

---

---

# *Office of Inspector General*

---

---

**Aviation Security**

**Federal Aviation Administration**

**Report Number AV-1998-134**

**Date Issued: May 27, 1998**



# Memorandum



**U.S. Department of  
Transportation**

Office of the Secretary  
of Transportation

Office of Inspector General

---

Subject: INFORMATION: Aviation Security,  
Federal Aviation Administration  
Report No. AV-1998-134

Date: May 27, 1998

Reply to  
Attn of: JA-1

From:   
Lawrence H. Weinrob  
Assistant Inspector General for Auditing

To: Federal Aviation Administrator

On May 14, 1998, at a hearing of the Subcommittee on Aviation, Committee on Transportation and Infrastructure, U.S. House of Representatives, we provided observations on Aviation Security based on the results of our recent reviews. A copy of our statement is attached for your information.

The testimony addressed three issues (1) the challenges Federal Aviation Administration (FAA) faces in providing oversight of the air cargo industry, (2) the progress and problems experienced with deploying new explosives detection equipment at U.S. airports, and (3) observations on action needed to enhance aviation security. Specifically, we testified that FAA has made progress in developing an oversight program for dangerous goods/cargo security, but we found substantial rates of noncompliance with dangerous goods regulations and cargo security requirements; lessons have been learned in the deployment of explosives detection equipment, but the equipment is not performing to certifications standards and is being underutilized by air carriers; and finally, to meet current and future threats to aviation security, FAA needs an integrated strategic plan to guide its efforts and prioritize funding needs.

We plan to issue separate reports on the results of our audits of FAA's Dangerous Goods/Cargo Security Program, and Deployment of Explosives Detection Systems. We expect to issue a joint report with FAA on Security Controls over Air Carrier Shipments.

The Office of Inspector General will continue to monitor FAA's progress in improving aviation security. If I can answer any questions or be of any further assistance, please call me on (202) 366-1992 or Alexis M. Stefani, Deputy Assistant Inspector General for Aviation, on (202) 366-0500.

Attachment

#

**Before the Subcommittee on Aviation,  
Committee on Transportation and Infrastructure,  
U.S. House of Representatives**

---

For Release on Delivery  
Expected at  
9:30 a.m. EST  
Thursday  
May 14, 1998  
Report Number: AV-1998-134

# **Aviation Security Federal Aviation Administration**

**Statement of  
Alexis M. Stefani  
Deputy Assistant Inspector General for Aviation  
U.S. Department of Transportation**



---

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify today and discuss efforts underway to improve aviation security. Because aviation is an attractive target for terrorists, the Federal Aviation Administration (FAA) and the U.S. aviation community must remain vigilant and continue to make improvements that will enhance the safety and security of the traveling public.

In response to congressional direction and the White House Commission on Aviation Safety and Security, important actions are underway to improve security at the Nation's airports that have profound implications for FAA and the aviation community. In the Omnibus Consolidated Appropriations Act of 1997, Congress authorized FAA to hire 300 additional security personnel and provided \$198 million for new security initiatives. This included \$144 million for new security technologies. FAA has awarded contracts to purchase up to 100 FAA-certified<sup>1</sup> explosives detection machines and 489 trace<sup>2</sup> detection devices. FAA has also developed automated systems for computer-assisted passenger screening and operator training. In the future, FAA estimates \$100 million is required annually through Fiscal Year 2004 to complete the deployment of advanced security equipment at U.S. airports.

Over the years, we have examined the adequacy of access controls at airports, the effectiveness of passenger checkpoint screening, and, more recently, industry compliance with security rules and regulations governing the transportation of cargo and dangerous goods on aircraft. We have just completed work on the deployment of explosives detection systems. An important message of our testimony today is that technology is only part of the solution--effective security relies on a careful blend of technology, procedures, inspections, and a well-trained security work force.

My statement today will address (1) the challenges FAA faces in providing oversight of the air cargo industry, (2) the progress and problems experienced with deploying new explosives detection equipment at U.S. airports, and (3) observations on actions needed to enhance aviation security.

- FAA faces important challenges in providing oversight over a diverse air cargo industry. The emphasis on aviation security in past years has been directed toward screening passengers and controlling access to airports. The May 11, 1996 ValuJet

---

<sup>1</sup> FAA's standards for certifying explosive detection systems for screening checked baggage are classified. The certification standard sets criteria for detection, false alarm, and throughput.

