



STATEMENT OF THE HONORABLE DAVID R. HINSON, FEDERAL AVIATION ADMINISTRATOR, BEFORE THE SENATE COMMITTEE ON GOVERNMENTAL AFFAIRS, SUBCOMMITTEE ON OVERSIGHT OF GOVERNMENT MANAGEMENT AND THE DISTRICT OF COLUMBIA, CONCERNING THE FEDERAL AVIATION ADMINISTRATION'S AVIATION SAFETY INSPECTOR PROGRAM. APRIL 30, 1996.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before you today to discuss the FAA's aviation safety inspector program. With me today are Mr. Tony Broderick, Associate Administrator for Regulation and Certification, and Mr. Thomas Accardi, Director of Flight Standards.

FAA has traditionally viewed the surveillance of the aviation industry conducted by our aviation safety inspectors as a vital means of assuring that our safety standards and requirements are being met and of developing information about potential safety problems before they result in tragedy. Our aviation safety inspectors are the foundation of our certification and surveillance system, and on a day-to-day basis do an outstanding job of overseeing industry activities throughout the country and, indeed, the world. Our surveillance programs, as well as our underlying regulatory standards, serve as the world's aviation safety model. In fact, *Flight International Magazine* recently selected the FAA's foreign air carrier safety program to receive special honors for its contribution to air safety. The International Civil Aviation Organization is also exploring the adoption of a program such as ours to assess and upgrade aviation safety throughout the world.



Starting in the mid-1980's, the FAA undertook a top-to-bottom reevaluation of its surveillance program, leading to substantial changes in direction. One of the problems highlighted at that time was the failure of inspector staffing to keep pace with the increased demands that had been placed on our workforce by industry growth and change. As a result, between 1983 and 1995, inspector staffing nearly doubled, and, in view of continued needs, we are requesting an additional 154 Flight Standards aviation safety inspectors in our FY 97 budget request. Early on, the agency recognized that recruiting, training, equipping, and effectively managing and using a significantly expanded workforce required a tremendous amount of planning and effort. The result was a completely revamped inspection program, which continues to be built on today.

Changes were made so that the program was managed at the national level with much more clearly defined objectives and goals. Nearly 2,000 pages of detailed instructional guidance material were developed and made available to all inspectors. For the first time, national program guidelines (NPG) were developed to provide central direction and define the numbers and types of inspections to be conducted throughout the world. Regional offices and field offices supplement these nationally programmed inspections with their own planned discretionary inspections based upon local knowledge and situations. This has provided for a more consistent and balanced approach to inspection activities.

In addition, FAA began conducting in-depth, independent safety reviews of certificate holders with teams of inspectors from outside the normal inspecting office. These reviews help provide balance to the oversight program, and offer a very detailed look at a particular operator's programs. These comprehensive inspections are called NASIPs and RASIPs--shorthand for national or regional aviation safety inspection programs. They are triggered when indicators such as inspection results, enforcement records, accident/incident reports, financial conditions, rapid expansion or mergers, or other factors warrant. They also provide a basis at the policy level to designate certain areas of industry for a detailed review in a particular year. For example, last year all 138 air carriers operating aircraft in scheduled service with 10 or more passenger seats received a special review.

Another fundamental change in approach was to move away from a paper-oriented system and to modernize the way we collected, compiled, and disseminated safety-related information developed during the several hundred thousand inspections we conduct each year. To meet this need, FAA developed more sophisticated automation tools, such as the Work Program Management System (WPMS) in the mid to late 1980's and its successor the Program Tracking and Reporting Subsystem (PTRS). The PTRS system has continued to improve since its introduction, and it enables us to assign inspection activities, derived from aviation environmental data bases, to field offices and inspectors. In addition, it provides our inspector workforce and management with information on certification, inspections, and other work activities completed by our field offices.

It is important to recognize the magnitude of the aviation industry and the corresponding amount of data we develop in monitoring that industry. Our safety inspectors conduct more than 365,000 surveillance activities each year. A large airline may be inspected several times a day by inspectors in diverse parts of the country, and the nature of those inspections will differ. A tremendous amount of data is developed from inspections nationwide throughout each year. Inspectors need rapid analytical tools to access that information to develop data to target their surveillance activities toward areas presenting potential safety risk. Management also has a need for that type of information in order to direct limited resources where and when they are most needed and to assure that potential adverse safety trends are addressed. To help meet this need, we have been working to develop the Safety Performance Analysis System, called SPAS. SPAS is a computer based software system that provides current and historical analysis capabilities. It will provide us with virtually real-time, graphical and tabular summaries to help us continuously reprioritize our surveillance efforts to areas that may present a safety risk. No other aviation safety agency in the world either develops the extent of data that we do, nor has developed a system with anything like the capabilities and sophistication of SPAS. Many of our counterparts throughout the world have expressed an avid interest in working with us and ultimately sharing data for integration as the system evolves.

