	48	301
1999	82	183	65	330
2000	83	247	75	405

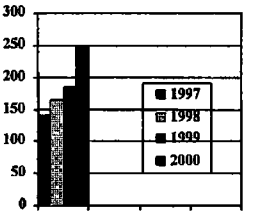


Runway Incursion Data
Fiscal Year1997-2000

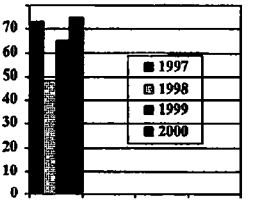
Operational Errors	
Year	Reports
1997	82
1998	89
1999	82
2000	83



Pilot Deviations	
Year	Reports
1997	140
1998	164
1999	183
2000	247



Vehicle/Pedestrian Deviations	
Year	Reports
1997	73
1998	48
1999	65
2000	75



Mr. Rogers. In the most recent year for which data are available, how well did FAA do in meeting its runway incursion goal?

[The information follows:]

For calendar year (CY) 2000, the FAA goal was to be at or below 248 incursions. The actual total runway incursions for CY 2000 was 431.

OPERATIONAL ERROR STATISTICS

Mr. Rogers. Operational errors were up 17.67 percent in fiscal year 1998, and up again, by 6.1 percent, in fiscal year 1999. Were they up again in fiscal year 2000?

[The information follows:]

Yes. In fiscal year 2000, operational errors increased 22 percent over fiscal year 1999. The operational error rate in fiscal year 2000 was 0.69 per 100,000 operational activities as compared to 0.57 per 100,000 operational activities in fiscal year 1999.

FY	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1999	941	60	68	86	81	76	74	94	97	77	77	78	73
2000	1145	65	85	102	93	114	115	103	88	101	104	70	105

Mr. Rogers. Please update the data on operational errors found on pages 352 and 353 of last year's hearing record.

[The information follows:]

The following table breaks down the total number of en route operational errors for the past 5 fiscal years.

Facility	Location	FY 96	FY 97	FY 98	FY 99	FY 00
Albuquerque (ZAB)	8000 Louisiana Blvd N Room 1014 Albuquerque, NM 8710	1.33	0.84	0.40	1.07	1.17
Anchorage (ZAN)	5400 Davis Highway Anchorage, AL 99506	0.37	0.51	0.62	1.51	0.54
Atlanta (ZTL)	299 Woolsey Road Hampton, GA 30228	1.47	1.52	1.54	1.86	1.36
Boston (ZBW)	35 Northeastern Blvd. Nashua, NH 03062	0.76	0.68	0.75	0.65	1.11
Chicago (ZAU)	619 Indian Trail Road Aurora, IL 60506	0.90	0.77	1.29	1.44	2.39
Cleveland (ZOB)	326 East Lorain Street Oberlin, OH 44074	1.12	0.94	1.53	1.53	2.24
Denver (ZDV)	2211 - 17th Avenue Longmont, CO 80501	0.73	0.88	0.86	1.21	1.93
Fort Worth (ZFW)	13800 FAA Road Fort Worth, TX 76155	1.08	0.76	0.97	0.83	1.52
Houston (ZHU)	Intercontinental Airport 16600 John F. Kennedy Boulevard Houston, TX 77032	0.37	0.41	0.45	0.74	0.87
Indianapolis (ZID)	Indianapolis Int'l Airpor 1850 S. Sigsbee Street Indianapolis, IN 46241	1.80	1.24	2.00	2.11	2.00
Jacksonville (ZJX)	10 Aviation Avenue Hilliard, FL 32046	1.44	1.40	1.19	1.09	1.32
Kansas City (ZKC)	250 S. Rogers Road Olathe, KS 66062	1.01	0.87	1.22	1.19	1.27

Facility	Location	FY 96	FY 97	FY 98	FY 99	FY 00
Los Angeles (ZLA)	2555 East Avenue Palmdale, CA 93550	0.96	1.19	1.34	1.06	1.53
Memphis (ZME)	3229 Democrat Road Memphis, TN 38118	1.06	1.24	1.22	0.97	1.70
Miami (ZMA)	7500 N. W. 58th Street Miami, FL 33166	0.76	0.70	0.68	0.65	0.96
Minneapolis (ZMP)	512 Division Street Farmington, MN 55024	0.65	0.49	0.68	1.09	0.70
New York (ZNY)	4205 Johnson Avenue Ronkonkoma, NY 11779	2.06	1.87	1.84	1.68	2.41
Oakland (ZOA)	5125 Central Avenue Fremont, CA 94536	1.28	1.08	0.74	1.42	1.02
Salt Lake (ZLC)	2150 West 700 North Salt Lake City, UT 84116	0.54	0.60	0.58	0.21	0.78
San Juan CERAP (ZUA)	DOT/FAA San Juan CERAP/GPO Section San Juan, PR 00936	0.78	0.00	0.00	0.00	0.00
Seattle (ZSE)	ARTCC Building 3101 Auburn Way S. Auburn, WA 98092	0.65	0.21	0.36	0.42	0.34
Washington (ZDC)	825 East Market Street Leesburg, VA 22075	1.05	1.04	1.71	2.84	3.70

Mr. Rogers. Please update the data on operational error rates found on pages 355 through 357 of last year's hearing record.

[The information follows:]

The following table breaks down the operational error rates, per 100,000 operational activities, for the past 5 fiscal years.

Facility	Location	FY 96	FY 97	FY 98	FY 99	FY 00
Albuquerque (ZAB)	8000 Louisiana Blvd., NE Room 1014 Albuquerque, NM 87109	1.33	0.84	0.40	1.07	1.17
Anchorage (ZAN)	5400 Davis Highway Anchorage, AL 99506	0.37	0.51	0.62	1.51	0.54
Atlanta (ZTL)	299 Woolsey Road Hampton, GA 30228	1.47	1.52	1.54	1.86	1.36
Boston (ZBW)	35 Northeastern Blvd. Nashua, NH 03062	0.76	0.68	0.75	0.65	1.11
Chicago (ZAU)	619 Indian Trail Road Aurora, IL 60506	0.90	0.77	1.29	1.44	2.39
Cleveland (ZOB)	326 East Lorain Street Oberlin, OH 44074-1296	1.12	0.94	1.53	1.53	2.24
Denver (ZDV)	2211 - 17th Avenue Longmont, CO 80501	0.73	0.88	0.86	1.21	1.93
Fort Worth (ZFW)	13800 FAA Road Fort Worth, TX 76155	1.08	0.76	0.97	0.83	1.52
Houston (ZHU)	Intercontinental Airport 16600 John F. Kennedy Blvd. Houston, TX 77032-0032	0.37	0.41	0.45	0.74	0.87
Indianapolis (ZID)	Indianapolis Int'l Airport 1850 S. Sigsbee Street Indianapolis, IN 46241-3640	1.80	1.24	2.00	2.11	2.00
Jacksonville (ZJX)	10 Aviation Avenue Hilliard, FL 32046	1.44	1.40	1.19	1.09	1.32
Kansas City (ZKC)	250 S. Rogers Road Olathe, KS 66062-1689	1.01	0.87	1.22	1.19	1.27
Los Angeles (ZLA)	2555 East Avenue P Palmdale, CA 93550-2112	0.96	1.19	1.34	1.06	1.53

Facility	Location	FY 96	FY 97	FY 98	FY 99	FY 00
Memphis (ZME)	3229 Democrat Road Memphis, TN 38118	1.06	1.24	1.22	0.97	1.70
Miami (ZMA)	7500 N. W. 58th Street Miami, FL 33166	0.76	0.70	0.68	0.65	0.96
Minneapolis (ZMP)	512 Division Street Farmington, MN 55024	0.65	0.49	0.68	1.09	0.70
New York (ZNY)	4205 Johnson Avenue Ronkonkoma, NY 11779	2.06	1.87	1.84	1.68	2.41
Oakland (ZOA)	5125 Central Avenue Fremont, CA 94536-6531	1.28	1.08	0.74	1.42	1.02
Salt Lake (ZLC)	2150 West 700 North Salt Lake City, UT 84116	0.54	0.60	0.58	0.21	0.78
San Juan CERAP (ZUA)	DOT/FAA San Juan CERAP/GPO Section San Juan, PR 00936	0.78	0.00	0.00	0.00	0.00
Seattle (ZSE)	ARTCC Building 3101 Auburn Way S. Auburn, WA 98092	0.65	0.21	0.36	0.42	0.34
Washington (ZDC)	825 East Market Street Leesburg, VA 22075	1.05	1.04	1.71	2.84	3.70

TURBULENCE ACCIDENTS AND INCIDENTS

Mr. Rogers. Please update the data on aviation accidents and incidents related to air turbulence found on pages 361 through 365 of last year's hearing record, by providing data for fiscal years 1998 through 2000.

[The information follows:]

1998 - 2000 Turbulence Accidents & Incidents

Date	State	Name	Total Injuries	Flight Attendant Serious Injuries	Flight Attendant Minor Injuries	Passenger Serious Injuries	Passenger Minor Injuries
1998							
06-Jan-98	FL	Delta Airlines Inc.	1	0	0	1	0
27-Feb-98	TX	Southwest Airlines Co.	1	0	1	0	0
04-Mar-98	NV	Alaska Airlines Inc.	8	1	0	0	7
19-Mar-98	AL	Southwest Airlines Co.	1	0	1	0	0
19-Mar-98	FL	Delta Airlines Inc.	1	0	1	0	0
18-Apr-98	AO	Tower Air	20	0	3	2	15
07-May-98	GA	Air Trans	2	1	0	0	1
13-May-98	IN	American Airlines Inc.	1	1	0	0	0
24-May-98	KS	US Airways Inc.	7	1	3	0	3
18-Jun-98	CO	United Airlines Inc.	7	0	0	0	7
17-Jul-98	LA	Delta Airlines Inc.	3	0	2	0	1
22-Jul-98	IL	American Airlines Inc.	2	0	1	1	0
07-Aug-98	PA	US Airways Inc.	10	0	3	0	7
09-Aug-98	FL	American Airlines Inc.	7	0	0	0	7
15-Sep-98	UT	Delta Airlines Inc.	1	0	1	0	0
17-Sep-98	IL	American Eagle	1	1	0	0	0
27-Sep-98	NY	US Airways Express	2	1	0	0	1
04-Oct-98	OF	Delta Airlines Inc.	1	1	0	0	0
11-Nov-98	OF	United Airlines Inc.	1	0	0	1	0
13-Dec-98	CA	America West	1	1	0	0	0
Total 1998			78	8	16	5	49

Date	State	Name	Total Injuries	Flight Attendant Serious Injuries	Flight Attendant Minor Injuries	Passenger Serious Injuries	Passenger Minor Injuries
1999							
15-Jan-99	PA	Midwest Express	1	1	0	0	0
20-Jan-99	PO	Continental Airlines Inc.	14	0	4	0	10
01-Feb-99	NV	America West Airlines Inc.	1	0	0	1	0
07-Feb-99	CO	United Airlines Inc.	1	0	1	0	0
08-Feb-99	NC	American Airlines Inc.	4	3	1	0	0
02-Mar-99	MI	United Airlines Inc.	1	0	1	0	0
03-Mar-99	NJ	Business Express	1	1	0	0	0
05-May-99	IL	Vanguard	2	1	1	0	0
25-May-99	NJ	Continental Airlines Inc.	1	1	0	0	0
11-Jun-99	WI	United Airlines Inc.	9	0	4	1	4
25-Jun-99	LA	Southwest Airlines Co.	1	1	0	0	0
08-Jul-99	AO	Continental Airlines Inc.	72	0	4	1	67
09-Jul-99	RQ	American Airlines Inc.	1	0	0	0	1
22-Jul-99	PA	Allegheny Airlines Inc.	1	0	1	0	0
11-Aug-99	NJ	Continental Airlines Inc.	1	0	1	0	0
02-Sep-99	CA	United Airlines Inc.	13	1	1	0	11
16-Sep-99	NV	America West Airlines Inc.	9	0	3	1	5
30-Sep-99	NJ	United Airlines Inc.	1	1	0	0	0
27-Oct-99	FL	American Airlines Inc.	1	0	0	1	0
13-Dec-99	UK	United Airlines Inc.	6	1	5	0	0
Total 1999			141	11	27	5	98

Date	State	Name	Total Injuries	Flight Attendant Serious Injuries	Flight Attendant Minor Injuries	Passenger Serious Injuries	Passenger Minor Injuries
2000							
10-Jan-00	HI	United Airlines Inc.	3	0	0	0	3
11-Jan-00	NV	America West Airlines Inc.	2	1	1	0	0
03-Feb-00	MA	US Airways	1	1	0	0	0
14-Feb-00	CA	Horizon Air	1	1	0	0	0
12-Feb-00	CO	America West Airlines Inc.	2	0	0	0	2
19-Feb-00	NC	Corporate Express Airlines	3	0	0	0	3
27-Feb-00	CA	Sky West Airlines Inc.	4	0	0	0	4
10-Mar-00	GA	Atlantic Southwest	1	1	0	0	0
02-Apr-00	TX	America West Airlines Inc.	3	1	2	0	0
03-Apr-00	MO	Southwest Airlines Co.	1	0	1	0	0
30-Apr-00	KS	America West Airlines Inc.	1	0	0	0	1
04-Jul-00	IN	Astral Aviation Inc.	2	0	0	0	2
28-Jul-00	SC	Pan Am Airways	16	1	3	1	11
31-Jul-00	IL	United Airlines Inc.	1	0	0	1	0
22-Aug-00	WI	American Airlines	1	1	0	0	0
23-Aug-00	GM	American Airlines	14	1	4	0	9
17-Sep-00	GA	Atlantic Southwest	1	1	0	0	0
20-Sep-00	GA	Delta Airlines	17	1	3	0	13
26-Sep-00	FL	American Airlines	1	0	0	1	0

Date	State	Name	Total Injuries	Flight Attendant Serious Injuries	Flight Attendant Minor Injuries	Passenger Serious Injuries	Passenger Minor Injuries
2000							
10-Oct-00	FR	Northwest Airlines	7	0	2	2	3
04-Nov-00	OR	Delta Airlines	3	1	2	0	0
13-Nov-00	AK	Alaska Airlines	1	1	0	0	0
12-Dec-00	AK	United Airlines Inc.	4	0	3	0	1
Total 2000			91	13	21	5	52

Mr. Rogers. What initiatives are underway to provide turbulence forecast models to airline dispatchers or pilots, in order to provide better warning of clear air turbulence phenomena?

[The information follows:]

The FAA's Aviation Weather Research Program (AWRP) has several initiatives underway to provide better warning of the clear air turbulence phenomena:

An on-board detection algorithm has been developed. The International Civil Aviation Organization approved this algorithm as an international standard. The algorithm is currently installed into the aircraft condition monitoring system software of 70 aircraft. As calibration is completed this calendar year, it is anticipated to be installed on more than 200 aircraft. This system provides objective turbulence measurements (including clear air turbulence (CAT)), which are then downlinked for immediate use by forecasters at the Aviation Weather Center (AWC) in Kansas City, utilized as inputs for AWRP research into new forecast models, and a product will be developed to provide this information to other aviation users.

A first generation integrated turbulence forecast algorithm has been developed whose inputs include observational data, pilot reports, and the in-situ data described above. Currently, outputs from this algorithm are available as an experimental product over the Internet via the Aviation Digital Data Service and available to forecasters at the AWC and the airlines. This algorithm produces turbulence forecasts (including CAT) for 20,000 feet and above, in three-hour time increments out to 12 hours, and is updated every three hours. Current initiatives are expanding this algorithm for flight levels below 20,000 feet.

There have also been advances in remote sensing of turbulence. Analysis and development of turbulence detection algorithms using Doppler lidars (lasar radar) is underway in collaboration with the NASA Aviation Safety Program. Additionally efforts to enhance Next Generation Weather Radar turbulence detection are also ongoing.

CONTROLLER TRAINING

Mr. Rogers. Please provide estimated obligations under the Air Traffic Instructional Services contract for each of the fiscal years 1998 through 2002, updating the information found on page 366 of last year's hearing record.

[The information follows:]

Below are the estimated and actual obligations under the Air Traffic Instructional Services contract for each of the fiscal years 1998 through 2002.

Fiscal Year	Amount	Obligation
1998	$13,893,525	Actual
1999	$15,494,700	Actual
2000	$16,165,000	Actual
2001	$20,216,185	Actual
2002	$28,683,185	Estimated

NATIONAL AIR TRAFFIC CONTROLLERS ASSOCIATION (NATCA) REPRESENTATION

Mr. Rogers. Updating the information on page 366 of last year's hearing record, how many FAA employees are currently members of the National Air Traffic Controllers Union (NATCA)?

[The information follows:]

There are approximately 18,200 FAA employees who are now represented by ten different NATCA bargaining units. Approximately 13,600 of these employees are dues paying members. The 13,600 dues paying members equate to an estimated 74.5 percent of the total FAA NATCA bargaining units members.

Mr. Rogers. What is the estimated dollar amount of NATCA dues for fiscal year 2001, and how does that compare to the 1997 estimate of $8.2 million?

[The information follows:]

As a result of recent organizing activity among other groups of employees, the number of employees NATCA represents has risen since 1997 from about 15,000 to approximately 18,000. Dues collections from all bargaining units should total about $15.3 million this year.

UNION WORKFORCES

Mr. Rogers. Please provide a table summarizing, by labor union, the number of FAA employees currently represented by organized labor unions. In total, what percentage of the FAA workforce does this represent, and how has this percentage changed since 1997?

[The information follows:]

As of January 2001 there were approximately 49,000 employees on board in the FAA. Of this total, over 37,000 employees were in 48 separate bargaining units represented by 10 different unions. Bargaining unit employees now represent over 76 percent of the total FAA workforce. While total number of bargaining units has increased by over 118 percent, the total number of unit employees represented by unions increased by only about 12 percent since 1997.

In 1997, there were fewer than 48,000 employees on board in the FAA. Of this total, approximately 33,000 employees were in 22 separate bargaining units represented by 8 different unions. Bargaining unit employees represented about 69 percent of the total workforce at that time.

Following is a table summarizing by labor union, the number of FAA employees represented by organized labor unions.

Unions	Bargaining Units	Labor Agreements	Employees Represented
	48	21	37,126
AFGE	11	5	1,400
AFSCME (HQ)	5	0	1,280
LIUNA	1	1	150
NAATS	1	1	2,400
NAGE	3	3	400
NATCA (AAT)	3	3	15,700
NATCA (AAF)	5	1	1,400
NATCA (ABA)	1	0	100
NATCA (AIR)	1	0	530
NATCA (ARC)	1	0	540
NATCA (AFS)	1	0	13
NATCA (AAM)	1	0	42
NATCA (ARP)	1	0	286
NATCA (AGC)	1	0	60
NFFE	2	2	1,000
NUDAI	1	0	25
PAACE	3	2	400
PASS (AF/AEA)	1	1	7,500
PASS (AVN)	1	1	250
PASS (AFS)	3	1	3,500
PASS (AIR)	1	0	150

AFGE - American Federation of Government Employees
AFSCME - American Federation of State, County, and Municipal Employees
LIUNA - Laborer's International Union of North America
NAATS - National Association of Air Traffic Specialists
NAGE - National Association of Government Employees
NATCA - National Air Traffic Controllers Association
NFFE - National Federation of Federal Employees
NUDAI - National Union of Drug Abatement Inspectors
PAACE - Professional Association of Aeronautical Center Employees
PASS - Professional Airway System Specialists

COMMERCIAL SPACE TRANSPORTATION

Mr. Rogers. Please update the list of positions in the Office of the Associate Administrator for Commercial Space Transportation found on pages 432 through 440 of last year's hearing record.

[The information follows:]

Position Title	Pay Plan, Series, Grade	Salary
Associate Administrator	EV-301-1	145,100
Deputy Associate Administrator	EV-0340-2	125,885
Special Assistant for External Affairs	FV-0301-J	116,002
Management and Program Analyst	FV-0343-J	90,720
Aerospace Eng (Special Assistant)	FV-0861-J	88,741
Attorney / Advisor	FG-0905-15	96,647
Staff Assistant	FV-0301-G	49,756
Staff Assistant	FV-0301-F	45,687
Supervisory Aerospace Engineer	FV-0801-K	116,002
Aerospace Engineer	FG-0861-15	105,437
Aerospace Engineer	FG-0861-14	94,618
Aerospace Engineer	FG-0861-14	84,658
Environmental Specialist	FG-0028-12	53,156
Transportation Industry Analyst	FG-2110-13	63,211
Transportation Industry Analyst	FG-2110-11	53,221
Supervisory Aerospace Engineer	FV-0861-L	125,282
Operations Research Analyst	FG-1515-14	93,222
Aerospace Engineer	FG-0861-J	90,496
Program Analyst	FG-0343-14	89,638
General Engineer	FG-0801-14	87,148
Aerospace Engineer	FG-0861-14	87,148
Aerospace Engineer	FG-0861-14	87,148
General Engineer	FG-0801-13	82,180
General Engineer	FG-0801-14	82,168
Aerospace Engineer	FG-0861-13	80,072
Aerospace Engineer	FG-0861-13	75,857
General Engineer	FG-0801-13	69,534
Aerospace Engineer	FG-0861-13	67,427
General Engineer	FG-0801-13	67,427
Secretary	FG-0318-07	30,965
Supervisory Aerospace Engineer	FV-0861-K	107,000

OFFICE OF POLICY, PLANNING AND INTERNATIONAL AVIATION

Mr. Rogers. Please update the listing of positions in the Office of Policy, Planning and International Aviation found on pages 441 through 447 of last year's hearing record.

