Talking Points for David Hinson
FAA Administrator
Hispanic Heritage Month Celebration
Hispanics: Challenging the Future
October 3, 1996

The intellectual capital of the Federal Aviation Administration is one of our most important assets.

Hispanics are the fastest growing group in the United States -- and therefore represent a rich source of our future talent.

Education is an important value in the Hispanic community, but it has not always been attainable for a variety of reasons. Often it has been a result of economic factors, and not due to lack of desire.

That trend is changing. We see more Hispanics graduating from high school than in past generations and going on to college.

Hispanics have been making significant gains in their representation in college, now accounting for seven percent (7%) of the collegiate population. This is close to their representation in the general population (9%).

The FAA, as part of the Department of Transportation, supports the Hispanic Association of Colleges and Universities (HACU) through its Summer Internship Program. This year we supported 37 students in headquarters and the field.

I am impressed with the caliber of students that we have worked with in the past, and hope to see them in the agency when they graduate. We have enjoyed working with them.

I see this program as serving two purposes: First, we as employers contact a pool of highly-qualified, talented, and motivated young people. Second, we support the development of their talents through their work experience and through the financial considerations of the program.

I am pleased to announce, in case you haven't heard already, that Secretary Peña has signed a Memorandum of Understanding this morning with HACU to continue our support of this worthwhile and mutually beneficial program.

We will continue to support HACU and initiatives like it because we seek to create and maintain a work environment where all employees have the opportunity to develop to their potential and contribute fully to the organization.

This means maintaining and taking advantage of a talent pool that will ensure we are ready to meet the challenges of the 21st century.

You and I know that progress in diversity demands leadership at the top. We have tried to demonstrate, through word and action, that our commitment to diversity is not just an exercise in political correctness -- but an expression of our genuine conviction.

We recognize that a productive work environment depends on trust, and trust depends on fairness. A commitment to diversity, in the final analysis, is a promise to be fair.

That is a promise we have made to everyone in this room today. It is a promise that every manager at every level of the organization is held accountable for keeping.

I am glad that I am part of a program with Dr. Emma Violand-Sanchez. She represents another aspect of our need to look toward the future. She works with parents who are foreign born and have children in our school system.

They may very well be contributors to aviation, ours, if we are lucky, or in the international arena -- where we will also benefit from their efforts & talents.

I look forward to her remarks and am proud to welcome her to the FAA's celebration as we, in partnership with HACU and its Hispanic-Serving Institutions and Associate Members, meet the Challenges of the Future.

The only way to meet those challenges is to prepare. One of the best ways to prepare is through education.

Thank you.

Talking Points for FAA Administrator David Hinson
Airline Dispatchers Federation
Symposium 1996
Washington, D.C.
October 3, 1996

- Good morning. Let me begin by thanking Mike Nadon for that warm introduction and all of you for inviting me to take part, again, in this important symposium.

- The Airline Dispatchers Symposium is one of the most important sources of information and ideas about what we can do, as an industry, to reduce the already low risk of air travel.

- I want to thank you for promoting the role of and understanding for the flight dispatcher. Your profession shoulders a heavy responsibility, day after day.

- The fact that you provide comments to rulemakings, and participate in ARAC projects and FAA training initiatives and conferences, is strong evidence of your commitment to safety.

- Your profession is proof that however sophisticated and reliable our technology, it is human skill and intelligence, which -- in the end -- count the most.

- We work together ... government, industry, and the Airline Dispatchers Federation ... constantly seeking new ways, new procedures, and new technology to improve safety.

- The safety of U.S. aviation has been called one of the most remarkable achievements of the twentieth century.

- In 1960, U.S. scheduled air carriers made 3.8 million departures, and carried 62 million passengers[1]. That year, there were 90 accidents, 14 of them with fatalities.[2] On average, a fatal accident a month or one every 321,000 departures. Everybody thought it was safe.

- Scheduled airlines made 11.4 million departures last year and carried 580 million passengers.[3] There were four fatal accidents. Only one, the crash in Cali, Colombia, involved a major carrier.

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[1] Civil Aeronautics Board (1961 Edition) Handbook of Airline Statistics.
[2] NTSB Press Release, January 11, 1971.
[3] Air Carrier Industry Scheduled Service Traffic Statistics Quarterly; Fourth Quarter, December, 1995/1994

- If U.S. commercial aviation had experienced the same accident rate in 1995 that it experienced in 1960, there would have been 268 accidents, 42 with fatalities, or a fatal air crash every nine days.[4] This comparison holds if measured in departures, flight hours, or miles flown.

- Since 1960, the number of passengers has increased more than three-fold: from 62 million to nearly 580 million. Airlines performed three times as many departures in 1995 as in 1960 (11.4 million compared to 3.8 million).

[4] Computed by applying the 1960 accident rate per 100,000 departures (2.333 = accident rate, 0.363 = fatal rate).

- Between 1960 and 1995, aviation safety improved 91 percent.[5] Instead a fatal accident for every 273 thousand departures, in 1995 there was a fatal accident about one in every 3 million departures.[6]

- In 1946, a flight on a Lockheed Constellation from LaGuardia to Paris cost about $650, round-trip. The flight made two stops and took between 16 and 17 hours each way. The Constellation could not be certified under today's safety standards. In 1995 dollars, the ticket would cost $4,280.

[5] Based on the 1960 fatal accident rate per 100,000 departures of 0.363. Based on the 1995 fatal accident rate for Part 121 & 135 scheduled carriers of 0.0348.

[6] Based on 11,476,139 departures, Part 121 & Part 135, divided by 4 accidents in the same group.

But recently, a coach ticket from New York to Paris, round-trip, could be purchased for about $550. The flight takes about 6 hours and is a hundred times safer.

- Aviation has benefited from five decades of technological progress.

  Bigger, stronger airplanes
  Fuel and engine improvements
  On-board automation
  Human factors
  Training and simulation
  Air traffic control technology
  Government and industry research

- Those who say air travel is unsafe do not know the facts.

- Professor Arnold Barnett of MIT uses statistical models to calculate the odds of perishing in a commercial aviation accident.[7]

1967 - 1976: 1 in 2 million
1977 - 1986: 1 in 7 million
1987 - 1996: 1 in 7 million
1/90 - 8/96 : 1 in 8 million

- Death risk per flight on scheduled international U.S. flights over past three decades:

[7] Professor Arnold Barnett, Massachusetts Institute of Technology, "Air Safety Statistics: Useful and Otherwise", lecture, August 19, 1996.

1967 - 1976: 1 in 500,000

1977 - 1986: 1 in 1.3 million

1987 - 1996: 1 in 1.3 million

- If a passenger chose one flight at random each day, he/she would, on average, go for 21,000 years before succumbing to a fatal crash.

- These statistics put into real perspective the situation for air travel in the United States today.

- We all know that two of the leading causes of accidents are weather and runway incursions.

- We just placed the 18th Doppler weather radar in operation at O'Hare airport. We're planning to put Doppler at 45 airports where the threat of undetected wind shears is the greatest.

- We began evaluating the airport movement area safety system-- at San Francisco International Airport in May, for eventual deployment at 34 airports around the country.

- Last year, the FAA took the decisive step to ensure that the millions of Americans flying on smaller, commuter aircraft would have the same level of safety as those flying on larger commercial airlines.

- This "one level of safety" rule covers a broad variety of initiatives and requires a dispatch system be established for our commuter carriers.

- The new training rule provides new pilot training and qualification requirements and mandates crew resource management for pilots, dispatchers and flight attendants.

- We set limits on the duty time for flight attendants to ensure that they have adequate rest periods.

- We set new experience levels that pilots must have before they can be paired on the same flight.

- We have proposed that airlines upgrade the flight data recorders to aid in accident and incident investigations.

- We provided new detailed procedures to help pilots detect and safely exit icing conditions.

- I have called for action to ban passenger aircraft from transporting certain materials that can fuel fires.

- I have requested an additional 130 inspectors to be devoted exclusively to inspection, outreach, and public education regarding hazardous materials in air transportation.

- And the Clinton Administration is the first ever to propose new work rules to reduce the continuous number of duty hours that pilots are allowed to fly.

- Shortly after I arrived at the agency, I authorized the use of GPS for supplemental navigation in our domestic airspace, for primary navigation over the oceans, and for non-precision approach guidance.

- Since then, 14 countries have followed suit and approval is pending in 6 others.

- The FANS technology is almost as much today's technology as it will be tomorrow's.

- About 60 Boeing 747-400's are already equipped with the FANS-1 package of avionics for satellite navigation, data link communications, and automation.

- Last Fall, controllers at the Oakland Center began offering satellite-based data link communications to flights operating over the southern sector of the Pacific Ocean.

- By the end of this year, Australia, New Zealand and the United States will set up dedicated routes in the South Pacific for flights equipped for GPS navigation and data link telecommunications.

- Apart from the savings in time and fuel ... which are significant ... controllers and pilots can now communicate directly with each other in these areas.

- The FAA has been at the forefront in developing the FANS concept. Now airlines -- and governments -- around the world are recognizing its benefits.

- The key elements of FANS -- GPS, data link, and automation are three of the main technologies we need to realize the full benefits of "free flight".

- Free Flight is by no means a "free-for-all". Air traffic controllers will still keep watch to ensure safe separation, avoid overloading airports, and prevent intrusion into airspace reserved for special use. What Free Flight really means is a more flexible way of managing air traffic.

- The first step toward "free flight" -- the National Route Program -- is now available everywhere in the U.S. from flight level 31 thousand and above. By the end of the year, it will be available at flight level 29 thousand.

- Eventually, I see "free flight" as part of a globally compatible and integrated system of air traffic management.

- From the start, the FAA has solicited participation from any interested country. Right now, we are working with the European Civil Aviation Conference, and our counterparts in Mexico, Canada, Australia, and New Zealand.

- The full realization of the Free Flight concept is still some years away. The target date we have set for ourselves is 2010. But I am confident that it will become a reality.

- In January 1995 Secretary Peña and I called together over 1,000 aviation experts for a safety summit.

- As a direct result of that meeting, the FAA is now speeding action on 173 separate initiatives aimed at reaching our ultimate goal of zero accidents.

- One of the changes that came from the summit was that the airlines voluntarily agreed to establish internal safety evaluation programs and to name top-level safety officials.

- At the time 46 airlines had safety evaluation programs in existence. The number has more than doubled to 95 out of a total of 138 airlines.

- But the most noteworthy achievement of the aviation safety conference, in my view, was the agreement by the participants on the critical importance of data sharing.

- Under an agreement reached at the conference, airlines will allow the FAA to analyze data they collect as part of their Flight Operations Quality Assurance programs. We, in turn, agreed not to use the data in enforcement actions.

- About two years ago, the FAA began **safety partnership programs** with American, USAir, and Alaska Airlines. These demonstrations programs encouraged employees to disclose certain safety information without fear of legal sanctions against the airlines or themselves.

- The programs have been so successful that we are now preparing guidance to make them available, nationwide, on a two-year demonstration basis.

- The goal is to produce an early warning system sensitive enough to spotlight problems.

- Operations data would be continuously collected by world air carriers and reported in standard format. Data would then be analyzed at designated centers using advanced new analytic tools.

- Airlines, aircraft manufacturers, and other aviation professionals could tap into the data base over a network something like the Internet.

- Unless steps are taken now to further reduce the already low risk of accidents, the number of accidents and fatalities will escalate along with the growth of air traffic.

- With the help of organizations like the Airline Dispatchers Federation and the participants in the working group sessions, I know we can be successful in this endeavor. The American people will accept nothing less than our complete success.

Thank you.

REMARKS PREPARED FOR DELIVERY
BY DAVID R. HINSON, ADMINISTRATOR
FEDERAL AVIATION ADMINISTRATION
NATIONAL PROGRAM For PEOPLE WITH DISABILITIES
WASHINGTON, DC
OCTOBER 8, 1996

Good morning and welcome. I am delighted to be here today, and I welcome the opportunity to talk to you about some important issues that affect us all.

This year's theme, **Ability for Hire**, was selected to bring an increased awareness and education to people with and without disabilities. It was also selected with our country's future in mind.

Our objective, now and in the future, must be to expand opportunities for all Americans who want to make the most of their abilities.

There are 49 million Americans with disabilities who have boundless talents to contribute to our economy, vastly diversified skills to be utilized, and abundant energy for whatever work needs to be done.

The FAA has a resource available that we have barely tapped into, and we need to do better in hiring qualified people with disabilities.

President Clinton challenged the nation four years ago to adopt a national disability policy based on three simple principals: Inclusion, not exclusion; independence, not dependence; and empowerment; not paternalism.

At the FAA we remain committed to that vision for Americans with disabilities. And I want to thank everyone here for working so hard to make it a reality.

Recent pay slips included the Model Work Environment Plan, which highlights the direction the FAA is going in the future.

The basic idea of the plan is to make sure that the full benefits of FAA personnel reform are passed on to all employees. The main benefit must be a workplace which becomes more productive because it is more hospitable.

It is my hope that the plan we are putting in place will prove itself over the coming years -- creating a model workplace, free of strive, and full of opportunity for all.

Let me suggest you reread the Model Work Environment Plan, and note that reasonable accommodations are addressed for people with disabilities. We have developed agency training materials to assist you in working in a diverse work environment.

It is a fact that people with disabilities cross all racial, gender, educational, socioeconomic and organizational lines.

I recently had the opportunity to speak on behalf of Secretary Peña at the Moving Kids Safely regional conference in Ft. Worth.

I was saddened to learn that last year transportation crashes killed 3,400 children, injured 300,000 more, hospitalized 200,000, and permanently disabled 30,000 kids.

Many of those disabled children would benefit from the examples you are setting here today, and from the experience you have gained from doing your jobs. People with disabilities have a lot to offer America as workers, customers, and citizens.

I am happy to report that aviation is the safest way for families to travel, and the FAA has made it safer for children. On September 3, we banned the use of booster seats, as well as harness and vest-type child restraint systems aboard all U.S. air carriers.

Tests conducted by the FAA's Civil Aeromedical Institute in Oklahoma City have shown that these types of restraints do not provide adequate protection for infants and toddlers during aircraft takeoff, landing, and while aircraft move on the ground.

We strongly recommend that all children who fly, regardless of their age, be protected by an approved child restraint system that is appropriate to the child's size and weight.

Federal Aviation Regulations require children who are two years old or older to sit in their own separate passenger seat. We want to get children off laps and into straps.

We are working toward a child seat that can be approved for both aviation and automobile use, which will make life a lot more convenient for traveling families.

We are preparing to launch a nationwide passenger education initiative later this fall. The effort will address child restraint systems, seat belt use, and other safety tips.

The FAA is working closely with the Air Transport Association of America to develop a training videotape for pilots, dispatchers, and flight attendants.

The objective of the video is to show how to avoid turbulence, and what to do if turbulence is encountered. Passengers wearing their seat belts are best protected when aircraft encounter unexpected turbulence.

I'd like to close by reading what Christopher Reeve said in a speech to the Democratic National Convention in August:

America has a tradition many nations probably would envy; we frequently achieve the impossible. That's part of our national charactor. That's what got us from one coast to another. That's what got us to the moon.

On the wall of my room when I was in rehab was a picture of the space shuttle blasting off, autographed by every astronaut now at NASA. On the top of the picture it says, "We found nothing is impossible."

That should be our motto. Not a Democratic motto, not a Republican motto. But an American motto. Because this is not something one party can do alone. It is something that we as a nation must do together.

I want to thank you all for being here, and for your consistent hard work. I am happy to be a part of the People With Disabilities Program today, and encourage you to participate in the activities that the Civil Rights Office committee have prepared for this month.

I want to invite all of you to work with us, to give us direction on what we can do differently, and to make **Ability for Hire** a successful education and awareness program for our great FAA community.

Thank you.

REMARKS BY DAVID HINSON
FAA ADMINISTRATOR
16TH ANNUAL PENNSYLVANIA AVIATION CONFERENCE
STATE COLLEGE, PA
OCTOBER 10, 1996

"Aviation Safety Gains: Past and Present"

It's a great pleasure to be here today for the 16th annual Pennsylvania Aviation Conference. I understand the Aviation Council is celebrating its 35th anniversary. I wish you many prosperous years of growth and success in the years to come.

I'd like to acknowledge the Council's Board of Directors for their vision, and for working on behalf of the wide variety of aviation interests you serve. I'd also like to acknowledge your contributions to aviation education, and congratulate today's scholarship recipients.

It's a small world for those of us in the aviation business, and the FAA values its many associations with you.

