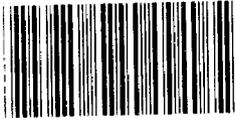


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STATEMENT OF

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BEFORE THE  
SUBCOMMITTEE ON AVIATION  
OF THE  
SENATE COMMITTEE ON  
COMMERCE, SCIENCE, AND TRANSPORTATION

ON  
S. 2417 AND THE STATUS OF FAA'S  
CONTROLLER AND INSPECTOR WORK FORCES

Madam Chairman and Members of the Subcommittee:

We appreciate this opportunity to appear before this Subcommittee to discuss the means by which the Federal Aviation Administration (FAA) can most efficiently and effectively promote, maintain, and enhance aviation safety in a competitive, deregulated airline industry. Toward this goal, Senator Byrd and

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others have introduced S. 2417, legislation establishing an Aviation Safety Commission to study this issue and make recommendations for legislative and administrative action.

Last October we testified before this Subcommittee concerning our review of conditions within the air traffic controller work force and variations in the type and frequency of FAA's air carrier inspections. Since that time we have, in a report and related testimony, concluded that the growth in air traffic is straining the controller work force at many major facilities, especially "en route centers," which control flights between airports.<sup>1</sup> We have also testified on several occasions that because of problems within its airline inspection program, FAA cannot at present say with assurance that airlines are complying with federal safety regulations. And we are just beginning to review various airway systems specialist staffing issues.

My testimony today will outline some of our findings and recommendations to date on these issues, and provide examples where FAA has had difficulty balancing its dual responsibilities for promoting commercial aviation and ensuring aviation safety.

STATUS OF THE CONTROLLER  
WORK FORCE

As reported in March, controllers feel overworked and anticipate that the situation could eventually impair their ability to maintain an adequate margin of safety. FAA data on staffing, overtime use, and air traffic activity support the

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<sup>1</sup>Aviation Safety: Serious Problems Concerning the Air Traffic Control Work Force (GAO/RCED-86-121, March 6, 1986).

controllers' contention that their work load has grown to a level where they are being stretched too thin.

Our consultant, the Flight Safety Foundation, compared the conditions we found with the results of a study it did for FAA in 1981, concluding that conditions within the controller work force have worsened in the past 5 years, and that air traffic control system safety has diminished since the 1981 controllers' strike.

Recognizing that FAA will need years to increase its complement of qualified controllers--an average of 4 years at the present rate of gain at the centers--and even longer to provide new equipment and other measures to reduce the controller work load, we recommended that FAA restrict air traffic where controllers are overworked until the agency can meet its staffing goals. Our report included several other recommendations of actions FAA should take to reduce work load pressures on controllers and to improve the quality of its reporting to the Congress on the overtime being worked by controllers and its controller staffing progress.

In its recent response to our report, the Department of Transportation generally agreed that FAA needs to increase staffing and reduce overtime, particularly at the centers.

Using the facility-specific information developed during our survey, the Department has also agreed to take additional action where it believes this is warranted and to review the agency's traffic management programs with an eye toward expediting, as much as possible, planned system enhancements.

With the availability of facility-specific information developed during our survey, we look to FAA to take further action commensurate with our findings. This would include evaluating the effectiveness of its traffic management system at centers where controllers and supervisors identified inadequate flow control procedures as a reason for their being required to deal with more traffic than they thought they could safely handle.

FAA's plans to increase its controller work force

FAA has agreed to increase its controller work force by about 1,000 people by the end of fiscal year 1987. Our work has shown, however, that a fair amount of confusion exists concerning just what FAA's controller work force is comprised of and what FAA's plans are. For example, when FAA states that the size of the work force is a certain number, and its end-of-fiscal-year-1986 goal is to have a work force of 14,480, the figures exclude first-line supervisors who spend part of their time controlling traffic but include air traffic clerical assistants who do not control traffic--and are not trained to. Thus the controller work force as defined by FAA includes about 1,500 people who either do not now or may never control traffic, but excludes over 1,000 others who do.