[The information follows:]

Office of the Assistant Administrator for Policy, Planning, and International Aviation

Assistant Administrator	EV-0340-2	$129,499
Secretary	FV-0301-G	$45,223
Deputy Assistant Administrator	EV-0340-2	$125,705
Secretary	FV-0318-F	$48,337
Special Assistant to the Assistant Administrator	EV-0340-2	$125,499
International program management staff		
Manager	FV-0340-K	$105,236
Supervisory financial program analyst	FV-0501-K	$103,959
Program analyst 1/	FG-0343-14	$76,801
Program analyst 2/	FG-0343-13	$63,081
Program analyst	FG-0343-13	$57,345
Program management specialist	FG-0301-7	$27,185
Supervisory program analyst	FV-0343-K	$105,236
Program analyst 2/	FV-0343-J	$82,140
Program analyst 2/	FG-0343-13	$64,993
Program analyst 1/	FG-0343-13	$63,081
Program analyst 1/	FG-0343-13	$63,081
Program analyst 1/	FG-0343-14	$76,801
Program analyst 1/	FG-0343-13	$64,993
Program analyst 1/	FG-0343-13	$63,081
Program analyst 1/	FG-0343-13	$57,345
Program analyst 1/	FG-0343-13	$57,345
Management assistant 2/	FG-0344-08	$38,139
Office of Environment and Energy		
Director	EV-0340-2	$109,067
Secretary	FG-0318-9	$43,226
Deputy Director	FV-0028-L	$113,655
Secretary	FG-0318-8	$38,139

Office of Environment and Energy		
Senior program analyst	FV-0028-J	$96,207
Computer specialist	FG-0334-14	$88,096
Computer specialist	FG-0334-14	$81,319
Computer specialist	FG-0334-13	$63,081
Program support specialist	FG-1515-14	$76,801
Supervisory operations research analyst 4/6	FT-1301-0	
Operations research analyst 4/	FM-1515-15	$76,801
Operations research analyst 4/	FG-1515-13	$59,257
Operations research analyst 4/	FG-1515-12	$63,081
Operations research analyst 4/	FG-1515-13	$70,729
Operations research analyst 4/	FG-1515-13	$59,257
Technology Division		
Supervisory physical scientist	FV-1301-K	$105,236
Secretary	FG-0318-7	$33,527
Supervisory environmental specialist	FV-0028-K	$99,258
General engineer	FG-0801-14	$88,096
General engineer	FG-0801-14	$81,319
Environmental engineer	FG-0819-14	$76,801
Environmental protection specialist	FG-0028-14	$81,319
General engineer 6/	FG-0028-14	
Economist 6/	FG-0110-14	
Facility Environment and Safety Division		
Supervisory physical science specialist	FV-1301-K	$96,570
General engineer	FG-0801-14	$81,319
General engineer	FG-0801-14	$85,837
Environmental protection specialist	FG-0028-14	$81,319
Occupational safety and health manager	FG-0018-14	$74,542
Safety and occupational health manager	FG-0018-13	$61,169
Safety and occupational health manager	FG-0018-13	$64,993
Environmental specialist	FG-0028-14	$79,177
Program analyst 6/	FG-0343-12	
Secretary 6/	FG -0318-7	
Environmental Policy and Regulatory Division		
Supervisory environmental specialist	FM-0028-15	$90,549
Environmental specialist	FG-0028-14	$70,381
Environmental specialist	FG-0028-14	$74,779
Environmental specialist	FG-1515-14	$65,983
General engineer	FG-0801-14	$79,177
Environmental specialist	FG-0515-13	$55,837

Environmental Policy and Regulatory Division		
Environmental specialist	FG-0028-13	$70,725
Environmental specialist	FG-0801-13	$68,864
Clerk-typist	FG-0322-04	$23,506
Office of Aviation Policy and Plans		
Director	EV-0340-2	$125,499
Secretary	FG-0318-9	$41,010
Deputy Director	EV-0340-2	$112,067
Secretary	FG-0318-8	$30,107
Aviation Insurance and Special Projects Staff		
Assistant Director 6/	FM-0340-15	
Senior economist	FG-0110-15	$103,623
Financial analyst 5/	FG-1160-14	$81,319
Administrative officer 5/	FG-0341-12	$53,044
Planning Analysis Division		
Manager 6/	FG-0340-15	
Secretary	FG-0318-7	$32,621
Supervisory industry economist	FV-0110-K	$103,783
Industry economist	FG-0110-14	$67,765
Industry economist	FG-0110-14	$85,837
Industry economist 6/	FG-0110-14	
Industry economist	FG-0110-13	$63,081
Statistician	FG-1530-14	$88,277
Industry economist	FG-0110-12	$49,830
Statistician assistant	FG-1531-8	$38,139
Supervisory program analyst	FV-0343-K	$99,463
Program analyst	FG-0343-14	$83,578
Program analyst	FG-0343-14	$72,283
Planning specialist	FG-0301-13	$68,817
Supervisory information specialist	FV-1515-K	$105,236
Computer systems analyst	FG-0334-14	$79,060
Operations research analyst	FG-1515-14	$88.096
Computer systems analyst	FG-0334-13	$64,993
Operations research analyst	FG-1515-13	$74,553
Program analyst	FG-0343-13	$63,081
Computer programmer	FG-0334-12	
Policy and Systems Analysis Division		
Supervisory industry economist	FV-0110-K	$101,264
Secretary	FG-0318-7	$31,715
Operations research analyst	FG-1515-14	$85,837

Policy and Systems Analysis Division		
Planning specialist	FG-0301-14	.$75,790
Economist	FG-0110-14	$83,578
Policy analyst	FG-0301-14	$88,096
Economist	FG-0110-14	$67,765
Economist	FG-0110-14	$74,542
Economist	FG-0110-13	$63,081
Economist	FG-0110-13	$59,257
Economist 6/	FG-0010-13	
Regulatory Analysis Division		
Supervisory policy analyst	FV-0110-K	$105,236
Secretary	FG-0318-7	$35,339
Supervisory transport industry analyst	FV-0110-K	$99,463
Economist	FG-0110-14	$81,319
Economist	FG-0110-14	$83,578
Economist	FG-0110-14	$85,837
Economist	FG-0110-14	$81,319
Economist	FG-0110-13	$74,553
Economist	FG-0110-13	$68,817
Economist	FG-0110-9	$37,686
Supervisory transport industry analyst	FV-0110-K	$86,037
Economist	FG-0110-14	$88,096
Economist	FG-0110-14	$85,837
Economist	FG-0110-14	$85,774
Economist	FG-0110-14	$88,096
Economist	FG-0110-13	$61,169
Economist	FG-0110-13	$61,169
Economist	FG-0110-13	$66,905
Economist	FG-0110-13	$61,169
Office of International Aviation		
Director	EV-0340-2	$125,453
Secretary	FG-0318-9	$36,578
Deputy Director	FV-0130-L	$113,655
Secretary	FG-0318-8	$34,123
International aviation affairs specialist	FV-0130-K	$94,702

1/ Positions funded by other FAA organization.
2/ Positions reimbursed through international agreements with foreign aviation authorities.

3/ Locally (overseas) engaged staff approximate dollar amount for salaries paid in foreign currencies.
4/ Positions funded by RE&D.
5/ Positions funded by Aviation Insurance.
6/ Vacant Positions

ENGLISH LANGUAGE PROFICIENCY

Mr. Rogers. Please update the Committee on FAA and ICAO activities to improve English language proficiency standards and training in other countries, including specific performers of this work and a summary of amounts included in the FAA and State Department budgets for fiscal year 2001 and 2002.

[The information follows:]

The FAA, with the assistance of the Defense Language Institute English Language Center (DLIELC), conducted a study called the Air Traffic Control English Language Project (ATCELP). The ATCELP was undertaken with the intention of assessing English language proficiency requirements for pilots and air traffic controllers. Funding for the study was provided through appropriations in fiscal years 1998 and 1999. No specific funding has been allocated for the program for fiscal years 2001 or 2002. The study was validated through work performed by Humrro, Incorporated in conjunction with Eurocontrol.

The ATCELP results are based on the use of the Inter-agency Language Roundtable (ILR) rating scale. This is a standard reference scale used by the United States Government to rate proficiency in English and other languages. Standardized language assessments using the ILR scale have been in service for many years. The scale consists of increments of proficiency ranging from "0" (no language capability, or isolated words) to "5" (equivalent to a well educated native speaker). There are additional levels between these increments (0+, 1+, 2+). All together, this forms the eleven-point ILR scale that is used to measure four dimensions of language: reading, writing, speaking, and listening. However, the ATCELP focuses only on speaking and listening skills.

The ATCELP clearly demonstrates there exists a measurable degree of proficiency that should be required of anyone who is using English for air traffic control communications. The project employed multiple methodologies to conclude that "2" on the ILR scale for speaking and listening should be the minimum requirement. From a speaking standpoint,

this rating indicates the individual can fully participate in casual conversations, express facts, give instructions, describe, report on, and provide narration about current, past, and future activities, and can handle situations with complications. At this level, the speaker is able to present concrete topics, including background and current events, and is understandable to a native speaker not accustomed to interacting with foreigners, although miscommunication may occur at times.

Similarly, a level of "2" for listening proficiency indicates several key abilities. First, the individual can understand conversations about everyday topics such as personal information and current events. Second, the person understands facts, even though he or she may not be able to make culturally based inferences. Third, the listener understands native speakers who are not accustomed to dealing with foreigners, although some repetition and rewording may be required.

At the FAA's urging, the ICAO formed the Proficiency Requirements in Common English Study Group (PRICESG) to examine current guidance on language and air traffic control communication and develop new Standards and Recommended Practices and guidance material as necessary regarding proficiency requirements, training, and testing. The group convened its initial meeting at ICAO Headquarters in Montreal, Quebec, Canada in November 2000. A five-person delegation from the United States presented ATCELP results and recommended ILR 2.

The PRICESG agreed that English should be the standard language to be used in circumstances where the ground station and aircrew do not share a common language. To that point, use of a standard language had only been stated as a recommendation in Annex 10 to the Chicago Convention. Preliminary discussions took place to determine an appropriate regulatory framework for an English language standard. These discussions will continue when the PRICESG convenes in May 2001.

The FAA support of the effort, in association with ICAO, to implement a measurable standard and better define and develop training and testing requirements, continues through dedicated staff and technical support. DLIELC and Humrro, Incorporated have completed all deliverables associated with the ATCELP project. The State Department is supporting the effort through a fiscal year 2001 $100,000 transfer to ICAO, enabling ICAO to hire an American linguistics expert (from Embry Riddle) for the program. The State Department has also committed another $100,000 to fund the program for fiscal year 2002.

POLICY STUDIES

Mr. Rogers. Please list the policy studies you plan to complete during calendar year 2001 and those you actually completed during 2000, similar in format to that shown on pages 450 through 452 of last year's hearing record.

[The information follows:]

Listed below are policy studies completed in CY 2000 and policy studies planned in CY 2001 by the Office of Aviation Policy and Plans: Studies are grouped by policy studies conducted by FAA employees and policy studies conducted or assisted by contractors.

Policy Studies Completed In Calendar Year 2000
Conducted by FAA Employees

- Forecast of Aviation Activity 2000-2011
- Long Range Aviation Forecasts 2011-2021
- Forecast of Terminal Area Activity 1999-2016
- General Aviation and Air Taxi Activity Survey – 1998 (contractor support on data processing)
- Consolidated Operations Delay Analyses (CODAS) (two editions) CY 1998, CY 1999
- Estimate for Cost of Airline Delay – 1998
- Periodic ten year reviews of a segment of Federal Aviation Regulations economically impacting small businesses
- FAA Achievement Plan (Corporate Projects), FY 2000-2002
- FAA Aerospace Forecast 2000-2011
- Development of Aviation System Performance Metrics Database
- Analysis of selected sites for establishment/decommissioning of Airport Traffic Control Towers
- Analysis of selected sites for establishment of Airport Surveillance Radar
- U.S. Position Policy Papers on Economics of Airports and Air Navigation Services
- Economic evaluation of 43 rulemaking actions dealing with all aspects of Federal Aviation Regulations, including pilot simulator training, limitations on air tour operations in Grand Canyon National Parks, obstructions to navigable airspace, unity of checked baggage on U.S. flights, passenger facility charges, commercial space operations, certification of airports, collision avoidance systems for cargo aircraft,

flight data records for Boeing 737 airplanes, thermal acoustic insulation on air carrier airplanes, and harmonization of U.S. and European Transportation airplane airworthiness standards.

- Report to Congress on National Park Overflight Fees

Contractor-Conducted/Contractor-Assisted Studies

- Model to assess market options for controlling aircraft emissions (for the Committee on Aviation Environmental Protection of the International Civil Aviation Organization)
- Pilot Flight and Rest Time Safety and Cost Analysis

Policy Studies Planned For Completion In Calendar Year 2001
Conducted by FAA Employees

- FAA Aerospace Forecast, 2001-2012
- FAA Long Range Aviation Forecast, 2012-2021
- Forecasts of Terminal Area Activity, 2000-2016
- FAA Strategic Plan 2001 Supplement (Performance Goals and Corporate Projects – replaces FAA Achievement Plan), fiscal year 2001-2003 and beyond
- Consolidated Operations Delay Analyses (CODAS) CY 2000
- Analysis of selected sites for Establishment/Decommissioning of Airport Traffic Control Towers
- Analysis of selected sites for establishment of Automated Weather Observing Systems
- Development of revised establishment/decommissioning Criteria for Airport Traffic Control Towers
- Analysis of selected sites for establishment of Airport Surveillance Radar
- Development of revised establishment Criteria for Airport Surveillance Radar
- Analysis of selected sites for establishment of Instrument Landing Systems
- Economic evaluation of approximately 50 rulemaking actions related to the full range of aviation regulations, including fractional ownership of business aircraft, certification of security screening companies, national parks air tour management, commercial space launch operations, aging aircraft, certification of light sport pilot aircraft and pilots, infant restraint systems, certification of airport and harmonization of U.S. and European transport airplane airworthiness standards
- Periodic ten year reviews of a segment of Federal Aviation Regulations economically impacting small businesses

- Development of risk assessment technologies specifically adapted to aviation safety and security issues

Contractor-Conducted/Contractor-Assisted Studies

- PL 106-181 Study of Air Taxi Operations (contractor support for data processing)
- General Aviation and Air Taxi Activity Survey – 2001 (contractor support for data processing)
- Study of Demand Management Options for Airport Congestion

OFFICE OF THE ADMINISTRATOR AND DEPUTY ADMINISTRATOR

Mr. Rogers. Please update the listing of positions in the offices of the Administrator and Deputy Administrator, including the position, title, grade level, and salary. This should be similar in format to that shown on pages 452 through 454 of last year's hearing record.

[The information follows:]

Position Title	Pay Plan, Series, Grade	Salary	Pol. Appt.
Administrator	EX-0340-2	$145,100	X
Chief of Staff	EV-0340-2	vacant	
Executive Assistant	EV-0301-2	$133,700	
Executive Assistant	FV-0301-J	$104,847	
Ex. Assist. for Internal Comm.	FV-0301-J	$116,002	
Executive Assistant	FG-0301-15	$108,366	
Administrative Officer	FV-0343-J	$ 86,313	
Staff Assistant	FG-0301-11	$ 48,787	
Secretary (OA)	FG-0318-7	$ 31,963	
Motor Vehicle Operator	FW-5703-7	$ 36,026	
Director, Executive Secretariat	FV-0301-J	$ 92,894	
Correspondence Staff Specialist	FV-0301-I	vacant	
Correspondence Control Specialist	FV-0301-H	$ 62,981	
Secretary (OA)	FG-0318-6	$ 27,864	
Mail and File Clerk	FG-0305-6	$ 31,457	
Clerk-Typist	FG-0322-4	$ 23,540	

Position Title	Pay Plan, Series, Grade	Salary	Pol. Appt.
Correspondence Program Liaison	FG-0301-11	$ 51,743	
Correspondence Program Liaison	FG-0301-11	$ 50,265	
Correspondence Program Liaison	FG-0301-11	$ 57,656	
Correspondence Program Liaison	FG-0301-11	$ 51,743	
Manager, Hotline Operations	FV-0301-J	$ 85,585	
Hotline Specialist	FG-0301-13	$ 67,427	
Hotline Specialist	FG-0301-13	$ 67,427	
Hotline Specialist	FG-0301-12	$ 42,724	
Hotline Specialist	FG-0301-9	$ 36,656	
Deputy Administrator	EX-0340-4	vacant	X
Chief of Staff	FV-0301-J	$110,626	
Director, Safety and Special Studies	EV-0340-2	$138,565	
Executive Staff Assistant	FG-0301-13	vacant	
Staff Assistant	FV-0301-H	$ 62,185	
Mgr, Emergency Operations Staff	FV-0301-K	$ 89,576	
Plans Officer	FV-0301-J	$ 81,152	
Emerg. Prep. Planning Officer	FV-0301-J	$ 76,736	
Emerg. Prep. Planning Officer	FV-0301-J	vacant	
Program Officer	FV-0301-I	$ 64,772	
Emerg. Prep. Specialist	FV-0301-H	$ 48,400	
Facility Operations Supervisor	FV-0301-J	$ 98,614	
Mgmt. And Prog. Analyst	FV-0343-J	$ 79,805	
Mgmt. And Prog. Analyst	FV-0343-J	$ 77,800	
Program Officer	FV-0301-I	$ 58,587	
Program Officer	FV-0301-H	$ 64,296	
Emerg. Prep. Specialist	FV-0301-H	$ 51,452	
Emerg. Prep. Specialist	FV-0301-G	$ 45,073	
Emerg. Prep. Specialist	FV-0301-G	$ 40,354	
Manager, Operations Center	FV-0301-J	$ 92,785	
Programs Coordinator	FV-0301-I	$ 74,359	
Operations Officer	FV-0301-I	$ 76,622	
Operations Officer	FV-0301-I	$ 74,605	
Operations Officer	FV-0301-I	$ 75,140	
Operations Officer	FV-0301-I	$ 75,881	

Position Title	Pay Plan, Series, Grade	Salary	Pol. Appt.
Operations Officer	FV-0301-I	$ 76,169	
Operations Officer	FV-0301-I	$ 77,252	
Operations Officer	FV-0301-I	$ 63,759	
Operations Officer	FV-0301-I	$ 63,759	
Operations Officer	FV-0301-H	$ 57,763	
Assistant Operations Officer	FV-0301-H	$ 55,299	
Assistant Operations Officer	FV-0391-H	$ 55,299	
Assistant Operations Officer	FG-0391-G	$ 49,258	
Telecommunications Specialist	FV-0391-G	$ 48,392	

OFFICE OF SYSTEM SAFETY

Mr. Rogers. Please update the listing of positions in the Office of System Safety found on page 455 of last year's hearing record.

[The information follows:]

Position Title	Grade Level	Annual Salary
Assistant Administrator	EV 01	$38,565
Deputy Assistant Administrator	EV 02	123,961
Division Manager (2)*	Core K	116,002
Computer Scientist	15	108,366
Computer Specialist	15	99,580
Computer Specialist	14	84,658
Management Analyst	14	92,128
Management Analyst (2)*	14	87,148
Management & Program Analyst	12	53,156
Operations Research Analyst	15	114,224
Safety Engineer	15	90,793
Safety Engineer	13	63,211
Program Analyst (4)*	15	114,224
Program Analyst (2)*	15	111,295
Program Analyst	15	105,437
Program Analyst	15	102,508
Program Analyst	15	99,580
Program Analyst	15	96,651
Program Analyst (2)*	15	93,722
Program Analyst (2)*	15	90,793

Position Title	Grade Level	Annual Salary
Program Analyst	14	89,638
Program Coordinator	13	75,857
Statistician	15	102,508
Safety Hotline Manager	14	84,658
Secretary	Core G	45.403
Secretary	Core G	41,459
Secretary	8	42,041
Secretary	7	32,962
Total Positions	36	

* Denotes number of positions with same title, step and salary.

Mr. Rogers. What are some of the accomplishments of this office over the past year?

[The information follows:]

The Office of System Safety is a safety support office. It reports directly to the Administrator to help insure a system-wide safety perspective. It provides tools, processes, and data to FAA's lines of business and the worldwide aviation community to help facilitate the collection, analysis, and sharing of information to improve aviation safety.

The safety office's activities fall into several categories.

Developing New Aviation Safety Processes

The Global Aviation Information Network (GAIN) is a privately owned and operated international infrastructure for promoting and facilitating the voluntary collection and sharing of safety information to improve aviation safety. In June 2000 GAIN held a highly successful Fourth World Conference in Paris, hosted by Air France and Airbus Industrie. The conference attracted more than 185 aviation safety professionals from 23 countries, 28 airlines, 20 government organizations, and more than 50 other aviation organizations, and focused on the safety and benefits of collecting and analyzing safety information.