<sup>2</sup> Trace devices attempt to detect minute explosive quantities on or inside luggage or articles due either to contamination or vapors emanating from an explosive.

accident prompted a critical review of FAA's surveillance practices for air cargo shipments. Testimony on the ValuJet accident led Congress to conclude air cargo safety could only be achieved through a comprehensive Federal inspection program that encompasses all links in air cargo shipments. The continuing evolution of FAA's Dangerous Goods/Cargo Security Program vividly illustrates the complexity of the U.S. commercial aviation system and the difficulties facing FAA and the aviation industry. Passenger aircraft now transport about 60 percent of all air cargo. The air cargo industry in the U.S. includes vast linkages to around 4,000 air carriers, 3,000 air freight forwarders, 4,000 repair stations, and 70,000 shippers of dangerous goods.

FAA has made important progress in developing an oversight program for dangerous goods/cargo security, but we found substantial rates of noncompliance with dangerous goods regulations and cargo security requirements. As a result of an October 1, 1997 hazardous materials incident on a passenger aircraft, the Office of Inspector General (OIG) and FAA conducted a joint review of security controls over air courier shipments on domestic and foreign air carriers. In the first round of testing, the rate of compliance by air carriers and air couriers was unacceptable. A second round of testing after industry briefings, found air carriers had improved their compliance with cargo security requirements that apply to their acceptance of cargo from air couriers for transport on passenger aircraft.

In the second round of testing, however, air couriers compliance continued to be unacceptable. The lack of compliance with security requirements when accepting cargo from shippers and offering it to air carriers for transportation indicates the need for FAA to amend or clarify its regulations. With this segment of the air cargo industry, FAA also must be more aggressive in ensuring compliance by frequently assessing and testing compliance with cargo security requirements, and taking appropriate enforcement actions.

- FAA and industry are in the process of the first significant deployment of sophisticated advanced security equipment at U.S. airports. Important experience gained and lessons learned from this process are valuable for future equipment certifications and deployments.

The FAA-certified CTX 5000 SP's<sup>3</sup> performance in airports differs from its performance during certification testing. Our analysis indicates that CTX 5000 SPs currently deployed at airports are experiencing high false alarm rates and slow baggage processing speeds. From the operational data we reviewed, false alarm rates were up to 169 percent higher than the standard established during

---

<sup>3</sup> InVision's Technologies, Inc. CTX 5000 series is the only FAA-certified explosives detection system.

certification testing. Test bags used for certifying false alarm rates in the laboratory environment are not fully representative of passenger baggage. Many of the items, such as food, that cause false alarms at airports are not included in the bags used for certification tests. Also, the certification testing procedure for baggage processing rate does not take into account “alarm resolution”, which is the time it takes for an operator to determine if an alarm is real. Based on our work, FAA’s goal to ultimately screen 100 percent of checked baggage will not be achieved in the near future, and FAA will need to continue its reliance on passenger profiling to select passengers for additional security measures.

Our analysis indicates the CTX 5000 SP is under utilized by air carriers. Ten of eleven CTX 5000 SPs we reviewed were screening less than 200 **bags per day**; however, this \$1 million machine has the capability to screen 225 **bags per hour**. Usage of the CTX 5000 SP needs to be increased for several reasons. First, it offers a high potential for improving aviation security. Second, it represents a significant outlay of Federal funds. Third, continued low use may affect operator proficiency and prevent FAA from effectively measuring the reliability of the equipment. For existing and future deployments of explosives detection equipment, FAA and industry need to agree on several important issues including usage rates, and who will pay for maintenance of the new equipment and future operator training.

- To meet current and future threats to aviation security, FAA needs an integrated strategic plan to guide its efforts and prioritize funding needs. The planning efforts of the Associate Administrators for Civil Aviation Security and Research and Acquisitions, including the Technical Center, must be integrated towards common goals, objectives, and milestones. Concentration on deployment (what to buy, when and where to put it) is not the complete solution. Included in this plan should be a balanced approach covering basic research, equipment deployment and use, certification and operations testing processes, data collection and analysis on actual equipment and operator performance, and regulation and enforcement. FAA should work with the aviation industry, shippers, and airport operators in developing this integrated security plan.