Another anniversary for which we can be proud is the 50th anniversary of the signing of the Federal Airport Act, which in 1946 established the first airport grant program -- a predecessor of the current Airport Improvement Program. Over the past 50 years, funds totaling nearly $23.7 billion have been issued in over 33,000 grants to airports.

Typically, AIP grants account for 20 to 30 percent of the funding for airport infrastructure. There is little question the program has been vitally important in helping to achieve the outstanding airport system that we have in the U.S. today.

- Last year, Pennsylvania state airports enplaned 20,509,082 passengers.

- In FY 96, 32 state airports received just under $60 million in discretionary, entitlement, and Federal AIP funds.

- The 16 Pennsylvania airports currently in the PFC program have a total approved collection amount of over $150 million.

PFCs began in 1990 and now account for nearly one billion dollars annually. As the federal government continues to reduce its direct support to airports, PFCs are becoming increasingly important.

Our new reauthorization bill, just signed by the President yesterday, authorizes the FAA's Airport Improvement Program to make grants for new runways, taxiways and systems that will add to the capacity needed to support the ever-growing demands of air carriers and general aviation.

Over the years there has been a great deal of collaboration in trying to solve problems unique to each aspect of our industry. In the future, I believe that we will be collaborating, more and more, on problems that are common to us all.

No problem has a higher priority than safety, and everyone here this morning can claim credit for measurable success. We have all been working together, and this cooperation has made a significant difference.

Today, I'd like to talk about putting aviation safety in perspective, and examine how the accident rate has improved over time. I'd also like to take a minute to discuss the urgency for further improvements, and how to achieve them.

1. Whenever there is an accident, the public wants to know "Is air travel still safe?" And, "Is there something more that government and industry should be doing?"

2. To fully appreciate how safe air travel is, and the magnitude of the challenge, the record must be reviewed in perspective. Not as a one-day concern, but year after year.

- **The facts about aviation safety: 1960 to 1995.**

1. In 1960, U.S. scheduled air carriers made 3.8 million departures, and carried 62 million passengers[1]. That year, there were 90 accidents, 14 of them with fatalities.[2] On average, a fatal accident a month or one every 321,000 departures. Everybody thought it was safe.

2. U.S. scheduled airlines made 11.4 million departures last year and carried 580 million passengers.[3] There were four fatal accidents. Only one, the crash in Cali, Colombia, involved a major carrier.

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3. If U.S. commercial aviation had experienced the same accident rate in 1995 that it experienced in 1960, there would have been 268 accidents, 42 with fatalities, or a fatal air crash every nine days.[4] This comparison holds if measured in departures, flight hours, or miles flown.

4. Since 1960, the number of passengers has increased more than three-fold: from 62 million to nearly 580 million. Airlines performed three times as many departures in 1995 as in 1960 (11.4 million compared to 3.8 million).

5. Between 1960 and 1995, aviation safety improved 91 percent.[5] Instead a fatal accident for every 273 thousand departures, in 1995 there was a fatal accident about one in every 3 million departures.[6]

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- **Air travel today: increased safety, low fares**

1. In 1946, a flight on a Lockheed Constellation from LaGuardia to Paris cost about $650, round-trip. The flight made two stops and took between 16 and 17 hours each way. The Constellation could not be certified under today's safety standards. In 1995 dollars, the ticket would cost $4,280. But last month, a coach ticket from New York to Paris, round-trip, could be purchased for about $550. The flight takes about 6 hours and is a hundred times safer.

2. Aviation has benefited from five decades of technological progress.

Bigger, stronger airplanes

Fuel and engine improvements

On-board automation

Human factors

Training and simulation

Air traffic control technology

Government and industry research

- **Those who say air travel is unsafe do not know the facts.**

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2. Death risk per flight on scheduled international U.S. flights over past three decades:

1967 - 1976: 1 in 500,000

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1987 - 1996: 1 in 1.3 million

3. If a passenger chose one flight at random each day, he/she would, on average, go for 21,000 years before succumbing to a fatal crash.

4. These statistics put into real perspective the situation for air travel in the United States today.

- **The worldwide aviation safety challenge: As air travel grows, the number of accidents will increase**

1. By the year 2010 U.S. airlines will carry more than a billion passengers annually. The number of passengers, worldwide, is also expected to double, reaching 2.5 billion annually within the next 15 to 20 years.

2. Studies by the Boeing Commercial Airplane Group point out that by the year 2015, unless today's very low accident rate is improved even further, the number of fatal accidents, worldwide, will increase to one every 8 to 10 days.

3. Air travel has become the transportation of choice and necessity in today's environment. A fatal accident every 8 to 10 days will be no more acceptable to society in the next 20 years as the 1960 rate was to us. How to keep this from happening is a cause for concern for the FAA and for civil aviation authorities around the world.

- **Safety is the FAA's most pressing priority and the focus of our most urgent efforts.**

1. In the past three years, many air traffic control projects have taken definite shape.

- The air traffic modernization program is back on track.

- Replacement computers for the 5 busiest centers are 10 months ahead of schedule.

- System reliability is at a higher than ever 99.4 percent.

- Doppler radar is being installed at 45 airports where the threat of wind shear is the greatest. The 18th Doppler radar system went into operation at O'Hare last month.

- In May, the FAA began evaluating the runway incursion alerting system (AMASS) at San Francisco International Airport. Eventually, 34 airports will get AMASS.

- **TCAS-II.** Aviation authorities around the world are following the FAA's lead and are requiring TCAS on all commercial passenger aircraft..

- **Data Link**. Two-way satellite communications have been available at the Oakland ARTCC since last October.

- **GPS.** The FAA will replace many ground systems (VOR, DME, ILS) with augmented GPS by the year 2010. One clear advantage of GPS is its ability to precisely pinpoint an aircraft's location in the air and on the ground.

- **Enhanced Ground Proximity Warning System.** "Controlled flight into terrain" has been virtually eliminated in the United States, but it is still a leading cause of accidents, worldwide. An enhanced system, developed by Allied Signal, sounds a warning up to 60 seconds from terrain if the airplane's flight path places it too close to danger. American, United, and British Airways are committed to buy the new system. Japan Airlines and Lufthansa are studying it[8].

[8] "American Air Orders New Warning Device From AlliedSignal," The Wall Street Journal, 9/4/96.

- **Taking the next step -- the crucial linkage between FAA reform and safety**

1. One of the principal drivers in improving safety from 1960 until 1996 was the FAA's ability to respond to the changing needs of a dynamic industry.

2. Today, the agency employs about 48,000 employees and has an annual budget nearing $9 billion. Slightly more than $2 billion comes from the General Fund. The balance comes from the 10 percent passenger ticket tax, and taxes on jet fuel, aviation gas, and cargo which goes into the Aviation Trust Fund.

If the FAA were on the Fortune 500, it would rank about 158th in the nation.

3. The FAA is a very geographically diverse agency with equally diverse responsibilities. (Air traffic control, system reliability, regulation and certification, inspection, ATC modernization, system security. airport development, aviation and aerospace research and development.)

4. The FAA is also an agency in transition ... from working with our hands to working with sophisticated fault analysis and the application of computer technology.

5. In April, the FAA was provided the unique opportunity to rewrite its acquisition and personnel rules. With these reforms, the agency has improved its ability to deliver the important safety improvements that will carry aviation into the next century.

6. The FAA still needs a dependable source of funding that will grow along with increasing demands. The passenger tax is set to expire again at the end of the year. The outcome is by no means guaranteed.

- **Conclusion**

I hope I have given you new insight into the role of the FAA and a greater appreciation for the outstanding safety record of United States aviation. We have made remarkable progress in recent years in upgrading our air traffic technology, in improving the management of the FAA, and in raising the standards of air safety.

I have every confidence that our nation ... and our Congress ... has both the will and the means to assure that our aviation system continues to be the safest and best system in the world.

Remarks for David Hinson
Administrator, Federal Aviation Administration
National Press Club, Washington, D.C.
October 16, 1996

Good Afternoon.

When I accepted the President's invitation to head the FAA, some of my friends said "David, you're going to love being the FAA Administrator. It's a flying job." It was one of your colleagues, by the way, who gave me the title "the nation's chief pilot". I like to think of it that way, too. It is a great job, but I don't get to spend much time in the cockpit.

I spend most of my days managing an agency with 48,000 employees and a budget of about 8.3 billion dollars. At this size, if the FAA were on the Fortune 500 list, it would be the 158th largest company in the nation.

In ordinary times, an agency of this size always has a lot going on. But these, as you all know, have not been ordinary times. This year has been marred by two tragic accidents which raised questions about the safety of air travel in the United States. This is the issue I'd like to talk the most about today.

This has also been a period which has seen an historic turnaround in the fortunes of the aviation industry and major changes at the FAA.

When President Clinton took office, the airline industry was in crisis, with losses mounting to over $10 billion dollars. Orders for new aircraft were virtually nil. And one-fourth of all United States aerospace workers -- that's over 300 thousand people -- had lost their jobs.[1]

The President made it clear from the start that he would do all he could to help get the aviation industry headed in the right direction.

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[1] Report of the National Airline Commission, June 1994. [In 1989 aerospace industry employment stood at 1,331,000. Estimated employment for 1993 was 942,000.] See also: RAND Research Brief; *"California's Small Aerospace Suppliers: Surviving Defense Downsizing"*, February 1996.

Right after his election, he included major aviation companies in his economic roundtable in Little Rock. One month after he was sworn in, the President met in Seattle with all the aerospace CEO's. One result of that meeting was the National Airline Commission.

The commission worked out a rescue plan for the industry and we acted on virtually all of it. The bottom line is that in the 12-month period that ended June 30th, the major airlines reported net profits of $2.88 billion dollars.[2] Forecasters expect strong earnings to continue well into next year.

America's airline industry -- managers and workers alike -- deserve much of the credit for the turn-around.

But the most powerful force driving the rebound, without a doubt, is our strong economy. I can't recall when we've had a better economy. And I can't recall a better time for U.S. aviation.

Aircraft orders for commercial jets have bounced back. Even sales of small piston planes are on the rise. Boeing is gearing up for its biggest production boom since World War II.[3] According to a new forecast by McDonnell Douglas,[4] airlines will need 13,600 new commercial jets over the next 20 years. Over 8,700 will be needed to accommodate the growth in air travel that forecasters predict.

The surge, in fact, has already begun. Just in the past four years, the number of people boarding United States air carriers has risen by about 20 percent. In 15 years time ... perhaps less ... the nation's air lines will carry over a billion passengers ... twice as many as today.

The implications of this anticipated growth have received serious and sustained attention at the FAA. I was concerned, along with many others, that in order to manage this growth, the FAA would need fundamental change.

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[2] Office of the Secretary of Transportation, Economic and Financial Analysis Division, 10/7/96.
[3] *"Boeing Prepares for Rise In Jet Production"*, Tacoma News Tribune, September 25, 1996.
[4] *"20-Year Forecast/Airlines Will Need 13,600 New Jets"*, McDonnell Douglas Corp., October 1, 1996

When I first arrived in Washington, I found an agency that -- through no fault of its own -- was bound in what I call the "molasses of process."

Speaking here the Press Club two years ago, Herb Kelleher called our procurement process so laborious that it ordained that the computers we buy are obsolete before they can be delivered. Herb was absolutely right.

Our personnel policies were just as cumbersome. Government rules made it virtually impossible to hire people when we needed them.

We have to struggle with the Congress every year for enough money to provide the services that keep the airlines in business. And every year, the competition for those funds intensifies.

We knew this had to change.

The Clinton Administration had a remedy: create a public corporation to manage and fund the air traffic control system.

Although we were unable to convince this Congress, I still believe the air traffic services corporation is a good idea. And I predict that, one day, it will happen.

But, even with this setback, we took a major step forward. For as a result of those discussions, the FAA was given an opportunity available to no other Federal agency. Since April, we have had the authority to set up the acquisition and personnel systems that work best for us.

We've gotten rid of seven feet of procurement regulations and over a thousand pages of personnel rules.

The FAA's reauthorization bill which the President signed last week continues these reforms, and it contains several important new initiatives we have been seeking.

The legislation creates a 15-member Management Advisory Council to advise on critical matters facing the agency.

It establishes a commission to study the FAA's long-term funding needs and recommend the best mechanism for financing it.

Most importantly, this legislation -- and the budget bill the President signed two weeks ago -- gives us the tools and the resources we need to increase safeguards against terrorism and to step up our safety inspection programs.

I know these are all matters of continuing concern to the public and consequently, of continuing interest to the news media.

I've spent a lot of time with journalists -- because aviation is an important news beat. The FAA makes news just about every day for many different reasons. But we rarely become a prime news source unless there is an accident.

Accidents will always be news. But there is nothing accidental about safety. Safety is the result of steady progress and constant vigilance. As ALPA president Randy Babbitt likes to say, it's what we ***don't read*** in the papers that really counts in this business.

Today I'd like to emphasize that what we don't often read about in the news coverage of aviation is, in fact, one of the phenomenal success stories of our generation. It is the story of the accidents that did not happen because government and industry, in partnership, worked steadily to improve aviation safety.

There is an important story here about how these gains were achieved, and what today's low accident rate portends for the future.

I have a good friend, Professor Arnold Barnett, who teaches operations research at MIT. He has calculated the odds of perishing in a commercial aviation accident in the United States -- and his results give us some valuable historical perspective.

According to Professor Barnett's calculations, 30 years ago, the chance that any of us would be in a fatal accident was one in two million. By 1977 the odds had improved to one in seven million. From 1990 to right

now, the chances are one in eight million. At those odds, a person would have to take a flight a day for 21 thousand years before succumbing in a fatal crash.

I can assure you there is no other form of transportation that will give you those odds. We are more likely to killed in an earthquake than in an commercial airplane.

In the book "Why Airplanes Crash", the authors called the United States aviation safety record one of the most remarkable achievements of the twentieth century.[5] And it is even more remarkable when you consider the growth that has occurred in just the past three decades.

Let me give you some examples.

The facts about aviation safety: 1960 to 1995

In 1960, the major U.S. scheduled air lines made 3.8 million departures, and carried 58 million passengers. They had 67 accidents, 12 with fatalities.[6] That averages out to a fatal accident every 316 thousand departures.

Last year -- 1995 --the major air carriers made 8.2 million departures[7] and carried 550 million passengers. There were four fatal accidents. Only one, the crash in Cali, Colombia, involved a major carrier.

If the accident rate had remained constant since 1960, last year the United States would have over 200 accidents, 37 with fatalities. Or a fatal air crash every 10 days.[8]

Let's look at that again. Between 1960 and 1995, the number of passengers more than tripled. The number of aircraft departures doubled.

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[5] ***Why Airplanes Crash**: Aviation Safety in a Changing World*, Oster, Clinton V., Strong, and Zorn; Oxford University Press, p.166

[6] Safety Record of U.S. Part 121 Airlines, Scheduled Service, ATA Airlines Safety Record 1938-1994, ATA Report February 1996.

[7] "Airline Fatalities in 1995", NTSB News SB-96-03, January 25, 1996

[8] Estimated by applying the 1960 total accident rate per 100,000 flight hours (1.64) and the 1960 fatal accident rate per 100,000 flight hours (0.294) to NTSB 1995 preliminary aircraft hours flown by all scheduled service airlines operating under 14 CFR 121 (12,848,000).

And the accident rate dropped by a half or more. Instead of a fatal accident every 316 thousand departures, in 1995, there was a fatal accident about one in every two million departures.[9]

This is a remarkable achievement. To use an engineering term, those are elegant curves -- the kind we want to see continue in the same direction.

The Evolution of Air Safety

How this came about is a fascinating story of 36 years of technological advancement and a hugely successful partnership between government and industry.

Airframe Construction

The most significant advance was the introduction of jet aircraft. Manufacturers quickly learned to build stronger, lighter airframes which were both safer and more efficient.

Early passenger planes were not designed to withstand the cycle of pressurization and depressurization. We didn't even know that material fatigue was a serious problem until two British Comets crashed in the 1950's. Today, jets are able to withstand the stress of many thousands of flights and pressurization cycles.

Engine Reliability

Before the introduction of jets, one of the leading causes of accidents was engine failure. Between 1946 and 1958, the United States averaged three aircraft losses and 43 fatalities a year from engine failure.

The second generation of jets introduced in the mid-sixties virtually eliminated in-flight shutdowns. The airframe and the jet engine have improved so dramatically that the integrity of the aircraft is rarely a cause of accidents.

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[9] Based on 8,220,000 departures, Part 121, divided by 4 accidents in the same group.

On-Board Automation

Concurrent with the rise of jet travel, another technology was evolving which would revolutionize not only aviation but every sector of our economy. I am referring, of course, to automation. And there is no better example than the new generation of cockpit with its digital flight management system.