News accounts and FAA correspondence have reiterated FAA's intention to hire 1,000 new "controllers" by the end of fiscal year 1987. To try to find out how many people FAA intends to hire who will actually control traffic, we asked FAA for its controller hiring plan. In its April response, the agency said that for

fiscal year 1986 its hiring plan was about the same as the fiscal year 1985 rate of 162 per month. Instead of increasing its fiscal year 1986 hiring, FAA assumed it could achieve its staffing goal, in part, by reducing the number of candidates who drop out during training. For example, data provided by FAA for a statement for the record of congressional testimony by the Department of Transportation this February show that FAA assumed an overall training failure rate of 31 percent for the 8 months between February and October 1986, even though its actual attrition rate at the academy has averaged about 40 percent--a level at which it is likely to remain in the near future, according to FAA training officials. Added to this is an on-the-job training attrition rate (for the 60 percent who graduate from classroom training) that has averaged 35 percent at the en route centers. Thus, the overall attrition rate for trainees hired for the centers is about 60 percent, almost double FAA's assumed rate of failure. Put another way, only about 40 percent of controller candidates who begin training actually become controllers--contrasted with FAA's assertion that 69 percent will.

Our findings lead us to believe that FAA's ability to achieve its controller work force goal of 14,480 this fiscal year is doubtful, and any shortfall this fiscal year will make it more difficult to achieve its fiscal year 1987 goal of 14,960. Moreover, the confusion about how many controllers FAA has, how many it needs, and how many it is hiring has added to doubts that FAA may not in fact be adequately carrying out its air traffic control mission.

STATUS OF THE INSPECTOR  
WORK FORCE

FAA is also in the process of increasing the size of its inspector work force and taking other actions to respond to recognized problems inherent in its inspection program.

Recent FAA studies--as well as those conducted by the Office of the Secretary of Transportation, the Department's Office of Inspector General, and by us--show that FAA's airline inspection and follow-up activities are often insufficient to identify major safety problems or to ensure that problems are corrected once they are identified. For example, in 1985 FAA's Safety Activity Functional Evaluation (Project SAFE) found that FAA surveillance of airlines was often ineffective and that broad changes in FAA's inspection program were needed to improve aviation safety. Moreover, several recent National Transportation Safety Board investigations criticized FAA's inspection program and concluded that ineffective FAA inspections contribute to aircraft accidents.

FAA is aware of these problems and has begun to respond. In addition to increasing the size of its inspector work force, it has issued staffing standards and national guidelines that set forth minimum numbers of inspections and has affirmed that inspections--not certification of potential new airlines--are the inspectors' number one priority. FAA has also instituted a National Inspection Plan using large, specially assembled teams to inspect targeted airlines.

FAA is not, however, very well prepared to absorb an increase in its inspector work force; in fact, it will be years before all

the needed internal management controls, inspector training, regulations and guidance, and supervisory and managerial oversight are in place because examination of these problems and available options will not themselves be completed for several more years. Meanwhile, FAA lacks an effective plan for dealing with its shorter term problem of ensuring airline compliance with safety regulations while it puts its long-term strategy into place.

Our review to date suggests several steps that FAA needs to take to address its short-term problems. These include

- revising its nationwide minimum standards for the type and frequency of airline inspections to help inspectors target airlines displaying characteristics indicative of possible safety deficiencies, such as a relatively large amount of contract maintenance and/or training, inadequate internal management controls, or management experience and philosophy incompatible with sound safety practices;
- identifying who is inspecting which airlines and how frequently, so it can better allocate its existing inspector work force and the planned additional personnel;
- ensuring that inspectors have the training and experience necessary to carry out their assigned duties; and
- sequencing its actions to upgrade its inspection program so that improvements are in place when they can do the most good. For example, it would seem prudent for FAA to know what entry-level knowledge and skills are appropriate for aviation safety inspectors and to implement an effective screening program to identify applicants with

maximum potential for successful performance as inspectors --before it hires hundreds of new inspector candidates.

At hearings before the House Subcommittee on Aviation in May, FAA agreed to revise its guidance to inspectors to provide them with criteria based on airline characteristics that affect safety compliance so that inspectors have a more consistent basis for determining the minimum necessary number and mix of inspections.