## **BACKGROUND**

The responsibility for aviation security is shared between FAA, the airlines, and airports. FAA sets guidelines, establishes procedures, and relies on the intelligence community for information on threats to aviation and makes judgments on how to meet

these threats. Also, FAA sponsors the development of new security technology, such as explosive detection equipment, for industry use. Airlines are responsible for screening checked baggage, carry-on bags, passengers, and cargo. Airports are responsible for the security of the airport environment. Historically, airlines and airports have been responsible for purchasing and maintaining security equipment.

While the emphasis on aviation security in past years has been directed toward screening passengers and controlling access to airports, the May 11, 1996 ValuJet accident prompted a critical review of FAA's surveillance practices for air cargo shipments. The ValuJet accident was caused by the improper shipment of chemical oxygen generators by a repair station. Congressional hearings into that accident concluded that air cargo safety could only be achieved through a comprehensive Federal inspection program that encompasses all links in cargo shipment. In the U.S., these links include around 4,000 air carriers, 3,000 air freight forwarders, 4,000 repair stations, and 70,000 shippers of dangerous goods.

Another recent tragedy, the July 1996 crash of TWA Flight 800, proved to be the catalyst for taking important steps in aviation security. Although the Federal Bureau of Investigation (FBI) and the National Transportation Safety Board (NTSB) have ruled out terrorist activity as a potential cause of the crash, the crash prompted the August 1996 creation of the White House Commission on Aviation Safety and Security, (known as the Gore Commission). Its reports in September 1996 and February 1997 addressed safety, security, and air traffic control modernization.<sup>4</sup> With respect to security, the Gore Commission made recommendations to (1) implement a comprehensive plan to prevent inclusion of explosives and other threat objects in

---

<sup>4</sup> For additional details, see Final Report to President Clinton, White House Commission on Aviation Safety and Security (February 12, 1997).



cargo, (2) conduct airport vulnerability assessments, (3) deploy new explosives detection equipment, and (4) implement automated passenger profiling.

In the fall of 1996, Congress provided \$198 million for aviation security initiatives, including \$144.2 million for the deployment of advanced security technologies, \$18 million to hire 300 additional FAA security personnel, \$8.9 million for additional canine teams, \$5.5 million for airport vulnerability assessments, and \$21 million for aviation security research and operational testing. The Secretary of Transportation directed FAA to have most of the equipment in place by September 1997, and to complete the deployment by December 1997.

To help purchase and install the new equipment, FAA formed the Security Equipment Integrated Product Team composed of FAA, airline, and airport representatives.<sup>5</sup> As of May 1, 1998, FAA has purchased more than 75 “bulk”<sup>6</sup> detection explosives machines and over 370 “trace” detection devices for airline use. In addition, FAA has developed a new computer-based operator training system called the Screener Proficiency Evaluation and Reporting System or SPEARS. SPEARS is a computerized training and testing system that helps train airline screeners and maintain their skills. FAA is also helping to fund the airlines’ implementation of Computer Assisted Passenger Screening (CAPS). CAPS is an automated passenger profiling system that was developed by Northwest Airlines to identify passengers whose checked baggage must be subjected to additional security measures.

---

<sup>5</sup> The Security Equipment Integrated Product Team is responsible for (1) developing acquisition plans, (2) determining the type and number of explosive detection equipment to purchase, (3) selecting the airlines and airport sites to receive the equipment, and (4) overseeing the installation and integration of equipment into airports’ existing security systems.

<sup>6</sup> Bulk technologies attempt to detect main mass or bulk explosives inside baggage or other concealing containers.

To continue the deployment, FAA is seeking to spend an additional \$25 million in Fiscal Year 1998 for airport security equipment through a reprogramming action, and has requested \$100 million for Fiscal Year 1999. FAA estimates \$100 million annually is required through Fiscal Year 2004 to complete the deployment of advanced security equipment at additional airports. In addition to funding the deployment of new technology, FAA invests significant funds annually for the research and development of new security technology.<sup>7</sup>

### **CHALLENGES FACING FAA IN PROVIDING SECURITY OVERSIGHT OF AIR CARGO**

FAA faces significant challenges in providing effective security oversight over the U.S. aviation industry. The U.S. air transport system is the most complex aviation system in the world with about 600 million passenger enplanements and more than 26 billion cargo ton miles per year. Domestically, over 450 airports are required to have an FAA-approved security program.

