REMARKS BY ANTHONY BRODERICK
MID-LEVEL MANAGEMENT DEVELOPMENT PROGRAM
OCTOBER 27, 1992

Management training programs, in the FAA and elsewhere, tend to have one of two orientations to time. They can be backward looking, intended to teach new people the old ways...all of the tried-and-true procedures by which the organization has long been run. Or, they can be future-oriented, aimed at introducing innovation and change. The training program you are about to start has a very strong future focus. It's intended to prepare you for careers in an FAA which is replacing outworn organizational forms at the same time that it replaces obsolete technology.

All of us who work at the FAA are seeing, close-up, an organization which is in the process of evolving...of transforming itself. And the effect of this evolution is to challenge the traditional way of life in the bureaucracy. The qualities and strengths which once helped a man...and, unfortunately, it was usually a man...which once helped a man climb the career ladder are no longer so predictably useful. In fact, they may now actually be handicaps to advancement.

Today, I'm going to talk about the outworn forms which are being discarded, and what will take their place. I'll be talking about the diminishing importance of pal power, parochialism, and prowess in one's technical specialty. The three P's...an alliterative triplet...which have been impediments to progress. Each of these was once a ticket to the top. But in the emerging FAA, each of these has waned in importance. Each is being replaced by patterns of behavior and new institutional arrangements which better serve the needs of a modern, high tech organization...and which serve to more vigorously commit the FAA to our nation's agenda of achieving true equality of opportunity for all our citizens. I'm going to briefly discuss these three evolutionary changes in the FAA and the implications each has for your own career planning.

The old FAA was very much a pal-ocracy. It had all the camaraderie of an Elks Club. Men joined the FAA as young adults and spent their entire working lives here. A man would simply wait for his boss to get a promotion or retire, and he could expect to get bumped up to fill the vacancy. If he was ambitious, he courted the man who held the job he wanted.

The bosses often picked their own successors, and this practice ...in the end...produced a system of ill-disguised patronage and favoritism. Power and perks were parceled out among one's pals. Now there is nothing especially sinister about this. It's the way of life in many bureaucracies. And while it rarely promoted to the top people who were noteworthy for their brilliance and daring... neither did it tend to promote people who were absolute dolts. There was a system of selection at work.

But there was a major difficulty. The old system tended to be exclusionary. The pool of potential management candidates was made up of people very comfortable in each other's company. They were often longtime friends and sometimes even members of the same car pool. They shared a lot in common...which is to say that the pool had a "members only" sign posted at the point of entry. It was a system of inbreeding which perpetuated sameness at the top. There were few people of color and scarcely any women at all.

I'm reminded of a quote from former political aide Lyn Nofziger's new book. In it, he offers this explanation as to why there were no women in the Reagan White House inner circle. "It isn't that we were deliberately sexist," he said. "Just that we were naturally sexist." That, I'm afraid, describes what was once the situation here at the FAA. We just naturally discriminated. And despite sincere efforts, it is a situation which still seems to persist in some places. This mid-level management training program in which you are now participating is a determined effort to eliminate bias and favoritism in the selection process.

As an agency, we are spending a lot of money, time and effort to actively identify our people with promise and to help them lay out career plans which will satisfy both their own objectives and the needs of the FAA. I am hopeful that it is a more rational, less arbitrary way to produce highly qualified management candidates. And I am confident that it will produce a candidate pool which is more balanced and diverse in terms of race, gender and ethnic background. Our new career development programs should effectively short-circuit the old boys' network. It should spell the end to pal power.

One of the conditions which fostered pal power in the FAA was the parochialism which prevailed throughout the organization. The old FAA was made up of enclaves, each with a distinct culture of its own. One is reminded of those old stories about the West Virginia hill country, where each valley was controlled by a separate clan and the clans were always feuding and raiding each other's stills.

When you got a job at the FAA, you were actually joining one of the clans which laid claim to your loyalty for all your working life. In many of the old FAA service divisions, you never left. You spent your entire career there. You often knew little of what the rest of the FAA did, and cared even less. Your niche in the FAA was a small world, but it was your world...a world with its own customs, its own values, its own folklore.

I am especially aware of this narrowness of outlook...this parochialism...because our organization...AVR...is made up of people who...by virtue of their backgrounds...have a very different viewpoint. We comprise a unique group within the FAA. We're a different breed. And this fact is both a help and a hindrance when we weigh our individual career prospects.

We number about 4,500 and most of us come from the private sector and the military. Hardly anyone joins AVR right out of college. Our beginning-level inspectors are typically in their mid-thirties and forties and are beginning second careers after working as pilots or mechanics or employees of our aerospace companies. They bring a wealth of experience to their new jobs...and they also bring an outsider's perspective on the place of the FAA in the total aviation system. Most important of all, we are able to retain this breadth of outlook even after years of government employment. We don't become blinkered bureaucrats...in large part because our routine, day to day work keeps us in constant contact with the outside world.

I'd hazard the guess that most of the phone conversations of most people in the FAA are with others in the Agency. In contrast, those of us in Regulation and Certification talk many times each day to people outside the bureaucracy -- to airlines and manufacturers and representatives of the general aviation community. I would like to believe that this ongoing interaction makes us better, more responsive, more accountable public servants. For parochialism is a bureaucratic state-of-mind which resists change ...however necessary...aggravates internal power struggles ...and alienates the public we are obligated to serve.

This is the reason why efforts like the SES Candidate Development Program place such heavy emphasis on the importance of a wide and varied background. We expect our candidates for top level management positions to have worked at the field level, in the regions and in headquarters. We expect our candidates to demonstrate a broad scope of experience ...within their own organizations, certainly...within other areas of the FAA, preferably...and even, if possible, in the private sector.

This new priority, which stresses breadth over depth, is obviously not very compatible with the old career path notion. The now-outmoded progression was a straight line of ascent from branch manager to division manager to service director...and then finally, if the fates were friendly...to the dizzy heights of associate administrator...always remaining faithful to that part of the FAA where one started out.

But, now...if and when you become a participant in the Candidate Development Program...you will follow a far less focused career path. Instead of an arrow heading straight for the bulls-eye, you will more resemble a "smart" missile, zig-zagging its way to multiple targets of opportunity. This is the course you must take if you are to eventually join the ranks of the Senior Executive Service.

In the FAA today and in the future, you may become a branch manager in one area...move on to the job of division manager somewhere else...and then come back to where you began, but this time as the deputy service director. Your strategic job moves will be lateral as well as vertical, side to side as well as up and...maybe even sometimes..down...all with the purpose of gaining the broadest possible experience...all with the purpose of preventing the parochial mind-set of the old-style bureaucrat.

