Remarks Prepared for
David R. Hinson, Administrator
Federal Aviation Administration
Research, Engineering and Development Advisory Committee
Meeting
September 10, 1996

Good morning and thank you for being here. Let me start today by saying one more time how much I appreciate you taking the time out of your busy schedules to serve on this committee. Without your talent and insight the FAA would not be where it is today.

This morning I'd like to take a few minutes to talk about the outstanding safety record we have achieved in aviation in the United States -- and how we got there.

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

The answer to both questions is an emphatic yes. But to fully appreciate just how safe air travel really is, we need to look at the record in perspective. Not as a one-day concern, but year after year.

For many years, aviation was the responsibility of the Department of Commerce. The FAA was established in 1958 ... the same year that passengers first flew in commercial jet aircraft here in the United States. From that time forward, safety has always been the FAA's principal mandate.

To fulfill this mandate, the FAA employs about 48,000 people and has an annual budget of about $9 billion. Only about $2 billion comes from the General Treasury. Most of our funding comes from the 10 percent passenger ticket tax, the tax on jet fuel and aviation gas, and the waybill cargo tax -- all of which are paid into the Aviation Trust Fund.

At our size, if we were on the Fortune 500, we would rank about 158th in the nation.

We are a very geographically diverse agency, and we have many different responsibilities..

The safety of U.S. aviation has been called one of the most remarkable achievements of the twentieth century. It is even more remarkable when you consider that, from 1946 to the present, the number of air travelers increased from 13 million[1] to 550 million.

[1] ATA Safety Record 1938-94, Air Transport Association, 1/13/96 (Safety Record of U.S. Airlines, Part 121 Airlines, Scheduled Service)

There is an important comparison to be made here. If you were flying on commercial jets in 1960, I'm sure you thought it was safe. But in 1960, commercial aviation experienced 67 accidents -- 12 of them with fatalities.[2] If we take the 1960 accident rate -- measured in flight hours, as it is here, or by miles, or departures, or whatever measure you wish to use, and we apply that same rate to last year, we would have experienced 242 major air carrier accidents in 1995: 33 of them with fatalities. One every 10 days.

[2] Ibid.

What happened between 1960 and 1996 to prevent that? In 1960, 58 million passengers flew in our skies. In 1995, the number was 550 million. In 1960, there were 3 million 856 thousand (3,856,000) departures by major United States carriers.[3] In 1995 there were more than twice as many. In 1960 there were 12 fatal accidents. But in 1995, there were 3, and only one ... the accident in Cali ... involved a major carrier.

In other words, we now fly four times as many passengers, we've doubled the number of take-offs[4], and reduced the fatal accident rate per 100 thousand departures by 92 percent.

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[3] Ibid.

[4] The estimated number of departures in 1995 by all scheduled service airlines was 8,220,000. Source NTSB press release January 25, 1996.

These are enormously important statistics and put into real perspective the situation for air travel in the United States today. Professor Barnett at MIT , who has researched the subject extensively, says that if you chose one flight at random every day, you would, on average, have to fly 21,000 years before you would be involved in a fatal accident.

There is no other mode of transportation that will give you those odds. In fact, if you really want to live a long life, you should get on a commercial airplane and not get off.

When people tell you air travel isn't safe, they simply don't know the facts.

The U.S. aviation safety record is a tribute to the professionalism of the pilots and crew on board the plane, and to all the thousands of people who support them on the ground ... mechanics, dispatchers, passenger screeners, air traffic controllers, safety inspectors, and airport operators.

It is also a fascinating story of five decades of technological progress and cooperation between government and industry.

The most significant advancement in aviation safety, by far, was the introduction of jet aircraft. Manufacturers quickly learned to build stronger but lighter airframes using new materials such as nickel alloys, titanium, and spun glass.

The introduction of jets also reduced the incidence of engine failure. The second generation of jets phased in during the mid-sixties virtually eliminated in-flight shutdowns.

Today's jet airplanes are bigger, faster, and fly farther than the early jets. And they have improved so dramatically that the integrity of the aircraft is seldom called into question.

Government and industry research programs have fostered improvements in cabin safety, advanced fire protection, and crashworthiness.

Advanced simulators provide realistic laboratories to train not only pilots but the entire crew. Pilots learn not only the basics of flying, but how to cope with deadly windshear and to practice other procedures to dangerous to attempt in a real aircraft.

And air traffic control technology has progressed to the point where, except in a very few areas, an aircraft is rarely beyond the watch of controllers. New technology will soon eliminate even those few remaining areas.

One of the leading causes of accidents between 1946 and 1974 was a category we called "controlled flight into terrain". It is the term we use to describe accidents where, for example, the pilots fly into a mountain or otherwise misjudges where the plane is with relation to the ground. In the mid 1970's, commercial aircraft began carrying a cockpit alerting system to warn pilots when they were coming too close to the ground. Since then, this threat has been all but eliminated in the United States.

The introduction of collision avoidance systems in 1990 provided an extra margin of protection from the risk of mid-air collisions. TCAS is required on all U.S. aircraft with more than 30 seats ... including aircraft that fly here from other countries. In a very short time, TCAS will be mandatory in Japan and the 33 countries which are part of Eurocontrol. Similar measures are being considered by Australia and New Zealand.

New technologies like ground proximity warning and TCAS share a common characteristic: they increase the amount of information available to the flight crew and raise the level of vigilance in the cockpit. Many of our most promising new technologies ... like automated decision support tools, satellite navigation, and digital data link communications ... are logical extensions of this trend.

Technology is crucial to the FAA. But because we are part of the federal bureaucracy, we were bogged down in "the molasses of process". In our case, about 10 feet of federal procurement regulations. The ability to buy and install new equipment when we need it has been one of our most difficult challenges.

Last April, we achieved a major breakthrough. Congress gave us the authority to set up our own acquisition and personnel systems ... free from government red tape and regulations. We still need a source of stable, permanent funding, which we hope the Congress will provide. But with the two reforms we now have, we have bettered our bettered our ability to deliver the important safety improvements that will carry aviation into the next century.

