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AVIATION SECURITY

Vulnerabilities in, and Alternatives for, Preboard Screening Security Operations

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Messrs. Chairmen and Members of the Committees:

A safe and secure civil aviation system is a critical component of the nation's overall security, physical infrastructure, and economic foundation. Billions of dollars and a myriad of programs and policies have been devoted to achieving such a system. Although it is not fully known at this time what actually occurred or which of the weaknesses in the nation's aviation security apparatus contributed to the horrendous events of last week, it is clear that serious weaknesses exist in our aviation security system and that their impact can be far more devastating than previously imagined.

We are here today to discuss the vulnerabilities that we have identified in the safeguards to protect passengers and prevent unauthorized access to or attacks on aircraft. Our testimony is based on our prior work and a review that we have under way for the Subcommittee on Aviation, House Committee on Transportation and Infrastructure, and includes assessments of security concerns with (1) airport access controls, (2) passenger and carry-on baggage screening, and (3) alternatives to current screening practices, including practices in selected other countries.

In summary:

- Controls for limiting access to secure areas, including aircraft, have not always worked as intended. As we reported in May 2000, our special agents used counterfeit law enforcement badges and credentials to gain access to secure areas at two airports, bypassing security checkpoints and walking unescorted to aircraft departure gates. The agents, who had been issued tickets and boarding passes, could have carried weapons, explosives, or other dangerous objects onto aircraft. FAA is acting on the weaknesses we identified and is implementing actions to more closely check the credentials of law enforcement officers. The Department of Transportation's Inspector General has also documented numerous problems with airport access controls, and in one series of tests, the Inspector General's staff successfully gained access to secure areas, including ramps and aircraft, 68 percent of the time.
- As we reported in June 2000, testing of screeners shows that significant, long-standing weaknesses—measured by the screeners' abilities to detect threat objects located on passengers or contained in their carry-on luggage—continue to exist. In 1987, screeners missed 20 percent of the potentially dangerous objects used by FAA in its tests. At that time, FAA characterized this level of performance as unsatisfactory. More recent results have shown that as testing gets more realistic—that is, as tests

more closely approximate how a terrorist might attempt to penetrate a checkpoint—screeners' performance declines significantly. A principal cause of screener performance problems is the rapid turnover among screeners. Turnover exceeded over 100 percent a year at most large airports, leaving few skilled and experienced screeners, primarily because of the low wages, limited benefits, and repetitive, monotonous nature of their work. Additionally, too little attention has been given to factors such as the sufficiency of the training given to screeners. FAA's efforts to address these problems have been slow. We recommended that FAA develop an integrated plan to focus its efforts, set priorities, and measure progress in improving screening. FAA is addressing these recommendations, but progress on one key effort—the certification of screening companies—is still not complete because the implementing regulation has not been issued. It is now nearly 2-½ years since FAA originally planned to implement the regulation.

- Weaknesses in the current system in which airlines are responsible for screening passengers and controlling access to secure areas have raised questions about whether alternative approaches should be considered. In our ongoing work, we surveyed aviation stakeholders and aviation and terrorism experts and have identified four options for assigning screening responsibilities: continue with air carriers but with new requirements, assign responsibility to airports, or shift responsibility to the federal government, either through the creation of a new federal agency or the creation of a federal corporation. In assessing alternatives, respondents identified five important criteria: improving screening performance, establishing accountability, ensuring cooperation among stakeholders, moving people efficiently, and minimizing legal and liability issues. The majority of respondents believed that screening performance and accountability would improve if screening were placed with the federal government. Many indicated that assigning screening responsibility to the airports would not likely improve screeners' performance and accountability. Still, some respondents believed that a professional screening workforce could be developed in any organizational context.

The events of September 11, 2001, have changed the way this country looks at aviation security. Last week, FAA and the air carriers implemented new controls that promise a greater sense of security. We support these actions. Yet, to further minimize the vulnerabilities in our aviation security system, more needs to be done. Aviation security has truly become a national security issue, and as we will discuss today, responsibility for screening may no longer appropriately rest with air carriers. It has been observed that previous tragedies have resulted in congressional hearings, studies, recommendations, and debates, but little

long-term resolve to correct flaws in the system as the memory of the crisis recedes. The future of aviation security hinges in large part on overcoming this cycle of limited action that has too often characterized the response to aviation security concerns.