Before the coming of the jets, the most sophisticated piston-powered aircraft had one or two analog computers to control pressure and heating. Pilots today command vast and instantaneous information and decision-support resources.

The flight control systems of the Boeing Triple-7 are driven by 187 types of computers and seven and a half million lines of code. Navigation, communication, and operations -- systems which once operated independently -- are now smoothly integrated.

Modern jets don't just operate on fuel anymore. They fly on information -- a stream of data, continuously exchanged among aircraft, satellites, and air traffic control facilities on the ground.

On-board automation made a major contribution to safety. And it also brought a revolutionary change to air traffic control.

Progress in Air Traffic Control

Safety and air traffic control have always been closely linked.

One of the most dreaded of all accidents in the period following World War II was mid-air collisions. These peaked in the mid-1950's and one accident -- a collision over the Grand Canyon -- led directly to Congressional action establishing the FAA, and the creation of an en route radar system which covered the entire nation.

The incidence dropped sharply, but collisions still sometimes occurred -- especially in the busy airspace near airports. In 1990, the FAA

introduced a new technology called TCAS -- or the collision avoidance system.

TCAS was initially required on all large commercial jets in the U.S., including those flying here from other countries. Two years ago, we made TCAS mandatory for the commuter airlines as well ... bringing us closer to our goal of "one level of safety" for all carriers, large and small.

Another leading cause of accidents in the post war decades was a category we call "controlled flight into terrain." These are accidents in which the pilot flies into a mountain or otherwise misjudges where the plane is in relation to the ground.

Between 1946 and 1974, we had 72 of these accidents. In the 1970's, we required that major carriers install ground proximity warning systems, which virtually eliminated this hazards in the United States.

Both TCAS and GPWS -- the ground proximity warning systems are evolving technologies. TCAS is one of the enabling technologies for Free Flight ... the new air traffic control concept which will someday let pilots choose their own routes, speeds, and altitudes in real time.

One important advance in the ground proximity warning system is a more sophisticated version which the FAA is now moving quickly to certify. The new model has a data base containing topographic maps of the world -- charting all the mountains and canyons that can be so treacherous. It can tell us where all the rocks are.

Not long ago, I flew a Boeing 747 simulator equipped with this advanced version of GPWS. We recreated the exact circumstances of nine actual crashes which occurred in the past, and the new system prevented everyone of them.

Flight simulators, themselves, have been a major factor in improving safety.

Progress in Flight Simulators

Today's advanced simulators can be programmed to run extreme "edge of the envelope" scenarios which pilots might never encounter in actual flight and live to learn from the experience. Pilots practice how to handle situations -- such as wind shear -- where they have only a few seconds to act before the plane is imperiled.

We are training now for the rare event because most of the common hazards to flight have been eliminated or sharply reduced.

It might be natural to conclude from what I have said that if we maintain the present level of safety, we don't have much to worry about. Just don't allow the current standards to slip and we will be all right.

Unfortunately, there is trouble ahead if we allow ourselves to relax.

Every aviation forecast predicts that we are in the early stages of an enormous upsurge in air travel.

By 2015, airlines in the United States will carry one billion, two-hundred million passengers. That's roughly the same amount carried by all the world's airlines last year. And we'll have 40 percent more flights in an airspace already congested in many areas of the country. Asia and other parts of the world will grow even faster.

This is a very promising outlook for the industry. But the implications for safety are not nearly so positive.

If the accident rate stays where it is now -- at its present low level -- doubling the amount of travel also means doubling the number of crashes. Boeing has estimated that by 2015, we could have a major hull loss every week or ten days somewhere in the world.

To avoid this outcome, we will have to make the same progress between now and the year 2015 that we did between 1960 and 1996.

To maintain our present day standards of safety, we will have to cut by half the current rate of accidents We will have to achieve a virtual zero level of accidents.

Failure would seriously undermine pubic confidence in the safety of air travel and impede the growth of the industry. Even though the accident rate was unchanged, the public's perception of safety would change. Failure would have enormous political and economic ramifications.

So what are our chances?

As it happens, the upsurge in world air travel will coincide with the shift from ground-based to space-based air traffic management. We are entering an era when GPS will largely replace radar and Free Flight will replace fixed routes.

This is a change of historic importance, for it will enable us to handle the growth of air traffic with greater safety as well as greater efficiency.

But all this will be phased in over a number of years. We are working now on measures with more immediate impact.

Let me mention two.

With the continued growth of international travel, the public expects the same high level of safety -- wherever they fly.

Governments around the world are recognizing the need for uniform standards.

Earlier this year, ICAO -- the UN aviation organization -- began conducting safety assessments when requested by any of its 185 member states. The FAA is contributing financial and technical support to this effort, and we are sharing what we have learned from the operation of our own international safety oversight program.

The FAA has played a sometimes controversial but always constructive role in emphasizing the importance of "one level of safety," not only on flights within the United States, but everywhere in the world.

We're now promoting consideration of a new proposal which, I believe, would further broaden international cooperation in achieving higher levels of safety.

The idea is to establish a global network of data bases where everyone in aviation could share safety-relevant information. It would be operated along the lines of the Internet, with government and industry voluntarily cooperating because everyone stands to benefit from the information being shared.

The rationale for the network is to exploit a largely wasted resource -- the huge quantity of information which is now routinely collected, but just as routinely dumped.

Almost all of what we know about aviation safety has been learned from after-the-fact investigations of accidents. Yet, many times, there may have been advance warnings of unsafe conditions which were unheeded because no one recognized their significance.

We don't know enough about the characteristics of normal flights to always notice when something is abnormal. It is important to establish a baseline of routine flight characteristics, using information which is readily available, but now largely neglected.

Every day, on almost every flight, massive amounts of real-time data are continuously collected by on-board flight data recorders and air traffic control radar. Our idea is to sift through this steady stream of information to identify deviations and anomalies which might point to future trouble. These analyses would be available to aviation safety professionals anywhere in the world.

You may have noticed a common thread running through my accounts of what the FAA is doing now to prepare itself for the future. That thread is information.

As an agency, we are moving away from our role as an old-line service provider to an organization which monitors and manages the flow of data. Old technologies are being replaced by satellites and software. Our vintage mainframes retired and succeeded by new systems -- such as the hand held computers we developed with Microsoft for use by our aircraft inspectors.

The FAA's professionals will be knowledge workers of the first rank, because future gains in aviation safety will depend on how well we manage our information resources.

Conclusion

I'm very glad that I could come to the National Press Club today and tell the story of the impressive gains in aviation safety over the past half century. The story could have been quite different. I was not forced to explain to you why this year we had 268 accidents. That could have happened -- but, of course, it did not.

I'm confident that when another FAA Administrator talks to the National Press Club twenty years from now, she will not have to explain why there has been almost a crash a week. That could happen -- but I am sure it will not.

Future air travel will be virtually accident-free because of the far-sighted commitment of our industry and our nation in 1996.

Remarks by David Hinson
Federal Aviation Administration
Administrator
National Press Club
October 16, 1996
Washington, DC

"As Delivered"

Good Afternoon, and thank you, Sonia. I very much welcome that kind introduction. I want to express my appreciation for the opportunity to talk to all of my friends at the National Press Club. And I do consider all of you my friends.

Before I start, however, I do want to make one introduction. Anything that we can claim credit for has to be shared with my deputy, Linda Hall Daschle. Would you join me in thanking her as well. (Applause)

When I came to Washington, somebody said I needed to have somebody help me who was very smart , knew a lot about aviation and is extremely capable. And it wouldn't hurt if they knew their way around town. Linda certainly fit all of those descriptions. She has been an invaluable asset as we have managed our way around some very difficult circumstances.

Four years ago about this time, or just after the elections, the President, Vice President, and Secretary Pena started to worry a lot about aviation. We had an industry that was losing a lot of money and there was some concern about its on-going viability. One of the very first things the President did was call to Seattle one month after he was sworn in, all of the leaders of Aerospace from the United States. They discussed at great length, in an open forum, a number of issues which were put before the President by the so-called aviation industry. The President listened very carefully, as did the Secretary.

When I was discussing my potentiality for joining the Clinton Administration, the industry views as expressed at that conference were made very clear to me. I was given a mandate by the President and Secretary Pena to begin to make those changes that they felt, after listening to the industry, would be essential if the United States was to continue its leadership in civil aviation through the turn of the century. A leadership role that we have had essentially since Orville Wright flew. It's a leadership that we certainly don't want to give up. And I want to give the Secretary and the President great credit and my great thanks for allowing me to have the prerogative to do what we felt was necessary.

I want to talk today just about a few things. The speech that you have ... I'm not going to give that speech -- I'm going to talk about some other things. I want to sort of put it in the context of what I found when I got here. I want to talk about some of the things we are going to have to do and some of the difficulties we had to overcome. And finally I'm going to predict a couple of things -- particularly where safety is concerned -- what we are going to have to do.

I made just a couple of short notes here, to remind myself what I want to say.

Imagine yourself becoming the chief executive of the 160th or so largest company in the Fortune 500 -- because that's what the FAA is -- and sort of simultaneously having to manage three circumstances. And you have to do this all at once. You walk into this job and they say, "Good morning, Mr. CEO, here's a problem you've got. It's called the advanced automation system. Your total air navigation system is late ... it's over budget ... you've got to fix it. And, oh, by the way, the processes used in the federal government are creating a major disconnect between the rate at which technology can be introduced and the way you have to manage those processes." And I'll come back to that.

"And, finally, we're going to have some things occur in this four year period. We will have some accidents. We will have some incidents. And you're going to have to deal with all of those. And, what we really think we need to do besides all of this, is to urge Congress and the aviation industry to allow us to create USATS -- the United States Air Traffic Control Corporation."

We wanted to put ATC into its own government corporate structure. Someone described to me that this is rather like trying to change the tire on a car when its going 50 miles an hour. We really had a lot to do. A lot of it you are aware of and some you are not aware of.

Let me talk just a moment about the problems we inherited.

First, we came to an agency that had had sporadic leadership. Through no fault of my predecessors, but mostly because of political circumstances. we had averaged some 18 months of tenure for the previous ten years in the Administrator's role, and actually 22 months in the Secretary's role. So there had been in FAA and OST fragmented leadership.

One of the things I was asked in my confirmation hearing was "Will you stay at least a term? Will you see it through? Will you provide the leadership necessary for the FAA?" That was a pact that I also made with Linda when she was brought to the team. We agreed we would serve, as a minimum, for the President's first term. And that we would see it through from the beginning to the end. And we feel very good about that actually.

Every organization ... your own for example ... needs leadership. They need somebody who's going to take them someplace ... who has the vision and the understanding to say "I am providing the leadership. Here's where we're going. Here's how we're going to get there, and here's what it's going to look like when we do. And I hope we've been able to do that at the FAA. It has not been without its moments, however, as you're well aware. And I am somewhat smarter and more scarred than when I got here. But I really wouldn't trade it for the world. It's been a wonderful experience. I've learned a great deal about how Washington works and about how politics works, and certainly about how aviation works.

We had this advanced automation system which was several years late and projected to go three or four billion dollars over budget, as I recall. I called Linda in and I said, we've got a problem. In fact, Linda came to me and said to me, David, we really ought to look at this. And I said, I'll get to that, its on my agenda. She said "No, David, now." So we started. We looked at it, took it apart, and brought in some people from the outside to sort of get at it. I will tell you that I feel one of our most significant achievements is the restructuring successfully of the air traffic control modernization program in the FAA.

And there are so many people to give credit to and so many offshoots to this that I don't have time for this afternoon. But I can tell you with certainty the air traffic control system today is 99.4 percent reliable. It runs 365 days a year, day in, day out, weather good, bad, or otherwise. And it is the most reliable it has been in the history of the FAA -- and we have all the data to prove it. If anybody wants to look at the data, we would be happy to share it with you. (This happened) at a time when we have grown from abut 15,000 discrete pieces of electronic equipment ten years ago to over 30,000 today that are maintained and operated by the air traffic control people. It's a terrific system but it has to be better. And I will come to the reason for that in a moment. It's because of the growth we see in front of us.

That is one of the major credits I think that the President would like us to talk about. We really do have the air traffic control system back on the track. And we are very pleased with that.

Now the other problem that we looked at stems from this. We have an agency that is sort of ... I describe it as surrounded by the "molasses of process". What do I mean by that? When I got to the FAA, I had them bring all the acquisition rules into my office. They stretched ... depending on how you measured it -- I saw 17 feet ... some say only 10 feet. But it is really irrelevant. No corporation in the world can operate efficiently with 10 feet of acquisition regulations, many of which could put me in jail if I didn't follow them explicitly. Not that that's a problem, but there are a lot of issues there. We replaced that with 100 pages, and we now run the acquisition system in the FAA like the private sector runs it -- like any corporation that you deal with in the private sector.

We just awarded the STARS program for terminal automation. I won't use all the acronyms, but it's a billion dollar program. We went from conceiving it to getting the award made in half the time ... in about eight or nine months ... half the time it had taken to do a previous program of the same size. That was our objective: reduce the acquisition time by 50 percent. Our second objective is to cut this acquisition time again by 50 percent, because we have looked at what the private sector does and we can do that. And we are doing that.

We had another program that was in some difficulty initially -- the wide area augmentation system for GPS. After four or five months, we didn't like the contractor because they weren't performing. Under the old system, my successor or successor's successor would have inherited a troubled program -- stretched out, late, costing more money -- and all of my friends and your friends in the industry would have been complaining about it. This time, however, because of our new rules, the new independence we have, we just called them in and fired them basically. And we let the new contract in two weeks. We have a new contractor.

We may not lose any time at all in the acquisition of the wide area augmentation system which, by the way, is the fundamental program and philosophy and technology that is going to drive the world-wide use of satellite navigation. The United States is the leader in that. We have worked with ICAO and our friends in the industry to advance our view that GPS and wide area augmentation are the fundamental bases for future aerial navigation. Almost immediately, and certainly by 2010 or so, we will begin phasing out seriously the existing ground navigation systems.

And finally, let me move into a couple of areas which I think are also important.

Not only did we have to come in and fix a system that was in some disarray, we did try unsuccessfully to have an air traffic control corporation. But because the President, Vice President, Secretary Pena, and several of us decided to lobby Congress hard, we got at least two of the major issues that we were fighting for. One I alluded to earlier, which was acquisition reform. The other one was personnel reform.

We threw out thousands of pages of old personnel rules and regulations that made it difficult to hire, difficult to fire, difficult to manage. And we now have a brand new FAA only personnel system unique in government. We can hire and reward people for performance. We can ask people to leave who do not perform. And we are going to run the FAA like a business henceforth. So we are very pleased we got two. We did not get the third one. That is finance reform. Sonia mentioned that in her opening remarks.

We did not get a resolution from Congress about the proper way to fund the FAA long term going forward. Should we be in the budget or out of the budget? Should it be user fees or should it be taxes? Or should it be a combination of all of the above? Who knows what the right answer is? But at least there now is a commission appointed by the

Congress which will address the issue of how to finance the FAA long term. And I believe their report is due to the Secretary, to the President, and then to the Congress in 12 months.

Hopefully that will be a very concise, constructive study which will help us in the way we fund the agency long term. It's very critical. Every indicator in the FAA from a work measurement standpoint, is increasing. More traffic, more certifications, more airlines, airmen and airwomen, more mechanics, more schools, more air traffic, more everything. More international certifications, and international safety oversight.

And, by the way, let me just mention that for a second. Our international safety assessment program was criticized about a year and a half ago very severely when we started it. Not by people here, of course --but by people who are not U.S. citizens -- other countries. How could the United States have the temerity to go out and say to another country " You are not living up to your ICAO pledge on safety oversight so you can't fly to the United States. Or if you do you can't add anymore flights until you fix it and if you don't fix it we're not going to let you fly at all?"

So, you're category one, which is OK. Category two, which is marginal. Or category three, you can't be here. We got a lot of criticism. It's amazing what happened after the accident in the Dominican Republic when a Turkish plane filled with German tourists crashed. That airline was forbidden to fly in the United States because they did not meet ICAO standards. And that was a serious attention-getter to the rest of the world's civil aviation authorities that they, too, should look around and see that the airlines flying to their countries from other countries meet ICAO's minimum standards.

Our standards exceed ICAO's substantially, but we, at least, require everybody to meet ICAO's standards. That program now is very successful. I'm pleased to tell you that many countries who are good friends of ours here in the United States -- good neighbors ... they have good airlines -- are now addressing these issues seriously and making great progress. We are very optimistic that in the near future all of the countries that fly to the United States, or that would like to fly here, will be meeting the minimum ICAO standards. That will be a great tribute to the FAA and our willingness to step out in front and get that job done.