In our view, the success of FAA's security oversight efforts depends on how well the agency can respond to changing conditions, including the continued growth in air cargo. About 60 percent of all air cargo is now transported by passenger aircraft, and air cargo traffic has been growing at an annual rate of about 7 percent. Moreover, FAA and industry predict significant growth in both passenger and air cargo traffic<sup>8</sup>. FAA's Dangerous Goods/Cargo Security Program illustrates the complexity of the U.S. commercial aviation system. This system constantly evolves to meet market

---

<sup>7</sup> FAA spent \$62 million in Fiscal Year 1997, expects to spend \$45 million this year, and has requested \$55 million for Fiscal Year 1999 for aviation security research, engineering, and development.

<sup>8</sup>For additional details, see FAA Aviation Forecasts Fiscal Years 1998-2009, (Report No. FAA APO-98-1, March 1998) and 1997 Current Market Outlook, The Boeing Company.

demands and provide new services, challenging effective security. Because of the sensitive nature of our findings, we cannot provide in open forum details about the effectiveness of security measures currently in place for air cargo or where we conducted our observations and tests.<sup>9</sup>

Dangerous Goods/Cargo Security Program is Evolving. FAA established its Dangerous Goods/Cargo Security Program in January 1997 in response to congressional concerns over air cargo safety. The Program combines policies, procedures, and guidelines previously prescribed in FAA's Hazardous Materials Program and the cargo security segment of the Air Carrier Standard Security Program. Inspection and enforcement activities under the Dangerous Goods/Cargo Security Program focus on four air transportation regulated entities: air carriers (including foreign air carriers), air freight forwarders, repair stations, and shippers of dangerous goods required to comply with hazardous materials regulations.

We have evaluated the effectiveness of FAA's Dangerous Goods/Cargo Security Program and conducted joint tests with FAA on air carrier and air freight forwarder compliance with cargo security requirements. We found that FAA has made progress in developing and redefining policies, procedures, and controls for implementing a new Dangerous Goods/Cargo Security Program. FAA's efforts include developing protocols for assessing air carriers, air freight forwarders, repair stations, and shippers of dangerous goods.

FAA has also conducted assessments and cargo security tests of air carriers and air freight forwarders. However, FAA's dangerous goods/cargo security assessments and our own field tests disclosed a substantial rate of noncompliance with dangerous goods

---

<sup>9</sup> Title 14 Code of Federal Regulations Part 191.1 prevents release of sensitive security information without the express written permission of FAA's Associate Administrator for Civil Aviation Security. FAA determines what information is sensitive security information.

regulations and cargo security requirements. This condition occurred, in part, because air carriers and air freight forwarders were not providing sufficient oversight to ensure their employees used proper security and safety measures. Without adequate industry compliance, the risk to the traveling public is heightened.

Air Couriers Compliance Testing Results. Air couriers<sup>10</sup> remain an elusive segment of the air cargo industry. An October 1, 1997 incident at Miami International Airport prompted a joint OIG/FAA review of security controls over air courier shipments on domestic and international flights. Passengers and crew aboard an American Airlines flight bound for Ecuador had to evacuate when noxious fumes from the cargo area entered the aircraft's cabin. These fumes were released when one bag from a shipment of ten 50-pound bags of pesticide was torn during loading of the aircraft's cargo section. The bags were loaded aboard the aircraft as checked passenger baggage from an air courier. Investigation of this incident by OIG and the FBI resulted in a Miami man pleading guilty to unlawfully shipping hazardous material, and facing possible imprisonment of up to 11 years and fines totaling \$600,000.

Our joint review included surveillance of air carriers acceptance of cargo offered by air couriers, visits to selected air courier facilities to review documentation, and submission of test packages to air couriers for transportation on passenger aircraft. In the first round of testing, the rate of compliance by air carriers and air couriers was unacceptable. A second round of testing after industry briefings found air carriers had improved their compliance with cargo security requirements. To ensure increased and sustained compliance with regulations, FAA should continue to work with air carriers.

