

**STATEMENT OF  
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**BEFORE THE  
WHITE HOUSE COMMISSION ON AVIATION SAFETY AND SECURITY  
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Mr. Vice President and commission members, I am John O'Brien, Director of the Engineering and Air Safety Department of the Air Line Pilots Association. ALPA represents the interest of 44,000 professional pilots who fly for 37 airlines. We appreciate the opportunity to appear before you today and share with you the line pilot's views of our national airspace system and its need for modernization.

I believe that most of the aviation community would agree that our existing air traffic control system has been in a state of insidious deterioration. This condition has been primarily caused by:

- The failure of past major procurement programs caused by poor management that has resulted in an almost negligible input of new or replacement equipment at the operating positions in the nations ATC facilities.
- Maintenance and upgrading of key support systems such as radios, radar, and other such components has been deferred. The number of equipment outages and power failures over the past few years speak for themselves on this issue.
- Unstable funding support. Past funding for FAA programs has not been adequate. While we understand the need to debate various funding mechanism, the fact is that FAA has had to resort to basically a "maintenance" budget rather than one which allowed adequate RE&D and the continuous replacement and upgrading of system components because a stable and adequate revenue stream has not been provided.
- Flawed personnel policies. The agency has fewer controllers now in its work force than it had some years ago, and the training pipeline was virtually at a stand-still. This in spite of the fact that air traffic has increased at many locations. Of equal importance is the serious problem involving the Airway Facility workforce. Skilled technicians responsible for the maintenance and upkeep of vital navigation aids, radios, and radars were subject to attrition, buy-outs and other such initiatives that resulted in a deliberate downsizing of their work force. While such a policy may have been appropriate if new solid-state, low maintenance components were in place and on-line, such was not the case and we now have to live with outages and system deficiencies because of the poor personnel planning.

From the line pilots' perspective, these shortfalls have produced a system which is stretched to its limits. This is due to the continued growth of traffic that competes for access to a system which can no longer support increased demands. Instead, pilots have been faced with innovative proposals to increase system capacity, approaches which do not always maintain adequate safety

standards. These proposals include continued attempts to reduce separation standards and the increased use of visual separation to name a few. The bottom line is that when questionable procedures are implemented, they place an undue burden on flight crews by expecting them to compensate for years of system neglect.

Having pointed the finger of blame for the existing state of our ATC system at the federal government, it is only fair to admit that the many factions that make up the aviation community have contributed to the problem as well. Obvious parochialism and efforts to obtain self-serving programs has often created a dilemma within both the FAA and congress as to what is the best course of action. I am sure some needed programs have been deferred because of conflicting influence directed toward government agencies. So, we all share some of the guilt for the problem.

While I have painted a rather negative picture of our national airspace system, I do want to acknowledge that the ATC personnel that make our system work today deserve some recognition and that some positive actions have been taken and more appear on the horizon. The key to success of these initiatives is, however, sustaining them and not reverting to the past ways of doing business. Let me quickly review some of the recent activities.

First, on April 1<sup>st</sup>, new personnel and procurement policies went into effect for the FAA. Both of these changes are important milestones in revitalizing our system and the industry owes the administration and congress a vote of thanks for implementing them. The personnel reforms will allow the FAA to satisfy staffing requirements in the high density facilities that are traditionally hard to staff. It should also jump start a stagnant training pipeline. In the procurement area, the ability to obtain off-the-shelf items will not only reduce the time it has taken for new equipment to become operational, but will virtually eliminate some developmental costs. Implementation of the Integrated Product Team concept at FAA should also help promote a more business like environment.

As for the aviation community, there's also good news in that arena - and it is called "Free Flight." While I am sure that most of you are aware of this concept, let me briefly review some key points of it. First however, I want to assure you that no one believes Free Flight in its mature form, will happen in the near future. Instead it's an orderly transition from today's state of the system, to one that will permit maximum operational efficiency without any degradation of safety. This transition will be the result of implementing many of the near and mid-term projects and programs now in the developmental process. So there are checks and balances as the concept progresses. In a rare show of consensus, the aviation community agreed that the most compelling reason for creating Free Flight came from the growing necessity to renovate our nations ATC system. This initiative began in 1992, with an RTCA central process to turn Free Flight concepts into operational goals. The idea grew from a government and industry dialogue concerning how to drive the concept. This dialogue also fostered a growing relationship that developed into a unique public/private partnership. This body included leadership from the FAA, DOD, NASA, the airlines, general aviation, pilot groups, air traffic controllers, and the aerospace industry. The community acknowledged that ATC equipment, management of the traffic flow, air traffic separation services, and system safety enhancements were all falling further behind the curve of rapidly developing technology and traffic growth.