Well, just let me tell you a couple of other things ... some that are in my talk.

Everybody wants to know about safety. I can talk about managing the processes of running the FAA, but in essence, it gets down to the issue of safety. Clearly, we are concerned about safety. I want to make at the outset ... on the safety part of my comments ... I want you to understand two things.

First, I want you to understand that safety doesn't come overnight. We cannot create safety overnight -- there's no way. Flight safety is the result of years and years of efforts by dedicated people. We all stand on somebody's shoulders as we go down the road in safety. We just didn't get this safe over night. And we're not just going to get this safe tomorrow. Every increment of improvement we make is hard won. It is hard won. I never met a pilot, or a mechanic, or a manufacturer that wanted to be at an accident or in one --ever. And you won't either. We have spent years in this business trying to get people to fly safe, and it takes a great deal of dedication. My point in telling you this is that, in the future, every increment of safety improvement will be very difficult to come by. But we must do it and I will say why.

How many of you were flying back in 1960. Is anybody here as old as I am? Can you hold up your hand if you were flying back in 1960? I could even stretch it to the seventies, I know I'd get a few more hands. Let me tell you about 1960 ... I think it's in my written remarks. I flew back in 1960. I was an airline pilot after I got out of the Navy because I wanted to learn the business. I thought it was safe, and so did everybody around me. And we flew around in the early DC-8's and 707's, the DC-7's, and the Connie's and everybody thought it was a terrific industry. Highly regulated, but safe.

Now if we took the accident rate per 100,000 departures in 1960 and applied it to last year, 1995, we would have experienced 240 plus major air carrier accidents in the United States. At least 33 fatal accidents -- one every ten days. If we had the rate we had back in 1960 when all of us that were flying back then, or in the system, thought it was safe. Your parents certainly did. Your aunts and uncles and your grandparents were all flying around and they thought it was great. But if we had that rate today, it would be totally unacceptable. And a lot has happened in the 36 years or so between 1960 and today to make that be the case.

Let's pretend for a moment that we are back in 1960. We're having this lunch and I say to you, "Look, here's the accident rate. I just talked to all the economists out here -- from USA Today or the Wall Street Journal or the New York Times -- and they tell me that by 1996 we're going to be carrying 550 million passengers. Can you imagine that? Because we're only carrying about 48 million or something back in 1960: 550 million people out there in 1996! And do you know how many flights that will take? And do you know how many crashes there's going to be? There's going to be an accident every other day, minimum.

Well, clearly you would say that's not acceptable. So what are we going to do? Now we're back in 1960. Well obviously, a lot happened. A lot happened in the industry. A lot happened in government. And a lot happened in universities to make it safe for you to fly today. So the odds of your being killed today if you flew every day on a scheduled carrier in the United States -- you would have to fly 21,000 years to be statistically certain of being fatal. That is one in eight million are your odds. Now somebody said, "Well, the lottery is one in seven million." Somebody else said, "Yeah, but I'd like to win the lottery." I guess it sort of depends on your view.

But the point is that we are in the same position today. Because what I am going to tell you today is this. It's 1996. In twenty years, instead of having 550 to 600 million passengers in the United States, we will have 1.2 billion. And at today's low accident rate, Boeing says, worldwide, we are going to lose a hull -- a major accident -- every eight to ten days if we don't change what is today's already low accident rate.

So what I am saying to you today is, we are where we were in 1960, only this is 1996, because we really do think that we are about to face the greatest growth in the history of civil aviation, worldwide. Over 15,000 new transport category airplanes have to be build in the next 20 years ... over a trillion dollars of financing ... as the world assembles one of the great civil aviation fleets of all time and begins to fly. And there are a whole lot of economic reasons I can give you for that. We are very confident of those numbers.

Now what this means to us at the FAA is we've got to get ready for the 21st century. And this was the third challenge that Linda and I had when we got to the agency. How do we take this agency which has this "molasses of process", and convince Congress to let us loose: we can't get it done if we are running around in slow motion. And they listened. They have given us some major reforms in personnel and acquisition.

And our last major reform, I hope, will come next year, early on, in the President's second term, when he and Congress sign a bill on how to finance the FAA and make that a reality -- so that we have a dependable, stable source of funding for the foreseeable future. We spend all of the money we get at the FAA. We hire all the inspectors we can hire. We do everything we can do to make it as safe as possible. And we use all the resources we get. And we will continue to do so.

It's a very safe system. It will be even safer. And the challenge for us in the 21st century is to make sure that we get that increment of improvement that we got between 1960 and 1995 so that when 20 years from now occurs, we will be looking at an accident rate that is essentially zero.

The analogy that I use is golf, because everybody understands it. It is fairly easy to get from a hundred to ninety ... a little effort more to get from ninety to eighty ... in fact, quite a bit more. But to get below 80, you've got to play a lot more golf. And to get to be a scratch or par golfer, you have to invest an inordinate amount of time.

For us to get from .034 accidents per 100,000 departures to zero, we're not only going to have to invest an inordinate amount of time -- to use a broad colloquial expression -- we're going to have to do some things differently. Because what got us to where we are today will not get us to where we have to go in 20 years. It will not. And one of the things we are really trying to do at the FAA is to make the industry and everybody, all of our colleagues around the world, understand that we are going to have to change some things that we have been doing. And we are going to have to do some things differently.

I'll give you one example of something that has to be different. We do not get good information, worldwide, today on what goes on in normal operations. Let me put this another way. What we've learned about safety we have learned a whole number of ways. Obviously, the science has developed and people are smarter. We can build airplanes better, stronger, and safer.

Let me give you one little "gee whiz." An airline pilot that starts flying today for a large airline, anyplace in the world, or that starts today for a regional airline in the United States -- any pilot that starts today will fly their career and never have an engine failure. If you think about that -- that's extraordinary. The probability of any airline pilot today having an engine failure is almost zero. Now they will shut an engine down occasionally for a warning system, but it is the warning that is the problem, not the engine.

We essentially have removed engine failure as an issue. Now it does happen. You read about it. We had an accident recently where we had part of an engine fail. We will never get rid of it but it is almost as close to zero as we can get it. But it is so good that most airline pilots today will never, ever experience an engine failure in their career if they start today. That's how reliable power plants are.

We have learned a lot that is in our fund of knowledge about safety from picking up pieces. And clearly we have a contradiction. If you're picking up pieces, you're not at zero in terms of accidents. We would prefer to not to ever have to pick up another piece. We would prefer to learn all about aviation before the fact and, therefore, not have the fact. And one of the ways you do that is you get an early warning system. We are working very hard.

We have begun in this Administration -- I want to give the President and the Secretary credit for allowing us to do things like this -- we have begun the process of creating a global information gathering system where the operators of the world's airlines will share in a very controlled way, a very careful way, the normal day-to-day ordinary operating circumstances so that, not only the FAA but the CAA in Britain, in Canada, in Japan, in Germany, in South Africa, in Jordan, you pick a country ... China. They all have civil aviation authorities where we can all share information and say "Did you know I've seen a trend in this airplane, or at this airport, or in this air traffic control circumstance. We don't like it. We ought to look at it. And maybe if we do that effectively, we will be able to prevent what would otherwise be an investigation.

And we are very optimistic about this. We envision a satellite-connected system, worldwide, through data link where we all have instant access to everybody's safety information. We have a lot of very smart people who can look at this information, collate it, analyze it, evaluate it, and say not only to the airlines but to other governments and the manufacturers and others "Look, this is, we think, an issue, and we would like to deal with it in this fashion, and remove it as a potential problem." An early warning system is absolutely critical to our future success.

Well, I've sort of summarized a whole host of things for you, and I've tried to put some of them into perspective. Let me leave you with one last thought. The FAA is responsible for regulating the aviation industry in the United States. By law, we are required to regulate the industry, and we do that very well, actually. Most other civil aviation authorities in the world copy the FAA. We've been doing it well for some time. But the safety equation is not just the FAA's. The safety equation is, as we said when the Secretary and I hosted the Safety Conference two years ago with a thousand people -- it is a shared responsibility. In fact, by law, the "certificate holder" -- whether that's a pilot, mechanic, dispatcher, or airline, or manufacturer -- whoever has the certificate -- is responsible for flight safety.

That's the way the law is. The FAA is sort of overseeing all this process and trying to make sure everybody understands the rules of the road, providing help and guidance, research and development, and making sure that the marginal operators stay safe, or don't operate at all, and that airmen exercise the highest privileges when ever they are flying, etc. And we set standards that are quite high actually, and we hold people to those standards. But beyond that, it is a shared responsibility. The entire industry, with government.

And that leads me to the point I want to conclude with. In the next 20 years, we have to activate a very major partnership between the industry and the government. We have one now but it needs to be more aggressive. It needs to be more positive. It needs to be closer. And we need to have a freer exchange of information between the FAA and other government agencies that deal with aviation safety ... research and development, NASA ... and the industry. We need to be better partners.

I can tell you from experience, there's a lot of information out there that is not shared, for legal reasons for example. We need to do everything we can to remove those barriers to information sharing in a positive, constructive way so that we can -- and this doesn't mean promoting the industry -- so I don't want somebody to run out now and print something in the paper that says the Administrator is promoting (the industry) -- I am not. I am saying we need to be partners in exchanging information so that we know what's going on and we can operate safely.

That is not promoting the industry economically. It is helping us regulate the safety equation. We can't deal with information we don't have. That is the essence of the issue. So I am hopeful that will happen. It's already happening. It's been happening for some time. We've been migrating to it over a long period of time. I hope that it continues so that my successor can stand before this same National Press Club in perhaps a decade and say "Remember when old Dave Hinson said that we were going to grow to maybe a billion passengers by this ten years and a billion two by the end of twenty years and we had to cut the (accident) rate." Well, we did, and here's how we did it. And he will be saying the same thing then in ten or twenty years that I said today about 1960.

So thank you very much. I look forward to your questions.

The FAA in a Changing World

Challenges and Opportunities in Air Safety and ATC Moderization

David R. Hinson
Administrator, Federal Aviation Administration
presented to the
White House Commission on Aviation Security,
Safety and ATC Modernization

October 17, 1996

White House Commission on Aviation Security, Safety, and ATC Performance

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The FAA in a Changing World: Challenges and Opportunities in Safety and ATC Modernization

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SLIDE 1: TITLE/LOGO

This discussion will look at:

I. The FAA's role in maintaining safety,

II. The U.S. air safety record

III. The evolution of air safety in the United States;

IV. The urgency for further improvements, (the Boeing study)

V. Challenges and opportunities

I. The FAA's Role in Maintaining Safety

- The FAA has 48,000 employees and a budget of $8,337.0 billion dollars (5,000 employees and $600 million less than three years ago. At this size if the FAA were on the Fortune 500 list, it would be the 158th largest company in the nation.

- About 70 percent of everything the FAA does involves some form of air traffic service.

  Air traffic control
  System Reliability
  ATC Modernization
  Research and Development

- The balance performs an array of functions

  Regulation and Certification
  Inspection
  Airport Improvement Program
  System Security

- The FAA's sole mandate is safety. The reauthorization bill signed by President Clinton on October 9 removed any lingering doubts on this issue.

II. The U.S. Air Safety Record

SLIDE 2: ACCIDENT RATES, SCHEDULED AIRLINES RATE PER 100,000 FLIGHT HOURS, 1946-1994

- Over the last five decades. the rate of accidents for U.S. scheduled carriers has declined sharply.

- The U.S. airspace is the busiest and the most complex in the world. This year alone, nearly 600 million passengers will fly over 5 billion miles in our skies.

  Measured by total passenger traffic, our airports account for 18 of the world's top 30 ranked airports.

  In terms of aircraft operations, 28 of the world's 30 busiest airports are in this country.

- Compared to the elsewhere in the world, the U.S. has 50 percent of the world's traffic but only 8 percent of the fatalities (428 in past five years, compared to 4,512 on non-U.S. carriers. Note: based on 1994 information.)

SLIDE 3: ACCIDENTS PER 100,000 DEPARTURES, PART 121 AND COMMUTER AIRLINES (1975-1994)

- The accident rate for commuters has fallen sharply since 1978, despite dramatic growth and change in the fundamental character of this segment of the industry.

- In 1995, commuters carried 57 million passengers, twice as many as just seven years ago.

- Contrary to general perception, today's commuter fleet is mostly composed of turboprops with the same design sophistication found on larger jets.

  Only about 12 percent of the estimated 3 million annual takeoffs are in small single-engine piston aircraft, mostly serving remote communities in Alaska.

- The accident rate for turboprops operating in the lower 48 states, which carry 95 percent of all commuter passengers, was almost identical last year to that of Part 121 operators.

- The net result is an extremely low accident rate. (NTSB reports the 1995 accident rate for all scheduled service airlines, 14 CFR 121, per 100 thousand aircraft hours was 0.261 [total accidents] and 0.016 [fatal accident].)

- Because of this record, the public expects zero accidents from the U.S. air transportation system.

SLIDE 4: ACTUAL U.S. AIRLINE FATALITIES VERSUS FATALITIES IF 1960 RATES WERE EXTENDED TO 1994

- In 1960, the major U.S. scheduled air lines made 3.8 million departures, and carried 58 million passengers. They had 67 accidents, 12 with fatalities (an average of one fatal accident for every 316 thousand departures.)

- Last year, 1995, the major air carriers made 8.6 million departures and carried 550 million passengers. There 35 accidents, three with fatalities. Only one, the crash in Cali, Colombia, involved a major carrier.

- If the accident rate had remained constant since 1960, major U.S. carriers would have had over 200 accidents in 1995, 37 with fatalities. Or a fatal air crash every 10 days.

III. The Evolution of Air Safety in the United States

- The foundation for the present high level of safety can be traced to progress in five major disciplines.

    1) airframe construction
    2) engine reliability
    3) on-board automation
    4) air traffic control
    5) flight simulators

- The most significant advance was the introduction of jet aircraft

- Manufacturers quickly learned to build stronger, lighter airframes which were both safer and more efficient.

SLIDE 5: ACCIDENT RATES VERSUS INFLIGHT SHUTDOWNS PER 100,000 ENGINE HOURS, SCHEDULED AIRLINES (1946-1994)

- Before the introduction of jets, engine failure was a leading cause of accidents. Between 1946 and 1958, the United States averaged averaged 3 passenger aircraft hull losses and 43 fatalities a year in accidents caused primarily by engine failure.

- The second generation of jets, introduced in the mid-sixties dramatically decreased the rate of in-flight shut downs. The jet airframe and the jet engine have improved to such an extent that the integrity of the aircraft is rarely the sole cause of accidents.

SLIDE 6. ACCIDENT RATES PER 100,000 FLIGHT HOURS, AND NUMBERS OF ON BOARD COMPUTERS, SCHEDULED AIRLINES (1946-1994)

- Prior to the jet age, the most sophisticated piston-powered aircraft had only one or two analog computers to control pressure and heating.

- The flight control systems of the Boeing 777 are driven by 187 types of computers and 7.5 million lines of code.

- Modern jets do not just operate on fuel anymore. They fly on information.

SLIDE 7. ACCIDENT RATES PER 100,000 DEPARTURES AND ADVANCES IN ATC (1946 - 1994)

- From the 1940s to the present, one of the most difficult jobs of the FAA -- and its predecessor, the CAA -- has been management of modernization of the air traffic control system.

- The challenge is to phase in new technologies without disrupting what has become one of the most sophisticated and complex aviation systems in the world.

- This chart illustrates the chronology for the introduction of 15 milestones in ATC technology. The dateline is superimposed on a graph showing the declining accident rate over the past 15 years. Each innovation yielded knowledge essential to the next advance, and each step brought us closer to the safe, reliable system of today.

SLIDE 8. MID-AIR COLLISIONS IN U.S., PART 121 AIRCRAFT OVER 30 SEATS (1946-1995)

- Mid-air collisions were the most dreaded of all accidents in the period following World War II. One, the collision over the Grand Canyon, led Congress to estabish the FAA, and the creation of an en route radar system which covered the nation.

- The incidence dropped sharply in the early 1970's when the FAA began requiring an altitude reporting transponder. The last mid-air collision involving a major carrier in the U.S. occurred over 10 years ago.

- In 1990 the FAA introduced TCAS. TCAS II is required on all commercial jets with more than 30 seats, including those flying here from other countries. Aircraft with 10 to 30 seats must be equipped with TCAS I.