The argument for the importance of breadth over depth often evokes a warning. We are cautioned that this is a policy destined to produce a new generation of FAA managers who lack the technical and engineering prowess for which the Agency is renowned. We are sometimes accused of compromising our standards for technical excellence among those who lead the Agency. I can only tell you about my own experience.

When I was selected for the Senior Executive Service some ten years ago, it was...I suspect...largely on the basis of my technical capabilities. That is the area where I had built a reputation, both inside and outside the Agency. In the intervening decade I've held several positions, and in each one I have been surprised to see how few of my management responsibilities engage my technical expertise. It is not irrelevant to my work, of course. It is important that I be able to generally understand the technical questions which arise.

But it is no longer necessary that I have the detailed, highly specialized knowledge which we expect from those who are actually working close-in on a particular problem every day. For them, the problem is always in the foreground. For me, it provides the background for decision making. My responsibility is to place each problem in its broader context and to think through its policy implications and its possible impact on budgeting. These are activities quite far removed from what I was doing in 1976 when I first joined the FAA as an expert on ozone depletion.

It has been my experience that the higher you go in the ranks, the less important becomes your prowess in technical subjects. This has been my experience and I think it is common to all upper level executives in the Agency. And it will be true for those of you who are someday selected into SES. While technical competence of a high order will continue to be necessary for success in entry-level jobs, you cannot rely on these skills alone if your career is not to eventually stall out.

What does become of paramount importance is the ability to solve not technical problems but people problems. You must prove yourself adept a resolving conflicts, in delegating responsibility, in organizing and managing teams of professionals.

These are skills which do not come easy to many of us with scientific and engineering backgrounds. We are impatient with fuzzy problems with no single right answer...with problems which do not stay solved but keep resurfacing again and again. We prefer living and working in a world with clear, unambiguous standards of success and failure. But logical and scientific rigor does not help much in running an organization. There are very different requirements and most of us are not born leaders. We have to acquire the essential skills as best we can.

This is the purpose of the management training in which you are now engaged. And it will be the purpose of much of the future training you will be offered. As part of AVR, we must recognize that much of what we do -- although it is central to the mission of the FAA -- is nevertheless set off from some of the mainline activities of the Agency. We're not directly engaged in air traffic control nor are we directly involved in the NAS plan.

This can be a handicap when you attempt to broaden your experience outside AVR. You may often find yourself competing for a position against those with years of directly relevant experience. You can compensate, at least in part, by taking full advantage of your training opportunities. It will take uncommon commitment on your part to persevere. There will be heated competition for all the better jobs and the rivalry can only grow more intense in the coming years. Today, there are roughly 53 thousand FAA employees, but fewer than 200 SES positions. Only 28 of them are assigned for all of AVR.

If you are to succeed in getting one of these positions, you cannot depend on pal power...on a network of old friends to give you an advantage...you cannot depend on staying close to home in AVR and expect to inherit jobs as they become available...you cannot depend solely on your technical accomplishments to give your career a push to the top. You will have to prepare yourself to compete in a selection process which plays no favorites...to seek the widest possible range of experience throughout the Agency...and to develop essential but hard-to-learn skills in the management of people.

These are the conditions for survival and success in the tough competitive environment of government in the Nineties. Rough it will surely be, but all of us in AVR stand ready to back you with our full support and to see that you get a fair chance...an equal chance.

Thank you and the best of luck to you all.

CONFERENCE ON AIRLINE STRATEGIES, FINANCIAL DECISIONS, AND MAINTENANCE VECTORS

PARIS, FRANCE
JUNE 15-16, 1993

FAA/JAA PROGRESS IN HARMONIZATION

Presented by

ANTHONY J. BRODERICK
ASSOCIATE ADMINISTRATOR FOR
REGULATION AND CERTIFICATION
FEDERAL AVIATION ADMINISTRATION

HARMONIZATION

For more than a decade, the FAA has been working closely with the JAA in promoting international harmonization of safety regulations. My personal definition of harmonization is: "A cooperative effort between the FAA and other civil aviation authorities--to identify and reduce inconsistencies and major differences between our regulations--in order to reach the goal of an international standard and common application of certification and safety rules for the world-wide aviation industry.

Let me assure you today that FAA leadership is even more firmly committed to harmonization than we were in the early '80's. The work presently being conducted with the Joint Aviation Authorities (JAA) and others is essential. It is essential to efficiency, and to a common standard of safety.

The reduction of redundant and burdensome operating regulations will particularly reduce the transactional costs to international aviation industries. This reduction in duplication of paperwork and regulations will, in the long run, make the aviation industry in all our countries stronger, safer, and more competitive.

As proof of our commitment to harmonization, even in the past year of excruciatingly tight budgets, the FAA has opened two new International Field Offices, one in London the other in Singapore. We have also established two new domestic International Offices located in New York City and San Francisco to complement the existing Miami office. This effort is a top priority.

We are actively fostering the idea of harmonization in Russia. We are working aggressively to help Russia structure its aviation-related institutions after a free market model, to better serve their domestic transportation infrastructure needs and allow

Russia to become an integral part of the growing international aviation system. Key FAA harmonization initiatives in Russia include the following:

First, an intensive on-site assessment effort is underway, aimed at concluding a United States/Russian agreement for the reciprocal acceptance of aircraft certification. We expect our joint efforts will bring Russia's system for designing and producing civil aircraft into harmony with typical Western counterpart systems.

Second, the FAA, and the United States Trade and Development Agency, are sponsoring an Aviation Finance Seminar for civil aviation officials from 12 republics of the former Soviet Union in St. Petersburg, Russia, on September 9. The objectives of this seminar are to address financing for aviation system upgrades and modernization, and to help provide ideas for structuring an aviation system which is revenue-generating and self sustaining.

Finally, we are posting an FAA representative to Moscow, to deal more effectively with the growing pace of activities with a number of Russian aviation institutions.

But, back to the more general topic. The harmonization process, no matter who defines it, is been painful for all sides involved. In the give and take process required between civil aviation authorities to reach consensus, tempers can be lost, statements quickly made can be instantly regretted, and personal and professional friendships may be tested to the redline and beyond.

In the years ahead, this process of hammering out a common standard will become more difficult as we get closer to our goal of a seamless global regulatory environment. I foresee an even greater number of individuals from industry, labor, and political groups becoming more involved in the harmonization process. Each new player will bring a new agenda. Each agenda item will have to be addressed.