At the World Conference a widely acclaimed Operator's Flight Safety Handbook was developed by a GAIN working group with support from the Office of System Safety. The handbook provides guidance on how to implement a comprehensive operator safety program. Nearly 2,300 copies of the CD-ROM have been distributed, and the demand continues. It is on the Internet at gainweb.org.

The World Conference included discussion of a Government Support Team (GST), which the FAA has now created. Governments from several

countries and some key government organizations, such as the International Civil Aviation Organization (ICAO), are now involved in helping to determine how governments can best contribute to, and benefit from, GAIN, to improve aviation safety. Governments, for example, are best situated to remove legal barriers that discourage the collection and sharing of safety information.

With support from the Office of System Safety, another GAIN working group developed prototype sharing systems for exchanging airline safety event reports in near real-time involving six airlines worldwide.

Supporting Existing Aviation Safety Programs

Participates in the FAA's Runway Safety Program. Its support was instrumental in classifying four years of runway incursions as a function of safety risk, to help the FAA prioritize its attention to runway incursions that present the greatest safety risk.

Provides resources to the Safer Skies Civil Aviation Safety Team (CAST) Joint Safety Analysis Teams (JSATs) and Joint Safety Implementation Teams (JSITs) for the following Safer Skies components:

- Controlled Flight Into Terrain (CFIT)
- Approach and Landing
- Loss of Control
- Weather
- Uncontained Engine Failure

Managed an end-to-end safety review of the Alaskan Capstone initiative that allowed the Capstone effort to commence on January 1, 2001. The Office worked with other LOB's to identify safety issues and mitigations to address those issues.

Led a preliminary hazard analysis for ADS-B that other LOBs are using to develop this advanced technology.

Supported the FAA Office of Commercial Space Transportation by providing safety risk management guidance to help evaluate the safety component of commercial space launch applications.

Provided resources, analytical methodologies, and other technical support, to the European Joint Aviation Authority (JAA) to identify future hazards to aviation safety.

Developing Improved Data and Data Processing Methodologies

As part of the CAST/ICAO Common Taxonomy Team, the safety office proposed and led an International Aircraft Categorization and Identification Standard (IACIS) sub-team to develop a standard procedure on how aircraft are identified, to help facilitate the sharing of data and

improve the scope and quality of analysis of aircraft safety data. The IACIS sub-team has made significant progress in developing an international standard to uniquely identify aircraft.

The Office has applied significant information technology innovations to complete a major redesign of the National Aviation Safety Data Analysis Center (NASDAC) database architecture. This has significantly reduced the workload to import data into the NASDAC, and it has also improved the quality of NASDAC data.

Increasing the Use of Safety Risk Assessment Methodologies in the Agency

The Office prepared a revised System Safety Handbook, and worked with other LOBs to incorporate its use into ongoing safety analyses. This handbook provides state-of-the-art safety risk management analytical processes that will help the LOBs insure that safety is built into projects and procedures from the beginning.

The Office worked with other LOBs to incorporate system safety principles in the Acquisition Management System (AMS).

Improving Access to Data

The NASDAC Team developed and provided public Internet access to a database containing a ten-year worldwide history of fatal airline accidents that can be searched by individual airline name.

Through Internet technologies, other Federal agencies with an interest in aviation safety have been provided access via an "Extranet" to the analytical capabilities of the NASDAC system.

Improving Information Infrastructure Security

The Office developed an Alert System that captures threats and vulnerabilities identified by several reputable United States Government and Industry Information System Security (ISS) entities. A formal communications session is held weekly, to communicate findings and determine appropriate actions.

The Office worked with the FAA's Information System Security Office (AIS) to develop a national program and policies that will aid the agency in implementing best security practices.

ADVISORY COMMITTEES

Mr. Rogers. Please update the information on FAA's advisory committees shown on page 320 of last year's hearing record.

[The information follows:]

Advisory Committees (FAA has eight operating advisory committees.)

Name	Purpose	FY 2002 Estimate
Air Traffic Procedures Advisory Committee	Reviews air traffic control procedures and practices	$50,026
RTCA, Inc., (Utilized as an Advisory Committee)	Advances the art and science of aviation and aviation electronic systems	$438,000
Aviation Security Advisory Committee	Examines all areas of civil aviation security with the aim of increasing safety for the traveling public	$60,000
Aviation Rulemaking Advisory Committee	Provides advice and recommendations on FAA's rulemaking activities	$114,000
Research, Engineering, and Development Advisory Committee	Provides advice on aviation research needs	$200,000
Commercial Space Transportation Advisory Committee	Provides advice on all aspects of U.S. commercial space transportation activities	$41,200
Aging Transport Systems Rulemaking Advisory Committee	Provides advice on the aging transport airplane systems	$110,000
Aircraft Repair and Maintenance Advisory Committee	Provides advice on the amount and type of aircraft and aviation component repair work.	$25,000
Total		$1,038,226

CONTRACT TOWER PROGRAM

Mr. Rogers. How much funding is included in the fiscal year 2002 budget request to run contract towers, what is the average cost per tower, and how does that compare to fiscal year 2001?

[The information follows:]

The amount included in the fiscal year 2002 budget for the federal contract tower program is $70.5 million. The fiscal year 2001 budget amount was $63.7 million. The average cost per tower is currently $315,000. The average cost per tower is projected to be $337,000 in fiscal year 2002.

Mr. Rogers. Please update the safety statistics shown on page 345 of last year's hearing record by providing data for fiscal years 1995 through 2000.

[The information follows:]

The last 22 FAA Level 1 towers were converted to contract towers on October 1, 1999. Therefore, we are no longer able to compare safety statistics between contract towers and FAA Level 1 towers.

Mr. Rogers. When does the agency estimate it will be able to submit the report on expansion of the contract tower program directed, once again, by Congress in the DOT and Related Appropriations Act, 2001?

[The information follows:]

With the change in Administration, the report on expansion of the contract tower program to Congress is still under review. We expect to have this report finalized soon. We have contracted out 131 low level towers to date. This has reduced our operations cost by approximately $41.2 million per year. Additionally, we have included 56 towers in the program that have met criteria. We have no plans to contract out additional facilities at this time.

CONTRACT TOWER COST-SHARING PROGRAM

Mr. Rogers. Please list the locations in this program for fiscal year 2001 and provide relevant statistics on the federal and local cost shares at each location.

[The information follows:]

As of May 1, 2001, there are 15 airports participating in cost sharing program. These airports are:

Airport Name	Federal Share	Local Share
Grand Strand, SC	$236,958	$ 62,989
Hickory, NC	$230,728	$ 68,919
Jackson, TN	$135,969	$ 55,537
Springdale, AR	$225,035	$ 79,067
Shreveport, LA	$262,081	$ 46,250
Grand Island, NE	$119,299	$ 61,457
New Century, KS	$171,491	$ 92,341
Bolton Field, OH	$128,301	$ 75,351
Garden City, KS	$233,856	$ 44,544
Muncie, IN	$114,629	$ 93,787
Salinas, CA	$303,595	$ 15,979
Olympia, WA	$254,981	$ 7,886
Lake Tahoe, CA	$158,348	$105,566
Bloomington, IL	$105,408	$109,704
Jefferson City, MO	$263,676	$ 16,836
Totals	$2,944,355	$936,213

RTCA, INCORPORATED

Mr. Rogers. Ms. Garvey, what specific changes have been put in place today as a result of the IG's recommendations regarding the FAA's relationship with RTCA, Incorporated?

[The information follows:]

The FAA is pleased to report that in cooperation with RTCA, Inc., the following actions have been taken in response to the IG recommendations:

- FAA officials at all levels (policy board, steering committees, special committee, select committees, and working groups) serve in an "ex officio" capacity and are non-voting members.
- The Designated Federal Officials (DFO) for each committee will determine appropriate FAA participation required to engage in meaningful dialogue and understanding of the subject matter.
- RTCA has taken the action required to post Select Committee and Select Committee working group-meeting summaries on their web page at http://www.rtca.org, making them available to the public.
- A mechanism is being established for appointed members of the RTCA Policy Board, Steering Committees, Program Management Committee, Select Committees, and chairpersons of Special

Committees to disclose their affiliations while serving in a "representative" capacity. The DFO for Steering Committees will work with the RTCA chairperson to ensure appropriate balance of representation from the aviation community.

- Results of all RTCA subcommittee and working group deliberations are reported back through the appropriate Committee at public meetings before recommendations are provided to FAA. These actions are reflected in the revised charter, Order 1110.77N, RTCA, Inc. (utilized as an Advisory Committee), dated March 28, 2001.

CENTER FOR MANAGEMENT DEVELOPMENT

Mr. Rogers. Please update the table showing costs to operate the Center for Management Development (CMD) in Palm Coast, Florida, similar in format to that shown on page 429 of last year's hearing record, by providing data for fiscal years 2000 through 2002.

[The information follows:]

CMD Annual Costs
(dollars in thousands)

	FY 2000	FY 2001	FY 2002
Compensation and Benefits	$ 695	$ 715	$ 750
Facility	3,472	3,542	3,720
Instructional Staff	2,628	2,636	2,770
Student Travel	1,749	1,833	1,925
Other Support	344	259	275
Total	$ 8,888	$ 8,888	$9,440

PUBLIC AFFAIRS POSITIONS

Mr. Rogers. Please update the listing of Public Affairs full-time equivalent positions shown on page 429 of last year's hearing record by providing data for fiscal years 2000 through 2002.

[The information follows:]

Office Location	FTE FY 2000	FTE FY 2001	FTE FY 2002
HQ Washington	21.8	22	22
AEA New York City	2	2	2
ASO Atlanta	2	2	2
AGL Chicago	2	2	2
ANM Seattle	1.5	3	3
AMC Oklahoma City	2	2	2
ACT Atlantic	1	1	1
Total Headquarters	21.8	22	22
Total Field	10.5	12	12
Total Public Affairs	32.3	34	34

REGIONAL OFFICES

Mr. Rogers. Please update the data on financial and staffing resources for FAA's regional offices, as shown on page 431 of last year's hearing record, by providing data for fiscal years 2000 through 2002.

[The information follows:]

The following table reflects the corporate support (Information Resource Management, Budget and Accounting, and the Operations Center) at each of the regional headquarters offices. The table is not representative of the total regional headquarters office population and resources (excludes Chief Counsel, Human Resources Management, Civil Rights, Air Traffic Services, Regulation and Certification, Airports and Security, and NAS Logistics Support). Reduction from last year's end-of-year/full-time equivalent table reflects the regional Human Resource Offices being straight lined to the headquarters Assistant Administrator for Human Resource Management and the regional Civil Rights Offices being straight lined to the headquarters Assistant Administrator for Civil Rights. Increases in funding reflect discretionary increases requested to support Air Tour Management Plans, which are being developed in cooperation with the National Park Service. These plans will assess the environmental impact of commercial air tours over National Parks. The increase also supports funding to be used by the FAA to help the United States Coast Guard renovate its Stonerock Barracks facility in the San Francisco Bay area. When the renovation is complete, the FAA will be able to occupy the space rent-free. The only cost to the FAA will be approximately $200,000 per year in maintenance costs.

Regional Headquarters Offices Corporate Support
Financial and Staffing Resources
FY 2000 - 2002

	End-of-Year (EOY) FTP			Full-Time Equivalents FTE			Financial Resources ($000)		
	Actual FY 00	Est FY 01	Est FY 02	Actual FY 00	Est FY 01	Est FY 02	Actual FY 00	Est FY 01	Est FY 02
New England Region	26	26	23	33	33	30	2,949	3,082	2,881
Eastern Region	63	65	60	76	76	70	6,239	6,317	6,101
Southern Region	92	93	87	95	96	90	7,567	7,810	7,585
Southwest Region	55	57	52	60	61	56	4,901	5,276	5,066
Great Lakes Region	40	40	34	43	42	36	4,407	4,308	4,018
Central Region	61	62	57	77	74	69	5,482	5,520	5,295
Northwest Mountain Region	31	31	26	33	33	28	3,636	3,151	2,864
Western Pacific Region	75	76	73	87	90	85	7,161	7,109	26,213
Alaskan Region	42	42	39	42	42	39	4,152	4,090	3,994
Total Regions	485	492	451	546	546	502	46,494	46,663	64,017

FIVE MOST IMPORTANT MODERNIZATION PROGRAMS

Mr. Rogers. Ms. Garvey, updating the information on pages 456 of last year's hearing record, what are the FAA's five most important modernization programs and why?

[The information follows:]

Free Flight Phase One and Two – These programs provide the tools necessary to improve and expand services, gain efficiencies to meet growing demand, and help controllers sequence and separate growing air traffic while incrementally providing early benefits to users. It increases FAA-user collaboration for greater efficiency and should help reduce delays that are being experienced today. Free Flight Phase Two is the follow-on deployment of tools to additional facilities and provides transition funding to deploy research tools.

Standard Terminal Automation Replacement System – To realize efficiencies in arrivals and departures from limited runway resources, new automation platforms are needed. New decision support applications and improved surveillance will improve airport throughput.

En Route Systems Modernization – Programs that improve supportability of en route automation hardware and software are vital to reducing delays, system outages, providing the platforms and interfaces for changes in airspace, new decision support tools, and evolution to the Free Flight concept of operations.

Advanced Procedures and Oceanic Procedures – This capability will enable the FAA oceanic control system to take full advantage of modern avionics, reduce aircraft separation, and more frequently support optimum cruise altitudes and routes.

Wide Area Augmentation System (WAAS) – The need for augmented satellite navigation remains the cornerstone for improved instrument approach procedures to more airports, and for free flight in airspace unconstrained by predefined route structures. Wide area augmentation supports both the safety goals designed to reduce controlled flight into terrain, and efficiency goals to provide improved navigation and landing capabilities. A recent independent review of the WAAS program by the Institute for Defense Analysis recommended that FAA proceed with the program.

SAFETY SYSTEM TOP PRIORITIES

Mr. Rogers. Please update the list of the agency's top five priorities regarding F&E items which will have a beneficial impact on aviation safety, as shown on pages 476 and 477 of last year's hearing record.

[The information follows:]

Surface Movement Safety Initiatives – The continued runway incursion problem represents the FAA's highest safety priority. Included in this work are completion of deployment of Airport Movement Area Safety System, initiation of ASDE-X deployment to 25 additional airports, and carrying out development work on other preventative measures that may reduce runway incursions.

Safer Skies Agenda – Included are visual navigation aids (lights) and distance measuring equipment to improve situational awareness to reduce controlled flight into terrain. Additional weather products being developed under Safe Flight 21 to uplink weather Flight Information Services to the cockpit. Work is being completed under Safe Flight 21 on satellite navigation, terrain maps, and air-to-air applications of automated dependent surveillance-broadcast (ADS-B), which are critical to situational awareness and safety, as demonstrated in the Alaska Capstone initiative under Safe Flight 21. Included are 75 technical positions supporting the safety and certification activities for NAS modernization so that safety and efficiency can be improved in parallel.

Weather and Radar Processor – Provides weather information to en route air traffic controllers from weather radar and other sources. This program progressively increases the amount of critical weather information available for display to the controller.

Aviation Weather Service Improvements – Provides an integrated terminal weather system (ITWS) that integrates weather sensors and other sources of weather information and assists terminal air traffic controllers in managing traffic with approaching severe weather and wind shear. The ITWS begins full-scale production in fiscal year 2002.

Weather Systems Processor – Provides severe weather information on the terminal surveillance display for airports not qualifying for terminal doppler weather radar.

NEW PROGRAMS – FACILITIES AND EQUIPMENT

Mr. Rogers. Please provide a list, with corresponding fiscal year 2002 funding, of all new programs, projects or activities in the fiscal year 2002 Facilities and Equipment budget request.

[The information follows:]

The following new programs have been requested in fiscal year 2002:

Budget Item	Program Title	Amount
2A15	Guam CERAP Relocate	$6,400,000
2D15	Navigation and Landing Aids- (Service Life Extension Program)	$3,000,000
2E10	Aircraft Fleet Modernization	$1,500,000

LEASING

Mr. Rogers. Which F&E programs are assumed in the fiscal 2002 through 2006 capital plan to be financed either through leases or by non-FAA sources?

[The information follows:]

The fiscal year 2002 capital plan assumes the following programs will be financed through leases:

- Wide Area Augmentation System – Satellites and Communications Uplinks
- Gulf of Mexico Off Shore System - Buoy Telecommunications and VHF Extended Range Network
- Safe Flight 21 – Ohio River Valley – Airport Surface Target Identification System
- The Operational and Supportability Implementation System for Flight Service Automation Systems
- Program Support Leases - 4000 leases for land and space for operational facilities
- Mike Monroney Aeronautical Center Leases - Land and major facilities
- Aircraft Related Equipment – Flight Simulator Replacement
- Aircraft Fleet Modernization – R&D Aircraft Lab

Mr. Rogers. Updating the information on page 459 of last year's hearing record, which F&E programs will use F&E funding in fiscal year 2001 or 2002 to finance a lease, and what are the terms of those leases?

[The information follows:]

The following programs will use F&E funding in fiscal year 2001 or 2002 to finance a lease. The terms of the leases follow the identification of the lease.

- Traffic Flow Management Infrastructure
  - Lease contract 1.
    - Start: June 9, 1998
    - Lease Period 3 years*
    - Leased property becomes government property at end of 3-year lease
    - *Fiscal Year 2001 funds the third year of the current field site leases.
- Wide Area Augmentation System
  - Eastern CONUS Coverage Satellite
    - Start Basic Contract: February 1997
    - End Basic Contract: September 2001
    - End with options already exercised: September 2006
  - Western CONUS Coverage Satellite
    - Start Basic Contract: July 1997
    - End Basic Contract: September 2001
    - End with options already exercised: September 2006
    - Communications Uplink Services
      - Start Basic Contract: April 1997 - June 1998
      - End Basic Contract: September 2001
      - End if options Exercised: September 2006
- Gulf of Mexico Off Shore System
  - Buoy Communications System
    - Start: November 1997
    - End: September 2003
  - VHF Extended Range Network
    - Start Basic Contract: October 1997
    - End Basic Contract: May 2001
    - End if options Exercised: May 2005
- Safe Flight 21 – Ohio River Valley

- Airport Surface Target Identification System
  - Start: January 2001
  - End: January 2004
  - Funded 1st year of lease out of FY 2001 funding
  - Exercised 3-year option, with the understanding that we would fund 1st year in FY2001 and the remaining two years in FY 2002
  - Will fund 2nd and 3rd years of lease out of FY 2002
- Flight Service Automation Systems Operational and Supportability Implementation System
  - Lease period 1 year
  - Options: Seven 1-year options
- Weather and Radar Processor (WARP) Stage 0
  - Lease term for WARP Stage 0 was scheduled to expire at the end of fiscal year 1999, but it has been extended until the end of fiscal year 2001.
- Program Support Leases
  - 3,500 individual land leases for operational facilities
  - 500 individual space leases for operational facilities

- Mike Monroney Aeronautical Center Leases - land and major facilities
- Current lease expires September 30, 2012
  - Options to extend through June 30, 2028
  - Land lease for 1,000 acres
  - 30 major facilities
- Aircraft and Related Equipment – Flight Simulator Replacement
  - Lease terms to be determined
- Aircraft Fleet Modernization – R&D Aircraft Lab
  - Lease terms to be determined

Mr. Rogers. How much is in the fiscal year 2002 F&E Budget for each of these program leases?

[The information follows:]

The fiscal year 2002 F&E request contains the following funds for each of these program leases:

Program	Fiscal Year 2002 Budget Request
Wide Area Augmentation System	$ 12,000,000
Gulf of Mexico Off Shore System	$ 700,000
Safe Flight 21 Ohio River Valley (Airport Target Identification System 2 year-lease)	$ 800,000
Flight Service Automation Systems Operational and Supportability Implementation System	$ 2,000,000
Program Support Leases	$ 35,500,000
Mike Monroney Aeronautical Center Leases	$ 14,600,000
Aircraft Related Equipment – Flight Simulator Replacement	$ 4,500,000
Aircraft Fleet Modernization - R&D Aircraft Lab	$ 1,500,000

BASELINE MANAGEMENT NOTICES

Mr. Rogers. Please provide for the record copies of all Baseline Management Notices approved over the past year.

[The information follows:]

The Baseline Management Notices (BMN) that have been reported to the Joint Resources Council over the past year follows:

[CLERK'S NOTE.—Due to the length of this material, it was removed and retained in Committee files].

BASELINES – FACILITIES AND EQUIPMENT

Mr. Rogers. What criteria does FAA use to determine when a program, project, or activity requires a formal F&E cost and schedule baseline?

[The information follows:]

The criteria for establishment of Acquisition Program Baselines (APB) are contained in the Acquisition Management System (AMS). All major systems require cost, schedule, performance, and benefits baselines documented in an APB approved by the Joint Resources Council. The current budget submission contains 49 baselined programs. FAA does not baseline some smaller programs with requirements that vary from year to year. Decisions regarding these programs are based on funding availability in a particular year so they are not appropriate for baselining.

Mr. Rogers. Please update the F&E program baseline information shown on pages 463 through 469 of last year's hearing.