STATUS OF THE AIRWAY SYSTEMS  
SPECIALIST WORK FORCE

Increases in FAA's controller and inspector work forces may, unfortunately, wind up adversely affecting the staffing levels of other FAA personnel especially the airway systems specialists who maintain the equipment--such as radar and computers--FAA uses to control aircraft. Announced increases in the number of controllers and inspectors in fiscal year 1986 must be accomplished within FAA's authorized full time equivalent staffing ceiling. While some of these increases can be accomplished through transfer of qualified controllers and inspectors from overhead positions within the Air Traffic and Aviation Standards divisions, respectively, the remaining increases may have to be offset by decreases in the ceilings for other FAA employees. The airway systems specialists represent the only other sizable work force within FAA.

At the request of the Chairman of the House Subcommittee on Aviation, we have begun to examine this and other issues relating to the adequacy of FAA's airway systems specialist staffing. We plan to report our results next spring.

FAA HAS NOT RESPONDED EFFECTIVELY  
TO CHANGES BROUGHT BY DEREGULATION

Our work has also identified instances where FAA has had difficulty balancing its dual responsibilities of promoting commercial aviation and ensuring aviation safety--roles that may well entail at least some measure of conflict. For example, FAA did not respond effectively to the changes deregulation brought to the airline industry. It did not officially recognize that a fiercely competitive, deregulated environment highlights aircraft maintenance and other safety-related activities as controllable expenses that directly affect an airline's financial health--a situation requiring greater oversight vigilance. Until recently, FAA took few steps to monitor and address the impact deregulation had on its inspection work load or staffing requirements. Between 1978 and 1983, when the number of airlines and aircraft grew substantially, FAA cut its inspector staff by 34 percent, from over 2,000 to 1,332.

Similarly, while air traffic has now reached record levels and is expected to continue to grow, the size of the controller work force remains about 2,000 positions less than at the time of the 1981 strike. Although improved automation and air traffic control methods can help improve the level of air safety, the first major labor-saving features of FAA's planned automated air traffic control system will not be usable until the mid-1990's, at the earliest, thereby delaying by up to 8 years FAA's planned productivity gains.

Priority given to certification  
rather than to inspections

The airline inspection program is also a good example of FAA's slowness in responding to changing needs. We found that after deregulation, FAA headquarters allowed field managers to decide how to use the inspectors they had, without providing either a framework for deciding what to inspect or guidance on minimum numbers of inspections essential to ensuring airline compliance with safety regulations. In the absence of adequate guidance, local managers, for the most part, assigned priority to certifying new and expanding airlines rather than inspecting the compliance of existing airlines with FAA safety regulations.

In five district offices included in our review, inspectors estimated that they spent about 80 percent of their time on certification and investigations, leaving only about 20 percent of their time for inspections. They attributed the priority given certification and other noninspection tasks, such as pilot licensing, to industry pressure on FAA to certify new airlines and approve changes to existing ones. FAA has recently affirmed that inspections remain its top priority.

Our work also identified instances where FAA found substantial resources to quickly recertify airlines after taking months to revoke their operating certificates for safety reasons. For instance, after noting serious safety deficiencies in May 1984 concerning an airline's operations, it took 6 months for FAA to revoke the certificate. One day after its certificate was revoked, the airline filed for a new one. FAA responded

1 month later by sending a special team of inspectors to the airline's headquarters--and recertified it in about 6 weeks. According to FAA district officials, the 660 hours of inspector time used to recertify the airline represented substantially more time than was spent by inspectors trying to revoke its certificate. Moreover, FAA estimated that in 1984 it devoted, on average, 200 inspector work hours per year to inspecting an airline, so recertifying this one airline alone took the time needed, on average, to inspect 3-1/2 airlines.

#### SUMMARY

Our work at FAA over the past few years shows that FAA can improve its safety-related air traffic control and airline inspection functions in a number of ways, including additional trained and experienced staff. FAA began to address its inspection-related problems a few years ago, and has now also acknowledged that some changes are needed in its air traffic control functions. But these and other safety-related functions cannot be fixed overnight, and require FAA's continuing commitment toward reviewing, revising, and updating regulations; establishing better management systems; hiring and training additional qualified staff; and improving its use of current technology. We think the long-term nature of the problem, and the level of public interest and concern, suggest that FAA's progress should be carefully monitored.

This concludes my testimony, Madam Chairman. I will be happy to answer any questions you or other Subcommittee members may have at this time.