Background

Some context for my remarks is appropriate. The threat of terrorism was significant throughout the 1990s; a plot to destroy 12 U.S. airliners was discovered and thwarted in 1995, for instance. Yet the task of providing security to the nation's aviation system is unquestionably daunting, and we must reluctantly acknowledge that any form of travel can never be made totally secure. The enormous size of U.S. airspace alone defies easy protection. Furthermore, given this country's hundreds of airports, thousands of planes, tens of thousands of daily flights, and the seemingly limitless ways terrorists or criminals can devise to attack the system, aviation security must be enforced on several fronts. Safeguarding airplanes and passengers requires, at the least, ensuring that perpetrators are kept from breaching security checkpoints or gaining access to ramps and doorways leading to aircraft. FAA has developed several mechanisms to prevent criminal acts against aircraft, such as adopting technology to detect explosives and establishing procedures to ensure that passengers are positively identified before boarding a flight. Still, in recent years, we and others have often demonstrated that significant weaknesses continue to plague the nation's aviation security.

The current aviation security structure and its policies, requirements, and practices have evolved since the early 1960s and were heavily influenced by a series of high-profile aviation security incidents. Historically, the federal government has maintained that providing security is the responsibility of air carriers and airports as part of their cost of doing business. Beginning in 1972, air carriers were required to provide screening personnel, and airport operators were required to provide law enforcement support. However, with the rise in air piracy and terrorist activities that threatened not only commercial aviation but also national security, discussions began to emerge as to who should have the responsibility for providing security at our nation's airports. With the events of the last week, concerns have arisen again as to who should be responsible for security and screening passengers at our nation's airports. This issue has evoked many discussions through the years and just as many options concerning who should provide security at our nation's

airports and how security should be handled. But as pointed out in a 1998 FAA study, there was no consensus among the various aviation-related entities.[1]

To identify options for assigning screening responsibilities, we surveyed aviation stakeholders—security officials at the major air carriers and the largest airports, large screening companies, and industry associations—and aviation and terrorism experts. We asked our respondents to provide their opinions about the current screening program, criteria they believe are important in considering options, the advantages and disadvantages of each option, and their comments on implementing a different screening approach. It is important to understand that we gathered this information prior to September 11, 2001, and some respondents' views may have changed.

Weaknesses in Airport Access Controls

Control of access to aircraft, airfields, and certain airport facilities is a critical component of aviation security. Existing access controls include requirements intended to prevent unauthorized individuals from using forged, stolen, or outdated identification or their familiarity with airport procedures to gain access to secured passenger areas or to ramps and doorways leading to aircraft. In May 2000, we reported that our special agents, in an undercover capacity, obtained access to secure areas of two airports by using counterfeit law enforcement credentials and badges.[2] At these airports, our agents declared themselves as armed law enforcement officers, displayed simulated badges and credentials created from commercially available software packages or downloaded from the Internet, and were issued "law enforcement" boarding passes. They were then waved around the screening checkpoints without being screened. Our agents could thus have carried weapons, explosives, chemical/biological agents, or other dangerous objects onto aircraft. In response to our findings, FAA now requires that each airport's law enforcement officers examine the badges and credentials of any individual seeking to bypass passenger screening. FAA is also working on a "smart card" computer system that would verify law enforcement officers' identity and authorization for bypassing passenger screening. The Department of Transportation's (DOT) Inspector General has also

[1] *Study and Report to Congress on Civil Aviation Security Responsibilities and Funding*, Dec. 1998.

[2] *Security: Breaches at Federal Agencies and Airports* (GAO/T-OSI-00-10, May 25, 2000).

uncovered problems with access controls at airports. The Inspector General's staff tested the access controls at eight major airports in 1998 and 1999 and gained access to secure areas in 68 percent of the tests; they were able to board aircraft 117 times. After the release of its report describing its successes in breaching security,[3] the Inspector General conducted additional testing between December 1999 and March 2000 and found that, although improvements had been made, access to secure areas was still gained more than 30 percent of the time.

Inadequate Detection of Dangerous Objects by Screeners

Screening checkpoints and the screeners who operate them are a key line of defense against the introduction of dangerous objects into the aviation system. Over 2 million passengers and their baggage must be checked each day for articles that could pose threats to the safety of an aircraft and those aboard it. 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 mostly air carriers hire security companies to do the screening. Currently, multiple carriers and screening companies are responsible for screening at some of the nation's larger airports.