I mentioned earlier that, last year, approximately 550 million passengers flew in our skies. In a dozen years or so the number will swell to 856 million. A study by the Boeing Company shows how vital it is that we keep raising the level of safety. According to the study, unless we take steps now to reduce the already low rate of accidents, the number of accidents and fatalities will escalate along with the growth of air traffic.

Eliminating the few remaining hazards to aviation safety is the FAA's most pressing challenge and the focus of our most urgent efforts.

We are attacking the problem on four fronts: First, with air traffic improvements that target safety. Second, with new government regulations. Third, with new inspection and certification procedures. And, fourth, by heightening security.

Air traffic improvements that target safety.

We know that two of the leading causes of accidents are weather and mishaps between planes and vehicles on the runways taxiways (runway incursions).

We just placed the 18th Doppler weather radar in operation at Chicago O'Hare. Doppler radar virtually eliminates the threat of undetected wind shears. Eventually 45 of the nation's biggest airports will have this new technology.

In May, we began evaluating a new system at San Francisco International Airport to alert controllers to potential runway incursions. We call this system the airport movement area safety system, or AMASS. Thirty-four airports around the country are getting this new system. It is one of the industry's most-wanted safety initiatives.

We are also vigorously pursuing the development of satellite technology for civil aviation use to provide precision guidance at airports even in bad weather.

Last October, we began using two-way satellite communications at the Oakland air route traffic center. This may not sound impressive, but it's a tremendous breakthrough for aviation. It means that we have real time information on exactly where that airplane is. Pilots and controllers can communicate directly with each other, quickly and accurately, over oceans and remote areas. Once a plane got 200 miles out to sea, we couldn't do this before.

Safety through regulation

We take pride in the fact that our airspace is the safest in the world. But as crash of ValuJet flight 592 and TWA flight 800 so tragically demonstrate, the loss of one plane has such tragic consequences that we can never rest on our record. We never have and we never will.

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 new 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 banned the use of certain booster seats, and harness and vest child restraints aboard U.S. air carriers. Our tests showed that some of them did not provide adequate protection for infants and toddlers.

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

And for the first time in recent memory, we are proposing new work rules to reduce the consecutive number of duty hours that pilots are allowed to fly.

Safety Through Inspections

We have yet to find out what caused the crash of ValuJet flight 592 or TWA flight 800. But there are already some hard and important lessons to be learned from both.

In the case of ValuJet, it is apparent now that the extraordinarily rapid growth of this airline created problems that should have been more clearly recognized and dealt with sooner. As a result, we've strengthened our inspection procedures and tightened the regulations on contract maintenance and training programs ... not just for ValuJet but or all similar airlines.

As to one possible cause of the accident -- a fire caused by oxygen generators -- we have taken steps to prevent the future mishandling of hazardous materials.

We have called for action to ban passenger aircraft from transporting certain materials that can fuel fires. And we are requesting an additional 130 inspectors expressly for inspection, outreach, and public education regarding hazardous materials in air transportation.

Safety through increased security.

Following the TWA crash, President Clinton announced new measures to tighten security -- including more intensive screening of passengers on international flights, and more vigilant screening of carry-on bags on all flights.

The President also announced that Vice President Gore is leading a commission on aviation security that is to report back to him within 45 days. The commission is to produce an action plan to deploy machines that can detect the most sophisticated explosives, and other changes.

U.S. airports have been on heightened alert since last August. And, this summer we recently organized a special working group to examine U.S. vulnerabilities and to develop an array of countermeasures.

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

Talking Points[1] for FAA Administrator David Hinson
International Airline Passenger Association Advisory Board
Lansdowne, Virginia
September 14, 1996

- **Main topic. Putting aviation safety in perspective: a look at how the accident rate has improved over time, 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[2]. That year, there were 90 accidents, 14 of them with fatalities.[3] On average, a fatal accident a month or one every 321,000 departures. Everybody thought it was safe.

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[1] Topic suggested by IAPA: "Changes the FAA will be making in the aftermath of the ValuJet and TWA accidents." Number of people expected: 15. Scheduled time: 1 hour, including 20 to 30 minutes for q & a.

[2] Civil Aeronautics Board (1961 Edition) Handbook of Airline Statistics.

[3] NTSB Press Release, January 11, 1971.

2. U.S. scheduled airlines made 11.4 million departures last year and carried 580 million passengers.[4] There were four fatal accidents. Only one, the crash in Cali, Colombia, involved a major carrier.

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.[5] 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.[6] Instead a fatal accident for every 273 thousand departures, in 1995 there was a fatal accident about one in every 3 million departures.[7]

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[4] Air Carrier Industry Scheduled Service Traffic Statistics Quarterly; Fourth Quarter, December, 1995/1994

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

[6] 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.

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

- **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.**

1. Professor Arnold Barnett of MIT uses statistical models to calculate the odds of perishing in a commercial aviation accident.[8]

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

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

1967 - 1976: 1 in 500,000
1977 - 1986: 1 in 1.3 million
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.

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

- **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. By the year 2000, TCAS will be mandatory in the 33 countries which are part of Eurocontrol and in Japan in 2001. Australia and New Zealand are considering similar measures. A modification will be ready by the end of this year that will make TCAS more compatible with the various air traffic control systems throughout the world.

- **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.

- Countries that lack basic navigation and landing aids can use GPS to establish a sophisticated ATC system for a fraction of the cost. A recent study performed for the Dutch government[9] found that non-precision approaches are five times riskier than precision approaches. In some regions of the world, the risk is eight times greater. Seventeen countries have accepted the U.S. offer of GPS and approval is pending in three others. Nine are in Latin America, which has the second highest approach and landing accident rate in the world (32 per one million approaches. The country with the highest accident rate is Africa, the third is Eastern Europe.)

- **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[10].

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[9] "Precision Approaches Crucial to Landing Safety, Study Shows," Aviation Daily, May 14, 1996, Article 51991.

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

2. New rulemaking initiatives.

- The "One Level of Safety" rule ensures that the millions of passengers flying on smaller, commuter aircraft have the same level of safety as those flying on larger commercial airlines.