[The information follows:]

15 programs initiated after October 1996

Program Name	Total F&E Cost Baseline (millions in dollar)	Schedule Baseline (Last ORD)	Current Status
Host and Oceanic Computer System Replacement (HOCSR)	424.1	9/99 (Phase I)	Phase I completed. Baselines for Phases II through IV are under review.
FSAS Operational and Supportability System (OASIS)	Initial: 174.7 Re-baseline: 249.5	Initial: 8/01 Re-baseline: 5/05	The FAA has rebaselined the program.
Safety Performance and Analysis System (SPAS)	32.3	9/03	
Free Flight Phase One (FFPI)	628.8	12/02	
Controller Pilot Data Link Communications (CPDLC)-Build 1/1A	Build 1: 52.2 Build 1A: 107.7	9/02 12/05	CPDLC 1A will be rebaselined in the 4th quarter of FY 2001. The agency is currently examining the costs of acquisition and making architectural enhancements to the program.
Next Generation Air/Ground Communication System (NEXCOM)	Initial: 407.6 Rebaseline: Segment 1a: 317.4 Segment 1b: 669.1	Initial: 9/08 Segment 1a: 9/10 Segment 1b: 9/10	The acquisition strategy to divide the program into 2 parts was approved on 5/23/00.
FAA Telecommunications Infrastructure	205.7	12/08	Contract award scheduled for 10/01.
Systems Engineering and Technical Assistance Contract (SETA II)	249.9	8/10	Contract awarded on 8/16/00.

15 programs initiated after October 1996

Program Name	Total F&E Cost Baseline (millions in dollars)	Schedule Baseline (Last ORD)	Current Status
Facility Security Risk Management	148.3	9/05	
NAS Infrastructure Management System – Phase I	Initial: 100.8 Re-baseline: 60.3	9/00	Phase 1 was completed 9/30/00.
NAS Infrastructure Management System Phase II	172.9	9/05	
ACQUIRE	5.6	9/98	Completed 12/98.
Local Area Augmentation System	Initial: 536.1 Re-baseline: 718.5	Initial: 12/06 Re-baseline: 10/11	Baseline is under review.
Air Traffic Control Beacon Interrogator Replacement	282.9	Initial: 9/04 Rebaseline: 1/06	The program was rebaselined contingent upon the submission of an ops baseline through the Joint Resources Council process. This is expected no later than the 4th quarter 2001.
NAS Implementation Support Contract	1337.0	9/07	

30 programs initiated prior to October 1996

Program Name	Total F&E Cost Baseline (millions in dollars)	Schedule Baseline (Last ORD)	Current Status
Display System Replacement	1,055.3	5/00	Program has been completed.
Common ARTS (ARTS IIA, ARTS IIIE)	86.1 (ARTS IIIE) 109.8 (ARTS IIE)	1/99 (ARTS IIIE) 4/00 (ARTS IIE)	Program has been completed.
Standard Terminal Automation Replacement System	1,076.1 (ceiling)	10/05 (ceiling)	Baseline is under review.
Oceanic - Build 1	73.2	10/99	This program was completed.
Portable Performance Support System (PPSS)	45.7	9/04	
Integrated Flight Quality Assurance (IFQA)	18.7	9/01	
Voice Switching and Control System (VSCS)	1,452.9	5/00	This program was completed.
Radio Control Equipment (RCE)	260.4	12/01	The program has revised its last ORD to 9/03 in order to extend the ordering period of the contract to provide additional RCE equipment to other communications and facility programs.

30 programs initiated prior to October 1996

Program Name	Total F&E Cost Baseline (millions in dollars)	Schedule Baseline (Last ORD)	Current Status
Back up Emergency Communications Replacement (BUEC)	54.1	4/04	Program has revised its last ORD to 9/05 due to higher budget priorities in the internal realignment of funds. Deployment schedule will rely on implementation plan currently being worked with other FAA organizations.
Voice Recorder Replacement Program (VRRP)	29.4	5/02	The program has revised its last ORD to 7/05 due to higher budget priorities in the internal realignment of funds. The baseline is under review.
Potomac TRACON	92.4	6/03	This program is on schedule and on budget
No. Cal TRACON	88.1	7/02	Schedule baseline may be impacted by automation system capacity issues, which are currently being evaluated.
Atlanta TRACON	62.2	8/01	This program baseline has been reduced to $59.75 due to several factors including: less facility construction change orders, less program support costs, and less telecommunications costs.

30 programs initiated prior to October 1996

Program Name	Total F&E Cost Baseline (millions in dollars)	Schedule Baseline (Last ORD)	Current Status
Computer Aided Engineering and Graphics (CAEG) Replacement	18.5	4/02	The cost baseline has increased $1.89M due to increased support costs. These costs, which include system administration, database management, and program management, were provided in the past by the NISC contractor and were not part of the program's original baseline.
Aeronautical Center- TSF/LSF	31.0	9/04	
Wilcox Cat II/III ILS Replacement	14.3	12/99	This program was completed.
AN/GRN-27 ILS Replacement	87.6	12/99	The Last ORD has been revised to 12/01 due to higher budget priorities.
Wide Area Augmentation System (WAAS)	Initial: 1,006.6 Re-baseline: 2,978.0	Initial: 12/01 Re-baseline: 12/06	Baseline is under review.
Airport Surface Detection Equipment (ASDE)	249.1	11/99	The last ORD has been revised to 9/01. This revision is associated with the last scheduled system, Charlotte, NC, being diverted in order to support other operational systems.

30 programs initiated prior to October 1996

Program Name	Total F&E Cost Baseline (millions in dollars)	Schedule Baseline (Last ORD)	Current Status
Airport Movement Area Safety System (AMASS)	Initial: 74.1 Re-baseline: 151.8	Initial: 8/00 Re-baseline: 9/02	The FAA rebaselined this program on March 14, 2000.
Mode S	467.1	10/04	The cost baseline has increased $4.4M due to the following: time of year (TOY) clock replacement with GPS units, a monopulse receiver heater blanket, and modulation control unit board modification.
Terminal Radar Program – ASR-9	856.7	8/98	This program was completed.
Terminal Digital Radar – ASR-11	743.3	9/05	Baseline is under review.
Long Range Radar Program –ARSR-4	415.8	6/99	This program was completed.
Aviation Surface Weather Observation Network (ASWON)	350.9	4/02	Baseline is under review.
Terminal Doppler Weather Radar	393.5	12/00	The last ORD has been revised to 6/01 due to damage caused by high winds at Chicago/Midway during construction. Additional time will be required to replace the radome panels.

30 programs initiated prior to October 1996

Program Name	Total F&E Cost Baseline (millions in dollars)	Schedule Baseline (Last ORD)	Current Status
Weather Advisory Research Program (WARP) Stage 0/1/2/3	Initial: 125.6 Re-baseline: 143.6	Initial: 7/00 Re-baseline: 2/01	Operational issues have affected both the cost of the program and schedule for deployment. Baseline is under review.
Upgrade Low Level Wind Shear (LLWAS) to Expanded Network	43.5	10/01	The last ORD has been revised to 3/03 due to contractor delays of radio deliveries and limited contractor resources.
Integrated Terminal Weather System (ITWS)- Initial Operating Capability	173.0	7/03	Baseline is under review.
Airport Surveillance Radar (ASR) Weather Systems Processor	80.4	9/02	The last ORD has been revised to 12/02 due to a 90-day extension in the contract start date as requested by Northrop-Grumman.

Mr. Rogers. For all baselined programs, provide a table comparing the baseline amount to the current total F&E cost estimate, in same year dollars.

[The information follows:]

Program Title	F&E Baseline ($ in Millions)	Current F&E Estimate ($ in Millions)
Display System Replacement (DSR)	1055.3	1007.1
Host & Oceanic Computer System Replacement (HOSCR)	424.1	424.1
Common ARTS	195.9	201.6
Standard Terminal Automation Replacement System (STARS)	1076.1	1402.6
FSAS Operational and Supportability System (OASIS)	249.5	249.5
Oceanic - Build 1	73.2	73.2
Safety Performance & Analysis System (SPAS)	32.3	32.3
Portable Performance Support System (PPSS)	45.7	45.7
Integrated Flight Quality Assurance (IFQA)	18.7	18.7
Free Flight Phase 1	628.8	628.8
Voice Switching & Control System (VSCS)	1452.9	1411.1
Radio Control Equipment (RCE)	260.4	259.4
Backup Emergency Communications Replacement	54.1	54.1
Controller Pilot Data Link Communications (CPDLC) – Build 1/1A	Build 1: 52.2 Build 1A: 107.7	Build 1: 52.2 Build 1A: 107.7
Next Generation Air/Ground Communication System (NEXCOM) - Segment 1A	317.4	317.4
Voice Recorder Replacement Program (VRRP)	29.4	29.4

Program Title	F&E Baseline ($ in Millions)	Current F&E Estimate ($ in Millions)
FAA Telecommunications Infrastructure (FTI)	205.7	205.7
Potomac TRACON	92.4	92.4
Northern California TRACON	88.1	86.7
Atlanta TRACON	62.2	59.7
Power Systems	183.8	183.8
CAEG Replacement	18.5	20.3
NAS Infrastructure Management System - Phase II	172.9	172.9
Acquire	5.6	5.6
Wilcox CAT II/III ILS Replacement	14.3	14.3
AN/GRN-27 ILS Replacement	87.6	87.6
Wide Area Augmentation System (WAAS)	2978.0	2978.0
Local Area Augmentation System (LAAS)	718.5	718.5
Airport Surface Detection Equipment (ASDE)	249.1	249.1
Airport Movement Area Safety System (AMASS)	151.8	151.8
Mode S	467.1	471.5
Air Traffic Control Beacon Interrogator (ATCBI) Replacement	282.9	282.9
Terminal Radar Program - ASR-9	856.7	873.5
Terminal Digital Radar - ASR-11	743.3	872.6
Aviation Surface Weather Observation Network (ASWON)	350.9	386.6
Terminal Doppler Weather Radar (TWDR) Sustainment	393.5	393.5
Terminal Doppler Weather Radar (TWDR) Product Improvement	15.7	15.7
Weather & Radar Processor (WARP)	143.6	166.0
Upgrade LLWAS to Expanded Network	43.5	52.6
Integrated Terminal Weather System (ITWS)	276.1	277.2
Weather Sensor Processor (WSP)	80.4	80.8

Mr. Rogers. Please update the listing of programs remaining to be baselined similar in format to that shown on pages 469 of last year's hearing record.

[The information follows:]

Program Name	Planned Completion Date
En Route Communications Gateway (ECG - formerly Eunomia)	Nov 01
AFSS Voice Switch Replacement	Completed
Aeronautical Data Link – CPDLC Build II	TBD
FAA Telecommunications Infrastructure	Completed
Power Systems	Completed
FAA Facility Security Risk Management	Completed
NIMS – Phase I Rebaselining	Completed
SAT/NAV Investment Analysis	Completed
ASDE-X	TBD
Oceanic –ATOP	Completed
Free Flight Phase I	Completed
Free Flight Phase II	Final investment decision April 2002
Airport Cable Loop	TBD
Aeronautical Center-CAMI	TBD
Asset & Supply Chain Management	TBD
Long Range Radar Improvements- Infrastructure Upgrades	TBD
Aviation Surface Weather Observation Network	Completed
TDWR Computer Replacement	Completed
Aviation Safety Analysis System	TBD
Enhanced Terminal Voice Switch	TBD
Command, Control, & Communications	Final investment decision July 2001
Alaskan NAS Interfacility Communications System Satellite Network- Phase II	TBD
Potomac TRACON	Completed
Northern California TRACON	Completed
Atlanta TRACON	Completed

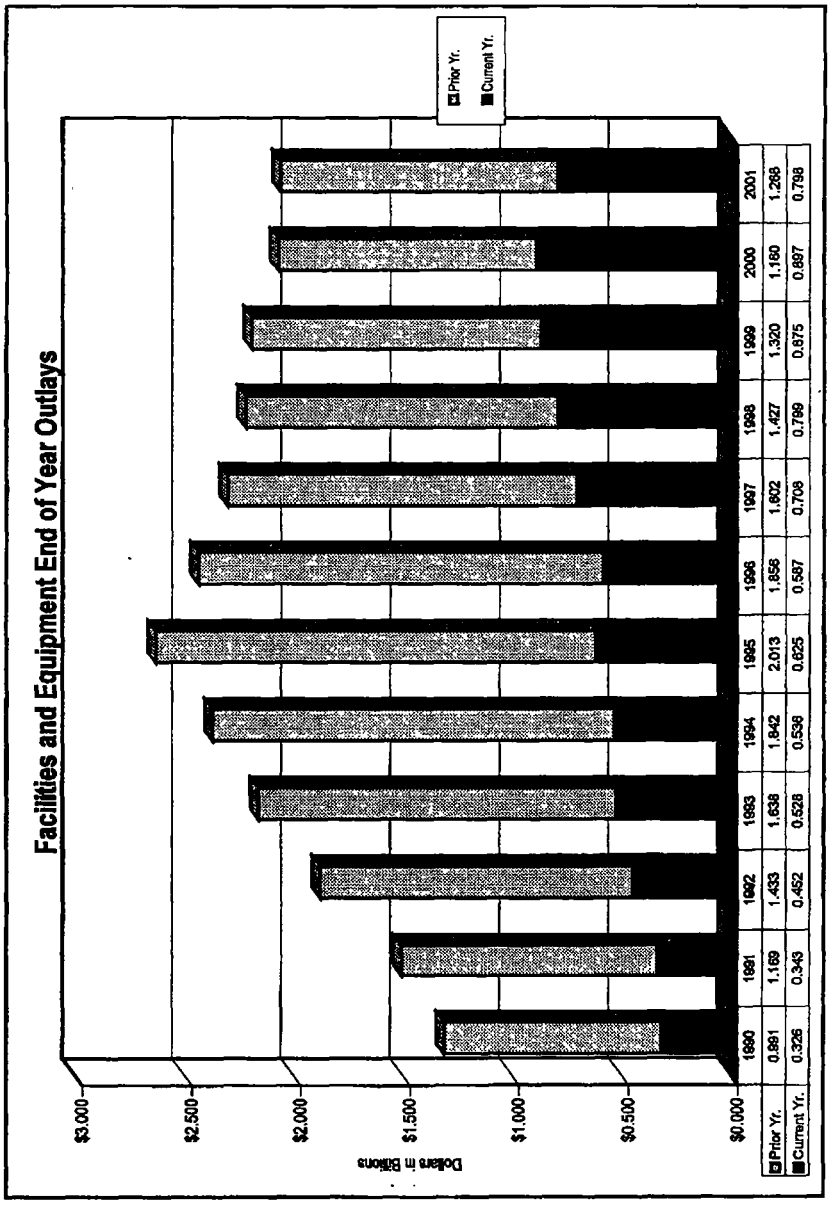
Program Name	Planned Completion Date
Computer Aided Engineering Graphics Replacement	Completed
Aeronautical Center –Technical Support Facility/Logistics Support Facility Structural Upgrade	Completed
Mode S	Completed
Jet Laboratory	Final investment decision July 2001
NIMS-Phase II	Completed
EnRoute Automation Modernization (ERAM)	TBD

OUTLAYS – FACILITY AND EQUIPMENT

Mr. Rogers. Please update the bar chart on page 472 of last year's hearing record concerning end of year F&E outlays.

[The information follows:]

The following chart reflects F&E end-of-year outlays. Fiscal year 2001 is an estimate.

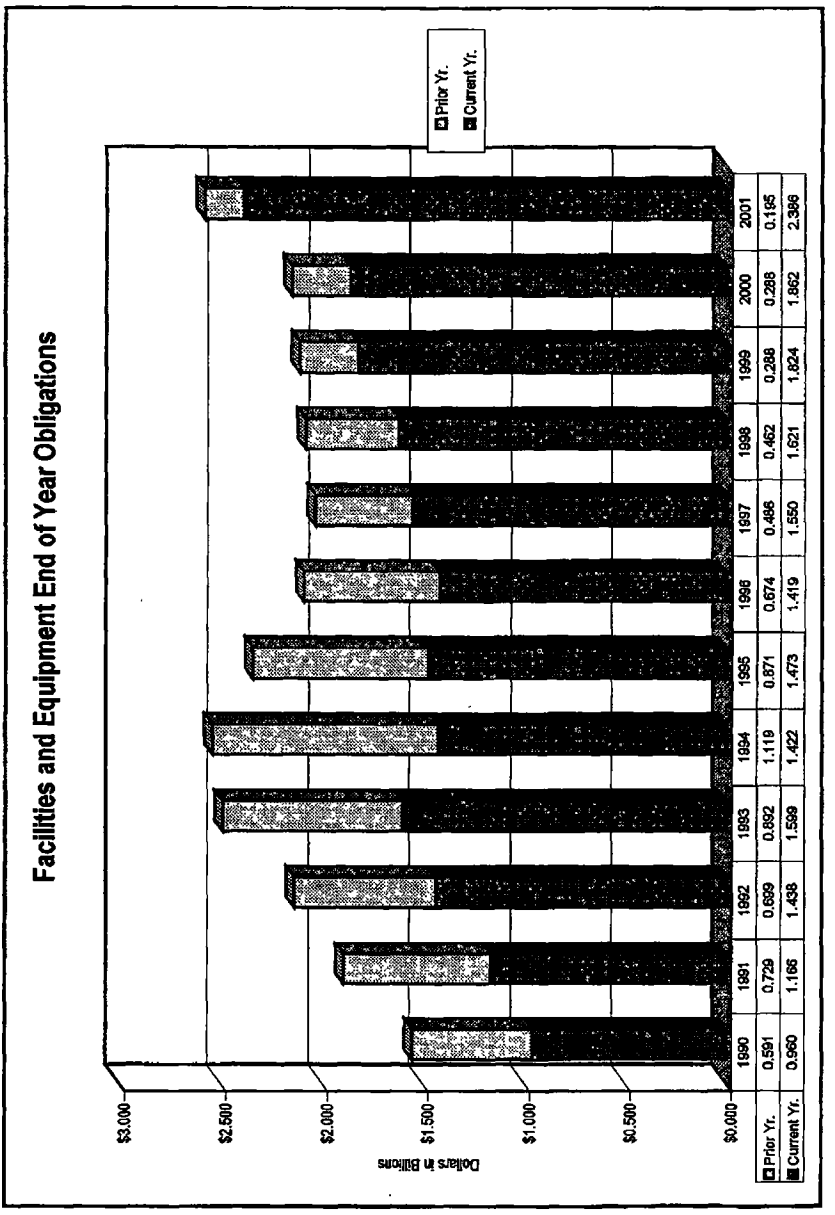

Facilities and Equipment End of Year Outlays
Dollars in Billions
$3.000
$2.500
$2.000
$1.500
$1.000
$0.500
$0.000
Prior Yr.
Current Yr.
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001
Prior Yr. 0.891 1.169 1.433 1.638 1.842 2.013 1.856 1.802 1.427 1.320 1.180 1.268
Current Yr. 0.326 0.343 0.452 0.528 0.536 0.625 0.587 0.706 0.799 0.875 0.897 0.798

OBLIGATIONS AND UNOBLIGATED BALANCE – FACILITY AND EQUIPMENT

Mr. Rogers. Please update the bar chart on page 474 of last year's hearing record concerning end of year F&E obligations.

[The information follows:]

The following bar chart reflects F&E end-of-year obligations. Fiscal year 2001 is an estimate.



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Prior Yr.	0.591	0.729	0.689	0.892	1.119	0.871	0.674	0.486	0.462	0.288	0.288	0.195
Current Yr.	0.960	1.166	1.438	1.599	1.422	1.473	1.419	1.550	1.621	1.824	1.862	2.386

QUESTIONS FOR THE RECORD FOR THE FEDERAL AVIATION ADMINISTRATION FROM CHAIRMAN ROGERS

OPERATIONS

Mr. Rogers. On page 15, you are requesting $147,420,000 for the fiscal year 2002 pay raise (3.6 percent). Under existing FAA pay rules and personnel reform, and unlike other federal agencies, isn't payment of this at the discretion of the FAA Administrator?

[The information follows:]

Payment of the government-wide pay raise has been at the discretion of the Administrator since personnel reform went into affect in April 1996. Each administrator since that time has chosen to grant the government-wide pay raise for those employees not covered by the Core Compensation Plan in order to recognize the contributions from FAA employees and to ensure that FAA remains competitive in attracting and retaining critical skills.

Employees covered by the Core Compensation Plan have received Organizational Success Increases (OSI) and Superior Contribution Increases (SCI)*. The OSI is comprised of the government-wide increase and a portion of the increase previously received through within-grade increases.

* OSIs are granted by the Administrator if the agency is deemed successful and has met specific goals during the previous year. The SCI is granted to a small portion of employees to recognize superior contribution by individual employees.

Mr. Rogers. To what extent are automatic cost of living adjustments such as these inconsistent with the principles of FAA's "pay for performance" Core Compensation and Executive Compensation Plans?

[The information follows:]

Automatic cost of living adjustments have been eliminated under the Core Compensation and Executive Compensation Plans and replaced with performance-based pay increases and bonuses. The OSI annual pay increases under the Core Compensation Plan are provided only if the agency performs acceptably against pre-established OSI performance goals, and only to those employees who meet minimum performance and conduct requirements. The SCI annual pay increases under the Core Compensation Plan and the Executive Compensation Plan are paid to those employees who are determined to have provided superior contributions. The bonus

incentives under the Executive Compensation Plan are provided to those executives who attain specific pre-established performance objectives.

