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AVIATION SECURITY

Slow Progress in Addressing Long-Standing Screener Performance Problems

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Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to be here today to discuss aviation security, in particular airport screeners. Securing an air transportation system the size of this nation's—with hundreds of airports, thousands of aircraft, and tens of thousands of flights daily carrying millions of passengers and pieces of baggage—is a difficult task. Events over the past decade have shown that the threat of terrorism against the United States is an ever-present danger. Aviation is an attractive target for terrorists, and because the air transportation system is critical to the nation's well-being, protecting it is an important national issue. A single lapse in aviation security can result in hundreds of deaths, destruction of equipment worth hundreds of millions of dollars, and have immeasurable negative impacts on the economy and the public's confidence in air travel.

A number of measures have been put in place by the Federal Aviation Administration (FAA) and the aviation industry to provide the security needed for the aviation system; among the most important ones are the passenger screening checkpoints and the screeners who operate them. Concerns have been raised for many years by GAO and others about the effectiveness of screeners and the need to improve their performance. Two Presidential commissions—established after the bombing of Pan Am Flight 103 in 1988 and the then-unexplained crash of TWA Flight 800 in 1996—as well as numerous GAO and Department of Transportation Inspector General reports have highlighted problems with screening and the need for improvements. This situation still exists, Mr. Chairman, and as I will discuss, there are long-standing problems that affect screener performance.

We have been conducting a review that examines airport screeners' performance at the request of the Senate Committee on Commerce, Science, and Transportation and its Subcommittee on Aviation, which agreed to our appearance before this Subcommittee today. Our testimony discusses the causes of screener performance problems in detecting threat objects, the status of efforts being made by FAA to address these causes,

and the screening practices in five other countries as compared with the United States. In summary:

- Two important causes for the screeners' performance problems are the rapid turnover among screeners and human factors issues involved in their work. Turnover exceeds 100 percent a year at most large airports and at one airport has topped 400 percent, leaving few screeners with much experience at the checkpoints. The main reason for this turnover is the low wages and few benefits screeners receive. The human factors issues—tied to the repetitive, monotonous, yet stressful tasks that require constant vigilance—have not been addressed sufficiently. These are both long-standing causes of performance problems that have been noted by FAA for over 20 years.

- FAA has several interrelated initiatives underway to address the causes of the screeners' performance problems, including establishing a screening company certification program and a system for the automated monitoring of screeners' performance, and has established goals for improving performance. However, these initiatives have not been fully implemented and are behind schedule. For example, the screening company certification program is 2 years behind schedule and the first certifications are not expected until 2002. Partially as a result of these delays, FAA has fallen short in meeting its screener improvement goals.

- Other countries we visited—Belgium, Canada, France, the Netherlands, and the United Kingdom—conduct their checkpoint screening differently. Their checkpoint operations include routine "pat-downs" of some passengers; they require screeners to have more extensive qualifications and to meet higher training standards; they pay screeners more and provide benefits; and they place the responsibility for screening with airports or the government instead of with air carriers. The five countries we visited had significantly lower screener turnover and may have better screener performance—one country's screeners detected over twice as many test objects in a joint screener testing program it conducted with the FAA.

It must be recognized that the screeners' performance problems do not fall solely on FAA's shoulders. The responsibility for certain conditions, such as rapid screener turnover, more appropriately rests with the air carriers and screening companies. Nevertheless, Mr. Chairman, FAA does have leadership responsibility for aviation security, and it will be up to the agency to provide the guidance and motivation for improving the performance of screeners. In our view, the actions FAA currently has underway are strong steps in the right direction and, when fully implemented, may provide the needed improvement. However, it is critical that the Congress maintain vigilant oversight of FAA's efforts to ensure that it implements these actions in a timely manner and achieves its performance improvement goals. If performance improvements are not achieved, FAA and the Congress may need to consider other alternatives—such as some of the practices being used by other countries—to improve the screeners' performance.

Before I discuss these issues in greater detail, I will briefly provide some background on screening checkpoints and the long-standing concerns about the screeners' performance.

Background

Screening checkpoints and the screeners who operate them are a key line of defense against the introduction of a dangerous object into the aviation system. Over 2 million passengers and their baggage must be checked each day for weapons, explosives, or other dangerous articles that could pose a threat to the safety of an aircraft and those aboard it. The FAA and air carriers share this responsibility. FAA prescribes screening regulations and establishes basic standards for screeners, equipment, and procedures to be used. It monitors the performance of the screeners by periodically testing their ability to detect potentially dangerous objects carried by FAA special agents posing as passengers. The air carriers are responsible for screening passengers and their baggage before they are permitted into the secure areas of an airport or onto an aircraft. Air

carriers can use their own employees to conduct screening activities, but for the most part air carriers hire security companies to do the screening.