An example of this problem is the burgeoning increase in air traffic. The FAA forecasts that U.S. airline traffic will continue to increase from 38.3 million operations in 1994 to 44.1 million by

2000. Furthermore, the agency reasons that as traffic grows, the ATC system and system personnel will have to become more productive than in the past. Still, such increases are impossible without an upgrade of communications, navigation and surveillance (CNS) equipment, and a decision support system (DSS) or other tools such as experience and training which controllers can use to help effectively manage the air traffic system safely.

To support the agency's position, you should be aware that the capabilities of the new generation aircraft far exceed that of the current ATC system. These aircraft are capable of precise navigation, using data link communications and operating on an optimum flight profile. Yet the companies cannot maximize the return on their investment in this equipment because the ground support system is not in place. For example, FAA efforts to reduce separation standards in the Pacific Ocean airspace have been opposed by the pilot community because while the aircraft have the navigation capability contained in CNS equations, neither an adequate communications nor surveillance capability exists in the groundside environment. If separation was reduced as proposed, pilots would have to conduct emergency deviations around severe weather areas at their own risk, because the ATC system can only provide traffic advisories, not the positive separation needed in such airspace.

It is obvious "Free Flight" will require advanced levels of ATC automation, sophisticated aircraft tracking, conflict alert/resolution capabilities, a cockpit display of air traffic information, and enhanced data collection and dissemination systems, all of which are in some stage of development. The requirements for these technologies is contained in the RTCA Task Force 3 Report on Free Flight in the form of forty-six recommendations. This report is complimented to some degree by an FAA National Airspace System Architecture document that is a blueprint for the modernization of the entire air traffic management system. While this blueprint is intended to guide future investment decisions of both the FAA and user community, unfortunately it was developed on what budget projections are anticipated to be, and what the stated operational requirements are.

While the institutional reinvention of the FAA thru personnel and procurement reforms, new technology developments, and industry support of the Free Flight are all reasons for optimism in the rebuilding of our ATC system, we still must continue to search for additional ways to judiciously use limited funding while at the same time, trying to expedite system improvements. One concept to consider in achieving this goal may be to increase the contracting and leasing of some equipment and facilities. An example of the effectiveness of this process is the FAA Systems Command Center in Herndon. The state-of-the-art facility is a leased turn-key operation that was delivered on time and on budget. If we expanded this type of concept, we could have a stream of new equipment rotating into our facilities, and perhaps, even work in buildings whose maintenance and modernization is the responsibility of the owner, not the FAA. We should not close our minds to such an idea!

ALPA members are those directly affected by the state of our ATC system. They immediately recognize a shortage of controllers in a busy facility, are required to fend for themselves during ground equipment and power failures, and are frequently asked to comply with procedures they believe push the envelope of safety or are not justified. In addition to being subjected to these problems, pilots are reminded that Federal Air Regulations assign the final responsibility for the safe operation of an aircraft to the pilot-in-command. To insure they have the tools needed to

fulfill that responsibility, ALPA has been actively involved in many ongoing modernization initiatives within the industry, including the development of the Free Flight concept.

As a result of our participation in this process, we firmly believe that the key to the modernization effort is funding. If we are to achieve a systematic upgrading of our ATC infrastructure the administration and congress must provide resources needed to enhance today's system so that it can accommodate the increasing growth in traffic and allow the industry to continue its direction toward full Free Flight implementation. Without adequate funding, even the personnel and procurement reforms will be of minimum value.

While the focus of this hearing is on modernizing our ATC system, we must not forget its companion in capacity enhancement, the airport. As past-FAA Administrator Hinson has noted, the biggest potential obstacle for accommodating the future capacity requirements of the aviation industry is inadequate airport infrastructure. Twenty-three airports currently experience 20,000 hours of annual delay; FAA projects that number to increase to 32 airports by the year 2003 unless needed capacity improvements are made. The FAA's Aviation Capacity Enhancement Plan contains the specific projects at individual airports which are needed to be promptly funded and implemented if the ATC system is to avoid needless bottlenecks. Due to budgetary pressures, the prospects for an ongoing Airport Improvement Program, as we have known it, look quite bleak. A new system of collecting revenues for these projects should be developed now to enable airports to sponsor their own projects without reliance on the unpredictable political process for such funding.

In summary, ALPA believes we have no choice in deciding whether or not to update our ATC infrastructure. If we are to maintain the same standard of safety we have enjoyed to-date, and still meet the increasing demand for air transportation, the system must be modernized. This can be done in a systematic manner while still focusing on the end goal of a mature Free Flight system. The ability to do this however will depend on the funding commitment the government is willing to make. Thank you for the opportunity to appear here today, and I would be happy to answer any questions you may have.

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