- We set limits on the 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. .

- **New initiatives following the ValuJet and TWA accidents**

1. The National Transportation Safety Board noted recently that "most air accidents not the result of human error or a criminal act are caused by a series of events that have never occurred before."[11] This would certainly seem to be the case in the ValuJet crash.

[11] "Investigators Say a Fuel Tank's Condition Makes a Malfunction Less Likely, a Bomb More So," Don Van Natta Jr., The New York Times, August 14, 1996, p.B-5.

- **Hazardous Materials**. The FAA is calling for action to ban passenger aircraft from transporting certain hazardous materials. An additional 130 inspectors has been requested for inspection, outreach, and public education.

- **Inspections**. The oversight of fast-growing, low-cost carriers has been strengthened. Regulations have been tightened on contract management and training.

- **90-Day Review**. (Insert comments, if desired.)

2. Security levels were stepped-up at U.S. airports following the TWA accident, including more intensive screening of passengers on international flights, and more vigilant screening of carry-on bags on all flights.

3. President Clinton announced a $429 million package of new measures to combat terrorism proposed by the White House Aviation Safety and Security Commission headed by Vice President Gore.

- Purchase and install 54 CTX-5000 explosive detection systems. Seek an additional $20 million in the FAA's security research budget.
- Immediate criminal background checks of airline workers with access to secure areas.

- Create a computer profiling system to track passengers
- New security measures for screening mail and cargo
- Acquire 410 trace detectors to screen carry-on items
- Train and deploy 114 new canine teams
- Start a test program to match each piece of luggage with its passenger on all domestic flights
  Give the NTSB responsibility for dealing with the families of air crash victims.
- Require the airlines to provide a passenger manifest to the State Department within one hour of an air disaster.
- Hire 600 additional FAA security agents.

4. These are all necessary measures in a world where the most radical elements have ready access to the most dangerous technologies of destruction.

- **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. Several bills are before the Congress. But if Congress does not act, as appears likely, 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.

I thank you for having me here, and I will be happy to answer your questions.

MAKING THE FAA A MODEL WORKPLACE

"BUILDING BRIDGES TO THE 21ST CENTURY"

THE HONORABLE DAVID R. HINSON, ADMINISTRATOR
FEDERAL AVIATION ADMINISTRATION
NATIONAL BLACK COALITION OF FEDERAL AVIATION EMPLOYEES
CHICAGO, IL SEPTEMBER 18, 1996

Thank you, Evelyn, for that warm introduction and for inviting me to take part in your training conference. And thanks also to Frank Black, Coalition president here in the Great Lakes Region, for his support and hospitality.

I'd like to congratulate the Coalition on your 20-year anniversary, and for all your accomplishments on behalf of African Americans in the FAA.

For the past 20 years, we have looked to the National Black Coalition as a forum where values are reaffirmed, choices clarified, priorities debated, and where, above all, hope for a brighter future is kept alive.

Evelyn Washington has provided inspiration and leadership through ten of those years. She has been one of the most effective advocates in promoting wider opportunities for African Americans in public service.

You and I know that progress in diversity demands leadership at the top. I 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 and to everyone who works in the FAA. It is a promise that every manager at every level of the organization is held accountable for keeping.

I see a number of our senior managers in the audience. And more will be joining us as the meeting progresses. They are here because they, too, believe in the promise.

We have a lot to talk about this morning. Thus far, 1996 has been a challenging year for the FAA, and I'd like to try to put that in perspective. Next, I'll review where we stand on the new personnel and acquisition systems, and fill you in on the critical issue of FAA funding. Then, before I close, I will say a few words about our goal to make the FAA a model workplace and the best in government.

Events that shaped 1996

You don't need to be told that the FAA is having a rough year -- one marred by tragedy and misfortune. Two major air disasters have shocked and saddened the nation.

These stories dominated the headlines for days on end, and, inevitably, raised questions about how well the FAA was doing its job. We all realize we work in an agency where there is -- and needs to be -- zero tolerance for accidents.

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

But the fact that we are exposed to relentless scrutiny means that we must never relax our vigilance -- nor fall behind in our efforts to improve the quality of our work and the skills of our workforce.

Ninety days ago, I asked Deputy Administrator Linda Daschle to lead a team to once again ask ourselves the question: is there more we need to do, today, to improve the safety of the aviation system? We focused our efforts on how effectively the FAA deploys its resources in overseeing airlines and responding to changes in the airline industry.

We will soon be making our recommendations public, and I believe that these actions will help us target our resources more strategically, and enable us to respond more quickly to the changing safety needs of the industry.

Throughout these 90 days, once again, I have been deeply impressed by the dedication and talent of our workforce. Given the flexibility and resources needed to do the job, we can achieve the safety goals we have set for ourselves and for which the public demands our complete success.

President Clinton also asked Vice President Gore to assemble a Commission to look at aviation security, safety, and air traffic control modernization. To date the efforts have focused on security; we are encouraged that the Commission is seeking new resources for FAA to combat terrorism. We are confident that their review of safety and ATC issues, likewise, will help our reform initiatives.

Acquisition and Personnel Reform: A six-month update

It's been six months since FAA initiated what was probably the most significant change in its 38-year history: we completely rewrote our acquisition and personnel systems.

Say you wanted to acquire a piece of new equipment. You would have to comply with rules contained in an 7-foot high stack of 233 acquisition documents.

• On April 1st, that stack was cut back to one-inch -- a 99 percent reduction

Eventually, we expect the new acquisition management system to cut the time and cost of acquiring systems and services *in half:*

• And we expect to reduce the time from production award to field commissioning of equipment by *fifty percent*

Under the old system, it could take seven years, or more, to field a major system like a Doppler weather radar. Until we purchase something comparable, we won't know if the new process delivers as well as we hope.