SLIDE 9. **CONTROLLED FLIGHT INTO TERRAIN, U.S. PART 121 AIRCRAFT OVER 30 SEATS,(1946-1995)**

- Between 1946 and 1974, the U.S. had 72 CFIT accidents.
- The introduction of ground proximity warning systems (GPWS) in the 1970's virtually eliminated this hazard in the United States.
- Both TCAS and GPWS are still evolving technologies.

SLIDE 10. **ACCIDENT RATES PER 100,000 FLIGHT HOURS AND NUMBER OF SIMULATORS, PART 121 AIR CARRIERS (1960-1994)**

- Computer-based flight simulation has become the single most important advance in the field of training. Every common aircraft in the commercial passenger fleet is simulated, including many commuter aircraft under 30 seats.

- This graph shows that the number of approved domestic simulators has just about doubled over the past ten years.

- Originally only pilots received simulation training. As a component of the "One Level of Safety" initiative, the FAA now requires crew training for all airlines. Simulation makes that training effective and affordable.

- Today's advanced simulators can be programmed to run extreme scenarios that pilots might never encounter in actual flight and live to learn from the experience. Pilots practice how to handle situations, such as wind shear, where they have only a few seconds to act before the plane is imperiled.

- The air transportation system which industry and government have carefully put together over the years is made up of all the elements we've been talking about: improved aircraft and engine reliability, the introduction of automation into the cockpit, better training of airline personnel ... and advances in air traffic control.

- There have been remarkable improvements, as well, in cabin safety, aviation security, human factors, hazardous material transportation, and the science of accident investigation.

IV. The Urgency for Further Improvements (The Boeing Study)

SLIDE 11. PROJECTED HULL LOSS, ASSUMING CURRENT ACCIDENT RATE DOES NOT DECLINE BUT TRAFFIC INCREASES AS FORECAST

- By 2015, airlines in the United States will carry 1.2 billion passengers.
- The number of flights will increase 40 percent.
- If the accident rate stays where it is today, doubling the amount of travel also means doubling the number of crashes.
- Boeing has estimated that by 2015, we could have a major hull loss every week or ten days somewhere in the world.
- Avoiding this outcome means making the same progress between now and the year 2015 that we did between 1960 and 1996.

V. Challenges and Opportunities

- New Equipment

  - GPS
  - Free Flight
  - Communications

- New Structure

  - Personnel
  - Acquisition
  - Finance

- New Approach

  - Challenge 2000
  - 90-Day Review
  - Global Network of Safety Information

SLIDE 12. FAA 90-DAY SAFETY REVIEW: PURPOSE

SLIDE 13. FAA 90-DAY SAFETY REVIEW: PRINCIPAL RECOMMENDATIONS

SLIDE 14. FAA 90-DAY SAFETY REVIEW: ACCELERATED INSPECTOR HIRING

SLIDE 15. FAA SPENDING AND WORKLOAD TRENDS, FY 1995-2002

SLIDE 16. FAA EMPLOYMENT AT FY 1998 AND FY 1999 FTE TARGETS

SLIDE 17. THE FUNDING GAP (1997 - 2002 OUTLAYS)

Remarks by FAA Administrator David Hinson
Aircraft Owners and Pilots Association Expo-96
San Jose, California
October 19, 1996

Good morning.

Thank you (Phil) for those kind words. Spending a Saturday morning with Washington-types says a lot about the dedication of general aviation pilots ... and even more about Phil's leadership. I thank you for this fine turn-out.

Election years are a time to take stock ... to reflect on where we've been and to reassess where we want to be in the months ahead.

Like all pilots, I don't spend much time looking behind me. But I'd like to make an exception today.

We've tackled some big issues, and we've had some remarkable achievements. I'd like to talk about a few of them, and then I will be pleased to answer any questions you have for me.

On August 24, 1993, I was formally sworn in as the 13th Administrator of the FAA. Phil and Steve were there, I believe, along with Ed Stimpson of GAMA, Jack Olcott of NBAA, and a number of others.

Two weeks later I made my first public statement as head of the FAA. I don't expect anyone else to remember it, but I do. It was for a special general aviation conference in Kansas City.

GA was at a critical juncture back then, and people came from every part of the industry to share ideas on how to turn it round. I said then that general aviation would be a focus of my tenure at the FAA.

This was no idle promise. I meant what I said.

When I arrived at the agency, I was surprised to learn that the FAA had no definitive statement of its responsibilities to help general aviation.

General aviation policy statement

One of the first things I did was to issue a policy stating my goals for GA. I released that policy at the Kansas City summit, and it formed the basis for the general aviation action plan we laid out a few months later.

This is a ***working*** plan that we update every year. I meet regularly with the leaders of the GA community, and we go over our progress.

We still have a lot of unfinished business, of course. We're still losing too many GA airports, we need more student pilots, and access to congested airports at certain times is a continuing concern.

But we're in far better shape today than we were three years ago. And for the first time in a long time, the forecasts point up.

Product Liability Reform

We have a wonderful economy ... the best we've had in years. But what really got general aviation going again was product liability reform.

Russ Myer said if Congress would enact a statute of repose on GA aircraft, Cessna would start building piston airplanes again.

Last year, Cessna broke ground for a new 489 thousand square-foot plant in Independence, Kansas. Since then, the 172 has become a symbol of the rebound that began when President Clinton signed the bill just two years ago.

Since the bill became law, U.S. manufacturers have started work on 17 new GA airplanes. A team in Florida has announced its intention to start building Piper single-engine planes in Vero Beach.

And, according to GAMA, deliveries of GA aircraft are at the highest level in five years.

Our latest aviation forecasts predict that, between 1998 and the year 2007, the number of single engine aircraft will increase by about 900 a year.

If someone tries to tell you there won't be any piston aircraft in the fleet in 15 years ... don't believe them. Our forecast calls for between 126 and 127 thousand.

Getting Rid of Unnecessary Regulations

The forecasts also made another interesting point: GA pilots, especially those who fly piston-engine aircraft, are very cost conscious. Those of us who read Flying Magazine already knew this.

Last year, the magazine asked one thousand pilots what they thought was the greatest threat to general aviation's future. More than half said "over regulation".

I know from experience that unneeded regulations create a costly burden on pilots and small businesses struggling to survive.

In the three and a half years that I have been at the FAA, the agency has eliminated 13 percent of its regulations and substantially revised 37 percent.

Many pilots told us we ought to change the rule requiring that a flight instructor certify training in a flight simulator in order for a pilot to log that time. We did. The final rule (61FR34508) went into effect on August 1st.

You asked us to revise the Part 67 rules for third-class medical certificates. So we did. The final rule went into effect last month. It extends the validity period from two years to three years for pilots under age 40.

Two years ago, the FAA conducted an audit of traffic management restrictions in the air traffic system. We found nearly ***four thousand*** that had been imposed locally ... many of which were no longer unnecessary.

We got rid of 35 percent of them. We also were able to reduce the number of hours that restrictions are in place by 50 percent.

We repeat these audits every six months. Everyone stands to gain. Fewer restrictions means better access for everyone using the system.

Acquisition and Personnel Reform

At the FAA, we know what it means to be handicapped by restrictive rules and too many regulations.

When I first arrived in Washington, I found an agency that -- through no fault of its own -- was mired in what I call the "molasses of process." I think we've finally managed to pry ourselves free.

This April, we were given an opportunity available to no other federal agency. We were allowed to completely rewrite our acquisition and personnel systems.

Now, to buy a piece of equipment, we don't need to have thirty lawyers thumbing though a seven-foot high stack of regulations.

Recently we awarded the STARS contract to replace the computers in the towers and TRACON's. And we did it in half the time it would have taken under the old system.

Once it might have taken ***seven years*** to deploy an important system like STARS. We intend to put the first one in Boston in about two years time.

Here's another example.

Two years ago this summer, Phil and I -- in AOPA's Cessna 172 -- flew the first approved public "stand alone" GPS instrument approach.

About two months ago, I approved a plan for transitioning to GPS in the United States. Within five years, we expect to begin the transition from ILS to GPS in our domestic airspace.

Under our present timetable, we will start phasing out Category I ILS in 2005. We will decommission our Category II and III systems, most likely, around 2010.

As I'm sure you know, the wide area augmentation system is a key driver in this timetable.

After we terminated the WAAS contract this spring, we were able to initiate a new one in five days.

Before acquisition reform, such action would have taken months or years ... if it could be done at all.

On the personnel side, we cut more than a thousand pages of rules down to a booklet shorter than a catalog from The Sharper Image.

We can hire a person from the outside in about six weeks now. It used to take seven months. Promotions and transfers used to take three months. Now they can be done in four or less.

This flexibility to provide our workers better tools to do their jobs, and to place people where we need them ... when we need them ... is more important now than ever.

FAA Downsizing

Today, the FAA has five thousand fewer people than it had three years ago. We've shown that government agencies can deliver services efficiently and effectively while spending less money and using a smaller workforce.

And we've proved that you don't have to destroy morale or productivity in the process.

We still have 48 thousand employees and a budget over eight billion dollars. At this size, if the FAA were on the Fortune 500 list, it would be the 158 largest company in the nation.

Now, as a consequence of this year's reforms in acquisition and personnel, we have the freedom to manage ourselves like a Fortune 500 company.

Funding the FAA

The FAA reauthorization bill which President Clinton signed two weeks ago reinforces these reforms. And it takes us another step closer to the third and final reform that we must have ... a new and better way to finance the FAA.

If you listened to the Presidential debates, you know that the issue of balancing the budget is going to be very much alive ... no matter who wins the election.

Deputy Administrator Linda Daschle and I have worked hard to drive home the message that there's a big gap between what we need to support a growing industry through the year 2002 ... and the spending assumptions in the balanced budget agreed to last year by the Congress.

We believe that gap is about $12 billion dollars. Some have suggested that our estimates are wrong. But even if we're off by half, we're still $6 billion dollars short.

In the parlance of the federal budget, every dollar the FAA spends is "discretionary." Mandatory expenses, like national defense, social security, Medicare and Medicaid, absorb 64 percent of the total federal budget.

The FAA competes, along with other government agencies, for the remaining 36 percent. In the year 2002, the discretionary pool will drop to 28 percent.

As long as our funds come from the general treasury, we will face an uncertain financial future.

The reauthorization legislation passed by the Congress in the final hours before it adjourned, requires that I undertake an independent assessment of the agency's funding needs through the year 2002. That process has already begun.

A commission will then recommend the best financing mechanisms.

The FAA Reauthorization Bill

The term "historic" is often misused, but it describes the FAA's reauthorization bill exactly right.

It removes the agency's so-called "dual mandate."

It sets time limits for publishing final safety rules, and gives the FAA Administrator the tools that will help meet those limits.

It strengthens the agency's authority to respond directly and promptly to safety problems.

And it creates a 15-member Management Advisory Council, appointed by the President and approved by the Senate, to advise the agency on critical matters.

Most importantly, this legislation -- and the budget bill the President signed two weeks ago, gives us the tools and the resources we need to increase safeguards against terrorism and to step up our safety inspection programs.

This is complex legislation, with numerous provisions that we are still sorting through. Since Phil and Steve do an excellent job of keeping you informed, I'll not go into more detail.

Conclusion

I am always the optimist. I believe that in 1996, with strong leadership and industry support, we will find a way to ensure a stable, dependable flow of revenue adequate for the demands of future growth.

And I believe that when aviation historians look back on the decade of the 1990's, they will write that it was one of the most challenging, productive, and innovative periods of the century.

It has been great to be the nation's chief pilot during these exciting times.

You've been a wonderful audience, and I thank you for your hospitality.

The FAA in a Changing World
Challenges and Opportunities

David R. Hinson
Administrator, Federal Aviation Administration
Air Traffic Control Association Annual Meeting
Nashville, Tennessee
October 19, 1996

Good evening.

[Acknowledge ATCA President Gabe Hartl and former Congressman Norman Mineta, 1996 Glen Gilbert Award recipient]

When I spoke here three years ago -- standing almost in this same spot -- I made a prediction. You probably don't remember it, but I do.

At the time, the major air carriers had lost over 10 billion dollars. Orders for new aircraft had virtually disappeared. And one-fourth of all United States aerospace workers had lost their jobs.

To the airline industry, this was clearly a crisis. But I've always been an optimist. I called it a lull.

I predicted here, three years ago, that by 1995 growth would begin to accelerate.

We would find ourselves, once again, with a surge of passengers filling our airports and airplanes ... more aircraft orders than we could fill ... and with the inevitable challenge of meeting the demand for more air traffic services, more runways, and more concourses.

In the past three years we have seen an historic turnaround in the fortunes of the aviation industry. And we have seen major changes at the FAA.

Both are the result of strong leadership -- in Washington as well as in the industry.

This evening I'd like to review some of the important events that have happened since I last talked to ATCA. Then I'll talk about some of the important unfinished business which remains for the next FAA Administrator and for the leaders of our industry.

One of the most important of these tasks deals with the theme of your conference this year -- realizing the potential of Free Flight.

The recovery of the industry

When President Clinton took office, he made it clear that he would do all he could to help get the aviation industry headed in the right direction.

Soon after his election, he included major aviation companies in his economic roundtable in Little Rock. One month after he was sworn in, the President met in Seattle with all the aerospace CEOs.

Then he established the National Airline Commission to work out a rescue plan for the industry. Today virtually all of that plan has been acted upon.

The bottom line is that in the 12 month period that ended June 30th, the major airlines reported net profits of 2.88 billion dollars. Forecasters expect strong earnings to continue well into next year.

America's airline industry -- managers and workers alike -- deserve much of the credit for the turn-around.

But the most powerful force driving the rebound, without a doubt, is our strong economy. I can't recall when we've had a better economy. And I can't recall a better time for U.S. aviation.

Aircraft orders

Aircraft orders for commercial jets have bounced back. Deliveries of GA planes are the strongest since 1991. Boeing is gearing up for its biggest production boom since World War Two.

According to a new forecast by McDonnell Douglas, airlines will need 13,600 new commercial jets over the next 20 years. Over 8,700 will be needed to accommodate the growth in air travel that forecasters predict.

Growth in passenger traffic

The surge, in fact, has already begun. Just in the past four years, the number of people boarding United States air carriers has risen by about 20 percent. In 15 years time ... perhaps less ... the nation's airlines will carry over a billion passengers ... twice as many as today.

Changes at the FAA

The massive changes in the industry have been mirrored in changes within the FAA itself.

FAA personnel reductions

Today, the FAA has five thousand fewer people than it had three years ago. We've shown that government agencies can deliver services efficiently and effectively while spending less money and using a smaller workforce. And we've proved that you don't have to destroy morale or productivity in the process.

We still have 48 thousand employees and a budget over eight billion dollars. At this size, if the FAA were on the Fortune 500 list, it would be the 158th largest company in the nation.

When I first arrived in Washington, I found an agency that -- through no fault of its own -- was mired in what I call the "molasses of process." I think we've finally managed to pry ourselves free.

Now, as a consequence of this year's far-reaching reforms in personnel and acquisition -- we have the freedom to manage ourselves like a Fortune 500 company.

FAA reform

Now, to buy a piece of equipment, we don't need to have thirty lawyers thumbing through a seven-foot high stack of regulations.

Recently, we awarded the STARS contract to replace the computers in the towers and TRACONs. And we did it in half the time it would have taken under the old system.

Once it might have taken ***seven years*** to deploy an important system like STARS. We intend to put the first one in Boston in about two years time.

On the personnel side, we cut more than a thousand pages of rules down to a booklet shorter than a catalog from The Sharper Image.

We can hire a person from the outside in about six weeks now. It used to take seven months. Promotions and transfers used to take three months. Now they can be done in four or less.

With our new flexibility, we will put the right people in the right jobs, reward high performers, and remove poor ones. And we will invest in the education and training of our work force.

FAA financing reform

There is still unfinished business at the FAA. We still have no consensus on how to provide long-term funding for the agency. But the reauthorization bill which the President signed a few days ago creates a commission to recommend the best financing mechanism.

I am always the optimist. I believed in 1993 that the industry would come back stronger than ever.

I believe in 1996 that with strong leadership and industry support, we will find a way to ensure a stable, dependable flow of revenue adequate for the demands of future growth.

Free Flight requires long-term investment

Free Flight is one of our most promising ideas for handling the escalating growth of air traffic in the next century. But it is an idea which requires long-term investment from a well-funded FAA.

Free Flight is a major step forward in the management of air traffic. But it is a step in the same direction we have long been heading.

ATC innovation and safety

Some of you may have seen a chart I often show in my talks. It is the chronology for the introduction of 15 milestones in air traffic control technology.