Mr. Rogers. You are requesting $30,230,000 for "contract increases". Is this the allowable general inflation increase for non-pay items? If so, please provide the base amount upon which this increase is calculated and inflation percentage allowed?

[The information follows:]

The request reflects the expected growth in contractual costs and is in line with the Office of Management and Budget assumptions regarding inflation during fiscal year 2002. The base amount that the contractual increase was determined is $1.679 billion and the assumed inflation rate is 1.8 percent.

Mr. Rogers. Is this percentage consistent with other Department of Transportation agencies?

[The information follows:]

This percentage increase was reflected in the budget requests for both the FAA and the Coast Guard. It is consistent with the Office of Management and Budget assumptions regarding inflation starting fiscal year 2002.

Mr. Rogers. On page 15, why has the FAA not reduced the following fiscal year 2001 funded items from the fiscal year 2002 base, and does this indicate that such funding will be continued at the fiscal year 2001 level in fiscal year 2002?

Centennial of Flight Commission ($750,000);
RMMS Expansion, Texas (350,000);
Lawton, OK Air Traffic Services ($1,500,000);
ATIS Training Contract ($3,752,000); and
GMU/GWU Training Initiative ($3,000,000).

[The information follows:]

The funding for each item is described below:

Centennial of Flight Commission - The Centennial of Flight Commission began receiving funds from Congress in fiscal year 1999. Since the celebration of the Centennial occurs in calendar year 2003, it is not appropriate to eliminate funding for the Commission at this time.

RMMS Expansion, Texas – This expansion was a one-time cost for fiscal year 2001 and should not have been included in the fiscal year 2002 base.

Lawton, OK Air Traffic Services - In a letter dated January 19, 1996, the United States Army announced its intention to discontinue operations at the Fort Sill Army Radar Approach Control (FSI ARAC) at Henry Post Army Airfield in Lawton, OK. To continue operations of the FSI ARAC, in fiscal year 1999, in fiscal year 2000 and in fiscal year 2001, Congress directed the FAA to fund air traffic services at Lawton, OK.

ATIS Training Contract – These funds are still needed as we continue in-facility training for 431 replacement hires in fiscal year 2001 and begin training for 450 replacement hires in fiscal year 2002. The increase was included in fiscal year 2001 appropriation because of reductions made to the training program during the previous years because of budgetary priorities. The FAA agrees with the Congressional action and believes the increase continues to be necessary to continue training of replacement hires that have not yet reached the full performance level.

George Mason University and George Washington University Training Initiative - Before the end of fiscal year 2001, the contract will be awarded for this initiative. To continue the training initiative in fiscal year 2002 FAA will require funding at the same level as fiscal year 2001.

WITHIN-GRADE INCREASES (WIGS)

Mr. Rogers. On page 23, you are requesting $46,606,000 for within-grade increases (WIGS). Haven't these been replaced by provisions of existing labor agreements and performance-based compensation provided under the Core Compensation Plan?

[The information follows:]

Within-grade increases continue to be paid for approximately 13,300 employees not yet covered by the new compensation plans. Those employees who converted to the Core Compensation Plan in April 2000 will be paid an OSI if they meet minimum performance and conduct requirements. Some employees will also get a SCI. The OSI and SCI are paid from a pool of funds equal to the combination of the government-wide pay raise and the funds previously paid as within-grade increases. For the approximately 27,500 bargaining unit employees who have reached agreements (NATCA-Air Traffic, PASS-Airway Facility, and NATCA-

Airway Facility), WIGS have also been replaced with OSI's and SCI's (although they are generally guaranteed in the early years of the contract).

Since we do not budget by bargaining unit, it would be difficult to determine either by line of business or staff office how the requested increase should be split between WIGS and OSI/SCI's. Therefore, we have not changed the way the request is presented.

Mr. Rogers. You are requesting an increase of $17,147,000 for controller training. How much would this be reduced if you hired 300 controllers next year instead of the 600 planned?

[The information follows:]

Based on the labor contract between the FAA and the National Air Traffic Controllers Association, the FAA is required to reach an air traffic control specialists (ATCS) full-time equivalent target of 15,300 by fiscal year 2002. In order to meet this target, we are hiring 600 new ATCS's. The 600 additional controllers will, on average, be on-board for one-half of the year. As a result, full-time equivalents will increase by 300. The cost to train the 600 new hires is $17,147,000. If we hired only 300 new controllers, we would require an increase of $8,575,000 for controller training.

NATIONAL PARKS OVERFLIGHT PLANS

Mr. Rogers. Your budget includes $14,210,000 for the development and approval process for Air Tour Management Plans, as required by title VIII of AIR-21. What are the assumptions regarding the number and location of required plans, staffing and contract resources, and schedule timelines behind the budget estimate?

[The information follows:]

The assumption used regarding the number of required plans is that all commercial air tour operators that are currently conducting flights over national parks will submit an application. There are 384 national parks. Of those, 53 parks currently have air tour operators conducting flights. Therefore, we are assuming that we will be required under law to complete ATMP's (Air Tour Management Plans) for 53 National Parks within the 24 month timeframe identified in the legislation.

To accomplish this, we have requested funding in the amount of $300,000 for two additional FAA staff to oversee the contract and the

application process. This funding is for the first year of the program only. Funding for the additional FTE's will be required in future years. The contract will be let up front to accomplish the ATMP's for all 53 parks, which will include the required environmental work and assisting the FAA in conducting the ATMP process. The contract estimate is for the completion of all 53 parks and therefore will be a one-time request of $12 million.

Approximately 17 of the national parks may have significant controversy and will take a minimum of 24 months. The remaining Parks are estimated at 18 months for completion.

All costs identified below will be one-time start up fees with the exception of the Personnel Compensation and Benefits (PC&B) and will cover all 53 estimated national parks:

PC&B	$ 300,000	
Travel	$ 970,000	Travel, Training, Per Diem, Government Car
Rentals	$ 390,000	Room rentals for training and public meetings
Printing	$ 250,000	Printing draft and final ATMP's EA's and EIS's
Contracts	$12,000,000	EAs and EISs, noise monitoring, aircraft rentals
Supplies	$ 100,000	Supplies
Equipment	$ 200,000	Equipment, computers, etc.
Total	$14,210,000	

Years 3 and out, the estimate is one new entrant per year into national parks where existing tours are conducted. Estimated cost is $420,000 per year for the additional PC&B, contract and associated costs, after the initial 53 parks are completed.

Mr. Rogers. AIR-21 stipulates that such a plan shall be developed "whenever a person applies for authority to conduct a commercial air tour operation over the park". Have all of the locations assumed in the fiscal year 2002 budget request received an application for air tour operations?

[The information follows:]

The legislation requires the FAA Administrator to set an altitude below which air tour operations are subject to an ATMP. The FAA published a Notice of Proposed Rule Making in the Federal Register regarding the altitude, with a public comment period ending June 11. Subsequent to finalizing the rule, applications for interim operating authority will be required from existing air tour operators and from new entrant air tour operators, to continue operations while the ATMPs are being

developed. FAA anticipates receipt of applications, from air tour operators at all 53 National Parks, which will trigger the ATMP process.

AIR TRAFFIC CONTROL MANAGEMENT AND OVERSIGHT

Mr. Rogers. Title III of AIR-21 establishes a Chief Operating Officer (COO) for air traffic control. Are funds included in the fiscal year 2002 request for the COO and their personal office?

[The information follows:]

Yes, funds for the COO and their personal office are assumed within the total funding level for Air Traffic services.

Mr. Rogers. AIR-21 also establishes a Management Advisory Committee (MAC) and an Air Traffic Subcommittee of that committee. Although AIR-21 was enacted well before final development of the President's budget (April 5, 2000), and the MAC and Air Traffic Subcommittee have activities underway, the fiscal year 2002 President's budget justifications do not show evidence that funding has been included specifically for the support of those entities. Are such funds included or assumed in the request, and if so how much?

[The information follows:]

Estimated fiscal year 2001 and fiscal year 2002 costs for both the Management Advisory Council and the Air Traffic Services Subcommittee are $400,000, and are assumed within the budget.

Mr. Rogers. If funds are included, which part of the FAA organization would have administrative control?

[The information follows:]

The Policy, Planning, and International Aviation (API) organization provides executive secretariat support to the MAC. API pays for the travel costs of its non-Air Traffic Services Subcommittee members. Cost for the Subcommittee and the Chief Operating Officer are assumed within the Air Traffic Services budget.

MOUs GRANTING CREDIT HOURS

Mr. Rogers. On December 27, 2000, the FAA signed a memorandum of agreement with National Air Traffic Controller Association (NATCA) where the union agreed to withdraw an unfair labor practice (ULP) petition in return for 60 credit hours per bargaining unit employee at Anchorage Center. What is the estimated cost of providing these credit hours?

[The information follows:]

The estimated cost of providing these credit hours to the bargaining unit employees at Anchorage Center is $286,391.

Mr. Rogers. For the record, please provide a copy of this MOU.

[The information follows:]

Memorandum of Understanding
between the
National Air Traffic Controllers Association
and the
Federal Aviation Administration

This Agreement is made by and between the National Air Traffic Controllers Association (hereinafter "NATCA" or "the Union") and the Federal Aviation Administration (hereinafter "the FAA" or "the Agency"), collectively known as the "Parties." It represents the Parties' agreement concerning the Implementation of the Capstone Demonstration Project at the Anchorage Air Route Traffic Control Center ("ARTCC").

Section 1. Prior to Initial Operating Capability ("IOC"), the Agency shall resolve to the satisfaction of the Union at the national level, Issue #3 as described in the "ATS Capstone Review for the implementation of Radar-like Services White paper," dated December 15, 2000, attached hereto.

Section 2. Prior to IOC, the Parties at the facility level shall jointly develop a transition plan and brief all affected bargaining unit employees ("BUE") on the plan.

Section 3. Prior to January 16, 2001, the Agency shall resolve, to the satisfaction of the Union at the national level, Issue #1 as described in the Capstone Review White Paper. The Agency shall discontinue the use of Capstone equipment and procedures if the issue is not resolved by that date.

Section 4. Prior to May 30, 2001, the Agency shall resolve, to the satisfaction of the Union at the national level, Issue #4, as described in the Capstone Review White Paper. The Agency shall discontinue the use of Capstone equipment and procedures if the issue is not resolved by that date. Additionally, if the issue is not resolved by that date, the Agency shall establish a work group consisting of two BUEs from each area of operation at ZAN to determine and resolve the impact on the facility, including, but not limited to, traffic management initiatives and staffing. The Agency shall provide "one-for-one" backfill overtime to replace the two BUEs from each area. Capstone equipment or procedures shall not be re-implemented at ZAN until all work group identified issues are resolved to the satisfaction of the work group.

Section 5. All BUEs shall be granted immunity for operational errors and/or operational deviations if the use of the Capstone procedures and services cause a distraction from the primary responsibility of separation of aircraft from other aircraft or airspace, from IOC to 60 days after operational readiness demonstration ("ORD").

Section 6. The Agency shall not install and/or activate any additional Ground Based Transceivers beyond the three (3) that are presently certified in the Bethel area without prior notification to and negotiation with the Union at the national level. The Agency shall not expand the geographical area in which Capstone equipment and/or procedures are utilized without prior notification to and negotiation with the Union at the national level.

Section 7. Within sixty (60) days of the execution of this Agreement, the Agency shall convene a meeting in a mutually agreeable location for the purpose of addressing and resolving existing and future automation enhancements at ZAN, including but not limited to, how ZAN receives, funds, and implements National Airspace System products such as the Enhanced Status Information System. The Agency shall provide duty time, travel and per diem for up to four (4) ZAN BUEs and up to four (4) other national Union representatives to attend the meeting. The Union shall designate its meeting attendees.

Section 8. The Parties at the facility level shall jointly develop DYSIM training problems that include radar/non-radar mixed environment operations. All affected BUEs shall complete said training within thirty (30) days of IOC. For employees unavailable due to leave or other absences from the facility, this training shall be completed not later than sixty (60) days after IOC. Said training shall not be pass/fail in nature.

Section 9. If either party at the facility level determines there is a safety or operational impact, they may terminate the use of Capstone equipment and procedures at any time.

Section 10. The Agency shall implement altitude sectorization Phase I (do not display traffic above x altitude) no later than August 30, 2001. Phase II (those items not covered in Phase I) will be implemented no later than January 30, 2002, per attached schedule. By February 28, 2001, the Agency shall convene a work group of no less than two (2) BUE from each Micro-EARTS facility and no less than two (2) other national Union representatives to complete the functional description narrative for this enhancement. The Agency shall provide duty time, travel and per diem for Union representatives to attend the meeting. This work group will also prioritize the national Micro-EARTS site delivery schedule (attached).

Section 11. The Agency shall provide duty time, travel and per diem for up to four (4) national Union representatives for a site visit to ZAN to observe ADS-B/Capstone operations and LAN upgrades. The Union shall designate its' representatives. This site visit shall occur no later than September 30, 2001.

Section 12. The Agency shall adhere to the attached "Micro-EARTS Site Deliveries" schedule. All upgrades described in the DSR CHI Upgrade MOU Addendum, dated January 22, 1999, shall be incorporated into DSR at ZAN beginning no later than October 31, 2001, with completion by August 30, 2002, unless otherwise determined by the work group in Section 10.

Section 13. If the Agency fails to meet any required date(s) in this agreement, the Agency shall convene a meeting, one for each missed date, within 7 days of each required date, at ZAN for the purpose of personally explaining to bargaining unit representatives why the Agency was unable to meet their obligations as agreed to in this agreement. ATP-1, AOS-1 and AUA-600 shall personally attend each meeting.

Section 14. All issues expressly delegated to the Parties at the facility level by this Agreement for negotiation shall be negotiated and resolved in accordance with the provisions of Article 7 of the CBA.

Section 15. This agreement constitutes no waiver by either Party of any right guaranteed by law, rule, regulation, or contract.

Section 16. This Agreement may be re-opened by mutual agreement of the Parties in accordance with the provisions of Article 7 of the CBA.

Section 17. The Parties shall meet at the end of the Capstone Demonstration Project to determine the feasibility of continuing this MOU.

For the Union:

Michael Doherty
Deputy General Counsel

James L. Gordon
NATCA ATX Liaison

Bill Blackmer
Director of Safety and Technology

Wade Stanfield
NATCA ATP Liaison

Mark Dill
NATCA ADS-B Representative

For the FAA:

Jeff Griffith
ATP-1

Dated: December 27, 2000

Settlement Agreement
between the
National Air Traffic Controllers Association
and the
Federal Aviation Administration

This Agreement is made by and between the National Air Traffic Controllers Association (hereinafter "NATCA" or "the Union") and the Federal Aviation Administration (hereinafter "the FAA" or "the Agency"), collectively known as the "Parties." It represents the Parties' settlement of the Union's Unfair Labor Practice concerning the DSR CHI Upgrade MOU Addendum, dated January 22, 1999 at the Anchorage Air Route Traffic Control Center ("ZAN").

The Agency shall provide 60 credit hours to each bargaining unit employee ("BUE") at ZAN. In return, the Union shall withdraw all Unfair Labor Practices associated with this agreement.

In addition, for Sections 4, 8, 10 and 12 of the NATCA/FAA MOU concerning the Implementation of the Capstone Project at the Anchorage Air Route Traffic Control Center, if the agency commitment is not adhered to, each BUE shall receive 16 credit hours for each occurrence. It is expected that the parties will bargain all local issues in good faith and in sufficient time to meet all dates.

FOR THE UNION: Wade Stafford

FOR THE AGENCY: Jay Griffith

Date: 12/27/00

Mr. Rogers. If the ULP alleged an unsafe practice, why did the agency simply allow the union to withdraw it? Conversely, if the safety allegations were a bargaining chip for monetary consideration, why didn't the agency file a ULP against the union for such a practice?

[The information follows:]

The ULP filed by NATCA was not based on unsafe practices. The ULP focused on allegations that the agency did not provide the computer-human interface (CHI) changes for the Anchorage Air Route Traffic Control Center as agreed to in a Display System Replacement (DSR) Memorandum of Understanding. The agreement on credit hours was a settlement for the FAA not complying with the MOU causing the controllers in Anchorage Center to operate without the CHI changes for a longer period than had been agreed to as part of the DSR MOU. There would be no basis for the FAA to file a ULP against NATCA.

Mr. Rogers. Have similar agreements providing credit hours been approved in locations other than Anchorage?

[The information follows:]

Yes. The Western-Pacific Region settled a grievance by providing each of the NATCA's bargaining unit members at Honolulu Terminal Approach Control Facility credit hours as a result of miscommunication concerning the date of the facility consolidation.

Mr. Rogers. This MOU also provides credit hours for each bargaining unit employee if certain schedule milestones are not met in the Alaska Capstone project. Since NATCA employees are deeply involved in the Capstone project, how will FAA ensure they are not "working to fail" in Capstone?

[The information follows:]

The issues covered in the MOU are effectively within the FAA purview and management will ensure these items are completed.

CONTROLLER HIRING

Mr. Rogers. Your budget requests $23,814,000 for 300 additional controller FTE staff years, pursuant to the NATCA contract. This equates to $79,380 per FTE, which is substantially less than the average staff year cost

of the controller work force. Why is the budget so much less than the average?

[The information follows:]

The salary for newly hired controllers establishes the low end of the salary range for the total controller workforce. Entry-level controllers initially occupy developmental status and tend to be assigned to lower level facilities. The $79,380 average reflects the base pay and benefits a controller attains during the first year of employment.

Mr. Rogers. On page 34, your end-of-year controller work force chart indicates an end-of-year controller level of 14,904 in fiscal year 2000 (actual) and 14,920 in fiscal year 2001 (estimated). Didn't the 1998 NATCA agreement require FAA to ensure an end-of-year level of 15,000 for those years?

[The information follows:]

The NATCA agreement number refers to full-time equivalents and the controller work force chart numbers are full-time permanents. In fiscal year 2000, we had an FTE value of 15,008, which was made up of 14,904 FTP's and an FTE value of 104 from part-time permanent (PTP). In fiscal year 2001, we projected 15,100 FTE's, comprised of 15,000 FTE's from the FTP's and 100 from the PTP's.

Mr. Rogers. Please provide the CWF chart on page 34 of the justifications expressed not in end-of-year employment but in FTE staffing.

[The information follows:]

We maintain a FTE value on the controllers because FTE goals are in the union contract. We do not maintain the FTE on any other part of the controller work force.

Mr. Rogers. Why is it necessary for traffic management coordinators (TMC's) to rise by 118 (19 percent) in fiscal year 2001?

[The information follows:]

Additional TMC's are being added because of the increased emphasis on addressing air traffic system delays. TMC's, in collaboration with the airline dispatchers, evaluate tactical air traffic system constraints. They develop, coordinate and implement the required actions to minimize the

impact of system constraints and improve operational predictability. Industry has demanded increased TMC coverage during severe weather events, citing a lack of adequate communications and coordination during these events. Industry has also requested an expansion of TMC coverage to improve West Coast operations during weather events and late night or early morning coverage for the airfreight industry.

AIRSPACE REDESIGN

Mr. Rogers. Please provide a summary of funding, by location, for airspace redesign efforts, for each of the fiscal years 2000 through fiscal year 2002.

[The information follows:]

In fiscal year 2000, the National Airspace Redesign (NAR) Program was funded in the amount of $9,622,000. The conference report provided $6,600,000 to be in direct support of the New York and New Jersey airspace effort. In fiscal year 2001, the NAR Program funding level is $20,578,000. Of these appropriated funds, $8,500,000 is for the New York and New Jersey airspace redesign activity and cannot be reprogrammed by the FAA for other activities, including airspace redesign activities outside the New York or New Jersey metropolitan area. The fiscal year 2000 budget request for NAR is at the same level as appropriated in fiscal year 2001. The funding profiles for fiscal year 2000 and fiscal year 2001 follows:

Location	FY 2000	FY 2001	FY 2002**
FAA Headquarters *	$1,726,334	$5,289,776	$5,289,776
Alaska Region	$50,065	$48,091	$48,091
Central Region	$103,690	$547,660	$547,660
Eastern Region	$4,382,283	$8,500,000	$8,500,000
Great Lakes Region	$1,030,729	$1,922,897	$1,922,897
New England Region	$316,000	$304,596	$304,596
Northwest Mountain Region	$323,170	$427,164	$427,164
Southern Region	$749,739	$809,848	$809,848
Southwest Region	$202,000	$866,255	$866,255
Western Pacific Region	$737,990	$1,861,712	$1,861,712
Totals	$9,622,000	$20,578,000	$20,578,000

* For fiscal year 2001, Headquarters funding profile includes: Air Traffic Airspace Management Program Headquarters support-$741,591, ATA Airspace Lab-$2,300,000, Airspace Liaison Team (ALT)-$370,000, Choke Points-$1,000,000, and the sub-Airspace Liaison Team (sALT)-$878,185. **Fiscal year 2002 represents the current proposed spending plan. The fiscal year 2002 project plan with schedules and milestones, will be finalized in the summer of 2001.