We have good reason to believe it will. After we terminated the Wide Area Augmentation System contract this spring, we were able to initiate a new contract in five days. The STARS contract award -- our nearly $1 billion ATC modernization program for terminals -- was completed in half the time. Before 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 1,000 pages of personnel regulations down to a 41-page manual. It used to take us seven months to hire a person from the outside. Now it takes about six weeks. It used to take three months to transfer or promote someone. Now it takes four weeks or less.

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

We will put the right people in the right jobs. We will reward high performers; we will remove poor ones. We will make a substantial investment in the education and training of our people. And we will hold managers accountable for achieving the diversity goals we have established.

The message will be clear. More will be expected of FAA's men and women, but in return they can expect fair compensation, fair treatment, a positive work environment, and an employer willing to invest the time and money to make their career a meaningful and productive one.

The new personnel system gave us the flexibility we needed to compensate employees more fairly for their work. We are going to move slowly and make certain that we do it right. But we all must remember that with this new found flexibility comes accountability.

These are bold changes ... perhaps even a bit scary to some. We said when the reforms were announced that there were still details to be worked out. There are. We will again be turning to the Coalition to join us at the table, to roll up your sleeves to work with us in doing this right.

For the first time in the history of the FAA, we can create a work environment to our specifications. And we have the freedom to make and remake that environment until reality matches our ideals.

But now is not the time for passive indifference. It is a time to commit ourselves to the success of this exciting opportunity to make the FAA a model federal workplace.

Finance Reform

Acquisition and personnel reforms are of historic importance to all of us. The third and final reform initiative ... a new and better way to finance the FAA ... is still unresolved.

Unfortunately, last year's legislation stopped short of financial reform. And in this drive to a federal balanced budget, without financial reform, the demands of a balanced budget will almost surely impact the FAA in a major way.

That's not just my belief, but also the views of the General Accounting Office, the Senate and House Budget Committee Chairman, the Senate Appropriations Chairman and the Senate Aviation Chairman.

All agree that transportation programs will be dramatically reduced. And they all agree that we must figure out a constructive way to address this situation.

And 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. With this on-again off again situation, it is clear to me and I hope you, that this current financing arrangement is unacceptable. We must take more dramatic action.

Fortunately, we are making great progress in Congress to address this situation. In the Senate, the Clinton Administration, in cooperation with Senators John McCain, Wendall Ford, Ernest Hollings, and Ted Stevens have developed a bipartisan bill -- reported recently by the Senate Commerce Committee -- that would greatly reduce our long-term dilemma with respect to financing.

The bill's goals are simple:

- to provide a financial structure for the FAA so it will be able to support the future growth in the aviation industry

- to ensure funding is dedicated solely to the use of the FAA and not subject to the constraints of a balanced federal budget

- to require users who today benefit from FAA services but don't pay, to now pay their fair share

- to achieve a more efficient and effective FAA

This compromise is a variation on legislation originally developed by Senators McCain and Ford -- and supported by the Administration -- that required FAA to submit a cost-based user fee proposal for Congressional review. The user fees would go into effect unless Congress explicitly voted them down.

This proposal proved to be highly controversial, especially since opponents of meaningful reform argued that we had not fully considered all other alternatives.

So the compromise bill -- reported by the Senate Commerce Committee -- and scheduled to be considered in the Senate this week, requires an independent task force to submit a report and recommendations to the Secretary of Transportation as to the best financing alternative for the agency.

The Secretary then has the option of submitting the task force's proposal or another legislative proposal to Congress. This legislation must be submitted to Congress one year after enactment of this bill.

Our key Congressional committees must then act upon this proposal within 45 days or the proposal automatically goes to the Senate and House floor for a vote.

In any case -- at the end of the day -- Congress must act to guarantee the future financial security of the agency, or explain to the American people why they have failed at this task. We don't want to have the study simply sit on the shelf, gathering dust.

The House has moved forward with a similar solution. Before Congress adjourns, they must send this bill to the President.

I, of course, want immediate action, but it is a critical first step to recognize that the usual way of financing the agency won't cut it. It is my hope that this process will help build a needed consensus within the aviation industry on how best to fund FAA's critical safety, security, and operational activities.

And at its heart, it has the same overriding goal as the original McCain-Ford legislation: no more budget shenanigans, but instead a steady, reliable, adequate source of funding for the FAA.

You can be assured that I have no reservations about defending the FAA's need for secure funding. It's my job. I believe in this agency, and I believe in what it does for the aviation community.

And, if we have adequate resources, I believe we will meet our safety commitment to the traveling public, to the American people, and to FAA employees, and continue to make progress on making FAA the best work environment in government.

But we are not waiting for finance reform -- we are moving forward on improving the quality of our work environment.

Later this month, you and every other FAA employee, will receive a copy of the agency's first-ever plan to integrate our programs for diversity, equal employment opportunity and affirmative action.

It is called the Model Work Environmental Plan. Fanny Rivera will tell you about it in detail. But the basic idea is to make sure that the full benefits of FAA personnel reform are passed on to all our 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 strife, and full of opportunity for all.

We have opened a new channel for maintaining dialogue through the FAA National Employees' Forum. We established the forum to give you a means, through your coalition president, to voice your opinions and express your concerns about matters of fairness and equity.

There is reason to hope that the plan and the National Employees' Forum will advance the cause of diversity because our commitment to diversity has been severely tested in recent months -- and so far, it has survived.

It has survived the loss of 5,000 of our co-workers. I know there was a great deal of concern over the effects of downsizing on diversity. Linda Daschle and I said from the very beginning that minorities and women would not take a disproportionate hit. We have kept our word. Despite a 12 percent reduction in the work force, minorities and women lost no ground and, in fact, gained.

It has survived a politically-motivated attempt in Congress to abolish affirmative action and diversity training. FAA leadership stood its ground before Congress. And it is still here.

It has survived at a time when the agency itself has been shaken by misfortune. If our commitment to diversity was any less secure, it would have been shunted aside and overshadowed by events.

In the future, we are confident that the plan will survive because along with our commitment, we will be focusing on accountability. Accountability is the means by which we ensure things happen. It must be built at all levels on a consistent basis with obvious positive or negative consequences as appropriate.