Screeners use metal detectors, X-ray machines, and physical bag searches to identify dangerous objects. However, because equipment at checkpoints does not automatically detect threats, the effectiveness of the screening depends heavily on the performance of the screeners themselves. It can be a difficult, stressful, yet monotonous job, requiring sustained attention to the task of identifying faint indications of infrequently appearing targets. The screeners detect thousands of dangerous objects each year. Over the last 5 years, screeners detected nearly 10,000 firearms being carried through checkpoints. Nevertheless, screeners do not identify all threats—instances occur each year in which weapons were discovered to have passed through a checkpoint.

Screener Performance Problems Are Attributed to Rapid Turnover and Inattention to Human Factors

There is no single reason why screeners fail to identify dangerous objects. Two conditions—rapid screener turnover and inadequate attention to human factors—are believed to be important causes. The rapid turnover among screeners has been a long-standing problem, having been singled out as a concern in FAA and GAO reports dating back to at least 1979. We reported in 1987 that turnover among screeners was about 100 percent a year at some airports, and today, the turnover is considerably higher.[1] From May 1998 through April 1999, screener turnover averaged 126 percent at the nation's 19 largest airports, with five airports reporting turnover of 200 percent or more and one reporting turnover of 416 percent. At one airport we visited, of the 993 screeners trained at that airport over about a 1-year period, only 142, or 14 percent, were still employed at the end of that year. Such rapid turnover can seriously affect the level of experience among screeners operating a checkpoint.

[1] Aviation Security: FAA Needs Preboard Passenger Screening Performance Standards (GAO-RCED-87-182, July 24, 1987).

Both FAA and the aviation industry attribute the rapid turnover to the low wages screeners receive, the minimal benefits, and the daily stress of the job. Generally, screeners get paid at or near the minimum wage. We found that some of the screening companies at 14 of the nation's 19 largest airports paid screeners a starting salary of $6.00 an hour or less and, at 5 of these airports, the starting salary was the minimum wage—$5.15 an hour. It is common for the starting wages at airport fast-food restaurants to be higher than the wages screeners receive. For instance, at one airport we visited, screeners wages started as low as $6.25 an hour, whereas the starting wage at one of the airport's fast-food restaurants was $7 an hour.

Human factors associated with screening—those work-related issues that are influenced by human capabilities and constraints—have also been noted by FAA as problems affecting performance for over 20 years. Screening duties require repetitive tasks as well as intense monitoring for the very rare event when a dangerous object might be observed. Too little attention has been given to factors such as (1) individuals' aptitudes for effectively performing screener duties, (2) the sufficiency of the training provided to the screeners and how well they comprehend it, and (3) the monotony of the job and the distractions that reduce the screeners' vigilance. As a result, screeners are being placed on the job who do not have the necessary abilities, do not have adequate knowledge to effectively perform the work, and who then find the duties tedious and unstimulating.

FAA is Making Efforts to Address Causes of Screeners' Performance Problems, but Progress Has Been Slow

FAA has demonstrated that it is aware of the need to improve the screeners' performance by conducting efforts intended to address the turnover and human factors problems and establishing goals with which to measure the agency's success in improving screener performance. The efforts to address turnover and human factors include establishing a threat image projection system to keep screeners alert and to monitor their performance; a screening company certification program; and screener

selection tests, computer-based training, and readiness tests. Table 1 summarizes FAA initiatives and the areas needing improvement they address.

Table 1: FAA's Initiatives to Improve Screeners' Performance

	Expected improvement			
FAA initiative	**Select candidates with screener potential**	**Ensure screener is trained and ready to perform**	**Ensure screener is alert and monitored**	**Increase pay, and reduce turnover**
Threat image projection system		X	X	
Certification of screening companies		X	X	X
Screener selection tests	X			X
Computer-based training		X		
Readiness test		X		

FAA's implementation of these efforts has encountered substantial delays and is behind schedule. I would like to focus on two key efforts, the threat image projection system and the screening company certification program, and then discuss FAA progress in achieving its screener performance improvement goals.