Mr. Rogers. By location, what is the schedule for major activities during fiscal year 2002?

[The information follows:]

There are three key activities under the National Airspace Redesign: (1) Regional Airspace Optimization and Redesign; (2) National System Choke Points; and (3) High Altitude Concept.

During fiscal year 2002, the following items are scheduled for the National System Choke Points:

- Remaining recommended sectors will be implemented.
- Performance measurements will be conducted for completed action items.

During fiscal year 2002, the following items are scheduled for the Regional Airspace Optimization and Redesign*:

Region	Major Activities
Alaskan	Phase I Anchorage Terminal Redesign implemented.
Central	Analysis of St. Louis Airspace completed; environmental analysis started.
	Complete modeling and initial evaluation for Kansas City Center (ZKC) East End Resectorization.
Eastern	Complete design phase of New York/New Jersey/Philadelphia (NY/NJ/PHL) Redesign.
	Continue operational modeling and environmental process for NY/NJ/PHL Redesign.
Great Lakes	Implement initial airspace changes to support new Detroit Wayne County Airport (DTW) runway.
	Begin Chicago Center (ZAU) sector realignment to support terminal airspace changes.

Region	Major Activities
Great Lakes	Begin design phase for Indianapolis Center (ZID) airspace to support Cincinnati Redesign.
	Complete design phase for Minneapolis terminal airspace to support new runway.
New England	Complete design phase of NY/NJ/PHL Redesign.
Northwest Mountain	Denver South Airspace Redesign implemented.
Southern	Begin terminal airspace design to support new runway at Cincinnati.
	Complete airspace modeling to support new runways at Charlotte and Orlando.
	Jacksonville En Route Center East Redesign implemented.
Southwest	Complete design phase of Houston terminal airspace; begin modeling.
Western Pacific	Complete modeling for dual arrival flows for San Francisco Airport (SFO).
	Complete modeling for improved arrival and departure flows for Los Angeles Airport (LAX).

* Based on schedules developed in February 2001. Schedules are undergoing refinement and revision.

During fiscal year 2002, the following items are scheduled for the High Altitude Concept:

- Initial modeling of the seven ARTCC field demonstration will be complete.
- Training plan for the demonstration will start development.
- Implementation plan (including development of Letters of Agreement and automation changes) will begin development.

CIVIL AVIATION SECURITY

Mr. Rogers. Last year, the Committee listed several concerns over management issues in this program (House Report 106-622, page 32). Please provide a summary of actions taken since last year's report to address those issues and concerns.

[The information follows:]

The concerns listed in the report are addressed below in the order they were listed.

The FAA continues to allow industry to underutilize these [EDS] systems with impunity.

On March 22, 2001, FAA transmitted three documents to the Department of Transportation Office of Inspector General (DOT IG) relating to EDS utilization:

"Project Plan: Increase of Utilization of EDS at Low Utilization Sites", "Analyzing the Cost of Screening Selectee and Non-Selectee Baggage", and "EDS Low Use Sites" (a briefing package).

The FAA is pursuing the actions outlined in the Project Plan to increase utilization wherever possible. A copy of the documents will be provided to you.

The FAA agreed in 1998 to conduct a study to determine the minimum utilization rates needed to maintain operator proficiency. However the study was never conducted.

The FAA completed a study entitled "CTX Operator Proficiency VS. Utilization" in July 2000. A briefing package was transmitted to the DOTIG on March 22, 2001, and a copy will be provided to you.

The FAA has still not promulgated a rule requiring the certification of screening companies.

All pending rules are under review within the new Administration. However, the Certification of Screening rule is linked to and references the pending revisions of Parts 107 and 108 of the Federal Aviation Regulations. To minimize confusion over references, FAA is placing a priority on the pending revisions of Parts 107 and 108.

FAA has failed to develop a strategic plan pursuit of its civil aviation security program.

The FAA completed its security strategic plan in April 2001. The plan was transmitted to the appropriate congressional committees on April 19, 2001. The FAA has also completed a five-year deployment plan of explosives detection equipment which will be submitted to Congress shortly.

Mr. Rogers. Please provide a summary of bulk EDS contract actions taken thus far in fiscal year 2001, indicating the date of action, the vendor name, the number of systems procured, and the dollar value.

[The information follows:]

Date of Action	Vendor	Number of Systems Procured	Other Equipment/Services Procured	Dollar Value
12/13/2000	InVision	3		$4,050,000
12/13/2000	InVision	4		$2,540,000
	InVision		4 - Power Incline Entrance Conveyor Units	$144,000
	InVision		4 - Exit Slides	$32,000
12/27/2000	InVision		480 Hours - Site Installation Support	$27,360
3/15/2001	InVision		Installation Services	$27,360
3/8/2001	InVision	3		$4,050,000
	InVision	1		$1,250,000
	InVision		Site Installation Engineering	$59,235
	InVision		Installation Support	$280,000
	InVision		Site Installation Engineering	$85,000
	InVision		Training Simulators - Standalone	$555,000
	InVision		Installation Support	$169,000
	InVision		Installation Support	$21,000
3/8/2001	InVision	1		$635,000
	InVision	3		$1,875,000
	InVision		4 - Power Incline Entrances	$144,000
	InVision		4 - Exit Slides	$32,000
	InVision		Site Installation Engineering	$53,500
	InVision		Training Simulator Repair	$2,500
	InVision		Site Installation Engineering	$148,532
	InVision		Site Installation Engineering	$57,010
			Total as of 5/14/01	$16,237,497
12/20/2000	L-3	6		$6,473,988
			1 - Bag Conveyor Interface Subsystem	$255,066
			1 - Baggage Positioning Adapter	$358,868

Date of Action	Vendor	Number of Systems Procured	Other Equipment/Services Procured	Dollar Value
12/20/2000	L-3		1 - Lab Image Printer/Archiver	$33,319
			1 - Automated Operator Qual Test/AOJT	$61,370
			1 - Multi Baggage Viewing Station	$354,141
			1 - Multi Baggage Viewing Station Network	$704,353
3/7/2001	L-3		Site Installation Plan	$46,611
3/13/2001	L-3	8		$8,577,324
			2 - Feed Ramps	$19,060
			2 - Training Simulators	$59,990
			1 - First Year Warranty	$195,231
3/30/2001	L-3		Training Class - DFW	$10,000
			Total as of 5/14/01	$17,149,321

Mr. Rogers. On page 73, you are requesting $750,000 for FAA headquarters building security. As the headquarters is a federal building, why aren't these expenses borne by GSA?

[The information follows:]

GSA does not pay for guard services for the FAA headquarters buildings. GSA only incurs the costs associated with basic security measures such as emergency response, criminal investigations, security assessments, and development of contingency plans. Building occupants are responsible for providing guard service or, if provided by GSA, for reimbursing GSA for the cost of such services through the GSA rent bill.

Mr. Rogers. What specific security deficiencies are of concern?

[The information follows:]

The current Department of Transportation guard contract will expire on September 30, 2001 and a new contract is under solicitation. An extensive review of the current guard contract and a comparison of the best contract guard practices and procedures existing with government facilities in the Washington, D.C. area was performed. We are attempting to employ these best practices with the new contract. It is projected that these

enhanced security features will increase costs over the existing contract. The following are some of the best practices and security enhancements we wish to employ:

1. Additional posts and hours;
2. Additional training and arming of guards;
3. Additional educational requirements and work experience for the project manager and site supervisors;
4. GSA certification and Special Police Officer Commissions (SPO) for all armed guards;
5. Require a Quality Assurance Program to evaluate the project manager, guard supervisors, and contract guards.

The funding increase of $750,000 will allow the FAA to be in a proactive mode for protecting its employees, contractors, and visitors instead of reactive. These enhancements will allow the FAA to employ the best practices being utilized at other government facilities in the Washington, D.C. area.

Mr. Rogers. Under contract #DTFA0100C00021, the agency has obligated approximately $2,000,000 in the past 18 months to a private law firm for labor negotiation services. Was the contract completed?

[The information follows:]

The contract in question was awarded in February 2000, and will expire in February 2002. The total cost of the contract is $426,000, of which $233,000 has been obligated to date.

Mr. Rogers. Why does the agency not use its in-house expertise for these activities, rather than hire outside analysis and counsel?

[The information follows:]

In 1996 employee compensation became a subject of collective bargaining with the agency's unions. The Administrator felt that the agency would benefit from the assistance of personnel with outside experience in such negotiations.

Mr. Rogers. The Committee understands that this contract allows the contractor, rather than the agency, to prepare and defend agency positions in labor negotiations. Isn't such a sensitive activity inherently governmental?

[The information follows:]

The statement of work contained in the contract specifies that the contractor will "assist the FAA" in formulating, presenting, and defending the agency's proposals in collective bargaining. Ultimate responsibility for the agency's proposals and positions remains with agency officials.

AIRPORT IMPROVEMENT PROGRAM

Mr. Rogers. What is the status of implementation of the $4.50 passenger facility charge (PFC)?

[The information follows:]

The FAA published a final rule to implement the $4.50 PFC, and other provisions of AIR-21, on May 30, 2000. On September 29, 2000, the FAA posted detailed instructions for the submittal of applications and amendments to the FAA for $4.50 authority on its PFC web site.

The FAA began to receive the applications for $4.50 authority in the summer of 2000. However, due to the time required by the air carriers and their agents to reprogram the airline ticketing systems and computer reservations systems to accommodate the $4.50 PFC, actual collections at the $4.50 level could not begin until April 1, 2001. The reprogramming effort was completed successfully and on schedule. Collections at the $4.50 level are now underway.

As of April 1, 2001, 31 airports began collecting at the $4.50 level. By July 1, 2001, the number of airports collecting at the $4.50 level will be 53, out of a national total of 297 airports that currently collect a PFC. Among the airports now collecting a $4.50 PFC are some of the Nation's largest hub airports, including Atlanta Hartsfield, Chicago O'Hare, Minneapolis-St. Paul International, Philadelphia International, Salt Lake City International, Ronald Reagan Washington National, Washington Dulles, and Denver International.

Mr. Rogers. How many airports are expected to raise their PFCs above the $3 level during fiscal year 2001 and fiscal year 2002, and what are the estimated additional revenues?

[The information follows:]

The FAA estimates that by the end of fiscal year 2001, of the 297 airports nationwide currently collecting a PFC at some level, approximately 85 airports (depending on application timing issues), or almost 30 percent of the total, will be collecting at the $4.50 PFC level. Of these, 11 will be large or medium hub airports, compared to a total of 56 large and medium hub airports currently collecting PFCs. By the end of fiscal year 2002, the FAA estimates that at least 150 airports will be collecting PFCs at the $4.50 level, including at least 35 large and medium hub airports. Large and medium hub airports account for almost 90 percent of total national PFC collections.

To conform to the calendar year reporting practices of most airports, the FAA reports and projects PFC collections on a calendar year basis. The FAA estimates that more than $1.8 billion in total PFC revenue will be collected at the Nation's airports in calendar year 2001. The estimate for 2001 is less than initially projected due to the partial year collection at the $4.50 level (collections began on April 1 due to the need to reprogram air carrier ticketing systems) and the apparent decision by some large and medium hub airports to defer $4.50 collection start dates until fiscal year 2002, preserving fiscal year 2002 AIP entitlements, which would be reduced by an additional 25 percent in fiscal year 2002 if an airport started $4.50 collections at any point in fiscal year 2001.

Total PFC collections in calendar year 2002 should exceed $2.2 billion, compared to an estimated $1.65 billion at a $3 PFC cap.

AVIATION WEATHER RESEARCH

Mr. Rogers. Please provide a table that compares funding for each element of the aviation weather research program under the following column headings: (a) fiscal year 2001 President's budget; (b) fiscal year 2001 allocations as of March 30, 2001; (c) fiscal year 2002 as submitted to the Department of Transportation (DOT); (d) fiscal year 2002 as submitted to Office of Management and Budget (OMB); and (e) fiscal year 2002 President's budget. Please explain the reasons for each increase and decrease in fiscal year 2001 and for each increase and decrease during formulation of the fiscal year 2002 budget.

[The information follows:]

The following table reflects funding for the aviation weather research program in the fiscal year 2001 President's budget, the funding allocated as of March 30, 2001 and the fiscal year 2002 President's budget. Because OMB Circular A-11, section 36.2, provides that Executive Branch communications that lead to the President's budget decisions will not be disclosed either by the agencies or by those who have prepared the budget, the table does not reflect the fiscal year 2002 submission to DOT and the fiscal year 2002 submission to OMB. For the same reason, we have not provided an explanation of the reason, either for increases and decreases in fiscal year 2002, or in the formulation of the fiscal year 2002 budget.

Aviation Weather Research Program
Dollars in Thousands

Product Development Team (PDT)	FY 2001 President's Budget	FY 2001 Allocations as of March 30, 2001	FY 2002 President's Budget
In-Flight Icing	$2,146	$2,328	$2,068
Aviation Forecasts and Quality Assessment	$2,700	$4,037	$1,870
Turbulence	$2,400	$2,257	$2,749
Winter Weather	$617	$645	$1,550
Convective Weather	$3,350	$2,647	$2,964
Ceiling and Visibility	$2,710	$2,125	$750
Model Development and Enhancements	$2,600	$2,215	$1,659
NEXRAD Enhancements	$1,375	$1,138	$1,500
Juneau Terrain Induced Turbulence	$3,100	$3,100	$6,700
National Ceiling and Visibility	$1,500	$1,500	$1,956
Oceanic Weather	$1,000	$1,000	$1,139
Wake Turbulence/ Project SOCRATES	$3,200	$0	$1,000
Airborne Humidity Sensors	$300	$400	$501
Personnel and other Costs	$791	$791	$1,962

PRODUCT DEVELOPMENT TEAMS FUNDING DISTRIBUTION

Mr. Rogers. Please itemize how fiscal year 2002 funds have been distributed among the Product Development Teams (PDT) that is, how much is being spent on icing, turbulence, convection, deicing, ceiling, visibility, and oceanic weather, etcetera. How much was initially requested by the program office for each PDT in at the outset of the fiscal year 2002 planning process, and how much would be available to each PDT under the administration's current request. Please discuss the ramifications of changes, both increases and decreases, if any. How much funding was allocated to each PDT in fiscal year 2001?

[The information follows:]

The following table reflects the aviation weather research PDT funds available under the Administrations current request and the fiscal year 2002 funding. Because OMB Circular A-11, section 36.2, provides that Executive Branch communications that lead to the President's budget decisions will not be disclosed either by the agencies or by those who have prepared the budget, the table does not reflect either the fiscal year 2002 program office request or the ramifications of changes for the increases and decreases in fiscal year 2001.

Dollars in Thousands

Product Development Team	Funds Available Under the Administration's Current Request	FY 2001 Funding for PDTs
In-Flight Icing	$2,068	$2,328
Aviation Forecasts and Quality Assessment	$1,870	$4,037
Turbulence	$2,749	$2,257
Winter Weather	$1,550	$645
Convective Weather	$2,964	$2,647
Ceiling and Visibility	$750	$2,125
Model Development and Enhancements	$1,659	$2,215
NEXRAD Enhancements	$1,500	$1,138
Juneau Terrain Induced Turbulence	$6,700	$3,100
National Ceiling and Visibility	$1,956	$1,500
Wake Turbulence/Project SOCRATES	$1,000	$0
Oceanic Weather	$1,139	$1,000
Airborne Humidity Sensors	$501	$400

WEATHER RESEARCH ACTIVITIES

Mr. Rogers. How have aviation weather research activities been focused to address capacity enhancement or delay minimization in the National Airspace System? Which research areas hold the greatest potential for improvements in delay minimization over the next several years?

[The information follows:]

At least half of the delays tracked by the FAA are caused by severe weather, as aircraft attempt to avoid them. The Aviation Weather Research Program (AWRP) invests more in solving the convective weather problem than in any other phenomenon. As a result of this investment, in fiscal year 2001 the program brought a new convective weather forecast product to operational status. It is the National Convective Weather Forecast. The product is an en route user tool that currently provides a one-hour forecast of existing, large organized storms and is updated every five minutes. These storms are the most troublesome for the NAS. Independent MITRE

verification of the product determined that the location of the "ends of the storm lines" could be detected within 30 to 40 nautical miles with accuracies ranging from 91 percent to 97 percent. Also, a near-future product, the Terminal Convective Weather Forecast, uses the same underlying technology. This product extends the convective weather capability of the Integrated Terminal Weather System from a 20-minute forecast out to 60 minutes. Collectively, the ever-improving convective weather products have the greatest potential for improvements in delay minimization over the next several years.

After convective weather, the next greatest weather impact on capacity and delay is due to terminal ceiling and visibility restrictions. The AWRP first invested in solving the difficult ceiling or visibility problem at a single high-impact airport: San Francisco. At San Francisco, arrival capacity is cut in half when low clouds prevent parallel approaches. This occurs on an average of 120 days per year, with aircraft throughout the West Coast being put on ground holds. When the ceiling lifts and parallel approaches can resume, grounded flights are released. The weather research project culminates in the summer of 2001 with a full field test of a system, which will give traffic managers up to an hour's notice when parallel approaches will be possible. By enabling traffic managers to have aircraft arriving as the ceiling breaks, dozens of additional aircraft can be accommodated daily. With the anticipated success in San Francisco, the AWRP is now planning to address the ceiling or visibility problem nationwide.

Research related to the ceiling/visibility projects is the ground-deicing problem with winter storms. The AWRP has developed a special tool—termed the Weather Support to Deicing Decision Making (WSDDM) system—to help operators cope with snow events. WSDDM provides decision makers with the ability to make timely aircraft deicing and runway plowing decisions. This enables an improved ability to keep up with snow, thereby keeping the airport open; increased ability to estimate storm arrival/ending; opening runways sooner and not diverting aircraft; and preparing aircraft with timely applications and appropriate type of deicing agents. WSDDM's success in increasing airport capacity can be gauged by the fact that the Port Authority of New York and New Jersey paid for the system to be installed and operated there.

Other AWRP projects are more safety oriented but can also provide capacity and delay benefits. The Integrated Turbulence Forecast Algorithm delivers up to a 12-hour forecast (user selectable) of the relative turbulence intensity at specific flight levels (user selectable). Application of the

turbulence product will allow flight planners to judiciously choose routes and altitudes so as to avoid the constant requests for altitude and route changes that typify today's turbulence avoidance. Another set of AWRP products provides icing information. While safety oriented, the icing products provide capacity benefits associated with regional airlines having fewer icing-related diversions and flight cancellations by virtue of their having better icing information.

Mr. Rogers. The FAA has put in place a target of an 80 percent reduction in accidents. A large proportion of these accidents is weather related, particularly in the general aviation community. In light of this situation, what new initiatives or augmentation of existing initiatives in aviation weather research are planned in the fiscal year 2002 budget?

[The information follows:]

Major fiscal year 2002 products under development include the Integrated Icing Diagnosis Algorithm (IIDA), the Integrated Icing Forecast Algorithm (IIFA), the National Ceiling and Visibility product, and new turbulence capabilities. These products will be particularly valuable to the general aviation community since many accidents have been attributed to ceiling, visibility, icing, and turbulence occurrences.

Specifically, the two icing products under development provide a more accurate display of icing potentials compared to today's approved icing products. Today's icing products are available in text or graphical formats. These tend to cover large volumes of airspace, with the advisory stating the same icing potential for the entire affected airspace.

Both the IIDA and IIFA products contain graphical displays. They are also color-coded, so that the user may see the areas of significant icing potential. An added feature allows the user to select the altitude. The user may view IIDA and IIFA in a horizontal or vertical setting. The vertical setting displays the icing potentials along a chosen flight path. Here, the user can see the icing potentials for various altitudes, color-coded, with an outline of the terrain. In this manner, an optimum flight path could be chosen.

In the case of ceiling and visibility accidents, researchers studied the impact faced by pilots (under simulated conditions) when degraded conditions occurred and the pilots had little or no instrument training. They found that a pilot had on an average of less than three minutes before losing control of their aircraft. Review of actual accidents by the National Transportation Safety Board (NTSB) found that degraded ceiling and

visibility conditions played a role in almost 40 percent of weather related aviation accidents. Funding for these projects began in fiscal year 2001. The research will initially focus on the Northeast winter corridor and Alaskan problems.

The third area of safety focus is turbulence. NTSB records reveal that from 1983 to 1997, there were 615 fatalities (mostly in general aviation) and 823 injuries in turbulence incidents. The cost in personal injury and aircraft damage is $135.4 million annually. As a result, a recent Joint Safety Implementation Team identified the need for improved turbulence detection and forecast capabilities. In response to this long-standing problem, the Aviation Weather Research Program has developed the Integrated Turbulence Forecast Algorithm. This experimental graphical product delivers up to a 12-hour forecast (user selectable) of the relative turbulence intensity, at specific user-selectable flight levels. It will be coupled with an objective method of obtaining accurate turbulence measurements from aircraft en route. The turbulence observations are generated from a software addition to the aircraft condition monitoring system and down linked in real time. The technique has been approved as an International Civil Aviation Organization standard. Further refinement of both the forecast algorithm and the measurement technique will be funded in fiscal year 2002 with the intent to implement them both operationally that year.