We look forward to continuing to work with the Coalition. Conferences like this serve as a reality check on our progress.

Again, congratulations on your 20 year anniversary.

DRAFT

REMARKS PREPARED FOR DELIVERY
BY DAVID R. HINSON, ADMINISTRATOR
FEDERAL AVIATION ADMINISTRATION
MOVING KIDS SAFELY REGIONAL CONFERENCE
FORT WORTH, TEXAS
SEPTEMBER 18, 1996

Good morning and welcome. I am Federal Aviation Administrator David Hinson, and I'm pleased to be with you today. Ladies and gentleman, we face a serious challenge. Last year transportation crashes killed 3,400 children, injured 300,000 more, hospitalized 200,000, and permanently disabled 30,000 kids.

Our challenge is to drastically reduce these numbers of needless and predictable injuries and deaths by taking more responsibility for our children's safety when they travel and influencing others to follow our lead.

As the Secretary stated in his welcoming video the U.S. Department of Transportation's highest priority is safety. And we can only achieve it with your help. So on his behalf I thank all of you for being here, and for your consistent hard work.

I work for a Secretary who along with the President believes one of the greatest challenges we face is to raise good children; in working families; in strong, safe communities.

Compared to 3 ½ years ago, this country has almost 10 million more people working. Thanks to the efforts of this administration and many others across America, 1.3 million families have gone from welfare to work. Crime is down, and our cities are safer.

But all the good work the President has done to reduce crime in our neighborhoods and ban assault weapons is undermined if we lose our civility on the road, and transfer a car into a 3,000 pound lethal weapon to cut somebody off.

And all those jobs the President helped create lose meaning when parents are so hurried they don't take the time to buckle their child into a car seat or safety belt and the child ends up injured and in the hospital.

It's been said that you can tell a lot about a country by how well we treat our children. This is not the America, I want. One that last year alone allowed over 3,400 children to be killed, and more than 300,000 injured in transportation crashes.

Nationally, the number of fatal crashes had plateaued in 1993. But it has started rising again.

Transportation crashes cost our society over $150 billion a year. You and I pay a considerable percentage of that in Medicare, and Medicaid, and insurance.

I want you to know, that all of us in the Department have worked hard to help, where government can help. But this is a new era. We are reducing the size of our government.

By the end of this year, President Clinton will have made our government as small as it was in 1962. There are 11,000 fewer people working for the Transportation Department than four years ago. But that doesn't mean we can't work smarter, and bring in new partners to make America safer for our children.

I believe we have. The Departments of Transportation and Health and Human Services have been working together to make transportation-related injuries and deaths a public health priority. For the first time, our organizations have begun identifying opportunities for collaboration.

For the first time, the Department of Transportation is working with the Education Department to get out the safety message. This past year, we sent material on transportation safety to 100,000 elementary schools.

We want teachers to weave in safety messages and safety-related examples into their lesson plans. It makes sense to me that if children are doing math problems, why not ask how many kids wear bike helmets, instead of how many balls hit a wall.

I have five grandchildren, and every time they get in my car, they make sure I wear my seat belt. If we have the children and grandchildren of America educating their parents, grandparents, aunts, uncles, we could raise a new generation of responsible, safety-minded parents, grandparents, aunts, and uncles.

We also have worked to get businesses more involved. We convened a network of business leaders, who promote safe driving for their employees and families. A lot of these companies have large sales forces, or people who drive a lot as part of their jobs, and they want them driving safely. The network has 2,000 member companies participating and it hopes to get it up to 4,000.

One new challenge we face involves air bags. Air bags have saved the lives of 1,500 people. But when children are in the front seat, not buckled up, and too close to the dash, air bags can be deadly. Two dozen children have died. We don't save lives at the expense of children.

So in May a coalition -- of automakers and suppliers, insurance companies, and safety groups was formed. It was unprecedented for these groups to come together, but they did, because the challenge is unprecedented. They are launching a national educational campaign about this danger. The message is very clear: have children buckle their seat belt. And in all cars the safest place for children is in the back seat AND in cars with air bags the result of placing a child in the front seat may cost them their life.

The logic of wearing seat belts in trucks and automobiles holds true for air travel. Aviation is the safest way for families to travel. The Federal Aviation Administration has made it safer for children. On September 3, the FAA 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.

The FAA strongly recommends 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.

The FAA recommends that:

- children under 20 pounds should be restrained in an approved rear-facing child restraint system;

- children weighing 20-40 pounds should use an approved forward-facing child restraint system;

- children weighing over 40 pounds should use the standard lap belt that is attached to all airline seats.

Federal Aviation Regulations require children who are two years old or older to sit in their own separate passenger seat. We are working towards a child seat that can be approved for both aviation and automobile use, which will make life a lot more convenient for traveling parents.

The FAA is preparing to launch its own nationwide passenger education initiative 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. Aircraft do, from time to time, encounter unexpected turbulence, and it is at these times that the passenger who always wear their seat belts are well served.

We recommend that passengers keep their seat belt securely fastened at all times. For a complete list of FAA safety recommendations for air travel with children, please call the agency's consumer information hotline at 1-800-FAA-SURE.

We also have had some legislative success to enhance safety. About a year ago, the President asked Congress to make zero tolerance the law of the land for teenage drivers. Congress passed the President's proposal.

I can report that there are zero tolerance laws in 37 states with 13 of those being enacted since the President and Congress enacted the law. I hope by the next time we meet all 50 states have zero-tolerance laws. This is very basic: if somebody is too young to buy alcohol, why should he or she be allowed to drink and drive?

We have also energized the notion of Safe Communities. Being the Mayor of Denver for eight years, Secretary Peña understands the power of bringing together concerned citizens, medical and health workers, elected officials, business people, police, and safety advocates -- all working together, with a solid plan of action to prevent traffic injuries. Sixty-five cities are now participating in our Safe Community initiative, and we're growing everyday.

In June, Secretary Peña gave the first annual Department of Transportation Community Partnership Awards to five incredible programs that have been very successful in making their communities safer. We want all of America to know what these local leaders are doing for our citizens, especially children. And we want all of America to replicate their actions. There is no reason why every community cannot be a Safe Community.