The dateline is superimposed on a graph showing the declining accident rate over the past 15 years. Each innovation yielded knowledge essential to the next advance, and each step brought us closer to the safe, reliable system we have today.

And as air traffic professionals, you know that ***it is*** a safe system.

Barnett calculation

I have a good friend, Professor Arnold Barnett, who teaches operations research at MIT. He has calculated that a person would have to take a flight every day for 21 thousand years before the odds came up for a fatal crash.

The moral, I suppose, is that if you really want to live a long life -- get on a commercial airplane and never get off.

Free Flight will be another point on that chart, linking technology and safety. It is a logical extension of technologies already in place. In a limited sense, it already exists.

Precursors of Free Flight: National Route Program and PHARE

Three years ago, the FAA began offering users a choice of routing options while in the en route phase of flight.

The National Route Program is now available everywhere in the United States from flight level 290 and above. On average, about one thousand flights a day are taking advantage of this option.

This fall -- at selected locations -- we hope to extend "Free Flight" to the 200 miles at each end of a trip ... where now we revert to normal air traffic control procedures.

Eurocontrol has a parallel effort called PHARE. Eventually we expect it to be highly compatible with our own approach to Free Flight -- if not operationally equivalent.

Both depend on some of the same enabling technologies which are key elements in the global system of air traffic management that is rapidly evolving.

The mainmast of this global system is satellite technology.

Global Positioning System

GPS has come a long way in three years. One California manufacturer of receivers was recently added as a component of a leading small stock index. It is a technology which has established itself as an integral part of our economy.

On the international scene, 17 countries have now approved GPS as a supplemental means of navigation in the airspace. Approval is pending in three other countries. We've been gratified by the level of acceptance of GPS and the strong show of interest around the world.

President Clinton's renewal of the U.S. commitment to keep GPS continuously available, without charge, should see us through to the point when we are ready to launch the next generation of navigation satellites -- ones designed specifically for civil aviation.

FANS

The Future Air Navigation System is almost as much today's technology as it will be tomorrow's. There are now about 50 Boeing 747-400s operating in the Asia Pacific region that are equipped with the FANS 1 package of avionics.

Last fall, controllers at the FAA's Oakland Center began offering satellite-based data link communications to flights operating over the southern sector of the Pacific Ocean.

By the end of this year, FANS-equipped aircraft in flight between Sydney or Auckland and the United States will be able to use satellite data link for automated rerouting.

Adverse wind and weather conditions can be circumvented, saving up to 30 minutes of flying time and about a 15 hundred gallons of jet fuel per flight.

The civil aviation authorities of the Pacific region are developing plans to reduce the oceanic separation minima by the end of the decade for aircraft having FANS capabilities.

An initial step calls for reducing the lateral separation between tracks in the North Pacific to 50 nautical miles by the end of the year.

If you've been tracking our progress in making the transition to Free Flight, you've noticed that every few months we get a little closer to our ultimate goal. We're still some years away, of course. The target date we have set for ourselves is 2010.

Between now and then, there is a lot to accomplish. Not all of it technological.

Need for greater airport capacity

One urgent priority is the building of new airports and the expansion of old ones.

One of the main justifications for Free Flight is the prospect that it will enable us to manage more efficiently the enormous growth in air travel which we are forecasting.

It has been estimated that if the number of passengers actually doubles by 2015, as we expect, traffic through our airports -- arriving and departing -- will be equivalent to 90 percent of the present world population.

Many of the world's largest airports are already operating at or near full capacity. According to some forecasts, nearly half of the international airports in Asia will soon be unable to cope with demand at the busiest times of the day.

The United States and Europe face similar problems.

Free Flight will add to the capacity of our airspace. But this expansion will mean little unless the major airports can handle more flights.

The case for Free Flight

There are tricky technical issues still to be resolved, and no doubt some stubborn obstacles to be overcome. But I am confident that the necessity for Free Flight will become increasingly apparent as we enter the early decades of the next century.

The determining factors will be safety, economics, and the environment.

Free Flight and Safety

Free Flight will contribute to improved safety in an increasingly congested airspace.

Many of the principal gains in aviation safety in the past two decades have been due to the adoption of new technologies that share a common characteristic: they provide new tools for pilot decision-making.

GPS, datalink, TCAS, and onboard automation all raise the level of information available. Free Flight is a logical extension of this trend.

Throughout my time at the FAA, I have warned that we must not allow today's low rate of accidents to lull us into complacency.

As aviation grows in the coming decades, so will the number of accidents. Even if the accident rate stays where it is now, Boeing estimates that by 2015, we could have a major hull loss every week or ten days somewhere in the world.

To avoid this outcome, during the next two decades we will have to make as much progress in reducing the accident rate as we did since 1960. That's a tall order -- but Free Flight will be part of the answer.

Free Flight and airline economics

In addition to the safety benefits of Free Flight, a study by NASA estimated that airlines in the United States could save as much as 1.47 billion dollars a year by 2005 if Free Flight were fully implemented.

That's about 20 percent of the total amount U.S. carriers spend on fuel in 1995. This year, fuel has increased about 15 cents a gallon, so the savings would now be even more substantial.

Free Flight will significantly reduce fuel consumption at a time when oil prices may be especially volatile.

There are some who believe that global oil production may peak between 2007 and 2014. As this time approaches, prices could rise -- substantially and perhaps permanently. Under such a scenario, fuel conservation would become more urgent than ever.

Free Flight and the environment

Finally, Free Flight will contribute to improved environmental quality.

Currently airplanes account for only about three percent of the carbon dioxide produced by human activity. A surge in air travel will push fuel consumption steeply higher.

More planes in the air could lead to higher levels of emission and possible environmental degradation.

Free Flight offers one of those rare instances when conservation is rewarded with a strong and immediate economic return.

Keeping air travel safe and affordable

As we look to the future, Free Flight gives us a chance to preserve the aviation system as we know it today -- a system of mass global transportation that is both safe and efficient.

In a period of rapid growth, Free Flight can help us keep air travel safe. In an era of rising costs, Free Flight can help keep down the price of a plane ticket.

Many of us can recall the days when air travel was a privilege of the few. The enormous growth of aviation in the past four decades was possible because of steadily declining air fares, both in real and relative terms.

In 1946, you could fly coach from New York to Paris on TWA or Pan Am for about 650 dollars round-trip. Adjusted for inflation, that ticket would today cost more than 42 hundred dollars. Yet, you can go out tomorrow a buy a ticket to Paris for 550 dollars.

Even in absolute terms, the airfare is a hundred dollars cheaper.

Unfortunately, we can't assume that airfares over the next 50 years will continue this historic downward slide.

Both government and industry confront a future of heavy investment. The cost of tightened security, airport expansion, new aircraft purchases, modernized air traffic control, and environmental compliance -- all of these could combine to make air travel less affordable.

Free Flight offers us an opportunity to lower our costs significantly.

A closing prediction

So let me close by making another prediction. One which looks a little further ahead than my last one to ACTA -- but close enough that most of you here tonight will see it happen.

I predict that for all the reasons I have just mentioned, Free Flight will be more than a technological possibility in the next decade or two. It will be an imperative.

Let me make on other prediction. I predict that many of the members of ACTA who are in this audience will be play an important role in making Free Flight a reality.

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REMARKS PREPARED FOR DAVID HINSON
ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION
AIRPORTS COUNCIL INTERNATIONAL
SAN DIEGO, CALIFORNIA
OCTOBER 21, 1996

Thank you very much, James (DeLong) for those kind words. And thank you for the opportunity to be with you today. It's good to see so many familiar faces.

Even without that introduction, most of you know that I have a special feeling for airports and the people who run them. You understand, as I do, the essential role that airports and expanded air services play in developing our national and local economies.

Today, and every day, America's airports serve some 1.5 million passengers. Airport professionals -- those of you here today and your colleagues throughout the country -- are partners in the finest air transportation system in the world.

The FAA takes pride in this development. After all, this is the 50th anniversary of Federal aid to airports, and during that time the FAA and its predecessor agencies have allocated over $23 billion in grants and other forms of financial aid to airports.

Aviation is one of the principal generators of wealth for our nation and an indispensable feature of modern life in our society. And I believe that this autumn provides one of the more colorful seasons for airport development.

The FAA's reauthorization bill, signed by the President earlier this month, reauthorizes funding for the Airport Improvement Program for 2 years. (FY 97: $2.28 Billion; FY-1998: $2.347 Billion). Added to that, the Airport Improvement Program received an appropriation of 1.46 Billion for use in FY 97.

This is the first increase in AIP funding since 1992. We now have more opportunity to involve the 50 states in airport planning, airport grant management, and airport condition testing.

Typically, AIP grants account for 20 to 30 percent of the funding for airport infrastructure. There is little question the program has been vitally important in helping achieve the outstanding airport system that we have in the United States today.

Local revenue sources, bonds, and in recent years, Passenger Facility Charges have addressed much of the difference in funding. PFCs, authorized in 1990, now account for nearly one billion dollars annually. Moreover, it is likely that PFCs will play an even more important role in airport capital investment decisions in the future.

The Congress has recognized the practicality of adding more DOD aviation facilities to the civil system of airports. Where we can do this, these facilities represent $1 billion apiece in the reinvestment of the public's capital in our airport system.

We have long wondered as to how public sector dollars could best join private sector dollars in maintaining; operating; and even establishing airports. The airports industry has persuaded the Congress that a "Privatization Test or Evaluation or Demonstration" is worth looking into. We're going to do that with you.

Also included in the final bill are provisions beneficial to airports and travelers addressing aviation security, expanding Passenger Facility Charges eligibility for mandates, increasing entitlement funds, and paving the way for FAA and airport funding reforms.

The bill establishes a commission to study the FAA's long-term funding needs and recommended the best mechanism for financing it. The commission will engage itself not only in the study of FAA's long-term funding needs, but also in airport's long term funding needs -- and the best mechanism for financing it.

Given the fact that our airports are a $50 billion per year industry, the crucial question we must address is how to sustain them while adding to the nation's capacity.

We all recognize that there have been and remain significant differences among airports, by size, location, and type of service, in terms of their ability to raise funds to address development needs. Moreover, there have always been considerably more airport development needs than could be addressed with airport grants, and this fact will be accentuated as we see passenger enplanements increasing by almost 35% by the years 2002 while available Federal assistance declines.

Prioritizing and targeting grants to the most critical capacity, safety, and security needs does not address this issue for the long term. What we need now are new ideas about how to make the best use of the resources we have available to us.

This requires developing innovative and creative financing means that achieve long-term funding.

The moment has arrived to promote substantial private sector funding of airport development. We must find ways to reconcile continued public ownership of our major airports with the need to provide attractive incentives for private investors.

And we must continue to try to achieve a fair and reasonable balance between the environmental concerns for people living near our airports with the interests of the travelers who want to use them.

Unless we find a way to add airport capacity, our industry could be forced into distorted patterns of growth ... stunted by the unyielding confines of an infrastructure which we are unable or unwilling to expand.

We need to step back and redefine the issues, problems, and solutions that are essential if we want an airport system that can absorb the certain growth ahead.

This has been a year when we could easily lose our perspective. The FAA has always been a high profile agency, but we've never had a year like 1996.

Will Rogers was fond of saying "All I know is what I read in the papers". But I hope none of you are following his example. Over the past few months it seemed that every newspaper I picked up had something adverse to say about the FAA.

Two major accidents raised questions about the safety of air travel. And that, inevitably, raised questions about how well the FAA was doing its job.

We've downsized, right-sized, re-engineered, and refocused our organization.

We've shown that government agencies can deliver services efficiently and effectively by spending fewer dollars and using fewer people. And that you don't have to destroy morale or productivity in the process.

Today, our agency has 5,000 fewer employees than it had three years ago. This would be tough enough task under any circumstances. But when it has to be done within the confines of outdated and restrictive personnel rules ... then it becomes a remarkable achievement.

As tragic as these events were, we did not allow them to diminish our justifiable pride in our work, or to undermine our confidence in what we have accomplished.

When aviation historians look back on the events of this year and this decade, I believe they will write ... not about tragedy ... but about progress. For what the newspaper stories never mention is that the flip side of adversity is opportunity.

We faced major challenges. Working together, we found creative ways to deal with them. And, as a result, the FAA is in the best position it has ever been to maintain the highest standards of air safety in the years ahead.

This April, we were given an opportunity available to no other federal agency. We were allowed to completely rewrite our acquisition and personnel systems.

We don't have to wade through a seven-foot high stack of regulations anymore to buy a piece of new equipment.

On the personnel side, we cut more than a thousand pages of rules down to a 41-page manual. We can hire a person from the outside in about six weeks now. It used to take seven months. Promotions and transfers used to take three months. Now they be done in four or less.

We eliminated artificial time-in-grade restrictions. If you can do the job, you get the pay.

With our new flexibility, we will put the right people in the right jobs, reward high performers, and remove poor ones. More will be expected of all of us.

The FAA reauthorization bill reinforces our acquisition and personnel reforms. And it takes us another step closer to the third and final reform that we have been seeking ... a new and better way to finance the FAA.

If you listened to the Presidential debates, you know that the issue of balancing the budget is going to be very much alive ... no matter who wins the election.

There's a big gap between what we need just to fund *today's* level of service through the year 2002 ... and the spending assumptions agreed to in the balanced budget blueprint agreed to last year by the Congress.

According to our estimates, that gap is nearly ***$12 billion dollars***. Some people have criticized our analysis. But even if we're off by half, we're still $6 billion dollars short.

Some might be tempted to look at our 1997 budget and think, "Gee, we didn't do too bad." And that's true. Our budget this year is $140 million above last year's funding level, which allows us to move some vital safety initiatives forward.

We will be able to hire 250 new controllers and backfill an additional 250.

The Airway Facilities staff will increase by 135.

We are adding 306 flight safety inspectors and 104 aircraft certification personnel to strengthen our oversight of fast-growing, low cost carriers.

Along with these new hires, the 1997 Transportation Appropriation bill also provides 130 security and legal specialists to implement new initiatives designed to keep certain types of hazardous materials off passenger planes.

We appreciate the efforts of aviation leaders in Congress, Secretary Pena, the President and Vice President who helped us secure these resources -- especially in this harsh budget climate.

In the parlance of the federal budget, every dollar the FAA spends is considered "discretionary". Mandatory expenses, like national defense, social security, Medicare and Medicaid, absorb 64 percent of the total federal budget.

We complete, along with other government agencies, for the remaining 36 percent. By the year 2002 the discretionary pool will drop to 28 percent.

As long as our funds come from the general treasury, we will face an uncertain financial future.

Consider this. The number of passengers taking commercial flights is expected to grow by 35 percent between now and the year 2002. The number of planes needed to transport these passengers will grow by 18 percent.

The question now is "how much more can we do with how much less?"

Even though the trust fund taxes have been extended after a lapse of about eight months, they are due to expire again at the end of December. It's finally become clear to everyone that this current financing arrangement is unacceptable. And they all agree that we must figure out a constructive way to address this situation.

Finally, we're beginning to see light at the end of the tunnel.

The reauthorization legislation signed by President on October 9th, requires the Administrator to make an independent assessment of the agency's funding needs through the year 2002.

Hopefully, this will put to rest any lingering questions over the size of the funding gap. A 21-member commission will review that assessment and recommend the best financing mechanisms.

I know the term "historic proportions", is often misused, but it describes the reauthorization bill exactly right.

Ordinarily, the purpose of these bills is to extend the funding authority for the FAA's capital programs ... like airport grants and system modernization.

This bill does that ... and much, much more.

It removes the agency's so-called "dual mandate." Now everyone will know what we have always known: the FAA's mission is safety. Period.

It strengthens the FAA Administrator's authority to respond directly and promptly to safety problems.

It sets time limits for publishing final safety rules, and gives us the tools that will help meet those limits.

It creates a 15-member Management Advisory Council to advise on critical matters facing the agency. Thirteen members will be appointed by the President and the Congress.

Most importantly, this legislation -- and the budget bill the President signed two weeks ago, gives us the tools and the resources we need to increase safeguards against terrorism and to step up our safety inspection programs.

Let me give you a bit of background about these initiatives.

Aviation accidents are often catalysts -- sometimes causing regulators and legislators to reorder their priorities. The ValuJet crash and the TWA explosion were unusual in the nature of the questions they brought to the public's attention.

We benefited from so many important pieces of legislation in the closing days of this Congress that we almost need a score card to keep track. Basically, there were three separate bills: the FY 1997 Transportation Appropriations bill, the FAA reauthorization bill, and the government-wide omnibus spending bill.