Within the next 2 years, I see a great test of courage and commitment facing the leadership of all the CAA's involved in harmonization. This test, this challenge, comes because global harmonization will change forever the current roles of individual civil airworthiness authorities. Regional cooperation will tend to blend functions, presenting opportunities to benefit from economies of scale, but also presenting threats to job security.

Each of us must guard against hiding behind a wall of protectionism, or limiting our creative or problem solving abilities by bureaucratic insularity.

The harmonization effort is also a painful process within my own organization. I have found that a certain "invisible reluctance" exists within the FAA that resists the harmonizing process. There are, I believe, three major reasons for this:

First, there is an additional workload. Just to make a single Federal Aviation Rule (FAR) involves at least a three-year process and perhaps thousands of labor-hours. To "harmonize" a rule requires review of all relevant existing and proposed ICAO and JAA regulations. This review and revision process can add another 3 months or so of work and hundreds of labor hours. This additional effort will cause a slippage in the due date of other rules and policy development, so our people resist it. It is, simply put, more work without an associated staff increase.

Second, there is the question of ownership. All FAA rulemaking division employees have worked and fought hard for each and every word in a regulation. Rulemaking is a very intense process that many people in FAA personalize. This personalizing process of rulemaking is similar to one's relationship with a child: you conceive an idea, you give it birth, you watch it mature, and then you send it out into the world. In the precarious world of harmonization, it is very possible that one's progeny could be hurt, altered, or destroyed. So our people resist it.

Finally, there is parochialism. The quickest way of describing parochialism is: Our rules are the best rules in the world, why change them? So our people resist any change. You have heard that in your country--or company--I am sure.

In order to try and reduce invisible reluctance, I reaffirmed FAA leadership's belief in global harmonization in a memorandum to all FAA rulemaking offices. The memorandum, dated May 6, requires that specific instructions be followed to best harmonize our regulations with those of the international community. Specifically, all our rules must now--before publication--be preceded by a specific review of revelant ICAO and JAA rules. If they cannot be harmonized by adopting existing regulatory language, an explanation as to precisely why our rule must be different will accompany the regulation. This will increase the visibility of international differences for all our rules projects. I call upon all civil aviation authorities and the JAA to adopt similar procedures to institutionalize the harmonization concept as part of their culture and to ensure that harmonization goals are met.

Since the rulemaking process is inherently similar in all Civil Air Authorities world-wide, I strongly suspect that my counterparts in other CAA's are experiencing similar examples of "invisible reluctance" to harmonization within their own organizations. By sharing our experiences, we can help each other overcome these difficulties.

BILATERAL AVIATION SAFETY AGREEMENTS.

Since 1928, the United States has relied on bilateral aircraft certification agreements to facilitate the mutual recognition of national certification of aeronautical products.

These bilateral agreements are not trade agreements, but technical agreements negotiated and signed at the foreign minister level. They provide a practical means of achieving recognition by an importing country of the exporting country's technical safety certification of its aviation products. The FAA has entered into bilateral aircraft certification agreements with some 27 countries.

In addition to bilateral initiatives with our traditional trading partners, we are actively discussing Bilateral agreements with Russia and Indonesia. Several other countries are awaiting our ability to apply resources to their request for Bilateral Agreements.

To make the harmonization process truly workable we are in the process of changing our approach to the format of these agreements. We are planning to seek concurrence of other involved agencies of the U.S. Government in order to change the current agreements to a broader based instrument called a "Bilateral Aviation Safety Agreement."

A Bilateral Aviation Safety Agreement would address, among other things, reciprocal acceptance of maintenance procedures and would be composed of two parts. The first part would be an umbrella agreement. This would be an enabling document that would constitute a formal government-to-government agreement negotiated and signed at the ministerial level, as is presently the case.

The second part of the document, the technical implementing annexes, would cover the detailed negotiation, implementation, and future revision of the technical specifics of these agreements.

Such implementing areas as aircraft certification, parts production, maintenance, aviation environment programs and aircraft simulator approval, would be negotiated at the level of the FAA Administrator and his counterpart in the signatory nation's Civil Aviation Authority.

This more flexible approach towards bilateral agreements should provide both countries the ability to react quickly to today's changing environment and address future technological innovations and market growth.

FAR 129 FOREIGN CARRIER ASSESSMENTS

Airlines, with their ability to cross vast distances quickly, are global in nature. In less than 12 hours flying time, anyone armed with a ticket can be half way around the world from his point of departure.

Supplying air transportation needs of this shrinking world has become a very big business. Since it is "big business," the majority of the world's sovereign nations operate or sanction the operation of airlines. The United States is a port-of-call for 475 international airlines from 90 countries.

Each of those 90 countries who serve as the 475 airlines "country of registry" is a signatory to the Convention on International Civil Aviation. They have agreed to an international framework of civil aviation regulatory standards.

However, these ICAO standards are not regulations which can be implemented on a global scale. Execution of the safety regulatory tasks are left to individual countries of registry.

So, unfortunately, there are a few countries that do not, or can not, fulfill their responsibilities to implement the ICAO standards. The safety of passengers is threatened, and the aviation playing field is tilted in favor of marginal airlines who avoid meeting ICAO standards.

To promote compliance with the ICAO standards, we are actively stepping up our surveillance of international carriers operating commercially into the U.S. If the FAA learns of conditions indicating that a foreign air carrier may not be conducting its operations safely in compliance with applicable laws, the FAA will take all measures necessary, consistent with domestic and international law, to prevent further flights of those aircraft in U.S. airspace.

Continued failures to correct unsafe conditions can lead to loss of the foreign air carrier's operating permit and FAA Part 129 operations specification.

In appropriate cases the FAA has and will continue to offer technical assistance to other nations in the interest of solving specific safety-related problems, consistent with resources available to us. We also actively encourage, as I mentioned earlier, regional cooperation. Many smaller nations can benefit from economies of scale by following the JAA model. We are eager to help establish such regional authorities any way we can.

SUMMARY

As you can see from my comments, the FAA is active in a number of international programs to foster the globalization of aviation. None of these activities is more important to us than the continuing process of harmonization. We will continue with that commitment, and seek your support.