WEATHER FORECASTING

Mr. Rogers. Describe the similarities and differences between the Collaborative Convective Forecast Product (CCFP) and the National Convective Weather Forecast Product (NCWFP). What work is underway to improve the accuracy and forecast duration of convective weather forecasting? Is research on improving convective forecasts being pursued as aggressively as prudently feasible? If not, describe the nature of the work that could be undertaken to accelerate results. How much is being spent on these respective tasks in fiscal year 2001? How much is planned for fiscal year 2002?

[The information follows:]

The CCFP and the National Convective Weather Forecast (NCWF) are similar only in that they both originate at the National Weather Service's Aviation Weather Center (AWC) and are both intended to provide graphical forecast information on convective weather for aviation purposes. They differ in their frequency of issue. The CCFP is produced four times daily,

whereas the NCWF is produced every 5 minutes. They differ in their duration. The CCFP is valid for the periods of 2 hours, 4 hours, and 6 hours after it is produced, however the NCWF is valid for the time one hour after it is produced. They differ in their means of production. The CCFP is a human-generated forecast produced by collaboration between the AWC, airline meteorologists, and Center Weather Service Units. The NCWF is computer generated using radar and lightning detection data for initial conditions and an extrapolation technique that predicts movement of storm systems. They differ in the information provided. The CCFP forecasts are of very large areas that take into account expected growth and decay of storms. They include information on whether the forecast boxes will have low, medium, or high thunderstorm coverage, the altitude of storm tops in three categories, the growth rate of the storms, and a confidence value in three categories of probability that the storms will occur. The NCWF forecasts are of small areas based on extrapolation of existing storms without regard to growth or decay. Actual storm tops, speed, and direction of movement are also shown.

The FAA Aviation Weather Research Program is engaged in developing improvements to existing technology, which will increase both accuracy and forecast duration. Techniques being tested include adding growth and decay by satellite data changes, convergence of winds and moisture, storm generation by fronts and similar atmospheric boundaries, and numerical modeling. Research is being pursued as aggressively as is prudently feasible with the appropriations provided. In fiscal year 2001, $2.6 million is being spent directly on these tasks by the convective weather product development team. In addition, the convective weather research is also advanced by investment in several supporting research teams, such as water vapor sensing system research and the model development and enhancement product development team. For fiscal year 2002, the President's budget requests approximately $3 million for these tasks, not including the supporting research teams.

WAKE TURBULENCE AND WAKE VORTEX DETECTION SYSTEMS

Mr. Rogers. Describe the FAA's work on wake turbulence and wake vortex detection systems. Please differentiate between the work that the FAA conducts and the work that NASA conducts on wake turbulence and wake vortex detection. Provide a table showing the amounts for these tasks in the budgets for FAA and NASA during the period fiscal year 1998 through fiscal year 2002. How is this research coordinated between FAA and NASA? What are its goals? Which agency has the lead responsibility in these areas?

[The information follows:]

Dollars in Thousands

	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002**
FAA					
Wake Turbulence	$0	$0	$0	$0	$1,000
SOCRATES	$3,000	$3,000	$2,000	$0	$0
NASA*					
Wake Turbulence (AVOSS)	$4,652	$2,452	$3,080	$0	TBD
SOCRATES	$0	$0	$1,700	$2,000	$0

*NASA Management estimates

**President's budget request

The terms wake turbulence and wake vortex are interchangeable. Prior to fiscal year 1998, NASA and the FAA jointly conducted research on reducing wake-turbulence-imposed aircraft spacing for increasing airport capacity. Beginning in fiscal year 1997, the FAA received funding for Project SOCRATES, to conduct basic research for developing a general-purpose atmospheric hazards sensor. In fiscal year 1998, the FAA conducted a scientific peer review of the SOCRATES technology. The reviewers concluded that the research should be focused on ground-based wake turbulence detection to maximize the possibility of project success. Proven off-the-shelf wake turbulence sensors were readily available to provide "ground truth" measurements for evaluating the SOCRATES sensor.

"Ground truth" sensors were deployed at three airports as part of the program to evaluate the SOCRATES sensor in increasingly complex airport environments. One installation, San Francisco (SFO), also provided wake turbulence safety data to potentially support near-term capacity

enhancements there. In this limited sense, Project SOCRATES became the FAA's wake turbulence research program with a near-term focus on closely spaced parallel runways, which exist at five of the eight most delayed airports in the United States. (It is still too early in the research process to determine if permanent airport-based wake vortex sensors are required to obtain capacity enhancements.) Funding for Project SOCRATES was not appropriated by congress in fiscal year 2001. Non-SOCRATES wake turbulence research is proposed for continued funding in the President's fiscal year 2002 budget under the FAA Research, Engineering and Development Weather Program budget item A04a.

NASA research focused on the development of a wake turbulence avoidance system called AVOSS (Aircraft Vortex Spacing System). The AVOSS combines weather-dependent wake behavior prediction and wake detection to provide a dynamic forecast of when aircraft spacing can be reduced. AVOSS was designed to handle even the most complex situations requiring a wake turbulence solution. However, estimates of the time needed to complete AVOSS development vary considerably and range from about 5 to 10 years for an operational system.

In addition, NASA received SOCRATES funding in fiscal year 2000 and fiscal year 2001. This has been used to support continued development of the SOCRATES sensor and to begin the process of transitioning AVOSS from a research system into an operational system.

NASA had the lead responsibility for AVOSS technology development. Until NASA AVOSS funding ended in fiscal year 2000, research was coordinated through the FAA and NASA Interagency ATM Integrated Product Team. If NASA resumes AVOSS research and the technology is shown to be feasible and cost beneficial for operational use, the FAA would then assume the lead role for implementation.

WEATHER RESEARCH TO ATC COMMAND CENTER

Mr. Rogers. How are the results of aviation weather research made available to the Air Traffic Control System Command Center? Which aviation weather research products not currently in use at the Command Center have the potential for use at the Command Center? Please discuss.

[The information follows:]

None of the recent results of the Aviation Weather Research Program are presently being used at the Air Traffic Control System Command Center. One product, the NCWF, is distributed via the Collaborative Decision Making Network and therefore can be accessed by the Command Center.

The NCWF has the potential for use in the Command Center such as by giving an early indication that the CCFP is not accurately predicting a weather situation. Another aviation weather research product that has the potential for use at the Command Center is the experimental Integrated Turbulence Forecast Algorithm. This product would be useful in avoiding planned use of airspace, which will be significantly impacted by turbulence and the resulting frequent altitude or route change requests from en route aircraft. The Command Center also is a potential user of the Aviation Digital Data Service developed by the aviation weather research program. This service provides users access to a broad variety of aviation weather products, both legacy and emerging. Since the service is widely accessed by airline operation centers and others, the Command Center could benefit from the shared situational awareness that would come with its application. The remaining weather research products—dealing with in-flight icing, ceiling, visibility, and ground deicing—are more oriented towards center and terminal operations, but they would find utility at the Command Center as part of the Collaborative Decision Making process.

WEATHER RESEARCH RESULTS UTILIZATION

Mr. Rogers. Describe the FAA's process for transferring technology results to the operational organizations of the FAA and to the air carrier and general aviation communities. How is the effectiveness of the Aviation Weather Technology Transfer (AWTT) Board measured? Which office at the FAA is accountable for assuring that controllers and supervisors in the Air Traffic Services organization utilize aviation weather research results? How is that function performed?

[The information follows:]

The transfer of aviation weather research results into FAA operations requires upgrading and moving the research capability from experimental platforms to operational platforms. This transfer also requires the training of users, development and implementation of operating procedures utilizing the new capability, and developing and implementing interfaces to the communications infrastructure. The several elements of this technology transfer process are an integral part of the FAA acquisition management system.

The AWTT Board has been established to orchestrate and accelerate the coordination of technology transfer in FAA and in the National Weather Service. The AWTT serves to identify needed coordination early and to ensure that it is done in time to enable efficient implementation of new technology.

The effectiveness of the AWTT is measured by speed of the technology transfer. However, since the operational introduction of new aviation weather products has just started in recent years, we are beginning to establish a baseline measurement of technology transfer time to use for comparisons in the future.

Accountability in FAA for assuring that controllers and supervisors in the Air Traffic Services organization utilize aviation weather research results rests with Air Traffic Procedures (ATP). ATP establishes requirements for new technology, specifies needed controller training and establishes operating procedures to utilize new products. Dispatchers and pilots whose requirements, training needs, and procedures are approved by Flight Standards principally use most weather products. Since the producer of many of these products is the National Weather Service, significant coordination must take place in the technology transfer of new weather products. This coordination is a function of the AWTT.

WEATHER INFORMATION VIA THE INTERNET

Mr. Rogers. We understand that the pilot community and the airline dispatcher community have long been seeking a definitive FAA policy on the use of weather products available through the Internet. How long has the FAA been toiling away at this issue? When will a policy be announced? Which FAA office has responsibility for action on the issue of the use by pilots and dispatchers of weather information available on the Internet?

[The information follows:]

The FAA has worked on development of a satisfactory policy on use of the public Internet to disseminate aviation weather and Notice to Airmen information for about 2 years. The final draft of the policy is currently under review, and we expect to publish it in the near future.

Once the policy is published, the FAA will review applications from commercial and government providers who wish to become Qualified Internet Communications Providers and publish a list of successful applicants.

WEATHER SYSTEMS AND NAS OPERATIONAL EVOLUTION PLAN

Mr. Rogers. The agency is putting a large amount of attention on the NAS Operational Evolution Plan (OEP) to integrate systems development activities with ATC procedures, airport planning, and airspace realignment. How are new and prospective weather systems (for example, ITWS and WARP, etcetera) and aviation weather research and development activities (for example, new convective and ceiling and visibility forecast tools, among others) being designed into the NAS Operational Evolution Plan?

[The information follows:]

Over half of all delay is caused by weather. The OEP addresses en route and terminal weather problems through a combination of new technologies and improvements in distribution, collaboration over changing weather conditions, and increased training in operational use of weather products. Programs like WARP and ITWS are beginning deployment. Where research on new weather tools has demonstrated utility in improving operations, they will be added to the OEP with deployment schedules. Research projects are not included in the OEP unless there is a clear implementation path, procedures for use have been tested, and benefits can be measured.

When a capability has matured sufficiently for operational use, the OEP will be modified to assure that procedures, training, certification, and personnel resource requirements are provided.

TURBULENCE ALERT SYSTEM

Mr. Rogers. Describe the agency's progress on developing a turbulence alert system associated with the terrain-induced turbulence in Juneau, Alaska.

[The information follows:]

In fiscal year 2002 and fiscal year 2003, the following efforts are planned:

- Complete analysis of fiscal year 1998 and fiscal year 2000 National Center for Atmospheric Research (NCAR) research data and issue report.
- Maintain (as needed) and update scientific data analysis software.
- Develop research and testing program for items mentioned in the NCAR September 2000 final feasibility report, particularly further study on Gastinau Channel to accommodate current flight patterns.
- Develop a wind alert system using both wind profilers and the Juneau FAA certified anemometers.
- Continue maintenance contract for wind profilers.
- Develop, maintain, and update (as required) technical documentation.

In fiscal year 2004:

If wind alert system testing is successful, develop a system specification for the FAA's full acquisition process.

Mr. Rogers. To what extent might terrain-induced turbulence have been a contributing factor to the recent fatal accident in Aspen, Colorado? What are the similarities and differences between the weather conditions on the approaches to Aspen and Juneau? What other airports may have problems associated with terrain-induced turbulence.

[The information follows:]

In the investigation of the Aspen accident, to date, we have not found any evidence of terrain-induced turbulence as being a contributing factor.

Aspen is at an elevation of 7,815 feet. It is located in a valley surrounded by mountain peaks as high as 11,556 feet. Weather conditions at

Aspen can be extremely poor, however, terrain-induced turbulence is normally less of a problem than at Juneau.

Juneau is located on the Alaska coast and is at an elevation of 19 feet. Weather conditions at Juneau frequently cause terrain induced turbulence, which can be somewhat exacerbated by the fact that the approach is over both mountainous terrain and water.

We are aware of occasional terrain induced turbulence at Albuquerque, Reno, and Colorado Springs and believe that terrain-induced turbulence can be present at any airport located in mountainous areas. In addition, local terrain features can induce such turbulence in areas without nearby mountains.

CONTROLLER EQUIPMENT/INFORMATION DISPLAY SYSTEM PLANNED SYSTEM INTERFACES

Mr. Rogers. Please describe the currently approved capabilities of the ASOS Controller Equipment/Information Display System (ACE-IDS) system that has been installed at the new Atlanta TRACON. What additional system interfaces are planned for the ACE-IDS system?

[The information follows:]

The ACE-IDS currently displays real-time data from the following FAA National Airspace System or National Weather Service (NWS) systems:

- Runway Visual Range (FAA System);
- Terminal Doppler Weather Radar/Low Level Wind Shear Alert System (FAA System);
- Digital Altimeter Setting Indicator (FAA System);
- Flight Data Input/Output Weather Messages (FAA System);
- International Range Instrumentation Group – B (IRIG-B) Coded Time Source (Facility Clock) (FAA System);
- Automated Surface Observing System (NWS System);
- Automated Weather Information Processing System (NWS System); and
- Systems Atlanta Information Display System – Model 4 (FAA System).

ACE-IDS also displays all data required by Air Traffic Controllers in the performance of their duties, including Standard Terminal Arrival Routes, Standard Instrument Departures, Terminal and En Route Aeronautical

Charts, Emergency Procedures Checklists, frequencies, operating procedures, FAA Orders, policies, memorandums, and other required data. ACE-IDS creates a paperless environment at controllers' positions.

Additional interfaces planned for the ACE-IDS include:

- Terminal Doppler Weather Radar - Graphic Situation Display (FAA System);
- Weather and Radar Processor (FAA System);
- Integrated Terminal Weather Processor (FAA System);
- Instrument Landing System (FAA System - Monitor and Control Capability); and
- Aviation Weather Display System (Department of Defense System).

Mr. Rogers. How much non-recurring and recurring cost avoidance did the FAA realize through the installation of the ACE-IDS system at the Northern California TRACON? Describe how those savings are realized. Do those or similar savings accrue at all installations planned for ACE-IDS?

[The information follows:]

Both non-recurring and recurring cost avoidance was realized through the implementation of ACE-IDS at the Northern California TRACON. Examples of non-recurring cost avoidance include the elimination of individual system displays for the Automated Surface Observing System, Runway Visual Range, the Digital Altimeter Setting Indicator, Time Code Information, the Flight Data Input/Output, Low-Level Windshear Alert System, along with associated installation and integration expenses. Recurring costs are avoided by elimination of life cycle system specific display maintenance and telecommunications savings.

Preliminary estimates indicate that $828,000 in individual system display and telecommunications cost avoidance was initially realized. At the end of the first year of ACE-IDS operation at the Northern California TRACON, an additional $88,000 in telecommunications savings will have been realized for a total of $916,000. It is estimated that $2.7 million in cost avoidance will accrue over a 20-year period, largely due to telecommunications cost avoidance.

Similar cost avoidance can be anticipated at other ACE-IDS equipped facilities, contingent upon the number of individual system specific displays eliminated and telecommunications requirements.

Mr. Rogers. Provide a list or table that shows the installation schedules for the ACE-IDS systems that have been funded in the ASOS display, large TRACON and other TRACON budgets.

[The information follows:]

Below is a list of ACE-IDS installations at TRACONS or large airports and at their surrounding satellite facilities.

Atlanta TRACON (A80): Installed March 2000. Included ACE-IDS workstations at Atlanta Tower (ATL). Installation of ACE-IDS workstations at Columbus Tower (CSG) and Macon Tower (MCN) scheduled for November 2001.

Northern California TRACON (NCT): Installed November 2000. Installations at satellite facilities began March 2001 and are complete. Includes Beale AFB Tower (BAB), Concord Tower (CCR), Hayward Tower (HWD), Livermore Tower (LVR), Mather Tower (MHR), Modesto Tower (MOD), Moffett Tower (NUQ), Monterey Tower (MRY), Napa Tower (APC), Oakland AFSS (OAK/AFSS), Oakland Towers (OAK), Palo Alto Tower (PAO), Rancho Murieta AFSS (RIU), Reid-Hillview Tower (RHV), Sacramento Executive Tower (SAC), Sacramento International Tower (SMF), Salinas Tower (SNS), San Carlos Tower (SQL), San Jose Tower (SJC), Santa Rosa Tower (STS), San Francisco Tower (SFO), Stockton Tower (SCK), and Travis AFB (SUU).

Oklahoma City TRACON/Tower (OKC): Installed March 2001. Includes ACE-IDS workstations at Norman Tower (OUN), Wiley Post Tower (PWA), and Tinker AFB Tower (TIK).

Washington Reagan National Airport TRACON/Tower (DCA): Installation scheduled to begin June 2001.

Dallas - Fort Worth (DFW) TRACON (D10): Installation scheduled to begin June 2001. Includes three DFW Airport Control Towers and DFW Airport Operations (DFW/AO).

Honolulu Control Facility (HCF): Installation scheduled to begin July 2001. Includes Hilo Tower (ITO), Honolulu Tower (HNL), Honolulu AFSS (HNL/AFSS), Kona Tower (KOA), Lihue Tower (LIH), Maui Tower (OGG), Molokai Tower (MKK), and Wheeler AAF Tower (HHI).

Potomac TRACON (PCT): Installations scheduled to begin August 2001. Includes Andrews AFB Tower (ADW), BWI Tower (BWI), Dulles Tower (IAF), Leesburg AFSS (LEE/AFSS), Manassas Tower (HEF), and Richmond Tower (RIC).

Gateway TRACON (T75): Installation scheduled to begin September 2001. Includes Mid-America Airport (MAA), St. Louis Downtown Parks

(CPS), St. Louis Regional (ALN), St. Louis Tower (STL), Scott AFB (BLV), and Spirit of St. Louis Tower (SUS).

Seattle TRACON (S46): Installation activities scheduled to begin November 2001. Includes Bellingham International (BLI), Boeing Field Tower (BFI), Gray Army Airfield (GRF), McChord AFB (TCM), Olympia Tower (OLM), Paine Field Tower (PAE), Renton Tower (RNT), Seattle AFSS WA (SEA/AFSS), Seattle Center ARTCC (ZSE), Seattle Tacoma Tower (SEA), Tacoma Narrows Tower (TIN), and Whidbey Island NAS WA (NUW).

Boston TRACON (BCF): Installation scheduled to begin January 2003. Includes Bedford Tower MA (BED), Beverly Tower MA (BVY), Boston Center ARTCC MA (ZBW), Boston Tower (BOS), Lawrence Tower MA (LWM), Lebanon Tower NH (LEB), Manchester Tower (MHT), Nashua Tower NH (ASH), Norwood Tower MA (OWD), and Portsmouth Tower NH (PSM).

Mr. Rogers. To what extent do the universal display capabilities of the ACE-IDS provide a single agency platform that could be used instead of the displays being developed separately by the Free Flight program, The En Route program, the Medium Intensity Airport Weather System, traffic flow management applications and other similar applications that present information to radar and tower controllers and to airways facilities technicians? How is the agency addressing the potential economies of scale that seem apparent in the ACE-IDS program?

[The information follows:]

ACE-IDS can provide a universal display capability for a wide range of National Airspace System data, excluding aircraft positional data, which must continue to be displayed on dedicated radar displays. ACE-IDS has been designed to utilize existing and future telecommunications architectures, including the Future Telecommunications Infrastructure being procured by the FAA, and implements TCP/IP protocols to ensure universal interoperability with modern computer systems.

A systems engineering team has been established to review display requirements across program domains. It is envisioned that the team's recommendations will result in the utilization of ACE-IDS across multiple programs, minimizing a need for an independent display solution for each of these programs.