Concerns have long existed about screeners' ability to detect and prevent dangerous objects from entering secure areas. Each year, weapons were discovered to have passed through one checkpoint and to have later been found during screening for a subsequent flight. FAA monitors the performance of screeners by periodically testing their ability to detect potentially dangerous objects carried by FAA special agents posing as passengers. In 1978, screeners failed to detect 13 percent of the objects during FAA tests. In 1987, screeners missed 20 percent of the objects during the same type of test. Test data for the 1991 to 1999 period show that the declining trend in detection rates continues.[4] Furthermore, the recent tests show that as tests become more realistic and more closely approximate how a terrorist might attempt to penetrate a checkpoint, screeners' ability to detect dangerous objects declines even further.

[3] *Airport Access Control* (AV-2000-017, Nov. 18, 1999).

[4] Information on FAA tests results is now designated as sensitive security information and cannot be publicly released. Consequently, we cannot discuss the actual detection rates for the 1991-99 period.

As we reported last year, there is no single reason why screeners fail to identify dangerous objects.[5] Two conditions—rapid screener turnover and inadequate attention to human factors—are believed to be important causes. Rapid turnover among screeners has been a long-standing problem, having been identified as a concern by FAA and by us in 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 according to our more recent work, the turnover is considerably higher.[6] From May 1998 through April 1999, screener turnover averaged 126 percent at the nation's 19 largest airports; 5 of these airports reported turnover of 200 percent or more, and 1 reported 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 limit the level of experience among screeners operating a checkpoint.

Both FAA and the aviation industry attribute the rapid turnover to the low wages and minimal benefits screeners receive, along with the daily stress of the job. Generally, screeners are paid at or near the minimum wage. We reported last year 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.

The demands of the job also affect performance. 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) improving individuals' aptitudes for effectively performing screening duties, (2) the sufficiency of the training provided to screeners and how well they comprehend it, and (3) the monotony of the job and the distractions that reduce screeners' vigilance. As a result, screeners are being placed on the job who do not have the necessary

[5] *Aviation Security: Long-Standing Problems Impair Airport Screeners' Performance* (GAO/RCED-00-75, June 28, 2000).

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

aptitudes, or sufficient knowledge to perform the work effectively, and who then find the duties tedious and dull.

We reported in June 2000 that FAA was implementing a number of actions to improve screeners' performance. However, FAA did not have an integrated management plan for these efforts that would identify and prioritize checkpoint and human factors problems that needed to be resolved, and identify measures—and related milestone and funding information—for addressing the performance problems. Additionally, FAA did not have adequate goals by which to measure and report its progress in improving screeners' performance.

FAA is implementing our recommendations to develop an integrated management plan. However, two key actions to improving screeners' performance are still not complete. These actions are the deployment of threat image projection (TIP) systems—which place images of dangerous objects on the monitors of X-ray machines to keep screeners alert and monitor their performance—and a certification program to make screening companies accountable for the training and performance of the screeners they employ. Threat image projection systems are expected to keep screeners alert by periodically imposing the image of a dangerous object on the X-ray screen. They also are used to measure how well screeners perform in detecting these objects. Additionally, the systems serve as a device to train screeners to become more adept at identifying harder-to-spot objects. FAA is currently deploying the threat image projections systems and expects to have them deployed at all airports by 2003.

The screening company certification program, required by the Federal Aviation Reauthorization Act of 1996, will establish performance, training, and equipment standards that screening companies will have to meet to earn and retain certification. However, FAA has still not issued its final regulation establishing the certification program. This regulation is particularly significant because it is to include requirements mandated by the Airport Security Improvement Act of 2000 to increase screener training—from 12 hours to 40 hours—as well as to expand background check requirements. FAA had been expecting to issue the final regulation this month, 2-½ years later than it originally planned. According to FAA, it needed the additional time to develop performance standards based on screener performance data.

Options for Assigning Screening Responsibility to Other Entities

Concerned about the performance of screeners, the Subcommittee on Aviation, House Committee on Transportation and Infrastructure, asked us to examine options for conducting screening and to outline some advantages and disadvantages associated with these alternatives. This work is still ongoing, but I will provide a perspective on the information we have obtained to date.

Many aviation stakeholders agreed that a stable, highly trained, and professional workforce is critical to improving screening performance. They identified compensation and improved training as the highest priorities in improving performance. Respondents also believed that the implementation of performance standards, team and image building, awards for exemplary work, better supervision, and certification of individual screeners would improve performance. Some respondents believed that a professional workforce could be developed in any organizational context and that changing the delegation of screening responsibilities would increase the costs of screening.