Thank you

5TH INTERNATIONAL CONFERENCE ON
STRUCTURAL AIRWORTHINESS OF NEW AND AGING AIRCRAFT
CONGRESS CENTER HAMBURG, FEDERAL REPUBLIC OF GERMANY
JUNE 16, 1993
WELCOMING ADDRESS
PRESENTED BY
ANTHONY J. BRODERICK
ASSOCIATE ADMINISTRATOR FOR REGULATION AND CERTIFICATION

Ladies and gentlemen:

I am pleased to be here today to add my welcome to this conference. It has been just over five years since the Federal Aviation Administration (FAA) sponsored the first conference in this series, amid intense public, political and technical interest, and with very close media scrutiny. It is time to assess our accomplishments and fix our sights firmly on the work yet to be done:

- Have we done what we set out to do?
- Have we done what we promised the United States Congress and travelers would be done, to assure the continued operational safety of our aging fleets?
- Will our actions assure that needed changes actually take place?
- When will those needed changes finally be made?
- How will we treat newer designs, or future designs?

I hope that a primary outcome of this conference will be a re-dedication on the part of all concerned to complete this work. We should all return to our respective organizations or working groups with a commitment:

- To agree on what remains to be done.
- To take all necessary steps to complete that work.
- To vigorously support those decisions with appropriate action on the fleet.

BACKGROUND

This conference series was set in motion by an accident in Hawaii on April 28, 1988, which drew international attention to the problems of an aging fleet of large jet transports. The graphic images of that accident airplane testified to the reality of the problem of aging airplanes. In the United States, the Congress, the National Transportation Safety Board (NTSB), the news media

and many others questioned how the FAA and the air transportation industry were acting to maintain the structural integrity of our older airplanes. In response, a massive international effort was developed, thanks to many of you in this room, to address each element of the structural integrity issue. The resulting "Aging Aircraft Program" includes Large Jet Transports (60 passengers and over), Smaller Transports and Commuters (under 60 passengers), Engines, Maintenance Issues, and a National Aging Aircraft Research Program. This portion of my speech will be limited to the Large Jet Transports.

AGING AIRCRAFT PROGRAM

To maintain the structural integrity of our fleet of large jet transport airplanes, a government/industry task force decided very shortly after the first conference in this series, that certain additional, or improved, actions were needed. These were:

- Reduction in reliance on structural inspections.
- Agreement on objective standards for corrosion prevention and control.
- Assessment of existing repairs for damage tolerance.
- Development of corrected Supplemental Structural Inspection Programs.
- Development of maintenance guidelines tailored to older airplanes.
- Use of techniques for the prediction of widespread fatigue damage.

This last item was added later as a result of an NTSB Recommendation, and a resulting FAA proposal for full scale fatigue testing of older models.

It is important to note that, as originally proposed, five of these six items were to be implemented by rulemaking. The first four items were to be the subject of Airworthiness Directives (ADs), and the last, a Special Federal Aviation Regulation. This was how the actions were proposed, and promised, to Congress, NTSB and others.

ACCOMPLISHMENTS

Most of you in this room are well aware of the great strides the aviation community has made in addressing every aspect of the aging airplane program over the last five years. Each person here today, and the companies or organizations that they

represent, can take pride in the roles that they have played in creating workable solutions to the challenge that each task presented. This program is really your program, and is a tribute to what has been an unprecedented cooperative effort between government, manufacturers and operators. We hope that this program will form the basis for a new approach to airplane maintenance. An approach that not only provides increased safety to the flying public, but also makes good economic sense over the long term.

As a result of all this good work I have heard from some quarters that the aging airplane program is essentially complete. We have addressed the major problems that existed before the Hawaii accident. Therefore, we should now disband the advisory groups and close out our aging aircraft activities. Is this true? Have we finally realized our objective? If it were true it would certainly be good news, because the average age of the world fleet continues to increase, and the many cancellations of orders for new airplanes we have been hearing about will only accelerate that process.

WORK REMAINING

Unfortunately, what I see as I look at the status of the program today is some very good work, but an incomplete picture. Let me give you some examples:

1. Structural modifications are now being carried out on the 11 oldest models, yet no mechanism are in place to assure that the same criteria used here will be applied in the future. We must make sure that we do not slip back into reliance on inspections of critical structure that has a known tendency for fatigue cracking. That criteria needs to be continuously and uniformly applied to these older models as service history continues to accumulate, and it must also be applied to newer models and to future designs on a mandatory basis.

2. A new standard for the control and prevention of corrosion is being applied to the 11 oldest models by airworthiness directive, yet mechanisms are not in place to assure that this same coverage will be applied uniformly to the rest of the fleet. When the corrosion programs were first developed, they were widely hailed as the most significant improvement in airplane maintenance to come out of the aging airplane program. We must not go back to treating corrosion as simply an economic matter, with control left up to the discretion of individual maintenance programs. A mandate is needed to make corrosion control a positive part of each operators maintenance activity.

3. A method for assessing existing repairs for damage tolerance has been created, yet no mechanism is in place to assure that such assessment will actually take place, even on the oldest

transport airplanes. In the early 1980s, when we first attempted to apply damage tolerance concepts to the existing fleet, we did it by Advisory Circular, with voluntary compliance. Compliance was not achieved, and so AD action was instituted. While we do not see the Airworthiness Directive as the appropriate regulatory vehicle today, we do believe that some rulemaking action will be needed for repair assessment, just as it was for the basic structure.

4. A systematic method of predicting widespread fatigue damage has been developed, yet there is currently no mechanism in place to implement it on the 11 oldest models, much less on the remaining fleet of transport airplanes when they reach old age. In the absence of regulatory pressure, it appears that one or more manufacturers of some of the oldest airplanes will not comply with this method. It has already been demonstrated that airplanes cannot be operated safely with wide spread fatigue damage. What we need now is the resolve to apply the methods our working groups have so painstakingly developed. This work is essential to safety.

OTHER CONSIDERATIONS

I realize that many people have worked long and hard to get where we are now. A great deal of time and money has been spent, and after 5 years many of us are weary of the task. The financial position of the aviation industry is not as good as it was in 1988 when we set our goals for these tasks. The costs incurred in complying with safety directives are more burdensome now, and sometimes seem to be driven more by paperwork than by the actual safety related work on the fleet. The FAA recognizes that we have not had a recent accident attributed to aging airplane structure. We also appreciate the industry's excellent work in facing the maintenance issues involved, and in continuing to provide a high safety standard despite the increasing age of the fleet. Still, from a safety regulatory point of view there are strong reasons in favor of continuing the mandatory approach to this program as originally planned.

Mandated programs are the principal way FAA has of assuring that needed actions actually take place. This is particularly true in a time of economic distress when some organizations are faced with possible closure. Although we have been asked to mandate actions only applicable to those airlines posing the greatest threat, there is no way FAA can do this without a regulation that establishes enforceable safety standards.