We expect that SPAS will acquire and analyze data from more than 20 FAA and non-FAA data bases, automatically flagging potential problems to us for our review and

analysis. Using carefully developed performance measures, SPAS is able to rapidly track performance of air carriers and air agencies, providing comparisons in various areas of performance against related industry norms, thereby bringing critical information directly to an inspector's attention for further review and action. SPAS is able to deliver in a matter of minutes information that used to take weeks or months to develop if it was ever produced. Thus, SPAS will not only increase inspector productivity, but will permit a much greater perspective and understanding of the aviation industry and what inspection and related data is telling us.

In July 1995, SPAS software entered the operation test phase using the functionality of Microsoft's Windows '95 program. It was installed for 180 Flight Standards users who are participating in the operational test. Tests will continue until 1997 when we plan to begin installation of a revised version of the system based upon inspector feedback from the test.

Another significant improvement that will begin formal field-testing next month is the On-Line Aviation Safety Inspection System (OASIS). OASIS is a suite of productivity tools hosted on a laptop computer that can be carried into the field by an inspector. The system has the capability to instantly provide on-line reference to thousands of pages of inspector reference documents all linked through hyper-text links. Documents such as the Federal Aviation Regulations, Advisory Circulars and inspector handbooks as well as specific safety airworthiness directives are all easily accessible, providing the latest safety

information appropriate to a given inspection, contributing to improved inspection quality and standardization. The system also includes all of the forms required to complete any inspection activity and the "intelligent forms" ensure that the proper data is gathered for the inspection being conducted while assuring that accurate data is entered in the inspector's report.

Our safety inspectors have played an integral role in the development of both OASIS and SPAS. The performance measures used by SPAS were developed with substantial input from the inspector community, who served as the principal members of the expert panel working groups. Through their contributions, SPAS is continuously being refined as it is developed in order to best serve the needs of our inspector workforce and an effective surveillance program. OASIS was designed by our safety inspectors as well as the FAA's Office of Aviation Medicine. There has been and will continue to be extensive use of human factors analysis throughout the development of OASIS in order to maximize the system's usefulness to our inspectors.

As we have developed our automated systems we are continuing to improve overall system quality, which involves both product and process. Early in the development of the SPAS system we utilized our Technical Center in Atlantic City to develop data quality measurement tools to diagnose and improve the data consistency in the PTRS system. Critical SPAS data elements were evaluated and determinations were made about data quality requirements on an item-by-item basis depending on the application of



the information. Overall consistency was determined to be at 85%, which was adequate for data pertaining to large air carriers. In June 1994, we contracted with Sandia National Laboratories to conduct independent Verification and Validation and Analysis activities as we continued to develop our SPAS system. They continue to support our approach of parallel development of information systems and modifications to the underlying databases. The continued use of data provides immediate feedback on its overall quality and promotes its continued improvement. We are also very proud of the initiative taken by some of our field inspectors to improve data quality. One particular inspector spent his own personal time developing a data quality improvement tool for use within the Flight Standards District Office. The system checks the main data base using a system of queries and routines to determine if all required fields have been completed prior to sending any data to the national system. The use of this system results in measurable data quality improvements and is being tested in 19 district offices. Finally, we concurred with the GAO recommendation on the need to develop a comprehensive and coordinated strategy to deal with data quality. We have worked with the Research Triangle Institute as well as Sandia National Laboratories over the past 6 months and expect to deliver such a document next month, which will assist us in continuing to improve our program.

**SPAS and OASIS** are important tools that will help us continue to improve our surveillance program. As important as these advancements are, though, they do not substitute for or supplant the need for well trained, highly motivated inspectors, whose on-site presence and professional judgment are key to our surveillance efforts.

Several years ago, our own studies and GAO reports indicated that our field inspector training was not properly prioritized. In addition, GAO believed that FAA was unnecessarily paying for training that was not essential. In response to these studies and GAO recommendations, FAA revamped its technical training program and developed the Operational Training Needs Assessment Program (OTNA). OTNA is a process to assess the critical training needs for the inspector workforce. It is designed to ensure that all safety inspectors receive the training they need based upon the work they are assigned to. By prioritizing training needs in this way, FAA can seek the funding necessary to meet the training required for the agency to perform its day-to-day operational functions, while balancing that with the high costs associated with many technical training activities, particularly flight training.