The Threat Image Projection System

FAA is deploying an enhancement to the X-ray machines used at the checkpoints called the threat image projection (TIP) system. As screeners routinely scan passengers' carry-on bags, TIP occasionally projects images of threat objects like guns and explosives on the X-ray machines' screens. Screeners are expected to spot the threat objects and signal for the bags to be manually searched. Once prompted, TIP indicates whether an image is of an actual object in a bag or was generated by the system and also records the screeners' responses, providing a measure of their performance while keeping them more alert. By frequently exposing screeners to what a variety of threat images look like on screen, TIP will also provide continuous on-the-job training.

FAA is behind schedule in deploying this system. It had planned to begin deploying 284 units to 19 large airports in April 1998. But as a result of hardware and software problems, FAA dropped its plans to install the units on existing X-ray machines nationwide. Instead, beginning in mid-2000, it will begin purchasing and deploying 1,380 new X-ray machines already equipped with the TIP system. FAA expects to have the system in place at the largest airports by the end of fiscal year 2001 and at all airports by the end of fiscal 2003.

Unfortunately, the delays in the TIP system's deployment have impeded another key initiative to improve the screeners' performance: the certification of screening companies.

The Certification of Screening Companies

In response to a mandate in the Federal Aviation Reauthorization Act of 1996 and a recommendation from the 1997 White House Commission on Aviation Safety and Security, FAA is creating a program to certify the security companies that staff the screening checkpoints. The agency plans to establish performance standards —an action we recommended in 1987[2] —that the screening companies will have to meet in order to earn and retain certification. It will also require that all screeners pass automated readiness tests after training and that all air carriers have TIP units on the X-ray machines at their checkpoints so that screeners' performance can be measured to ensure FAA's standards are met. FAA believes that the need to meet certification standards will give the security companies a greater incentive to retain their best screeners longer and so will indirectly reduce turnover by raising the screeners' wages and improving training. Most of the air carrier, screening company, and airport representatives we contacted said they believe certification has the potential to improve screeners' performance.

[2] GAO/RCED-87-182, July 24, 1987.

The agency plans to use data from the TIP system to guide it in setting its performance standards, but because the system will not be at all airports before the end of fiscal year 2003, the agency is having to explore additional ways to set standards. FAA plans to issue the regulation establishing the certification program by May 2001, over 2 years later than its original deadline. According to FAA, it has needed more time to develop performance standards and to develop and process a very complex regulation. The first certification of screening companies is expected to take place in 2002.

FAA's Screener Improvement Goals

As required by the Government Performance and Results Act, FAA established goals in 1998 for improving screeners' detection of test objects carried through metal detectors and concealed in carry-on baggage. FAA views specific data relating to these goals, as well as other information relating to screener detection rates, to be too sensitive to release publicly. However, it can be said that, in part because of the delays in implementing its screener improvement initiatives, the agency did not meet its first year goals for improving screener performance. FAA acknowledged that it did not meet its improvement goal for detecting threats carried through metal detectors, but it believed that it had nearly met its goal for improving detection of threats in carry-on baggage. However, we found flaws in FAA's methodology for computing detection rates and that, in fact, the goal was not met. We have discussed our findings with FAA and, as result of this and the delays in its initiatives, the agency is revising its goals.

We are encouraged that FAA is currently developing an integrated checkpoint screening management plan to better focus its screener initiatives and goals for improving screeners' performance. According to FAA officials, the plan, which is still in draft form, will (1) incorporate FAA's goals for improving screener performance and detail how its initiatives relate to the achievement of the goals; (2) identify and prioritize checkpoint and human factors problems that need to be resolved; and (3) provide measures for addressing the performance problems, including related milestone and budget information. Moreover, the draft plan will consolidate the responsibility for

screening checkpoint improvements under a single program manager, who will oversee and coordinate efforts at FAA headquarters, field locations, and the agency's Technical Center in Atlantic City, New Jersey. FAA expects that the plan will be completed in April 2000 and that it will be continuously updated based on progress.

Screening Practices in Five Other Countries Differ from U.S. Practices

We visited five countries—Belgium, Canada, France, the Netherlands, and the United Kingdom—viewed by FAA and industry as having effective screening operations to identify screening practices that differ from those in the United States. These countries also have significantly lower screener turnover than in the United States—the countries' screener turnover rates were about 50 percent or lower. We found that some significant differences exist in four areas; screening operations, screener qualifications, screener pay and benefits, and institutional responsibility for screening.