Mandated programs establish evidence-of-progress which show the public, the NTSB, the Congress and other concerned parties that something is happening. Even if airlines do comply voluntarily, verification of this is hard to establish to the satisfaction of Congress, and the flying public.

Mandated programs can be picked up directly by all airworthiness authorities to assure a more or less uniform application of those standards, worldwide. By itself, this might not be sufficient justification for rulemaking. But as an additional consideration, it also supports regulatory action, especially in view of our international airworthiness obligations.

CONSEQUENCES

While recognizing all of the improvements that have been made in maintaining the airworthiness of aging airplanes since this program began, it must also be realized that there are unquestionably severe consequences of failing to complete the tasks as originally planned. Both the FAA and industry quite clearly publicized our plans for addressing each aging aircraft issue. We did so to Congress, the NTSB, the media, and anyone who attended our many conferences and workshops on the subject. The FAA continues to report on its progress on these tasks to both the Congress and the NTSB.

It is true that at the moment, we can also report on an outstanding safety record since the Hawaii accident. Even so, it seems almost inevitable that someone will try to blame a future accident, wholly or partially, on the age of the airplane involved. When that occurs, all parties will look back at what the FAA and industry promised to do. If the tasks remain incomplete, or compliance cannot be shown, there will be serious repercussions for the entire industry. Certainly our credibility will be impugned, and the air transportation industry could suffer another loss in revenue.

If an accident is found to be directly related to an unfulfilled objective, the consequences could be much more severe. Large transports could be subjected to fixed life limits and operator maintenance documentation burdens could become overwhelming.

REGULATORY ACTION

Having made it clear that the FAA still favors regulatory action in support of continued structural integrity, I would now like to balance that by pointing out that we are also opposed to unnecessary, excessive or poorly written regulations. We are not asking for regulation for its own sake. Our objective is the minimum regulation which meets the criteria previously stated, and which imposes the minimum burden. Those criteria, again, are as follows:

- There must be assurance that the work is actually being done on all affected airplanes, and done on schedule.

- Evidence of that work must be available to and

understandable by the public, as well as ourselves.

- The format of the documentation should be easily adopted by other airworthiness authorities.

In creating the documents, methods and other solutions to the aging aircraft problems, the men and women of the various task groups exhibited great skill, understanding and cooperation. I expect the same in recommending a final course of action for each task. The private sector should bring their point of view to the discussion and argue persuasively for it. The regulators will do the same. I only ask that you do not reject rulemaking out-of-hand, and withdraw support for necessary regulation. At the same time, the regulators will not reject alternate methods of achieving our purpose simply because they do not involve regulation. The purpose, again, is to get the job done in a clear, timely , institutionalized and demonstrable way.

FUTURE PLANS

As I said before, we have seen some excellent work on the individual pieces of the aging airplane task. We have nearly all of these pieces in hand, but we haven't assembled them into an overall coherent picture. Ultimately, that picture must include all airplanes, not just the ones that are old today. We must also include older designs which are still in production, newer designs, and those that will be certificated in the future. It is well to keep in mind that most of the airplane models that we call aging today, were not even type certificated in 1968 when the FAA first established the "Industry Advisory Committee on the Airworthiness of Pressurized, Older Aircraft". We have accomplished much to date. We must now apply that same skill and expertise to completing the picture. I want to assure you that the FAA is committed to a final, comprehensive, institutionalized solution to the problem of continued structural integrity. Our flying public expects and deserves no less.

CONCLUSION

We still face the danger of not following through on what we started. We need to produce the best possible combination of regulation and advisory material that achieves our purpose and that minimizes regulatory impact. If this necessitates completely re-inventing the way we regulate airplane maintenance then we need to seriously consider that. With the maturing of the Aging Airplane Program we are putting the final touches on a system for maintaining aircraft structural integrity for a long, safe operational life. It seems quite natural now to begin to address the full spectrum of airplane structural, corrosion, and maintenance issues. Your challenge will be to help us create such a comprehensive system.

STATEMENT OF THE ANTHONY J. BRODERICK, ASSOCIATE ADMINISTRATOR FOR REGULATION AND CERTIFICATION, FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION, SUBCOMMITTEE ON AVIATION, CONCERNING AIRCRAFT CERTIFICATION. OCTOBER 20, 1993.

Final

10/4

Mr. Chairman and Members of the Subcommittee:

I appreciate having the opportunity to appear before you today to discuss the FAA's aircraft certification process. Accompanying me is Mr. Tom McSweeney, Director of Aircraft Certification. I know the Subcommittee is interested in the potential effects of advanced technology on FAA's certification activities. Also, a recent GAO report has highlighted a number of issues associated with our certification practices that warrant public discussion.

FAA certification of aircraft and aircraft components is a fundamental part of FAA's safety mission. It is a key way in which we work with manufacturers to introduce new technology and aircraft types that can provide safe and oftentimes more efficient transportation for not only our Nation's air travelers but to passengers throughout the world. In fact, the impact of our certification efforts on the international environment should not be overlooked, since more than 70% of commercial transport aircraft certificated and built in the U.S. are exported.

The FAA's "stamp of approval" granted through our certification work is effectively a ticket to the world's markets. FAA's

certification process and standards have traditionally been and continue to be the world's model. Administrator Hinson has made it clear that he intends to see that the agency's international reputation is maintained and even enhanced during his tenure.

We have been fortunate in the U.S. aviation industry to have innovative and creative manufacturers who have continuously pressed for technology improvements in the planes we build--planes that fly faster, carry larger numbers of people, and are both more fuel efficient and less noisy. Most importantly, these evolving aircraft designs have been built with safety as the foremost criterion.

We must be particularly mindful that, in the exercise of our certification responsibilities in the FAA, we not impede or stifle the creative, technology-advancing ideas of our industry. We must work closely with these manufacturers as their designs become reality, but our certification personnel will not be leading the technology curve. Instead, as a practical matter, we have to bring ourselves up to speed with new concepts once the manufacturers have settled on their proposed design choices and approaches. The manufacturer's role focuses more on the "hows" of the design, while FAA focuses more on issues such as failure modes.

U.S. aviation is today an integrated part of a global system. Domestic aircraft manufacturers increasingly draw on manufacturing

facilities from throughout the world for components. This means that FAA must work closely with the international community on the internationalization of standards, as we have been. It also means that we have a heavier workload overseas than in the past. I see no diminishment in those efforts.