There are a four lessons that we can draw from all of these efforts. First, they have to start at the community level. Second, they have to involve many partners. Third, they have to challenge Americans to do something radically different. Fourth, they require all of us to have a vision -- a vision of what child safety should be like in the 21st century.

Today, I hope we begin to ask some very direct questions about ways all of us can help even more, as we approach the next century.

Why is it, for example, so many hospitals and HMOs, worry about you after you're injured, but aren't going into the communities to find out what brought you in the door? How can we get hospitals more involved in preventing injuries in the first place?

Why is it, so many businesses that want to cut their costs, establish health care and drug policies, but not motor vehicle policies, even though motor vehicle crashes are such a large factor in their health care bills? How can we get businesses more involved in the first place?

Or why is it, that so many schools instruct our kids to avoid drugs, or how not to get the HIV Virus, but we don't instruct them on how to avoid car crashes, which from the time they're in school until they're 28 is, statistically speaking, the most likely cause of their death? So, how can we get schools more involved?

The Department of Transportation has brought together people from across the country. We have tried to influence legislation. And have tried to use government resources wiser.

But ladies and gentlemen, you -- all of you -- must provide the local leadership. It is what the people of Harlem, and Detroit, and Los Angeles, and Albany, and Fort Worth, and Denver, and every other community, large and small, rural and urban, do that will make our streets safer for our children.

Please remember that what will make your job easier, is that every child in this country is on your side. They're with you -- all the way. And so am I and all of the members of the Department of Transportation.

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STATEMENT OF THE HONORABLE DAVID R. HINSON, FEDERAL AVIATION ADMINISTRATOR, BEFORE THE HOUSE COMMITTEE ON SCIENCE, CONCERNING AVIATION SECURITY TECHNOLOGY. SEPTEMBER 19, 1996.

Mr. Chairman and Members of the Committee:

Earlier today, we provided you a briefing in closed session, and I appreciate your recognition that much of the work we do in the security area cannot be publicly disclosed. At this time, I would like to summarize for the public some of the important security issues facing the FAA. Joining me today are Admiral "Irish" Flynn, FAA's Associate Administrator for Civil Aviation Security, and Admiral Paul Busick, Director of the Office of Intelligence and Security in the Department of Transportation.

Following Pan Am 103, and the legislation that was enacted as the Aviation Security Improvement Act of 1990, we have achieved great progress in aviation security. I highlighted this morning some of our key accomplishments, such as certification of the CTX-5000 explosive detection system. We could not have made this progress without this Committee's support of our research, engineering and development program, which has been crucial to developing the next generation of counter-terrorism technology.

Today's security system has been effective in countering the threat we previously faced from hijackings, and was successful in meeting the objectives for which it was designed. At the same time, we recognize that the threat we face is constantly changing, and that terrorists have grown increasingly sophisticated. The security system must be capable of adapting to meet these new challenges. We also recognize that what was once a foreign

threat is now a domestic one as well, as evidenced by the Oklahoma City and World Trade Center bombings. Although TWA 800 has not been shown to be the result of a terrorist act, it nonetheless has caused us to reflect on the current threat and the best ways to counter it.

Following TWA 800, the President appointed a Commission, headed by Vice President Gore, that was asked to investigate and report on aviation safety and security. The Commission's initial report to the President contains a number of important initiatives, concerning security equipment, procedures and personnel, and we have requested funds from Congress to enable us to carry out the initiatives.

One of their key recommendations, for which we have requested Congress' support, is the deployment of certified explosives detection systems and other equipment, such as dual-energy X-rays, for screening checked baggage at U.S. airports. Another important improvement to the security system is the deployment of equipment such as trace detectors to screen carry-on bags. We expect to deploy this equipment widely, so that passengers throughout the aviation system will receive the benefits of the enhancements. We anticipate that this equipment will be in place at airports while we continue field-testing and developing new technology.

Placing equipment in the field is an important step, but it is also necessary to ensure that the personnel who operate the equipment are properly trained and qualified. Our

Screener Proficiency Evaluation and Reporting System, or SPEARS, helps enhance screener performance using both X-ray machines and the CTX-5000, and is now ready for field deployment. We have also requested funds to increase our security staff, both here and abroad, to support our ability to gather threat information and respond quickly and decisively.

We recognize that these security enhancements are not cheap, either in terms of dollars or in terms of inconvenience or intrusiveness for passengers. There are important and difficult balances that must be struck between safety and the costs needed to bring about that safety. That is especially true in the context of the U.S. aviation system, which is the largest and the most complex in the world. It is necessary to consider the practical impact on airline operations and passengers, and the security system must be tailored to take that into account.

In conclusion, let me say that we welcome your interest and help in this area. Many difficult decisions lie ahead, both for the executive branch and the Congress. We look forward to working with you as we carry out the recommendations of the Vice President's Commission. I would be pleased to respond to any questions you may have at this time.

Remarks for David R. Hinson
Administrator, Federal Aviation Administration
Americas Conference on Aviation
Miami, Florida, September 24, 1996

Aviation in the Americas: Building Partnerships for Safety and Growth

Thank you, Luis[1].

On behalf of the FAA, I want to welcome all of you to the first Americas Conference on Aviation. I am especially glad to see so many of the Directors General from Latin America and the Caribbean with us today. I appreciate your coming.

I also want to thank Director Gary Dellapa of the Metro-Dade County Aviation Department, TDA Director Joe Grandmaison, and the dozen or more industry sponsors who shared in the preparations for this conference.

[1] Master of Ceremonies Louis Lauredo is Director, Consulting Group, Greenberg Traurig Law Firm.

It would be hard to find a more impressive -- or more knowledgeable -- group of speakers than those you will be hearing over the next four days. I want to thank all our speakers for their participation.

We will be joined at lunch today by Secretary Federico Peña. No person has worked harder than Secretary Peña to advance aviation -- not only in the United States -- but around the world.