We worked hard in the closing hours before Congress adjourned. Getting an additional $16.3 million dollars when everyone was in a rush to go home was a virtually unprecedented feat.

There is one more initiative I would like to discuss quickly. That initiative is the Vice Presidential Commission on Aviation Security, Safety, and ATC Modernization.

After the TWA explosion, President Clinton asked the Vice President and a commission of experts to review the FAA's management of these three areas, recommend the best form of governance, and a funding process that best suits our needs.

The commission has completed the security review and the reauthorization legislation and the spending bill adopts many of its recommendations.

The omnibus spending bill, for example, provides the FAA $197.6 million dollars to increase security in our airports and on our airplanes.

As I said at the beginning, adversity is often the catalyst for constructive change.

Because of two bills, we will install hundreds of state-of-the art bomb detection scanners in our airports, and expand the use of bomb-sniffing dogs. Background and FBI checks will become routine for airport and airline employees with access to security areas.

And, over the next two years we will hire 300 more security agents to work with our airports, law enforcement and intelligence agencies in the fight against terrorist and criminal attacks.

I want to close by telling you, once again, how much I have enjoyed spending this time with you. Over the years there has been a great deal of collaboration in trying to solve problems unique to our industry. In the future, I believe that we will be collaborating, more and more, on problems that are common to us all.

You've been a great audience and I thank you very much.

REMARKS BY DAVID HINSON
ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION
The Washington, D.C. Rotary Club
October 23, 1996

Introduction

Nearly four years ago, shortly after the elections, I was asked to come to Washington to head the FAA.

At that time, the airline industry was in financial turmoil. Between 1990 and 1993, U.S. air carriers lost $10 billion dollars -- more than all their combined profits in history.

President Clinton made it clear from the start that he would do all he could to help get the aviation industry headed in the right direction.

One month after he was sworn in, the President and Secretary Peña called all the aerospace CEO's to Seattle to talk about the industry's problems and how to solve them.

Getting the economy growing again was an important component of that plan. And I think we can all agree that has been successful. I can't recall when we've had a better economy. And I can't recall a better time for U.S. aviation.

In the past three years, we have seen an historic turnaround in the fortunes of the aviation industry. And we have seen major changes at the FAA. Both are the result of strong leadership -- in Washington and in the industry.

Before I took this job, the industry views expressed at the Seattle conference were made very clear to me. I was given a mandate by the President and the Secretary to begin to make those changes they felt were essential if the United States was to continue its leadership in civil aviation.

Our country has been the world leader in aviation since the Wright Brothers first flight. And this leadership is not something we want to give up.

One consensus that emerged from the meeting in Seattle -- which was later reinforced by from the National Airline Commission -- was that there was a fundamental inconsistency between the traditional processes of government and the operation of a dynamic air traffic control system.

The President and the Secretary gave me wide latitude to try to change this, and I thank them for that.

The FAA is a vastly different place than it was when I first arrived in Washington. This afternoon, I'd like to tell you about those changes. I will also talk about the all-important issue of aviation safety and the challenges which remain for the next FAA Administrator and for the leaders of our industry.

The FAA and Its Role in Maintaining Safety

To put this in the right perspective, let me give you a bit of background about the agency and our role in maintaining safety.

The FAA has about 48,000 employees ... which is about 5,000 less than when I arrived in 1993. Seven unions represent over 62 percent of our total work force. We have a budget of around eight and a half billion dollars -- most of which comes from aviation taxes. But we still depend on the general treasury for about $2 billion dollars of our funds.

At our size, if the FAA were listed on the Fortune 500, it would be about the 160th largest company in the nation.

And, as you might expect, we have all the difficulties that go with managing a company of that size. We have a lot of geographic diversity plus a lot of different responsibilities.

Roughly 70 percent of everything we do involves some form of air traffic service. That's our largest line of business.

On average, FAA air traffic controllers handle two flights per second, every minute, every hour, 365 days a year. We are one of the few non-defense government services that operates 24-hours a day, 365 days a year.

We have a highly skilled cadre of technicians and engineers who keep over 30,000 pieces of sophisticated electronics equipment up and running with no interruption. I can tell you with certainty that the air traffic control system today is 99.4 percent reliable -- the highest it's been in history.

We update the air traffic system continuously to provide controllers better tools to do their job and to introduce leading edge technologies and concepts like satellite navigation and digital data link communications.

We certify aircraft, oversee the operation of airlines, and license pilots. We work with air carriers, airports, intelligence and law enforcement agencies to ensure aviation security. We certify airports and administer grants to improve them. And we perform research and development to advance our knowledge of aviation safety.

In fact, there is nothing we do that ***does not*** have safety as its prime motivation.

Safety is a Shared Responsibility

The FAA is responsible, by law, to regulate the aviation industry in the United States. We have been doing that very well for some time.

But safety is not just the responsibility of the FAA. It is a shared responsibility between government and industry.

Early Challenges

Now, with that background, imagine yourself becoming the chief executive of such a company. You walk into your office, on your first day, and someone says: "Let me tell you about this problem we have. It's called the advanced automation system and it's the centerpiece of our plan to modernize the air traffic control system. But it's late, it's over budget, and you've got to fix it.

"And, by the way, the acquisition processes used in the federal government were designed to keep horse traders from cheating the U.S. Cavalry. So they're a bit out of sync with the aviation environment."

"What we really need you to do is to get the FAA out from under all these regulations. And, the best way to do that, we believe, is to put air traffic control into its own government corporate structure. We need to urge Congress and the aviation industry to allow us to create the United States Air Traffic Control Corporation."

"What's more, some things are going to happen while you're here. There will be some accidents. There will be some incidents. And you're going to have to deal with them."

I knew I was going busy, but that's a lot to confront on your first day on the job.

The Continuity of Leadership

One problem was that -- through no fault of my predecessors but by political circumstance -- leadership at the FAA had been sporadic. In the previous ten years, the average length of the tenure of FAA Administrators was 18 months. The average tenure for the Secretaries of Transportation was 22 months.

One of the questions I was asked in my confirmation hearing was Will you stay for at least one term? Will you see it through?"

Every organization needs leadership: someone who has the vision and the understanding to say "Here's where we're going. Here's how we're going to get there. Linda Daschle and I have tried to provide that leadership at the FAA.

We've had about 40 eventful months, and I believe we have a lot to show for our efforts. And by "we", I mean all of us at the FAA.

Early Achievements

Today, the FAA has five thousand fewer people than it had three years ago, and a budget that is $600 million dollars smaller.

We've shown that government agencies can deliver services efficiently and effectively spending fewer dollars and using fewer people. And that you don't have to destroy morale or productivity in the process.

We took an advanced automation program that was in terrible shape, overhauled it, and got it back on track. We're giving our employees better tools to do their job and saving taxpayers $1.6 billion dollars.

We've begun the momentous switch from ground-based to space-based navigation. We really do have the air traffic control system back on track. And I don't mind telling you, I'm proud of that.

FAA Reform

We couldn't convince the Congress to let us create an air traffic control corporation, but we still managed to take a major step forward.

As a result of those discussions, the FAA was given an opportunity available to no other federal agency. This April, the Congress gave us the authority to set up our own acquisition and personnel systems.

If you've ever had to deal with government regulations -- and I expect most of you have at one time or another -- then you will understand why this is so important to us.

When I first arrived at the FAA, I found an agency that -- through no fault of its own -- was mired in what I call the "molasses of process."

Acquisition Reform

Let me give you an example. One day I asked to have all the acquisition regulations brought into my office. They stretched 17 feet. Someone else said: "No, it's really just 10 feet." Whether it was 10 feet or 17 feet, no corporation in the world can operate efficiently with that many acquisition regulations.

Today, we run the acquisition system like a corporation would. Instead of 10 feet of regulations, we have about 100 pages of instructions.

We just awarded a contract to develop and install new traffic computers, controller displays, and software into terminal radar approach control facilities and towers. This is a contract which ultimately could be worth one billion dollars. And we awarded it in half the time it would have taken under the old system.

Such an important system once might have taken *seven years* to deploy. We intend to put the first one in Boston in about two years time.

We have another program -- called the wide area augmentation system for GPS -- that ran into difficulty early in the contract. This system, by the way, is the fundamental technology that will drive the worldwide use of satellite navigation.

Under the old rules, my successor would have inherited a troubled program -- stretched out, late, and costing more money. With our new rules, we were able to stop the contract and let a new one in two weeks.

Personnel Reform

On the personnel side, we threw out hundreds of pages of rules that made it difficult to hire, difficult to fire, and difficult to manage. Now we have a brand new personnel system, unique to our organization.

We can hire someone in about six weeks now. It used to take seven months. Promotions and transfers used to take three months. Now they can be done in four weeks or less.

The bottom line is that, as a consequence of acquisition and personnel reforms, we now have the freedom to manage ourselves like a Fortune 500 company.

Finance Reform

The third and final reform -- how provide long-term funding for the agency -- is still unresolved. But we have moved a step closer. The FAA reauthorization bill which the President signed a few days ago creates a commission to recommend the best financing mechanism. I believe their report is due to the Secretary, to the President, and then to the Congress in 12 months.

I could talk more about managing the processes of running the FAA. But, in essence, what it's really all about is safety.

Aviation Safety: A Comparison between 1960 and 1996

There are two points I want to emphasize. The first is that the United States air transportation system is remarkably safe. The second point is that we have to make it even safer still, and I will tell you why.

To fully appreciate today's low accident rate and task of reducing it still further, we need to look at the record in perspective. For air safety is not a one-day issue. It is the result of years of effort by government and industry alike.

Let me give you an example.

I was an airline pilot in 1960. We flew around in the early DC-8's and 707's, the DC-7's, and the Connie's. I thought it was safe. I imagine there are a few of you here today who took commercial flights back then. You thought it was safe too. Every one thought it was a terrific industry. Highly regulated, but safe.

In 1960, the major air lines made fewer than four million departures and carried about 58 million passengers. And that year, there were 67 accidents, 12 with fatalities.

Now if we took the accident rate per 100,000 departures in 1960 and applied it to the number of departures last year, 1995, we would have experienced 240 plus major air carrier accidents in the United States, 33 with fatalities. Or a fatal air crash every 10 days.

That didn't happen, of course. Last year -- 1995 -- the major U.S. scheduled airlines made twice as many departures and carried 550 million passengers. There were 35 accidents -- one with fatalities involving a major carrier.

If we had the same accident rate today that we had in 1960, it would be totally unacceptable. What caused the rate to improve is a fascinating story of 36 years of technological progress and cooperation between government and industry.

The Evolution of Air Safety

Today's jet airplanes are not only bigger, faster, and fly farther than the early jets -- they have improved so dramatically that the integrity of the aircraft is seldom called into question.

Engine technology has become so advanced that jet engine failures are so rare that most pilots starting out today will never experience one in their entire flying careers.

Government and industry research programs have fostered improvements in cabin safety, advanced fire protection, and crashworthiness. Many people walk away from accidents today that once would have claimed their lives.

Advanced simulators provide realistic laboratories where pilots learn not only the basics of flying, but how to cope with wind shear and to practice other procedures too dangerous to attempt in a real aircraft.

Air traffic control technology has progressed to the point where, except in a very few areas, an aircraft is rarely beyond the watch of air traffic controllers. GPS and data link will close even those few remaining gaps Improved collision avoidance and ground proximity warning systems add a crucial extra measure of safety.

And the battle against terrorism and other violent acts is being won through stricter airport security, improved passenger screening techniques, and explosives and weapons detection systems. The budget bill the President signed two weeks ago gives us the tools and the resources we need to increase these safeguards.

Clearly, a lot has happened in the past 30 years to make it safe for you to fly today.

Barnett's Safety Statistics

I have a friend, Professor Arnold Barnett, who is a very noted operations professor at MIT. Professor Barnett has calculated that the odds of any of us being in a fatal airplane crash on a U.S. scheduled air carrier are one in eight million.

To be statistically certain of being in a fatal accident on a major U.S. air line, you would have to take a flight a day, every day, for 21,000 years to be statistically certain of being in a fatal accident on a major U.S. air carrier.

And I can assure you there is not another mode of transportation that will give you those odds. As someone said, "If you really want to live a long life, you should get on a commercial airplane and not get off."

This brings me to my second and final point. We have to make it even safer still.

Safety Implications of Aviation Growth

Every aviation forecast predicts that we are in the early stages of an enormous upsurge in air travel. In 20 years, instead of having 550 to 600 million passengers on U.S. airlines, we will have 1.2 billion. Boeing tells that at this level of growth, if the accident rate stays where it is now, we will have a fatal accident, worldwide, every eight to ten days

To avoid this outcome, we will have to make the same progress between now and the year 2015 that we did between 1960 and 1996.

We are facing essentially the same situation that we faced in 1960. Within the next 20 years, we will have to achieve an accident rate that is virtually zero.

And, given today's already low rate, every improvement we make from this point forward is going to be ***hard won***. Safety doesn't happen overnight. It takes years of dedicated effort.

The Golf Analogy

It is somewhat analogous to golf. It's fairly easy to get from a hundred to ninety. With more effort, you can get from ninety to eighty. To get below eighty, you've got to play a lot of golf. And to get to be a scratch or par golfer, you have to invest an inordinate amount of time.

To get us from .034 accidents per 100,000 departures to zero, we're not only going to have to invest an disproportinate amount of time and money ... we're going to have to do some things differently. Because what got us where we are today will not get us where we have to be in 20 years.

As it happens, the upsurge in world air travel will coincide with the shift from ground-based to space-based air traffic management. We are entering an era when GPS will largely replace radar and instrument landing systems, and digital data link will replace radio-based voice communications.

These are changes of historic importance, for they will enable us to handle the growth of air traffic with greater safety and efficiency. But to achieve zero accidents, we need a new approach. We need an early warning system.

The New Paradigm

Aviation history teaches us that we learn to make aviation safe. Future gains in safety will require us to increase our capacity to learn -- especially to learn from each other.

The FAA is in the process of creating a global information gathering system where the operators of the world's airlines will share, in a very controlled, careful way, the normal day-to-day operating characteristics of normal flight.

The rationale is that almost all of what we know about aviation safety has been learned from after-the fact investigations of accidents. We don't know enough about the characteristics of *normal* flights to always notice when something is *abnormal*.

Yet every day, on almost every flight, massive amounts of real-time data are continuously collected by onboard flight recorders and traffic control radar.

The purpose of the information gathering system would be to shift through this steady stream of information to identify deviations and anomalies that might point to future trouble.

We envision a worldwide, satellite-connected system -- similar to the Internet -- where the industry and other civil aviation authorities would all have instant access to each other's safety information.

The goal is to achieve a significant reduction in aircraft accidents by learning to make better, more productive use of our information resources.

Conclusion

I hope what I have said here this afternoon has given you new insight into the role of the FAA and a greater appreciation for the outstanding safety record of United States aviation. We have made remarkable progress in recent years, and we must continue to do so.

I can easily imagine a time -- perhaps a decade from now -- when another FAA Administrator will remind to the Rotary Club of Washington that when David Hinson spoke here he said that in ten years, U.S. airlines would be carrying one billion passengers. He said we would have to cut the accident rate. Well, here's how we did it.

I thank you for inviting me here today, and I look forward to your questions.

TALKING POINTS
FOR DAVID HINSON
NATIONAL RESOURCE SPECIALIST
MEDIA BRIEFING
October 28, 1996

- Welcome.

- We're here today to introduce introduce Guy Gardner, the FAA's new associate administrator for regulation an certification who will introduce several world-class individuals who are working on behalf of the Federal Aviation Administration to improve aviation safety.

- First, a few words about Guy Gardner. If you haven't met Guy, you may have heard of him. He served 11 years as a NASA astronaut, then went on to command the test pilot school at Edwards Air Force Base. After retiring from the Air Force in 1991, Guy rejoined NASA as program director of the joint U.S. and Russian Shuttle-Mir Program. I hired him away from NASA in 1995 to direct the FAA Technical Center. I'm delighted to welcome Guy to our Washington team.

- Today Guy will announce the selection of seven new national resource specialists for aircraft certification. We're pleased to have several of these experts here with us today, including some who have been on board with us for some time and have been making great contributions to aviation safety.

- The national resource specialist program is an innovative way for the FAA to ensure that we have the technical expertise needed to keep pace with a rapidly growing aviation industry and expanding areas of aviation science and technology.

- The program is a success in large part due to the FAA's new personnel system which enabled us to expedite hiring these experts. We can now **quickly** hire the best and the brightest scientific and technical experts.

- Guy will now tell us more about the program and introduce us to the experts here today.