The sophistication of our transport aircraft has continued to evolve. The aircraft on today's drawing boards that will be carrying tomorrow's passengers will rely more on computers, and involve many complex software applications. Navigation and landing systems will be transformed by the availability of GPS satellite technology, a development in which this Subcommittee and I share great excitement. Engineers will continue to make advancements in non-metallic and metallic composite materials that will mean less weight penalties and greater fuel efficiency. We see continued progress in making less noisy and more reliable engines, although no significant noise reduction breakthroughs are on the near horizon. Planning is underway for the proposed development of a future generation high speed civil transport. FAA has been participating with NASA in discussions on this future aircraft, with a particular interest in environmental issues that may be associated with it.

All of these advancements bring challenges to us. But they are exciting opportunities for our Nation to continue to expand beyond today's aviation envelope, to make tomorrow's aviation system even safer and more efficient. The FAA, of course, has to dwell in the

here and now as well as prepare for the future. This means we must continue to devote significant efforts to today's certification work, along with assuring the continued airworthiness of an aging aircraft fleet, while making incremental preparations for tomorrow's advances. For example, we are now beginning to focus on potential certification issues with the high speed civil transport aircraft, and will be forming a team to work in concert with NASA on this program.

I would like to take a few moments to briefly highlight some of the issues that run through the GAO report, and provide you with my general observations. The GAO expresses concern that "designated" personnel working for industry have increased dramatically while the FAA's certification workforce has grown at a lesser pace. GAO also indicates concern that FAA does not have a formal mechanism as to when FAA should reserve a particular certification function to itself rather than relying on a designee. They also are concerned about the training received by FAA certification personnel.

The use of designees by the FAA has been a longstanding practice. This system is used in many areas besides aircraft certification, pilot examining being one with which many are familiar. It is a sound approach to providing needed services to the aviation community in a timely way, by enabling the FAA to leverage its staffing many times over. This is particularly true in a time of

constrained Federal resources. That picture will not change in the forseeable future.

Fundamentally, the designee system works well and is a necessary and appropriate element of FAA's programs. Eliminating this system would require the addition of thousands of inspectors to FAA's workforce, at the taxpayer's expense, which is unrealistic in today's tight budget environment. The appropriate level of FAA's certification staff is a separate question. As with all staffing levels, the certification staff will be reviewed as we formulate the 1995 budget. I can assure you the Administration will not hesitate to recommend an increase in staffing if one is needed.

With respect to the adequacy of our technical training for our certification personnel, we have taken a number of steps over the past two years to develop a more comprehensive certification training program. In fact, the first 10 courses are nearly developed, covering general topics such as certification standards as well as discrete technical areas such as lightning protection for aircraft. As I indicated earlier, though, I do not believe it practicable for FAA to undertake training in advancing technology before the time that technology is settled on for use in a new aircraft design. Also, technical training is not the entire training issue, since we are calling upon our certification personnel more to manage systems in which designees play a key role. Management skills are important in overseeing these processes, and should not be deemphasized.

I have reservations about prescribing specific standards for FAA hands-on involvement at defined points of the certification process. In my experience, every major certification program is different. A mechanical formula does not account for those differences. Instead, my view is that FAA must manage the overall certification program in a way that recognizes the competence level of a manufacturer, and assures the quality of the designees, spotchecking of designee performance, direct involvement of FAA personnel in a particular certification when our professional judgment says they are most valuable, and use of our certification experts in a way that leverages their talents within our workforce.

Aircraft certification is a strong interest of the Administrator's. Maintaining our Nation's reputation as the foremost airworthiness authority in the world is critical to him, and he will be closely involved with this process, and will be continuing to work to improve the efficiency and effectiveness of our work in this important area. The safety of the American traveling public as well as our economic vitality depend on an FAA certification process that is second to none. I can assure you that we in the FAA recognize the vital nature of our work in this area and will strive for continued improvement.

That completes my prepared statement. I would be pleased to respond to questions you may have at this time.

STATEMENT OF ANTHONY J. BRODERICK, ASSOCIATE ADMINISTRATOR FOR REGULATION AND CERTIFICATION, FEDERAL AVIATION ADMINISTRATION, BEFORE THE HOUSE COMMITTEE ON PUBLIC WORKS AND TRANSPORTATION, SUBCOMMITTEE ON AVIATION, CONCERNING THE FY 1995 FAA OPERATIONS BUDGET AND ASSOCIATED STAFFING. MARCH 9, 1994.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before the Subcommittee today to discuss the FAA's Operations budget and associated staffing plans for FY 1995. With me today are William H. Pollard, Associate Administrator for Air Traffic, Joaquin Archilla, Acting Associate Administrator for Airway Facilities, and Ruth A. Leverenz, Director of the Office of Budget.

As you know, the budget agreement enacted last summer essentially freezes domestic spending for the entire Federal government. In general, this means that spending increases on priority programs are balanced by decreases in unnecessary spending on low priority programs. For example, the Vice President's National Performance Review highlighted how the Federal government can be streamlined and made more efficient in its current operations to allow for necessary spending increases. The proposed FAA Operations budget for FY 95 reflects this overall fiscal constraint. The requested Operations funding level of $4,580,900,000 is slightly above the enacted 1994 level. A part of the Administration's effort to make the government more efficient is the proposal to reduce Federal employment by 252,000 positions by FY 99.

The FY 95 funding and staffing level will require FAA management to continue its efforts to operate in a more business-like manner. It requires us to rethink the traditional ways we have operated in the past and to achieve new efficiencies. And, of course, we will continue the high level of safety services we provide to the aviation community and the traveling public. Our plans for FY 95, as I will describe, will result in no reduction in those safety services.

Today's focus is on our proposed safety workforce staffing levels for FY 95. Before addressing the specifics of those staffing levels for FY 95, let me first discuss the 1995 staffing targets that we plan to achieve.

At the end of FY 93, the FAA's workforce totalled 53,148 full time equivalents (FTE). By 1995, the FAA will streamline its workforce, resulting in a reduction of 2,015 FTE. To achieve that result, we have instituted a hard freeze on hiring throughout the agency except for safety-related workforces. Also, we have obtained authority from the Office of Personnel Management to offer early-out retirements, but need very much the buy-out authority sought by the Administration to help us meet our necessary staffing targets. Regarding staffing in 1996-1999, FAA's staffing will be reevaluated annually within the target provided to the Secretary for the Department as a whole.

Our approach to achieving staffing reductions within the agency has been to target non-safety workforces. As proposed by the NPR, most of our reductions will come from positions made unnecessary through changes underway in how the Federal government will operate in the future.

