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Testimony

FAA's Preboard Passenger
Screening Process

Statement of
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Resources, Community, and Economic Development Division

Before the
Subcommittee on Government Activities and Transportation
Committee on Government Operations
House of Representatives

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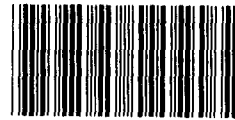
Madam Chairwoman and Members of the Subcommittee:

We appreciate the opportunity to testify on the preboard passenger screening process--a critical component of the Federal Aviation Administration's (FAA) Civil Aviation Security Program. The purpose of passenger screening at U.S. airports is to prevent firearms, explosives, and other dangerous weapons from being carried on board an airplane and presenting a danger to the traveling public.

Our testimony today covers the preliminary results of our work on FAA's testing of preboard passenger screening. This work was done as part of a more comprehensive assignment currently underway, also at the Subcommittee's request, to evaluate domestic airport security. Our observations are based on work at six major airports, an analysis of about 2400 of FAA's recent passenger screening tests, discussions with FAA program officials, and a review of FAA documentation. We did not validate FAA's test data.

FAA considers the passenger screening process effective in deterring criminal acts against civil aviation. According to FAA data, since 1973, over 38,000 firearms have been detected and at least 117 potential hijackings and related crimes may have been averted by FAA required security measures. Overall, we believe this aviation security program plays a significant deterrent role and promotes the safety of the traveling public. However, we believe the passenger screening process can be made more effective. We found that there are shortfalls in the passenger screening program and, based on FAA test results, wide variations in the

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frequency with which weapons are detected. FAA is working to improve preboard passenger screening, but the program continues to experience many of the personnel-related problems--high turnover, low wages, inadequate training--identified in a 1979 FAA/industry study.

FAA also has not been satisfied with the overall results of the tests it has performed, but there are no standards setting goals or stipulating the levels of performance for passenger screening. To help strengthen the program, we believe FAA should establish performance standards to define for air carriers what is expected. Additionally, standards would provide FAA with a management tool for monitoring and enforcing the passenger screening aspects of the Civil Aviation Security Program.

Preboard Passenger Screening and How It Works

The current process for screening aircraft passengers and their carry-on baggage began in January 1973 following the issuance of an emergency regulation by FAA. FAA established the process to curb the growing number of aircraft hijackings that were occurring in the early 1970's and to insure safety. In 1974, the process was made statutory.

FAA prescribes screening regulations, provides overall guidance and direction for the program, and reports semi-annually to Congress on the effectiveness of screening procedures. The air carriers are responsible for screening passengers and their carry-

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on baggage; however, private security firms under contract to air carriers typically do the screening. Both the air carriers and FAA monitor a security firm's performance.

Screening personnel rely on equipment consisting primarily of walk-through metal detectors and x-ray inspection systems to screen carry-on items. Hand-held metal detection devices are used as backup support for the walk-through detectors. In addition, screening personnel may require physical searches for items in carry-on baggage that appear suspicious when x-rayed. Each of the components of the process--X-ray, metal detector, and physical search--are periodically tested by the airline and FAA. While there have been some technological improvements to screening equipment, for the most part the process operates essentially the same today as it did when implemented in 1973.

FAA Test Results:
Absence of Performance Standard

FAA has periodically tested preboard passenger screening and has not been satisfied with test results. However, the Air Carrier Standard Security Program, which establishes preboard passenger screening requirements and is approved by FAA, does not establish a performance standard for measuring the effectiveness of the process. FAA officials told us that they are considering incorporating such a standard in the Security Program. Without a standard, FAA cannot take enforcement actions, which range from

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warning letters to fines, when air carriers' screening stations fail to detect test weapons.

The results of about 700 tests of x-ray screening operations conducted during 1978 showed a detection rate of approximately 87 percent. The fact that 13 percent of the test weapons passed through the x-ray system were not detected was considered "significant and alarming" by both FAA and the airline industry. In 1981 and 1982, tests of both x-ray and metal detector screening operations showed an overall weapon detection rate of 89 and 83 percent, respectively.