Flight Standards has applied the OTNA process for the past three fiscal years and has successfully reduced the amount of funding required for training. However, we now believe that providing only operationally essential training, as it has been defined, has not provided us the depth we would like in the inspector work force, nor has it resulted in the opportunity to continue to keep pace with rapidly advancing technology. In hindsight, we believe that we defined operationally essential training too narrowly. Therefore, the OTNA process is being adjusted and the definition of operationally essential training will be redefined to provide additional training needed to ensure that the agency has a sufficient number of qualified personnel on-hand at all times to step-in and conduct

various functions when unexpected turnover, emergencies, or other sudden and dramatic short-term increases in workload occur.

Recently, we have also been implementing more cost-efficient ways of delivering training to our inspectors. Computer-based instructional training (CBI) is one method of delivering training that will help us accomplish our training goals at lower cost. Every Flight Standards District Office has a platform in place for CBI training to take place. Last year we installed a CBI Helpline to answer questions on this training from our inspectors, and to help them obtain course material. We are also developing a new course catalog for our inspector workforce. We plan to place this information on the internet. That way, the catalog can be updated instantly and an inspector accessing the system will be able to communicate with the FAA Academy by e-mail.

I would like to briefly touch on several other initiatives I believe will help shape our future surveillance program. Last August, FAA and the Professional Airways System Specialists (PASS), who represent our inspectors, established a cooperative alliance called **Partnership for Safety (PFS)**. PFS is a new way of conducting business and making decisions that affect Flight Standard employees. The partnership is an alternative to traditional labor/management relations, and is ideally suited to identifying and resolving problems at the local, field office level. We will continue to work together to provide our inspectors with the tools and training they need to remain effective in our rapidly changing aviation industry.

We are also reaching out to industry in an effort to develop constructive partnerships that will enhance safety. Last year, Secretary Peña and I hosted a 2 day airline summit on aviation safety. The conference, which was attended by over 1,000 airline executives, pilots, maintenance personnel, and FAA safety personnel, was held both to reinforce to key aviation personnel our commitment to safety and to develop new approaches for enhancing safety. Subsequently, we held a follow-up conference. Out of these efforts we will continue to work to identify ways in which to improve on existing safety programs.

Also, in order to assure myself that the agency is adequately prepared for the future, we have been undertaking a top-to-bottom review of our regulation and certification program. Technological changes and industry growth require that we assess, and as need be rethink, how we do business. This effort will help focus us on what we need to do to meet the challenges of the 21st Century and to progress toward our goal of zero accidents.

Before closing Mr. Chairman, let me respond to your expressed interest in barriers that preclude the FAA from accomplishing its oversight of the aviation industry. I would be remiss in my duties as Administrator if I did not address what I see as the greatest impediment to the agency in continuing to fulfill its vital functions, including the effective safety oversight of the air transportation industry. Simply stated, the FAA faces a vastly expanded workload while overall Federal funding available will decrease dramatically as we work towards a balanced budget. As I have said many times recently,

in order to protect the public's interest in safe and efficient air travel, and to continue to facilitate commerce and the growth of industry, we must act now to find a stable, predictable source of funding for the FAA.

By 2002, the number of commercial aircraft operations will grow by approximately 18%. This growth will significantly increase the demands on the FAA's surveillance workforce, even as we seek to find added efficiencies and productivity improvements. Virtually every segment and activity in aviation will grow correspondingly, placing similar demands on FAA's safety and operational programs across-the-board.

I, therefore, would urge the Members of this Subcommittee to assist the FAA in its efforts to obtain meaningful financial reform. Given the importance of the FAA's work to the safety of the traveling public, as well as to supporting an industry that contributes significantly to our Nation's economic well-being, it is critical that the FAA's resource requirements be accommodated into the future, and financial reform is the only assured way of doing that. In that regard, I would like to note the Administration's strong support for the financial reform that would result from enacting the type of user fee financing contained in S. 1239, the "Air Traffic Management System Performance Act," sponsored by Senators McCain, Ford and Hollings.

In my view, the most important work that the Members of this Subcommittee can do to benefit the safety of the traveling public is to help us ensure that we continue to have the



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resources needed to fulfill our obligations to the traveling public. I would welcome the opportunity to meet personally with any Member of this Subcommittee to discuss in detail the need for financial reform or to discuss this critical issue further today.

That concludes my prepared statement, Mr. Chairman. I would be pleased to answer any questions you or Members of the Subcommittee may have at this time.