As I noted earlier, our primary consideration in meeting our targetted budget and staffing levels has been on achieving our safety mission. For that reason, in our FY 95 Operations budget request, we are asking for an additional 305 in employment--or an increase of over 7%--in our aircraft certification and aviation safety inspection workforce. This increase is intended to help us meet growing international obligations and an increasing aircraft manufacturing workload. We will maintain our security workforce level of 812 in FY 95.

We are seeking a slight reduction in our request for air traffic controllers, from 17,523 in FY 94 to 17,300 in FY 95. This adjustment in controller staffing results from our contract tower program. We plan to contract out approximately 25 Level I VFR towers in FY 95, consistent with NPR recommendations. The change in FY 95 air traffic control staffing does not reflect an actual reduction in air traffic control service in the system, but the reduction in total staffing needed by the FAA. We have worked with the controllers' union, NATCA, on this program to identify candidate towers for the program.

In FY 95, the contract tower program will free up approximately 250 controllers for reassignment to other facilities. This will assist us in balancing controller staffing in the system. Furthermore, it will give controllers an opportunity to advance into higher level towers. Reassignment of Level I controllers will be our primary method of replacing attrition in the controller workforce, and will limit the need to hire additional controllers.

The FY 95 Operations budget also shows a slight reduction in the overall field maintenance workforce to 8,200 from 8,406 in FY 94. It is important to stress, however, that the reductions will not affect the number of maintenance technicians in the workforce. We plan to continue the same number of maintenance technicians as before. We will be able to achieve this reduction in staffing, without compromising our ability to maintain FAA facilities and equipment, because of an effort we began several years ago to change our approach to field maintenance.

In 1991, our Airway Facilities organization began a major strategic planning effort, in partnership with PASS, the technician's union. Our goal was to restructure and consolidate the organization, and to prepare for the transition from a ground-based infrastructure to a hybrid system composed of both space- and ground-based components.

Incorporating the Administration's goals into this strategic plan, we began to identify ways to reorganize and consolidate functions without lessening our ability to perform our maintenance functions. As a result of this planning, the reductions in our field maintenance workforce will come from administrative support and management positions. None of the reductions will come from the safety-related positions that actually perform field maintenance.

For FY 95, we are currently ahead of schedule in meeting the targetted reduction of Federal employment. At the end of FY 95, agency staffing will be a full 6% below the FY 1993 level. This represents a reduction of 3,079 FTE since 1993.

Restructuring efforts, such as the one underway in our Airway Facilities organization, have shown us that there are ways in which we can continue to provide key safety-related services at less cost. That will be the focus of our efforts during the remainder of this fiscal year, and during FY 95, as well. I can assure you that safety will remain our foremost consideration as we adapt to the challenge of the increased effort to achieve fiscal restraint throughout the Federal sector.

That concludes my prepared statement, Mr. Chairman. We will pleased to answer any questions you may have at this time.

DRAFT

FOR IMMEDIATE RELEASE
Tuesday, March 8, 1994

DOT
Contact: Lawrence H. Weintrob
Tel.: (202) 366-1992

DOT INSPECTOR GENERAL ANNOUNCES
RELEASE OF TWO FAA AUDIT REPORTS

Inspector General A. Mary Schiavo of the U.S. Department of Transportation today announced the release of two audit reports on the Federal Aviation Administration's (FAA) Certification and Surveillance of Domestic and Foreign Repair Stations and FAA's Parts Manufacturer Approval Process. The Office of Inspector General (OIG) said both audits have significant findings concerning suspected unapproved aircraft parts.

The OIG, after auditing both domestic and foreign repair stations, concluded that FAA approved repair stations performed repairs for U.S. registered aircraft using aircraft parts of unknown design, quality and origin, and may not have been in compliance with federal maintenance regulations.

The OIG also determined that FAA approved repair stations were using outdated repair manuals, substitute parts not approved by manufacturers and parts repaired by subcontractors not approved by the FAA. Of the aircraft parts sampled at repair stations reviewed by the OIG auditors, 43 percent of all newly purchased parts and 95 percent of parts purchased from distributors or brokers did not have reasonable evidence of being approved parts and were suspected of being unapproved parts.

As a result, aircraft owners and operators do not have reasonable assurance that the aircraft maintenance and repair work conforms with FAA aircraft airworthiness certificate requirements to ensure safe operation.

- more -

The OIG's survey report on the Parts Manufacturer Approval (PMA) process identified a systemic problem of manufacturers producing and selling replacement aircraft parts outside the FAA criteria. The OIG determined that inventories of aircraft parts were contaminated with parts of unknown origin and unknown quality. The report also identifies problems with scrap parts contaminating the parts supplies.

FAA's listing of approved parts manufacturers also was incomplete and inaccurate, making it difficult or impossible for purchasers to conclusively distinguish between approved and unapproved parts. The OIG also found the list to be inaccurate for 75 percent of the parts tested and suggests that the FAA develop a better way to provide comprehensive information on PMAs to the public.

These audits are the seventh and eighth in a series of OIG reports examining FAA's oversight of aviation maintenance and enforcement of requirements prohibiting the use of unapproved parts on aircraft. The other OIG audits include a report on FAA's Surveillance of Foreign Manufactured Aircraft Parts, an audit of the FAA's own aircraft parts inventory, helicopter inspection and the presence of bogus parts, and a review of the FAA oversight of designated mechanics examiners.

The OIG will soon release a study of the FAA's ability to respond quickly to reported aircraft maintenance and design problems. To date, Inspector General criminal investigations concerning bogus parts in aviation have resulted in 83 indictments -- 31 since the beginning of FY 1994 (Oct. 1, 1993) -- 40 convictions, 29 years of imprisonment and $24 million in fines and restitutions. OIG investigations concerning over 100 additional bogus parts cases are ongoing.

# # # # #

Remarks Prepared for
Anthony Broderick
Associate Administrator for
Regulation and Certification
Sun 'N Fun - Lakeland, Fla.
April 11, 1994

Introduction:

After hearing so many negatives comments on the state of general aviation, it's reassuring to come here and see so much positive activity.

FAA/Industry Partnership:

If there is an upside to the current state of affairs in general aviation, it's that the various elements of the general aviation community have had to work closer together than ever before in order to push their programs and achieve their common goals.

There's also been a change in the relationship between government and the various general aviation interests. We've learned that an adversary relationship is a counter productive and wasteful enterprise. We prefer something of a partnership arrangement.

Does that mean FAA won't come and get you if you flout the rules? Well, don't bet on it.