Four Major Alternatives for Screening

We identified four principal alternative approaches to screening. Each alternative could be structured and implemented in many different ways; for instance, an entity might use its own employees to screen passengers, or it might use an outside contractor to perform the job. For each alternative, we assumed that FAA would continue to be responsible for regulating screening, overseeing performance, and imposing penalties for poor performance. Table 1 outlines the four options.

Table 1: Description of Screening Alternatives

Alternative	Summary
Airlines with new certification rules	Air carriers could continue to be responsible for conducting screening. However, this alternative assumes that FAA will impose new requirements on screening companies to ensure that screeners are better trained and demonstrate proficiency in using screening equipment.
Airports	Each airport management authority could be responsible for its own screening. Given the number and diversity of the nation's airports, screening operations might vary considerably throughout the country.
Federal agency	A new DOT agency (with headquarters and field structure) could be created to conduct the national screening program. It could be accountable to the Congress through the annual appropriations and oversight processes.
Federal corporation	A government corporation created solely to conduct passenger and baggage screening. Like other government corporations—such as the Tennessee Valley Authority—it would be accountable to the Congress but would have more autonomy than other agencies.

Source: GAO's analysis of Booz-Allen and Hamilton, Independent Assessment of Airport Security Screener Performance and Retention, Sept. 15, 2000.

Criteria for Assessing Screening Alternatives

Shifting responsibility for screening would affect many stakeholders and might demand many resources. Accordingly, a number of criteria must be weighed before changing the status quo. We asked aviation stakeholders to identify key criteria that should be used in assessing screening alternatives. These criteria are to

- improve screening performance;
- establish accountability for screening performance;
- ensure cooperation among stakeholders, such as airlines, airports, FAA, and screening companies;
- efficiently move passengers to flights; and
- minimize legal and liability issues.

We asked airline and airport security officials to assess each option for reassigning screening responsibility against the key criteria. Specifically, we asked them to indicate whether an alternative would be better, the same, or worse than the current situation with regard to each criterion. Table 2 summarizes their responses.

Table 2: Summary of Respondent's Views of Alternatives to the Current Program

Options	Screener performance	Accountability	Stakeholder cooperation	Legal and liability	Passengers moved efficiently
Airlines with new rules	Better	Better	Same	Same	Same
Airports	Undecided	Undecided	Undecided	Undecided	Undecided
Federal agency	Better	Better	Undecided	Undecided	Undecided
Federal corporation	Better	Better	Undecided	Undecided	Same

Note: The views expressed about the airlines' and airports' options are based on the opinions of 17 major air carriers and airports we interviewed; views about the federal agency and the federal corporation are based on the opinions of 9 and 4 of these respondents, respectively. A consensus of Better, Same, or Worse was determined by having about 60 percent agree on the response.

Leaving Responsibility to Air Carriers With New Certification Rules

At the time of our review, FAA was finalizing a certification rule that would make a number of changes to the screening program, including requiring FAA- certification of screening companies and the installation of TIP systems on X-ray machines at screening checkpoints. Our respondents believed that these actions would improve screeners' performance and accountability. Some respondents approved of the proposed changes, since they would result in FAA having a direct regulatory role vis-a-vis the screening companies. Others indicated that the installation of TIP systems nationwide could improve screeners' awareness and ability to detect potentially threatening objects and result in better screener performance. Respondents did not believe that this option would affect stakeholder

cooperation, affect passenger movement through checkpoints, or pose any additional legal issues.

Assigning Screening Responsibilities to Airports

No consensus existed among aviation stakeholders about how making airports responsible for screening would affect any of the key criteria. Almost half indicated that screeners' performance would not change if the airport authority were to assume responsibility, particularly if the airport authority were to contract out the screening operation. Some commented that screening accountability would likely blur because of the substantial differences among airports in management and governance. Many respondents indicated that the airport option would produce the same or worse results than the current situation in terms of accountability, legal/liability issues, cooperation among stakeholders, and passenger movement. Several respondents noted that cooperation between air carriers and airports could suffer because the airports might raise the cost of passenger screening and slow down the flow of passengers through the screening checkpoint—to the detriment of the air carriers' operations. Others indicated that the legal issue of whether employees of a government-owned airport could conduct searches of passengers might pose a significant barrier to this option.