WITNESSES

	Page
Barclay, Charles	1, 471, 643
Barnhart, Cynthia	143
Carmody, Carol	243
Carr, J.S.	1, 471, 643
DeBerry, Keith	243
Dolan, Captain Dennis	643
Donohue, G.L	143
Eickenberg, A.C	243
ElSawy, Amr	143
Fisher, J.P	243
Garvey, J.F	1, 243, 471, 643
Hansman, John	143
Jackson, M.P	643
Kerner, Robert	243
Mead, K.M	1, 471, 643
Merlis, E.A.	1, 471, 643
Woerth, Captain D.E	1, 471

INDEX

Airline Delays and Aviation System Capacity

MARCH 15, 2001

	Page
AAAE:	
AAAE—Responsibility for Delays	88
AAAE Five Steps to Solve the Delay Problem	131
ALPA:	
ALPA—Responsibility for Delays	85
ALPA Five Steps to Solve the Delay Problem	135
ATA:	
ATA—Responsibility for Delays	87
ATA Five Steps to Solve the Delay Problems	132
AIR–21 Runway Construction Funding	95
Air Traffic:	
Air Traffic Congestion	118
Air Traffic Congestion Response	102
Airline:	
Airline Competition	108
Airline Customer Service	125
Airline Delay Relationship to Safety	94
Airline Incentives	109
Airline Monopoly	111
Airline Profit, Competition, Hubs	123
Airline Schedules	124
Local Airline Traffic	109
Airport:	
Airport Grant Funding for Hub Airports	96
Airport Infrastructure Projects	120
Minneapolis and Detroit Airports	128
Pittsburgh Airport	130
Stewart Airport	124
Airport Capacity:	
Airport Capacity—Landings and Takeoffs	91
Airport Capacity Utilization	103, 107
Capacity Benchmarks	105
Biography:	
Charles M. Barclay, President, American Association of Airport Executives	53
Cynthia Barnhart, Associate Professor of Civil and Environmental Engineering and the Engineering Systems Division, MIT	175
John S. Carr, President, National Air Traffic Controllers Association	73
Jane F. Garvey, FAA Administrator	11
R. John Hansman, Jr., Professor of Aeronautics & Astronautics, MIT	206

Page

Biography—Continued
Kenneth M. Mead, Inspector General 39
Edward A. Merlis, Senior Vice President, Air Transport Association of America 66
Captain Duane E. Woerth, President, Air Line Pilots Association 81
Choke Points 110, 129
Competitive Pricing 106
Conclusion 139
Closing remarks 241
Delays:
Airline Delay Relationship to Safety 94
Arrival Delays 130
Community Role in Airline Delays 141
Collection of Delay Data 115
Definition of Delays 112, 113, 117
Delays 126
AAAE Five Steps to Solve the Delay Problem 131
ALPA Five Steps to Solve the Delay Problem 135
ATA Five Steps to Solve the Delay Problem 132
FAA Five Steps to Solve the Delay Problem 137
Five Solutions to the Airline Delay Problem 89
IG Five Steps to Solve the Delay Problem 138
Industrial Role in Airline Delays 100
International Delays 111
NATCA Five Steps to Solve the Delay Problem 136
Progress on Airline Delays and Cancellations 101
Safety Related Delays and Runway Capacity 93
Timeframe for Delay Standardized System 116
FAA:
FAA—Responsibility for Delays 84
FAA Five Steps to Solve the Delay Problem 137
HUB Competition 126
Increased Flying Times 105
Inspector General:
IG—Responsibility for Delays 83
IG Five Steps to Solve the Delay Problem 138
Introduction of Witnesses 2, 143
Mega Mergers 101
NATCA:
NATCA—Responsibility for Delays 85
NATCA Five Steps to Solve the Delay Problem 136
New Runway Construction in Chicago-Boston-New York Region 96
Opening Remarks:
Chairman Rogers 1, 143
George Mason University Opening Remarks 209
MIT Professor Barnhart Opening Remarks 158
MIT Professor Hansman Opening Remarks 177
Mitre Corporation Opening Remarks 144
Opening Statement:
Inspector General Opening Statement 12
Opening Statement of FAA Administrator 3
Opening Statement of Mitre Corporation 149
Opening Statement of President Air Line Pilots Association 74
Opening Statement of President American Association of Airport Executives 40

Page

Opening Statement—Continued
Opening Statement of President National Air Traffic Controllers Association 67
Opening Statement of Professor Barnhart, MIT 161
Opening Statement of Professor Donohue, George Mason University 214
Opening Statement of Professor Hansman, MIT 181
Opening Statement of Vice President Air Transport Association of America 56
Partnership 117
Passenger Bill of Rights 101
Passenger Only Airports 92
Peak Demands 91
Peak Demands and Noise 90
Public Service 114
Regulation for Passenger Compensation 134
Runway Planning and Development 123
Separation Standards 139
Whistleblower Protection 138
Witnesses 1, 143

Federal Aviation Administration Management Issues

MARCH 28, 2001

Air Carrier Reporting Pilot Program 404
Air Taxi Operations Report 416
Air Traffic:
Air Traffic Compensation Plan Briefing 333
Air Traffic Control Compensation 313
Air Traffic Control Operational Errors 261
Air Traffic Growth Projections 411
Air Transportation Oversight System 262, 286, 441
Airline:
Airline Operations 426
Airline Participation in Pilot Program 414
Airline Schedules 417
Joint Industry/Government Meetings on Airline Schedules 417
Ranking Airlines 407
Airport:
Airport Growth Versus Projections 413
Airport Improvement Program Obligations 434
Airport Movement Area Safety System 260, 437
Capital City Airport, Lansing Michigan 458, 459
Airspace Redesign 435
Airworthiness Directives 455
Biography:
Carol Carmody, NTSB 264
Keith D. BeBerry, PASS 292
Arthur C. Eickenberg, FMA 311
John P. Fisher, FMA 403
Jane F. Garvey, FAA 259
Robert Kerner, PASS 300
Bonuses 440, 442
Budget Allocation for the Dulles Tower 465
Choke Point Initiatives 408
Civil Penalty Violations 443

Page
Closing Remarks 462
Compensation Inequities Impacting Federal Aviation Administration 312
Controller:
CIC Relationship to Operational Errors 453
Controller-in-Charge 387
Controller in Charge Experience 434
Controller in Charge Program 427, 432, 453
Controller in Charge Training 428, 429
Controller Pay 448
Controller Supervisor Ratio 422
Controllers Recognition at Seattle Tower 260
Delays:
Causes of Delay 405, 425, 426
Data Validation 406, 407
Definition of Delays 246, 404, 414, 423
Weather Delays 409
Department of Transportation Pay 423
Eastern Region Towers 466
Emory Freight Flight 17 Crash 456
English Language Proficiency 415
Environmental Streamlining 447, 451
FAA:
FAA Management and Supervisor Oversight 385, 386
FAA Management of STARS Program 446
FAA Organization 436
FAA Reform 247, 301
FAA Work Force and Mission 246
FAA and Industry Relations 443
Flight Standards:
Flight Standards Travel and Training 285
Flight Standards Work Force 285
FMA Recommendations 387
Free Flight 418
George Washington and George Mason Aviation Institute 469
Ground Radar at Reagan National 458, 463
Improvements to Dulles Air Traffic Control 468
En Route Inspections 293
Inspector:
Inspector Staffing 293, 452
Inspector Travel and Training 418
Introduction of Witnesses 245
Joint Industry/Government Meetings on Airline Schedules 60417
National Performance Review Survey 438
Opening Remarks 243
Chairman Rogers 243
FAA Opening Remarks 246
Opening Remarks of Mr. Sabo 246
Opening Statement:
Federal Managers Association (Eickenberg) Opening Statement 301
Federal Managers Association (Fisher) Opening Statement 385
Opening Statement of FAA Administrator 249
NTSB Opening Statement 260
PASS (DeBerry) Opening Statement 285
PASS (Kerner) Opening Statement 293
Operational Errors 387, 449, 450

Page
Operational Errors at Dulles 464
Outsourcing 422
Pay Disparity 301
Performance and Accountability 438
Personnel Reform 439
Potomac TRACON 467
Ranking Airlines 407
Recess 429
Regulation and Certification:
  Regulation and Certification 441
  Regulation and Certification Staffing 454
Runway:
  Runway Incursions 247, 410, 414
  Runway Incursions and FAA Oversight 260
  Runway Incursion Surface Incidents 448
Safety:
  Safer Skies 247
  Safety Oversight 453
Seattle Earthquake 248
Staffing for Busiest Eastern Region Towers 467
Supervisor Ratio 386, 416, 430, 431, 450
Supervisory Management Risk Factors 430
Witnesses 243

Airline Delays and Aviation System Capacity

MAY 3, 2001

Accuracy of Data Reporting System 594
Airline:
  Airline Delay Solutions Report Card 637
  Airline Delays 611
  Airline Dispatchers Federation 571
  Airline Flight Schedules 599
  Airline Progress on Delay Issues 591
  Airline Requirement to Report Delay Data 591
  Airline Schedule Public Disclosure 590
  Airline Schedules Demand Management Actions 597
  Airline Scheduling 605
  Airline Voluntary Actions to Reduce Congestion 497
  Local Government Involvement in Airline Scheduling 606
Airport:
  LaGuardia Airport 607
  Local Support of Airport Expansion 601
  Philadelphia Airport 608
  Action Plan for Top Eight Airports 598
  Airport Curfew 616
  Airport Reimbursement for FAA Staff Work 599
Alleviate Peak Demands 597
ALPA Delay Commitment 632, 637
Antitrust Immunity 603, 634
Aviation Safety 579
Biography:
  Charles M. Barclay, President, Association of Airport Executives 568
  John S. Carr, President, National Air Traffic Controllers Association 589
  Edward A. Merlis, Senior Vice President, Air Transport Association 553

Page

Biography—Continued
Captain Duane E. Woerth, President, Air Line Pilots Association 578
Building Industry Consensus 572
Boston Runway Expansion Noise Issue 600
Capacity:
Capacity at Atlanta and Dallas/Forth Worth 596
Exceeding Capacity 595
Capacity Benchmarks:
Capacity Benchmarks 475, 638
Capacity Benchmark Report 595, 611
Capacity Enhancements at Most Delayed Airports 608
Choke Points:
Atlanta and Boston Choke Points 609
Choke Points 475
Choke Points New York/New Jersey Area 610
CNN Airport Channel 555
Closing 642
Conclusion 500
Controller:
ATCS Hiring Requirements for Fiscal Year 2001–2010 622
Controller Distribution 620
Controller Relocation 633
Controller Staffing 579, 619
Controller Work Force Retirement 580
FY 2001 Regional Staffing Allocation—Terminal by Level 623
Mandatory Controller Retirement 632
Delays:
Airline Delay Solutions Report Card 637
Airline Delays 611
Airline Progress on Delay Issues 591
Airline Requirement to Report Delay Data 591
Airline Voluntary Actions to Reduce Congestion 497
Commitments to solve the Delay Problem 472
Chronically Delayed Flights 592
Definition of Flight Delays 495
Delay Definition, Environmental Streamlining Airport Capacity Projects . 638
Delay Reporting Advisory Commitee 545
Delay Tracking 495
Delays at San Francisco Airport 615
Flight Delay Public Disclosure 500, 593
Impact of Weather Technology on Delays 634
Information to Customers 556
Internet Reservation System Flight Delay Report 594
Major Airline Reporting of Delay Data 592
Other Delay initiatives 495
Tracking Airline Voluntary Actions on Delays and Cancellations 612
Denied Boarding Compensation 633
Denied Boarding Compensation Program 546
Environmental Streamlining 476, 594, 599, 614
Flight Rule on Flight and Duty Time 617
Flight and Duty Time Limitations 616
Flight Disbursal 609, 614
Boston Flight Disbursal 610
Free Flight Phase 1 and 2 476
Free Flight Phase 1 ..... 579, 618

Page

Free Flight Phase 1 and 2—Continued
Free Flight Phase 2 632
Herndon Command Center 545
Identify Capacity Expansion Projects 546
Improve NATCA Liaison 571
Management Advisory Council Representation 581
Mini Hubs 619
National Airspace Redesign 580
Opening Remarks: Chairman Rogers 471
Opening Statement:
Inspector General Opening Statement 495
Air Transport Association (ATA) Opening Statement 545
Air Line Pilots Association (ALPA) Opening Statement 571
Airport Executives (AAAE) Opening Statement 554
FAA Opening Statement 478
National Air Traffic Controllers (NATCA) Opening Statement 579
Operation Specification Modifications 612
Passenger Facility Charge Cap 555, 633
Peak Demands 500
Peak Hour Congestion Pricing 615
Proposed Antitrust Immunity Scheduling Conference 636, 637
Revenue Diversion 555
Runway:
Runway Construction 500
Runway Expansion at Phoenix 615
Streamlining Runway Construction 554
RTCA Free Flight Steering Committee 571
Schedule Comparison 500
Scheduling Committees 604
Secretary Mineta:
What I Will Do To Help Solve the Airline Delay Problem
March 15 and April 25, 2001 Progress 473, 640
Separation Standards 581
Slot Allocation 606
Slot Allocation and Competition 607
Slot Controlled Airports 604
Streamlining Process Statute of Limitation 601
System Efficiency and Demand Management Option 604
Support Staff for Runway Projects 554
Tracking Delay Progress 590
Witnesses 471

Airline Delays and Aviation System Capacity

AUGUST 2, 2001

Air Traffic:
Air Traffic Modernization Tools Booklet 750
Air Traffic Operations 806, 812
Air Traffic Volume 800
Aircraft Separation Standards 752
Airline:
Airline Pilot and Controller Alliance 740
Airline Schedule Changes 715
Airport:
Airport Capacity 798

Page

Airport—Continued
Airport Construction Streamlining Process 724
Airport Revenues for Remediation 725
Atlanta Airports 658
LaGuardia Airport Lottery 680
Sub-Hub Airport Capacity Use 680
Airspace Redesign 751
Anti-Trust Immunity 724
Average Load Factors 682
Biography:
Charles M. Barclay, President, American Association Airport Executives . 737
John S. Carr, President, National Air Traffic Controllers Association 787
Captain Dennis J. Dolan, First Vice President, Air Line Pilots Association 749
Michael P. Jackson, Deputy Secretary, Department of Transportation 657
Kenneth M. Mead, Inspector General, Department of Transportation 712
Edwin A. Merlis, Senior Vice President, Air Transport Association 723
Capacity:
Airport Capacity 798
Capacity Expansion Projects 715
Sub-Hub Airport Capacity Use 680
Chokepoints 659
Closing Remarks 822
Commitments and Progress 682, 713
Controller:
Controller Attrition 805
Controller Workforce 751, 804
Data Collection 809
Data Collection Validation 810
Delays:
Airline Delay Problems 812
Airline Delay Progress Report 812
Causes of Delays 789, 797, 811
Delay Data Availability to Customers 714
Delay Data Interim Final Rule 791
Delay Information for Customers 725
Delay Information Mandate 790
Delay Improvements 646
Delay Panel Consensus on Resolution 789
Delay Reporting Requirements 809
Flight Delays and Cancellations 750
Key Delay Indicators 796
Pilot Program Key Delay Indictors 792
Progress on Delays 681
Purpose of Delay Hearings 643
Transportation Delay Work Group 646
Weather Delays 800
FAA Progress on Commitments 658
Fiscal Year 2002 Appropriations Bill 644
Flight Time/Duty Time Rules 741
Free Flight Phase I 659
Free Flight Steering Committee 740
Labor Relations Contract 799
Labor/Management Impact 647
Low Frequency Noise 798

Page

Management Advisory Council 752
Model Enhancement 801
National Airspace System Modernization Strategic Plan 741
Nav Canada 750
Open Remarks and Introduction of Witnesses 643
Opening Statement:
  Air Line Pilots Association Opening Statement 740
  Air Transport Association Opening Statement 713
  Airport Executive Opening Statement 724
  Deputy Secretary Opening Statement 645
  FAA Opening Statement 658
  Inspector General Opening Statement 681
  National Air Traffic Controllers Opening Statement 740
Operational Evolution Plan (OEP) 660
Pilot Controller, and Dispatcher Alliance 741
Reimbursable Agreement for Environmental Activities 724
Report Card on Commitments 644
Runway Construction Permits 802
Secretary Mineta: What I Will Do To Help Solve the Airline Delay Problem Commitments Made March 15 and April 25, 2001 Progress 810
Scheduling Data 681
Summer Operations Plan 647

Questions for the Record for the Federal Aviation Administration From Chairman Rogers

2000 Performance Goals 964
2001 Executive Bonuses for Fiscal Year 2000 Performance Goals 965
Accident Statistics 986
  Part 121 Fatal Accident Rates for U.S. Air Carrier per 100,000 Flight Hours 1990–2000 987
  Accident Rate 100,000 Flight Hours 989
Advisory:
  Advisory Circular 908
  Advisory Committees 1020
Air Traffic Control Management and Oversight 1053
Airport And Airway Trust Fund:
  Airport and Airway Trust Fund Statistics 827
  Comparison of Actual and Projected Uncommitted Trust Fund Balances 834
  Trust Fund Revenues and Outlays Comparison 832
  Trust Fund Revenues and Outlays for FY 2001 829
  Trust Fund Revenues and Outlays for FY 2002 830
Airport Improvement Program 1068
Airspace Redesign 1061
AMASS Commissionings 894
Assessments by OST 854
  Assessments/Reimbursables by Fiscal Year 855
Average Full-Time Equivalent:
  Average Full-Time Equivalent Costs 913
  Average Full-Time Equivalent Costs for Controllers 913
Aviation Weather Research 1070
Baseline:
  Baseline Management Notices 1032
  Baselines—Facilities and Equipment 1033
Budget Requests to OST and OMB 858

Page

Center for Management Development 1024
Civil Aviation Security 1064
Civil Aviation Security—Screener Rulemaking 895
Civil Aviation Security Statistics 896
Commercial Space Transportation 1006
Commissioned Facilities 891
Contract Maintenance Support Contracts 888
Contract Tower:
  Contract Tower Cost-Sharing Program 1022
  Contract Tower Program 1021
Controller:
  Air Traffic Controller Workforce Center Positions and Employment 872
  Average Full-Time Equivalent Costs for Controllers 913
  Comparison of ATCS Staffing Standards with Onboard Levels 880
  Controller Attrition 881
  Controller Hiring 1059
  Controller Equipment/Information Display System Planned System Interfaces 1084
  Controller in Charge 885
  Controller Incentive Pay 866
  Controller Staffing 869
  Controller Training 1003
  CWF Staffing vs. FCT Staffing 877
  End-of-Year Controller Workforce vs. Contractor Staffing at FCT 875
  TRACONS—CWF Actual On-Board 873
Core Compensation 906
Cost Accounting System 825
Depot Spare Funding Requests 887
English Language Proficiency 1011
Executive:
  Executive Bonus Awards 949
  Executive Compensation System 949
  Executive Positions 937
  Executive Positions Unfilled 970
Field Maintenance—"Other Object" Costs 890
Five Most Important Modernization Programs 1027
Forecasts and Statistics of Industry Activity 976
  Workload Indicator 977
  Total Combined General Aviation Instrument Operations 980
GSA Rent 916
Health Benefits 914
International Aviation Safety 825
Leasing 1029
Leave:
  Annual Leave 867
  Sick Leave 868
Memorandum of Understanding:
  Memorandum of Understanding between the National Air Traffic Controllers Association and the Federal Aviation Administration 1055
  MOUs Granting Credit Hours 1054
  Settlement Agreement between the National Air Traffic Controllers Associations and the FAA 1058
National Air Traffic Controllers Association (NATCA) Representation 1003
National Parks Overflight Plans 1051
New Programs—Facilities and Equipment 1029

Page
Obligation Plan Versus Actual—Fiscal Year 2000 932
Operations Fiscal Year 2000 Quarterly Direct Obligations 933
Obligations and Unobligated Balance—Facility and Equipment 1046
Office:
Office of Financial Services 896
Office of Policy, Planning and International Aviation 1007
Office of System Safety 1017
Office of the Administrator and Deputy Administrator 1015
Regional Headquarters Offices Corporation Support Financial and Staffing Resources FY 2000–2002 1026
Regional Offices 1025
Onboard Staffing by Office 852
Operational Error Statistics 993
Operations 1048
Other Services 859
Other Services Operations Appropriation 859
Outlays—Facility and Equipment 1044
Overseas Personnel 835
Policy Studies 1013
Positions:
Executive Positions 937
Executive Positions Unfilled 970
FAA Distribution of Full-Time Equivalents (FTE) Operations Appropriations 935
Federal Aviation Administration Employment and FTEs 2000 973
Federal Aviation Administration Employment and FTEs 2001 974
Federal Aviation Administration Employment and FTEs 2002 975
Human Resource Management Positions 901
Positions and Employment Summary 972
Positions by Office 934
Public Affairs Positions 1024
Product Development Teams Funding Distribution 1072
RTCA, Incorporated 1023
Runway Incursion:
Pilot Deviation Runway Incursion By Operation Type 1997–2000 990
Runway Incursion Data Fiscal Year 1997–2000 991
Runway Incursion Statistics 990
Safety System Top Priorities 1028
Special Pays 861
Federal Aviation Administration Operations Appropriation Special Pay 861
Federal Aviation Administration Operations Appropriation Special Pay by Line of Business 865
Staffing:
Comparison of March 2001 Staffing to Budget Estimates 853
Controller Staffing 869
Maintenance Staffing 887
Sunday Premium Pay 869
Transit Subsidy Benefit Program 916
Estimated Costs for FAA Participation in the Transit Benefit Program-Fiscal Year 1996–2001 916
Current Number of Enrollees in FAA's Transit Benefit Program 917
Transportation Administrative Service Center 854
Travel:
Federal Aviation Administration Operations Appropriation Travel and Transportation 917

Page

Travel—Continued
Non-Routine Overseas Travel 921
Travel and Transportation Expenditures Operations Appropriation 918
Travel–Operations Funded 917
Turbulence:
Turbulence Accidents and Incidents 997
Turbulence Alert System 1083
Union Workforces 1004
User Fees 906
Wake Turbulence and Wake Vortex Detection Systems 1078
Weather:
Aviation Weather Research 1070
Weather Forecasting 1076
Weather Research Activities 1073
Weather Research to ATC Command Center 1080
Weather Research Results Utilization 1081
Weather Information VIA the Internet 1082
Weather Systems and NAS Operational Evolution Plan 1082
Within-Grade Increases (WIGs) 1050
Workers' Compensation 848
CBY 2000 Distribution of Workers' Compensation Recipients 849
Workload Measures and Industry Trends 981
Growth Rate %: Aviation Activity vs. FAA Operations Budget 982
Comparison of FAA Air Traffic Funding and Workload Measures 984