In tests conducted by FAA from September through December 1986, screening personnel detected approximately 79 percent of the test weapons for x-ray tests, 82 percent for metal detector tests, and 81 percent for physical search tests. Detection rates varied significantly among FAA regions, ranging from a low of 63 percent to a high of 99 percent. For major airports, the detection rate ranged from a low of 34 percent to a high of 99 percent.

Moreover, our analysis shows that FAA test results may overstate the screening process' success in detecting weapons for at least two reasons: First, FAA test procedures are designed to favor detection of test weapons. For example, FAA inspectors are allowed to place only two or three objects such as a sweater, book, and shirt with a test weapon in the carry-on bag to be tested in an x-ray device. The tester cannot hide the test object among other objects in the carry-on bag or place other metal objects in the bag, as a saboteur might.

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Second, screening personnel may be aware they are being tested. This is because FAA inspectors in some locations are well known to screening station personnel. FAA is aware of this problem and has acknowledged that high detection rates in certain locations may indicate the screeners recognized the FAA inspector.

Personnel-related factors

Following the 1978 tests of the screening process, a task group of FAA and airline security personnel studied ways to improve performance at passenger screening checkpoints. This task group's report, referred to as the "Human Factors Study," recommended several actions which were endorsed by both FAA and the airlines. For the most part, these recommendations focused on the personnel-related aspects of the process such as high employee turnover rates, low pay, and inadequate training. Although FAA and the industry endorsed the study's recommendations, the air carriers have not yet fully implemented them.

We visited six major airports and found that many of the problems addressed in the human factors study still exist. For example, security firm managers said that screening employees are still being paid at or near minimum wage and that low pay contributes to high turnover--in some cases, about 100 percent annually--and problems in hiring capable people.

We found that training was generally provided as required by the Air Carrier Standard Security Program. However, we noted that problems continue to exist in the training area. For example, at

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one screening firm's training session, we were advised that instructors did not attend the training and that trainees simply viewed the 5-part FAA "Safety through Screening" series by themselves. They then signed a statement to attest that they had attended. As a result, no one was available to answer questions as recommended by the Human Factors study group. In another case, we observed that trainees were tested on the training they received but were not graded. Thus, there was no measurement of the trainees' comprehension of the subject matter.

In addition, FAA's 1986 physical search test results show that screeners could not identify test weapons in 47 of 249 cases. During our work, we observed one case where the FAA test weapon--a mock pipe bomb--was initially identified as suspect by the x-ray operator. However, when the required physical search was made by another screener, the screener did not recognize the pipe bomb as a weapon and replaced it in the carry-on baggage. The screener then cleared the tester to proceed to the aircraft boarding gate.

Research and Development Efforts

As a final note, technological advances also may offer in the next several years the potential for enhancing the passenger screening process. During the past two fiscal years, FAA has increased spending for research and development to put new technology "on the shelf," thereby making improved security systems available for air carriers to purchase. FAA funding on research and development for security equipment increased from between

$1 million and $2 million prior to 1985 to between $11 and $12 million per year during the past two fiscal years.

FAA expects to test a vapor system for detecting plastic explosives on passengers or in carry-on luggage in the summer of 1988. If successful, this system could be available for use in late 1989 or early 1990. FAA officials said this new technology will supplement the current screening process.

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In summary, we concur with FAA that preboard passenger screening is a critical component of FAA's overall security program. With a view toward making the program more effective, we believe FAA needs to establish standards for detection of test weapons and to use those standards as one of several management tools in its oversight of passenger screening. This action also would provide FAA with a basis for taking enforcement or other appropriate measures when airlines do not meet the standard. We defer to the expertise of FAA on what the performance standards should be and recognize that the process of setting standards will require time as well as consultation with the airline industry. Our final report concerning FAA's management of the overall domestic aviation security program may include other recommendations.

This concludes my testimony, Madam Chairwoman. I will be happy to answer any questions you may have at this time.