Creating a New Federal Agency Within DOT

Screening performance and accountability would improve if a new agency were created in DOT to control screening operations, according to those we interviewed. Some respondents viewed having one entity whose sole focus would be security as advantageous and believed it would be fitting for the federal government to take a more direct role in ensuring aviation security. Respondents indicated that federal control could lead to better screener performance because a federal entity most likely would offer better pay and benefits, attract a more professional workforce, and reduce employee turnover. There was no consensus among the respondents preferring this option on how federal control might affect stakeholder cooperation, passenger movement, or legal and liability issues.

Creating a Federal Corporation

For some of the same reasons mentioned above, respondents believed that screening performance and accountability would improve under a government corporation charged with screening. The majority of the respondents preferred the government corporation to the DOT agency, because they viewed it as more flexible and less bureaucratic than a federal agency. For instance, the corporation would have more autonomy in funding and budgeting requirements that typically govern the operations

of federal agencies. Respondents believed that the speed of passengers through checkpoints was likely to remain unchanged. No consensus existed among respondents preferring the government corporation option about how federal control might affect stakeholder cooperation or legal and liability issues.

Potential Lessons About Screening Practices From Other Countries

We visited five countries—Belgium, Canada, France, the Netherlands, and the United Kingdom—viewed by FAA and the civil aviation industry as having effective screening operations to identify screening practices that differ from those in the United States.[7] The responsibility for screening in most of these countries is placed with the airport authority 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. We note that, worldwide, of 102 other countries with international airports, 100 have placed screening responsibility with the airports or the government; only 2 other countries—Canada and Bermuda—place screening responsibility with air carriers.

We also identified differences between the United States and the five countries in three other areas: screening operations, screeners' qualifications, and screeners' pay and benefits. As we move to improve the screening function in the United States, practices of these countries may provide some useful insights.

First, screening operations in some of the countries we visited 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 allow only ticketed passengers through the screening checkpoints, thereby allowing the screeners to more thoroughly check fewer people. Some countries also have a greater police or military presence near checkpoints. In the United Kingdom, for

[7]See *Aviation Security: Long-Standing Problems Impair Airport Screeners' Performance* (GAO/RCED-00-75, June 28, 2000).

example, security forces—often armed with automatic weapons—patrol at or near checkpoints. At Belgium's main airport in Brussels, a constant police presence is maintained at one of two glass-enclosed rooms directly behind the checkpoints.

Second, 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. In the Netherlands, screeners do not have to be citizens, but they must have been residents of the country for 5 years. Training requirements for screeners were also greater in four of the countries we visited than in the United States. While FAA requires that screeners in this country have 12 hours of classroom training before they can begin work, 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, that the screener will conduct.

Finally, screeners receive relatively better pay and benefits in most of these countries. Whereas screeners in the United States 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 in those countries. In the Netherlands, for example, screeners received at least the equivalent of about $7.50 per hour. This wage was about 30 percent higher than the wages at fast-food restaurants in that country. In Belgium, screeners received the equivalent of about $14 per hour. Not only is pay higher, but the screeners in some countries receive benefits, such as health care or vacations—in large part because these benefits are required under the laws of these countries. These countries also have significantly lower screener turnover than the United States: turnover rates were about 50 percent or lower in these countries.

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

In view of the tragic events of September 11, 2001, it is clear that we need to thoroughly assess and improve aspects of our aviation security system, including screening. Reassigning the screening functions may be one of the key improvements needed; however, we all recognize that implementing an alternative to the current approach will take time. Many of the stakeholders we consulted expected that changes would be difficult and may require much time and labor to avoid disruption of screening operations. Incremental actions might be necessary, such as testing a new alternative at selected sites while maintaining the current situation elsewhere.

In the meantime, DOT and FAA should continue with efforts under way to improve screeners' performance. We also believe that in the immediate future, additional actions should be considered. These actions could include prioritizing outstanding recommendations that address security, developing a strategic plan to address the recommendations, assigning specific executive responsibility for carrying out this plan, and identifying the sources and amounts of funding needed. A key action needed is to complete the promulgation of the screening company certification regulation, which also implements the requirements of the Airport Security Improvement Act of 2000, enacted by the Congress last November. Furthermore, this committee and others are considering various types of assistance for the airline industry. Consideration of the role of air carriers in conducting passenger screening could be examined as part of the ongoing effort to identify and structure mechanisms to provide such assistance to help the carriers emerge from the current crisis.

This concludes my prepared statement. I will be pleased to answer any questions that you or Members of the Committees may have.

Contacts and Acknowledgments

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