- **The convergence of cooperation and coordination**

One purpose of this conference is to build upon our already strong partnerships.

Altogether, we have 105 technical assistance agreements aimed at improving the safety of air travel and the quality of service in the 34 countries of the Americas and its territories.

Many of these agreements are narrow in their scope, intended to meet local needs and specific requirements. But viewed collectively, they fit into a larger pattern. They head us in the same direction because they share common long-range goals.

- **The goals of our collaborative ventures**

Today, I would like to talk a bit about two of the goals which are implicit in our many collaborative ventures.

One is the goal to build a seamless air traffic control system from one end of the hemisphere to the other ... from the Arctic Circle to Tierra Del Fuego.

The second goal is to provide uniformly high levels of safety for all commercial air travelers ... wherever they choose to fly ... and whatever their choice of airline.

Both goals are at the end of clearly marked paths. One path leads to the satellite-based future air navigation system, as defined by the international working group and adopted by ICAO members.

The second path leads to compliance with the standards and recommended procedures established by ICAO in accordance with the Chicago Convention.

It is clear from both goals that aviation is converging toward a single set of international standards. Every nation is destined to become fully integrated within the global system that is emerging.

This conference gives us an opportunity to make sure that our progress does not falter -- that we keep pace with what is happening elsewhere in the world aviation community.

- **Air travel in Latin America is surging**

Aviation shares a common characteristic, regardless of country or continent. That is the surge in growth which is already underway, and which every forecast predicts will continue into the next century.

To measure the magnitude of this growth in Latin America, we don't have to look any farther than Miami.

In the past year, over sixteen and a half million passengers boarded flights at Miami International Airport ... 44 percent more than just five years ago. Nearly 5 million -- or fully one-third of all passengers departing Miami Airport -- were bound for destinations in Latin America and the Caribbean[2].

And what is happening here at Miami is being repeated at airports all across the United States.

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[2] Miami International Airport reports that between July 1, 1995 and June 30, 1996, passenger enplanements totaled 16.6 million. This included 7.2 million international enplanements, of which 36 percent (2.6 million) were bound for South America and 31 percent (2.2 million) were bound for the Caribbean. MIA reports that it enplaned 10.4 million passengers in 1990, 13.2 in 1992, and 14.4 million in 1995. Source: MIA Homepage, www, and MIA Marketing & Communications Division, 9/16/96.

In just three years time, Latin America has become the number one destination of travelers from the United States.[3]

Of the 48 million passengers taking international flights on U.S. airlines in 1995, over 18 million were traveling to Latin America. We expect this number will double within a dozen years.[4]

In its latest passenger forecast, ICAO estimated that growth in Latin America and the Caribbean over the next two years could be as high as seven percent.

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[3] Derived by comparing FAA Aviation Forecasts for Fiscal Years 1993-2004 (p. III-40) to Fiscal Years 1996 to 2007 (p. III-38).

[4] FAA Aviation Forecasts, Fiscal Years 1996-2007, page III-38, March 1996

We welcome this new surge of growth and the economic opportunities it creates. But this expansion will only come if we act now to increase our ability to handle it with safety and efficiency.

Fortunately, this period of rapid growth coincides with a major advance in the science of air traffic management.

This breakthrough is not just theoretical but practical. GPS and other innovative technologies are already being deployed in the field to increase efficiency and add an extra margin of safety.

- **The transition to satellite navigation has begun in earnest**

Two years ago, ICAO accepted the U.S. offer to use GPS as a component of the Future Air Navigation System which the international community has endorsed.

So far, 17 countries have accepted our offer and approval is pending in three others. The largest number of users, -- nine in all -- are in Latin America.

As of last week, Mexico, Argentina, Brazil, Chile, Costa Rica, Panama, Peru, and Uruguay have all approved GPS for supplemental navigation in their airspace. Bolivia has its process well underway.

- **President Clinton's decision on GPS: the strongest possible assurance**

The United States has promised to make GPS continuously available worldwide, without charge for the foreseeable future.

This decision, announced at the White House on March 29th, is the strongest possible assurance of long-term access to GPS for every type of civilian use.

It underscores that GPS is already, in fact, a global utility. Like the Internet, it is becoming an integral part of the worldwide information infrastructure -- with applications ranging from mapping and surveying to all modes of transportation.

I have said many times that satellite navigation will be as important in the next century as radar was fifty years ago. No other technology that we can foresee offers greater promise.

Countries needing to upgrade their infrastructure can leapfrog to a sophisticated air traffic control system, at a fraction of the cost of conventional ground systems.

A recent study performed for the Dutch government[5] found that non-precision approaches are five times riskier than precision approaches. In some regions of the world, the risk is eight times greater.

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[5] "Precision Approaches Crucial to Landing Safely, Study Shows," Aviation Daily, May 14, 1996, Article 51991.

I know this has been a long-standing concern in many areas of the Americas, where high mountains and rugged terrain have made it virtually impossible to take advantage of precision aids.

As the Dutch study points out, GPS promises solutions to the cost and siting problems associated with conventional ground-based equipment.

- **The GPS transition plan for the U.S.**

Six weeks 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 ILS's, most likely, around 2010.

The United States began using GPS in early 1994. Our first step was to authorize the use of GPS for supplemental navigation within our airspace and for non-precision approach guidance.

There are now over 25 hundred airports in the United States that offer this capability. Until GPS became available, many of these airports had no navigational aids for approach and landing.

About 20 months ago, I authorized the use of GPS for primary navigation over the oceans. There are now about 50 Boeing 747-400s --flying routes over the South Pacific -- that are equipped with the FANS package of avionics for GPS navigation, data link communications, and automation.

Boeing will be installing FANS packages on the Triple-7, the 757, and the 767. FANS upgrades for Airbus and McDonnell Douglas aircraft are also in development.

Alaska Airlines recently announced a 10 million dollar program to equip its fleet of 737s with an advanced avionics package which integrates GPS with the Ground Proximity Warning System.

The carrier provides service to many mountainous areas with low cloud cover and poor visibility -- terrain and weather similar to what we find in much of Latin America.