First, screening operations in some countries are more stringent. For example, Belgium, the Netherlands, and the United Kingdom routinely touch or "pat down" passengers in response to metal detector alarms. Additionally, all five countries allowed only ticketed passengers through the screening checkpoints, thereby allowing the screeners to more thoroughly check fewer people. Some countries also had a greater police or military presence near checkpoints. In the United Kingdom, for example, security forces—often armed with automatic weapons—patrol at or near checkpoints. At Belgium's main airport a constant police presence is maintained at one of two glass-enclosed rooms directly behind the checkpoints.

Second, the screeners' qualifications are usually more extensive. In contrast to the United States, Belgium requires screeners to be citizens; France requires screeners to be citizens of a European Union country. The Netherlands, screeners do not have to be citizens, but they must have been residents of the country for 5 years. Four of the countries we visited had greater training requirements for screeners. While FAA requires that screeners in this country have 12 hours of classroom training, Belgium, Canada,

France, and the Netherlands require more. For example, France requires 60 hours of training and Belgium requires at least 40 hours of training with an additional 16 to 24 hours for each activity, such as x-ray machine operations, the screener will conduct.

Third, screeners receive relatively better pay and benefits in most of these countries. While in the United States screeners receive wages that are at or slightly above minimum wage, screeners in some countries receive wages that are viewed as being at the "middle income" level by screeners. In the Netherlands, for example, screeners receive at least the equivalent of about $7.50 per hour. This wage is about 30 percent higher than wages at fast-food restaurants. In Belgium, screeners receive about $14 per hour. Not only is pay higher, but the screeners in some countries receive some benefits, such as health care or vacations—in large part because it is required under the laws of these countries.

Finally, the responsibility for screening in most of these countries is placed with the airport or with the government, not with the air carriers as it is in the United States. In Belgium, France, and the United Kingdom, the responsibility for screening has been placed with the airports, which either hire screening companies to conduct the screening operations or, as at some airports in the United Kingdom, hire screeners and manage the checkpoints themselves. In the Netherlands, the government is responsible for passenger screening and hires a screening company to conduct checkpoint operations, which are overseen by a Dutch police force.

Because each county follows its own unique set of screening practices, and because data on screener performance in each country were not available to us, it is difficult to measure the impact of these different practices, either individually or jointly, on improving screener performance. Nevertheless, there are indications that in at least one country, its practices may help to increase the screeners' performance. This country conducted a screener testing program jointly with FAA that showed that the other country's screeners detected over twice as many test objects as did the screeners in the United States.

Summary

The message I bring here today is not new. The performance problems affecting airport screeners are longstanding. Yet, as we enter the new millenium, not only do the same problems continue to exist but in the case of turnover among the screeners, it is even getting worse. And, Mr. Chairman, it must be recognized that the causes of and solutions to these problems do not fall solely on FAA's shoulders. Certain conditions, such as the screener wages and benefits, are not under FAA's control but rather are under the control of the air carriers and the screening companies.

Nevertheless, FAA does have leadership responsibility for aviation security, and it is taking steps to address the broad problems limiting the quality of airport passenger screening. These steps, which address an array of concerns—the hiring of quality personnel, providing sufficient training, monitoring on-the-job performance, and, albeit indirectly, increasing the screeners' compensation and retention—are efforts in the right direction and may provide the improvements to the screeners' performance that are needed in the aviation system. However, FAA's ability to undertake and implement these efforts in a timely fashion remains a concern. We note that in 1987, we recommended to FAA that it establish performance standards that must be met for the detection of FAA test objects. However, only now is FAA proposing to develop standards as part of its screening company certification program. Moreover, the key efforts it is undertaking—the threat image projection system and the screening company certification program—are both currently behind schedule. We remain concerned about the timely implementation of these efforts.

It will be critical that the Congress maintain vigilant oversight of FAA's progress in implementing its screening improvement efforts and that it monitor FAA's progress in achieving its performance improvement goals for the screeners. These goals provide a road map for assessing the agency's initiatives to improve the screeners' performance. Should FAA not be successful in achieving its goals through its current efforts, the FAA

and the Congress may need to consider requiring other steps, such as some of those practiced in other countries, to obtain the needed improvements at the checkpoints.

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

Contacts and Acknowledgements

For future contacts regarding this testimony, please contact Gerald L. Dillingham at (202) 512-2834. Individuals making key contributions to this testimony included Leslie D. Albin, J. Michael Bollinger, Barry R. Kime, John R. Schulze, and Daniel J. Semick.

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