But it does mean we now can pursue a broader range of alternatives. From FAA's point of view, we would much rather achieve voluntary compliance than hammer you with an enforcement action. It's just easier and -- in the long run -- more effective.

To a great extent we've formalized this FAA-industry partnership in the General Aviation Action Plan. And I want to emphasize that the plan is not something we drafted and you signed. It truly represents a joint effort.

Moreover, this process is on-going and a new, revised version of the plan was issued just last month.

General Aviation Action Plan:

Essentially, the plan has five fundamental objectives, which can be summarized as follows:

- One is safety. We must continue our efforts to make a good record even better.

. Two is cost. We've got to make flying more affordable or all those dire predictions about the future of general aviation actually will come to pass.

. Three is improved technology. We need to bring General Aviation into the 20th Century and prepare it for the 21st. Among the priorities are the development of advanced fuel, engine and cockpit technologies.

. Four is access. You've heard the phrase, "All dressed up and no place to go." We can't let that happen to General Aviation. We will work to protect your right to fair and equal access to the nation's airways and airports.

. Number five is service. We will continue to search for new an innovative ways to make low-cost, user-friendly services readily available to General Aviation operators.

These are ambitious goals. Some might even say a bit Utopian. But -- with your help -- they are attainable.

As I said, this is a joint undertaking. It's fully supported by eleven general aviation organizations that have banded together in the General Aviation Action Plan Coalition to work with FAA in this effort.

General Aviation Safety:

Regarding safety, I think we're all encouraged by the continued improvement in the general aviation accident record. But the nature of the safety issue is such that you can never be satisfied.

For example, the general aviation fatal accident rate per 100,000 aircraft hours hasn't improved in the last five years after a period of steady decline. In fact, it was up a bit in 1992-1993 period. So this is an area where we would do well to target.

Also, sometimes late at night, I worry about figures that show that the average piston-engine airplane in the General Aviation fleet now is 28 years old and one-fourth of these aircraft are more than 33 years old.

I wonder how many people can find their aircraft maintenance manuals.

On the positive side, I'm very encouraged by the continuing increase in the number of instrument-rate pilots since VFR flight into IMC conditions remains a leading cause of fatal accidents.

That number has gone up in each of the last nine years. As a result, almost 45 percent of all active pilots now have an instrument rating. In 1984, that figure was 35 percent.

Reducing the Cost of Flying:

Turning to the matter of cost, we can point to a number of encouraging developments that promise more affordable airplanes.

One was the repeal of the luxury tax on new airplanes as a result of last year's Federal budget agreement. That's 10 percent off the top. Proves that the government occasionally does correct its mistakes.

Another good sign is the increasing popularity of airplane kits. More than 2,000 kits were sold by 14 major kit manufacturers in 1992, the last year for which we have statistics. That's three-to-four times the number of new single-engine airplanes produced by the general aviation aircraft manufacturers in this country.

FAA also certificated the first aircraft under the new primary aircraft rule in 1993 -- the Quicksilver 500. Certification of several additional aircraft is pending.

In another precedent-setter, FAA approved the Damona Katana under a new procedure which allows the certification of small, low-performance, personal-use airplanes based on European design criteria.

Additionally, after several years of working the problem in partnership with industry, FAA and the European Joint Airworthiness Authority are about ready to issue harmonized rules for small aircraft. That will greatly simplify the certification process for manufacturers and permit them to pass the savings along to you.

Advanced Technology:

Government has been trying to pick up some of the slack caused by lack of industry resources. FAA and NASA recently agreed to combine technical resources and increase investments in research and development for general aviation -- such things as reducing engine noise and emissions, improving aircraft cockpit systems and enhancing aerodynamic design.

Additionally, FAA currently is building a fuels research center at our Atlantic City facility to assist in the search for alternative sources of low cost, clean fuels.

But, in the end, there really is no substitute for a healthy general aviation manufacturing industry doing what it does best: Building superior airplanes. That has to be our ultimate goal.

Satellite-Based Navigation:

Of course, the most exciting technological advance in aviation has to be the development of the Global Positioning System.

I know I don't have to sell you on the concept because general aviation is going to be the first to benefit from GPS. But let give you a quick update on where we stand with the program.

The Department of Defense now has 24 satellites in orbit, although there are several older units that need replacement. That was accomplished last May and the system achieved Initial Operating Capability in December 1993.

Also FAA is moving ahead quickly with equipment certification. In February, we approved two GPS receivers for en route and terminal navigation and non-precision approaches. GPS now is an integral part of the National Airspace System, with eight manufacturers now providing various kinds of receivers, from the glass cockpit airline version to the stand-alone version in a box.

In addition, the agency is pushing ahead with the implementation of the ground-based GPS Wide Area Augmentation System. It will monitor the integrity of the satellite system and alert pilots when the signals can not used for navigation by late 1996, if we meet our present, very ambitious schedule.

Also, when we get DOD approval, it also will be used to provide the GPS signal accuracy corrections needed for precision approaches.

So GPS has tremendous potential both for improving operational safety and reducing the cost of flying. Eventually, I expect it will obviate the vast array of air navigation aids now in place.

Enhanced Services:

Improving services to pilots and other aviation ratings is another major goal of the General Aviation Action Plan. With this in mind, the agency is bringing two new computer systems on line to speed the processing of your test results and applications for FAA certificates.

One involves the replacement of written airmen tests with a more efficient computerized testing procedure. The result is that the test takers get a quick turnaround on their examination results and the opportunities for administrative errors are greatly reduced.

When everyone was taking written exams, FAA had to process over 15,000 test sheets a month -- that's close to 200,000 a year. And fully a third of these had to be returned because of administrative errors, a costly and time consuming procedure.

Accordingly, we expect to save you the taxpayers about $2 million a year once computerized testing is fully implemented. We already have close to 400 computerized test sites in operation across the country.

The second new computerized system is the Airman Certification and Rating Application, or ACRA, which we developed in partnership with various industry organizations. It provides on-the-spot electronic transmission of accurate certification data on a range of requests.

These include temporary certificates ... student pilot certificates...written, practical and oral test authorizations.. letters of competency... and letters of authorization.

With ACRA, applicants will receive a certificate in approximately four days, as opposed to the current 180 days.

So, it's not all gloom and doom, by any means. There are encouraging signs of growth and progress, of working together in partnerships, instead of against each other. And, while no one is willing to bet the farm that we're out of the woods as far as the overall health of the industry goes, there are encouraging signs there as well.

Finally, let me tell you much I appreciated the opportunity to be with you today. Maybe I won't be so appreciative after I open this up for questions, but let me stop right here and do that anyway....