But before we can complete the transition to GPS, we must first build a network of ground stations to improve the accuracy of the satellite signals.

This is the Wide Area Augmentation Network which will allow us to rely completely upon GPS for domestic enroute and terminal navigation, as well as for approaches down to Category One minimums.

To be most effective, these ground stations need to be located 500 miles apart. The continental United States will be covered by this network. Stations will also be located in Canada and in Puerto Rico.

Now it is time to think of an expansion of this network to the south, linking Central and South America.

The future use of GPS worldwide will depend on its adoption by many sovereign states. The extent to which world aviation benefits from GPS is directly proportional to the number of states that approve its use for navigation with their airspace.

The larger the number of states using GPS, the greater the savings in time and fuel -- the greater the contribution to safety.

It is especially important that adjacent states adopt GPS within the same time frame, so that there are no gaps in the network of ground stations.

The value of GPS extends beyond navigation, as important as that is. Future communications and surveillance systems will base their position reporting on GPS derived information.

So any delay in approving GPS has widespread consequences. If a single state holds back its approval, there is a detrimental effect on its neighbors.

On matters of aviation policy, the fact of our technological inter-dependence must weigh heavily in the national decision-making process.

I have spent some time talking about GPS because we have found considerable interest among aviation professionals in Latin America.

The problems of the region -- increasingly crowded airspace, congested airports, treacherous terrain, and hazardous weather -- become more manageable when GPS and its related technologies are put in place.

- **Safety is our highest priority**

In the on-going dialogue between our organizations, no problem has a higher priority than safety. We are headed in the right direction, but we are in a race against time.

We know there are huge gains ahead in passenger traffic. Most forecasts agree that within the next 15 to 20 years, the number of passengers, worldwide, is expected to double ... from one and a quarter billion in 1995[6] (1.25 billion) to two and a half billion (2.5 billion).

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

How to keep this from happening is a cause for concern for civil aviation authorities around the world.

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[6] "Over one and a quarter billion passengers carried on airline scheduled service in 1995,", ICAO press release, December 1995 (PIO 16/95)

The problem is compounded by the fact that safety costs money. It requires its own infrastructure investment in people and practices.

And in a period of expansion when money is needed for airport construction, air traffic control facilities, and new aircraft -- there is a temptation to underfund anything that does not add directly to capacity.

- **The US/Latin America airport safety program**

Among our most active technical assistance programs in Latin America and the Caribbean has been one which costs relatively little but adds significantly to public safety.

For the past decade, the FAA and the Metro-Dade Aviation Department have worked with five countries in the Americas to improve firefighting and rescue capabilities at 18 airports. Four other countries have expressed their interest as well.

In each of these projects, the FAA has played a facilitating role -- bringing together the people and the resources required to conduct the evaluations, diagnose deficiencies, and carry out corrective action.

The Airport Safety Program relies not on coercion ... but on collaboration. Not on penalties ... but partnership.

Recently, ICAO has adopted a similar approach in establishing its safety oversight program. This is a major step in achieving one level of safety, not just in Latin America, but throughout the world.

We congratulate ICAO for assuming this difficult responsibility and have pledged resources to support this vital effort.

- **ICAO's Latin America Project**

Because the nature of the problems can differ from region to region, ICAO has encouraged the development of indigenous resources and local expertise.

ICAO's Latin America Project is one of the first to be established -- an effort which is being coordinated by Argentina, Brazil, Chile, and Panama, with the active support of the United States..

We expect that the effectiveness and efficiency of safety oversight will be multiplied by pooling knowledge and financial resources within the region.

- **Global Analysis and Information Network**

There can be nothing proprietary about information related to aviation safety. In an era of globalization, information becomes more valuable the more widely it is shared.

This is the rationale which led the United States to propose a system for sharing operational safety data on a worldwide scale. We're calling it the Global Analysis and Information Network -- or GAIN.

The first GAIN conference will convene in Boston this October and the Royal Aeronautical Society will host a conference this Spring in London to explore some of the main questions.

But the underlying premise can be clearly stated. Future advances in aviation safety will depend on the smarter use of data.

Yet we are neglecting the vast amounts of information which the industry collects every day as part of its routine operations throughout the world.

This is a valuable resource which is now largely untapped.

GAIN would make it available online to aviation safety researchers everywhere. The combination of enormous data bases and powerful analytic tools for detecting patterns and trends would provide the leverage we need to achieve a virtually zero-level of accidents in the next century.

Last week, the FAA and NASA announced that we are now testing an automated system which translates digital data from aircraft flight recorders into a form which can be more easily used for analysis.

Until now, data from flight recorders were only used to investigate accidents. With this new technology, we can use the data to prevent accidents.

- **Conclusion**

This morning I have discussed two goals that tie together the widely diverse technical assistance programs that are now active.

One is the building of a modern, efficient system of air traffic management capable of handling the enormous growth which is forecast for Latin America.

The second goal is achieving uniform standards of safety for air travelers flying within or between any of the nations represented here today.

Success in reaching these goals requires that we continue to expand our already high levels of coordination and cooperation. This conference is one means to this end.

But equally important is success in obtaining necessary funding for aviation infrastructure development.

The competition for these funds is very intense. It has been estimated that Latin America needs at least a billion dollars a week to maintain and expand basic infrastructure in all categories. About $14 billion a year is needed just for transportation projects. Aviation is only a part.[7]

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[7] "Infrastructure in Latin America, Wanted: $1bn a week", Financial Times, September 13, 1996.

The FAA has joined with a number of international aviation organizations -- including ICAO -- to make the case that, in today's world, one of the most effective ways to stimulate a country's economy is to invest in its aviation infrastructure.

The International Development Bank has been receptive to this argument, and it is now up to all of us here today to fully explore the possibility.

The FAA would like to work with TDA Director Grandmaison and our counterparts throughout Latin America to develop a coordinated approach to the IDB and other multilateral financial institutions.

By pooling ideas and sharing expertise, we can develop projects that will convincingly demonstrate the link between a strong aviation sector and a growing economy.

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