- Remarks by Gardner:
  - Self-introduction
  - Overview of the NRS program

- Self-introduction by each NRS (2 minutes each).

- Gardner: Q&A.

- Hinson: Closing remarks.

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Talking Points Prepared for David Hinson
FAA Administrator
STARS Employee Award Ceremony
October 29, 1996

- It's a pleasure to be here. I'm happy to be sharing this occasion with you. I'm pleased that we were able to award this contract in September.

- I want to start off by saying that I have been a pilot since 1954 -- that's over forty years -- and an airline passenger for even longer than that.

- As a pilot and as a passenger, I've witnessed the tremendous growth of this industry and how it's affected air traffic control.

- To handle increasing traffic, we have to field more sophisticated and reliable systems and equipment -- systems and equipment that enable us to promote additional growth, while ensuring the safety of the flying public.

- During the past four decades, growth in this industry has been the primary 'constant' -- and I can assure you that it's going to continue.

- In 1995, we handled over 580 million operations -- that's over one and a half million a day, more than sixty thousand every hour -- and our projections call for 800 million operations in 2003.

- That's almost a forty percent increase in eight years.

- We need systems that are going to help us accommodate that growth while maintaining the high level of safety that is so critical to our air traffic control system.

- You also know about the times we're living in here in Washington.

- Budgets are coming under close scrutiny.

- The American taxpayer wants us to do more -- and do better - with the dollars we're being sent.

- Air traffic control is no exception.

- Here at the FAA, we've undertaken numerous initiatives in the past four years to streamline the way we do business, to work smarter and more effectively.

- And I think the Standard Terminal Automation Replacement System epitomizes all of the progress we're making in our thinking about how best to provide air traffic control in the future.

- Simply stated, STARS -- and systems like it -- **are** the way of the future for the FAA.

- With STARS, we're deploying a system that is based on current commercial standards, which will reduce our maintenance costs and make future upgrades more affordable.

- The system will provide the additional capacity that we're going to need to address traffic growth in the terminal environment.

- Another important feature of STARS is that it permits us to add functionality without modifying the basic architecture -- we are going to be able to build on this system in the future without extensive redesign.

- And by relying on commercially available and non-developmental hardware and software, we're also going to shorten the time needed to acquire and field this system.

- We shortened the acquisition process from one year to six and a half months -- due to the dedication and commitment that you -- the STARS Product Team -- displayed to get this contract awarded.

- And that's another element of this FAA air traffic control equation that I want to address here -- the human element.

- You already know how excited I am about STARS and how it's going to improve our National Airspace System.

- Well, what I'm more excited about is the fact that you... the STARS Product Team ... was able to award this contract in six and a half months *using new rules and new processes.*

- And that you did it as a well-functioning, integrated team.

- You've done an outstanding job here in getting this contract awarded, one that I hope to see repeated on other agency acquisitions in the future.

- But I wouldn't be the FAA Administrator if I left without presenting you with a new challenge.

- And the new challenge is this:

- I challenge you to keep up the momentum and the standards that you've set for yourselves as the STARS Product Team and to get this system fielded as fast as you can.

- STARS is going to be a tremendous help to the agency.

- I want to thank you all for being here.

Suggested Remarks for David Hinson
Administrator, Federal Aviation Administration
FAA Town Hall Meeting
October 30, 1996

Introductions/Acknowledgments

Good afternoon and welcome to the FAA Town Hall Meeting. I think you know how this works by now. I talk for a bit about what's on my mind. Then we give you a chance to do the same.

Before we get started, I'd like you to meet the people here on the stage. I believe you know most of them already: Kay Frances Dolan, Director of Human Resource Management; Dennis Degaetano, Deputy Associate Administrator for Research and Acquisitions; Jerry Franklin, Deputy Associate Administrator for Aviation Security; and Darlene Freeman, Deputy Associate Administrator for Air Traffic Services.

I would also like to introduce Guy Gardner, the new associate administrator for regulation and certification. If you haven't met Guy, you may have heard of him. He served 11 years as a NASA astronaut, then went on to command the test pilot school at Edwards Air Force Base.

After retiring from the Air Force in 1991, Guy rejoined NASA as program director of the joint U.S. and Russian Shuttle-Mir Program. I hired him away from NASA in 1995 to direct the FAA Technical Center. I'm delighted to welcome Guy to our Washington team.

I want to thank Barry Valentine for doing such a great job filling in for the past two months. And I want to say a special word of thanks to Deputy Administrator Linda Hall Daschle.

About three months ago, I asked Linda to lead a review to assess how effectively the FAA deploys its resources in overseeing airlines and responding to changes in the industry. I call her our "90-day wonder" because she's headed up so many studies for us.

On the strength of the 90-day safety review, the FAA obtained an additional $16.5 million dollars to hire more safety inspectors to oversee new entrant air carriers and to provide them the best tools and training to help them do that job.

Linda couldn't be here today, but I want to thank her for all her help. Would you please join me in thanking her as well.

Continuity of Leadership

I think most of you know by now that I'm a short-timer. I'm not exactly out the door yet ... I've still got a lot of things to do before I leave. But nothing more important than what I want to do this afternoon. And that's simply to say thanks -- thanks to everyone of you.

It's been nearly four years since President Clinton asked me to come to Washington to head the FAA. I made a pact with the Secretary and the President that I would stay through the President's first term. That was our agreement.

I took the job because I wanted to help this agency prepare to lead aviation into the 21st century. And, thanks to your hard work and dedication, we can look back on a solid record of achievement.

There were times when we could easily have lost our perspective. We've had to manage around some very difficult circumstances.

But when aviation historians look back on the events of the past four years, I believe they will write ... not about adversity ... but about progress.

[Slide 1. Major Achievements]

We faced major challenges ... I might even say unprecedented challenges. Working together, we found creative ways to deal with them. And, as a result, the FAA is in the best position it has ever been to maintain the highest standards of air safety in the years ahead.

ATC Modernization

Two years ago, we took an advanced automation program that was in terrible shape, overhauled it, and got it back on track. Controllers will have better tools to do their job, and the taxpayers will save $1.6 billion dollars.

Not only is the modernization program back on track, the entire national airspace system -- even that famous vacuum tube -- is operating with 99.84 percent reliability. That's as high as it's been in history, even though we've added nearly 6,000 discrete pieces of new electronics equipment just in the past 48 months.

We authorized the use of GPS for supplemental navigation in our airspace -- setting the stage for the most momentous technological change since the introduction of radar. Early in the next decade, we will begin to transition from a ground-based to a space-dependent system in our domestic airspace.

The President asked us to accelerate the introduction of GPS. We did that by at least two years.

We embraced a new air traffic management concept called "Free Flight which will ultimately allow pilots, under the watchful eye of controllers, to choose their own routes, speed, and altitudes in real time.

There are so many people who deserve credit for these achievements, I couldn't possibly begin to name them all.

Initiatives that target safety

Last year, we took the decisive step to ensure that the millions of Americans flying on smaller, commuter aircraft would have the same level of safety as those flying on larger commercial airlines.

We set limits on duty time for flight attendants, new experience levels for pilot "crew pairing", and proposed new flight and duty time work rules for pilots and crew.

We issued new procedures for flying in icing conditions, new separation standards to reduce the dangers encountered from wake turbulence, and proposed a new rule to upgrade flight data recorders.

We tightened security at the nation's airports and called for a ban prohibiting the transport of hazardous materials on passenger aircraft.

Streamlining the FAA

In ordinary times, any one of these measures would be an impressive undertaking. But the past 40 months have been anything but ordinary.

For, along the way, we've downsized, right-sized, re-engineered, and refocused our organization.

We've shown that government agencies can deliver services efficiently and effectively by spending fewer dollars and using fewer people. And that you don't have to sacrifice professionalism or productivity in the process.

Today, our agency has 5,000 fewer employees than it had three years ago. This would be tough enough task under any circumstances. But when it has to be done within the confines of outdated and restrictive personnel rules ... then it becomes a truly remarkable achievement.

FAA Reform

If it takes seven months to fill a job, something's wrong with the personnel system. If it takes seven years to field a new piece of equipment, something's wrong with the acquisition system. And if you don't have a dependable source of funding, how are you going to do the job everyone expects of you?

That was the situation I found when I first arrived at the FAA. No one knows better than our employees, our managers, our union partners, and our customers the ridiculous constraints the FAA was under when it came to these policies

All of us, from the President on down, knew this had to change. We wanted to put ATC into its own government corporate structure. We didn't succeed, but as a result of that effort, we got two of the major issues we were fighting for.

We were given an opportunity available to no other federal agency. We were allowed to completely rewrite our personnel and acquisition systems to our specifications.

The new systems have been in place now for about seven months. I'd like to ask Kay Frances and Dennis to give us a quick run down on how they're working out and what still needs to be done.

(Thank you, Kay Francis and Dennis)

[Slide 2. New Opportunities]

The FAA reauthorization bill which the President signed three weeks ago, reinforces the acquisition and personnel reforms that we've begun. And it takes us another step closer to the third and final reform that we've been seeking ... a new and better way to finance the FAA.

The Budget Dilemma

If you listened to the Presidential debates, you know that the issue of balancing the budget is going to be very much alive ... no matter who wins the election.

And, in the parlance of the federal budget, every dollar the FAA spends is considered "discretionary". Mandatory expenses, like national defense, social security, Medicare, and Medicaid, absorb 64 percent of the total federal budget.

We compete, along with other government agencies, for the remaining 36 percent. By the year 2002 the discretionary pool will drop to 28 percent.

Yet over the same period, we expect a 33 percent increase in the number of air travelers and a 20 percent increase in the number of flights.

Linda and I have worked hard to drive home the message that there's a big gap between what we need through the year 2002 ... and the spending assumptions in the balanced budget blueprint agreed to last year by the Congress.

According to our estimates, that gap is nearly ***$12 billion dollars***. Some people think we've over-estimated the problem. But even if we're off by half, we're still $6 billion dollars short.

[Slide 3. The FAA Reauthorization Bill]

The reauthorization legislation required me to obtain an independent assessment of the agency's funding needs through the year 2002. This process is already underway and will be wrapped up by the first week of February 1997.

The National Civil Aviation Review Commission

The reauthorization bill also established a National Civil Aviation Review Commission composed of 21 members. Secretary Peña, in consultation with Treasury Secretary Rubin, will appoint 13 members. The other eight will be appointed by Congress.

The commission will create two task forces: one to focus on aviation funding, and the other on aviation safety. The funding task force will review the results of the FAA's independent assessment, then recommend the best financing mechanisms. Those recommendations are due to the Secretary in August 1997.

Will we be in the budget or out of the budget? Funded by user fees, by taxes, or by a combination of both? We don't know yet.

This much we do know. It has finally become clear to everyone that our current funding arrangement has to change. And they all agree that we must figure out a constructive way to address this situation. The FAA reauthorization bill provides that framework.

The FAA Reauthorization Act: Other Provisions

I know the term "historic", is often misused, but it describes the FAA's new authorization bill exactly right.

Ordinarily, the purpose of these bills is to extend the funding authority for the FAA's capital programs ... like airport grants and system modernization.

This bill does that and much more.

It removes the agency's so-called "dual mandate." Now everyone will know what we have always known: the FAA's mission is safety. Period.

It provides the FAA greater control over the day-to-day operations of the agency in making contract and employment decisions, and in promulgating rules and regulations.

And it strengthens our authority to respond directly and promptly to safety problems.

Management Advisory Council

Another provision of the bill creates a 15-member Management Advisory Council to advise on critical matters facing the agency -- such as management, policy, spending, funding, and regulations.

The secretaries of Transportation and Defense each get to designate one member. The other 13 will be appointed by the President and will require Senate confirmation. In a very real sense, FAA will have a Board of Directors.

Most importantly, the reauthorization legislation and the omnibus budget bill give the United States additional tools and resources to combat terrorism.

Clearly, this is one of the most important pieces of aviation legislation in recent memory.

[Slide 4. The White House Commission on Aviation Security, Safety, and ATC Modernization]

In the closing days before it adjourned, Congress adopted many of the recommendations proposed by the White House Commission on Aviation Security, Safety, and ATC modernization led by Vice President Gore. As a result, the FAA received an additional $197.6 million dollars to strengthen security in our airports and on our airplanes.

I'd like to ask Jerry Franklin to give us a few examples of the security improvements the FAA will make with these funds. Then we will open the meeting up to you.

(Thank you, Jerry.)

We appreciate the efforts of aviation leaders in Congress, Secretary Pena, President Clinton, and Vice President Gore who helped us secure these resources -- especially in this harsh budget climate.

Two weeks ago, the White House Commission kicked off the safety and ATC phases of its review and plans to wrap up its work in February.

We welcome the opportunities presented by all of this year's special commissions.

I've tried to summarize in a few minutes, the highlights of the past 40 months. They had to be only the highlights because it would be impossible for me to mention everything that has happened during one of the most eventful periods in the FAA's history.

These have been busy times, demanding times, sometimes trying times. But we can all take a lot of credit for solid achievements that will have a permanent impact on the agency.

Now -- I'm sure there are questions. Questions about some of the things I've mentioned -- or about something that I didn't cover. We'll do our best to answer them. Who's going to be first?

[Open Meeting]

Closing Comments

[Slide 5. Preparing for the Future]

It's been a great privilege to lead the FAA during a period when the agency was going through what is probably the most significant change in its 38-year history.

We've seen many of our long-range plans take definite shape, and we've started to make other plans that won't be realized until the next century.

Today, we can't imagine aviation without computers and telecommunications. The next generation will find it just as hard to imagine what air traffic control was like before GPS and Free Flight.

These are technologies which are critical if we are to handle the growth of air travel which all our forecasts predict.

This growth will be a severe test for the FAA. It could overwhelm the agency capacity to efficiently manage the airspace and provide the level of service the industry and the public expects.

The conflict between expanding responsibilities and shrinking resources will be with us for a long time. Every future FAA Administrator for years to come will have to grapple with it.

The FAA's agenda for the future will keep changing as technology advances and the industry evolves. But there are five issues which will persist. We're already dealing with them, and they will continue to be important.

1. The FAA as a learning organization.

We've already seen the transformation of the FAA from an old-line service provider to one more closely resembling companies that belong to the "knowledge industry." We are already a vast repository of technical knowledge built up over many years. This knowledge is our major asset -- not our hardware and software -- and it is in our human capital that we must invest in wisely for future growth.

To maintain our intellectual leadership in world aviation, we will need closer links with the academic world, and we must build up our own centers of learning -- the Center for Management Development in Palm Coast and the FAA Academy in Oklahoma City.

2. The FAA and increased productivity

Like every other government agency, the FAA must learn how to do more with less. That means greater reliance on technology and software to give us the productivity gains we must achieve.

A good example is SPAS -- the Safety Performance and Analysis System which will add significantly to the rigor and thoroughness of aircraft inspection in the United States.

SPAS consists of personal computers installed with a Windows-95 based program that gives an inspector immediate access to the vast storehouse of historical data collected from the more than 365 thousand inspections the FAA conducts each year. Analyses which once took several days ... and sometimes months ... to perform, can now be done in hours.

3. The FAA and its industry partners

Future advances in aviation safety depend on the systematic sharing of information. In the next 20 years, the FAA will have to activate a very major partnership between industry and government. We have one now, but it needs to be more aggressive. It needs to be closer and more positive.

We will also need a freer exchange of information between the FAA and other government agencies that deal with the various aspects of aviation safety. There is a lot of safety information that is not now shared -- mostly for legal reasons. We need to do everything we can to remove those barriers.

4. The FAA and the world aviation community

The FAA will increasingly share resources with its counterpart agencies around the world, and with international organizations such as ICAO. We've already made impressive progress in harmonization of standards, and in carrying out the difficult -- but necessary -- task of assuring that countries whose air carriers fly in our skies maintain the highest levels of safety.

The future air navigation system (FANS) is another collaborative project, drawing upon the technical expertise of many countries. The day is long gone when the FAA worked in isolation.

5. The FAA as a model workplace.

One final challenge confronting the FAA will be to preserve and expand the gains we have made in creating a work environment that respects employees and treats them with fairness.

The challenge is to create a model workplace where all employees have the opportunity to develop their potential, where discrimination and harassment do not exist, and where the nation's diversity is mirrored.

I am proud of what the FAA has already achieved during my time at the agency. And I am certain that future Administrators will continue to honor this commitment.

We've had some very big moments here at the FAA, and I treasure them all. My greatest satisfaction will be seeing where the FAA goes from here. For, in the end, it doesn't matter what you leave behind, it's what you had a hand in starting.

And now, to all of you ... thanks a lot. I've loved every minute of it.