---

<sup>10</sup> On-board commercial couriers traveling as passengers are often compensated to accompany packages on international flights. Because packages are accompanied and checked for cargo as "baggage," packages can clear customs in the country of arrival quicker than traditional cargo.

In the second round of testing, air courier compliance continued to be unacceptable. The lack of compliance with security requirements when accepting cargo from shippers and offering it to air carriers for transportation indicate the need for FAA to amend or clarify its regulations. FAA plans to ensure air couriers understand cargo security requirements before approving air couriers' security programs. With this segment of the air cargo industry, FAA also must be more aggressive in ensuring compliance by (1) frequently assessing and testing compliance with cargo security requirements, (2) taking appropriate enforcement action, and (3) amending the Federal air cargo regulations to suspend FAA approval of air couriers' cargo security programs for repeat violators.

**PROGRESS AND PROBLEMS WITH DEPLOYING NEW EXPLOSIVES**

**DETECTION EQUIPMENT**

FAA and the industry are deploying significant numbers of new explosives detection equipment at U.S. airports for screening passenger baggage. This is the first large-scale deployment of sophisticated explosives detection equipment at U.S. airports.

<b>EQUIPMENT TYPE</b>	<b>APPROPRIATED</b>	<b>OBLIGATED</b>	<b>COMMITTED</b>	<b>AVAILABLE</b>
Bulk Detection:				
CTX 5000 SP	\$68,313,000	\$67,463,000	\$0	\$850,000
Other	15,550,000	14,402,000	0	1,148,000
Trace Detection	45,037,000	35,520,000	2,922,000	6,595,000
CAPS	10,000,000	3,488,000	6,512,000	0
SPEARS	<u>5,300,000</u>	<u>959,000</u>	<u>0</u>	<u>4,341,000</u>
<b>TOTALS</b>	<b>\$144,200,000</b>	<b>\$121,832,000</b>	<b>\$9,434,000</b>	<b>\$12,934,000</b>

The CTX 5000 SP is the only FAA-certified automated explosives detection system and costs around \$1 million per machine. We reviewed data on the performance and

use of the CTX 5000 SP for the period April 1, 1997 through March 9, 1998. In addition, we reviewed FAA's process for certifying explosives detection systems.

Explosives Detection Equipment Deployment. Deployment of the 54 purchased CTX 5000 SPs has been slowed by the complexity of the installations and the number of entities involved. At some airports the CTX 5000 SPs are installed in locations not conducive to efficient and effective security operations. For example, we observed machines not secured from the public and machine operators not sufficiently insulated from noise and disruption. Other contributing factors have been the initial inexperience of the integration contractors; airline indecision on site surveys; and delays experienced due to airport permits, approvals, and construction. In contrast, because of smaller size and portability, implementation of trace detection devices for screening carry-on bags has been smoother.

Original milestones were not met, but lessons were learned and the deployment is progressing. A third of the 54 CTX 5000 SPs are now installed, and the remaining machines are expected to be deployed at airports nationwide by September 1998.

Explosives Detection Equipment Field Performance. The CTX 5000 SP's performance in airports differs from its performance during certification testing. Our analysis indicates that FAA-certified CTX 5000 SPs currently deployed at airports are experiencing high false alarm rates and slow baggage processing speeds. From the operational data we reviewed, the false alarm rates were up to 169 percent higher than the standard established during certification testing. Test bags used for certifying false alarm rates in the laboratory environment are not fully representative of passenger baggage. Many of the items, such as food, that cause false alarms at airports are not included in the bags used for certification tests. Also, the certification testing procedure for determining the machine's baggage processing rate does not take into

account “alarm resolution.” This is the time it takes for an operator to determine if an alarm is real.

FAA’s certification protocol for bulk explosives detection systems and how to address differences in certification testing and airport performance have been the subject of considerable debate.<sup>11</sup> At the heart of this issue is the need to ensure that new explosives detection equipment operating at airports is meeting FAA standards and requirements for detecting explosives. FAA recognizes these issues but does not plan at this time to change its certification process.

Without improvements in performance, explosives detection systems may not facilitate FAA’s goal to ultimately screen 100-percent checked baggage. Based on our work, this goal will not be achievable in the near future and FAA will not be able to reduce its reliance on passenger profiling. for domestic flights The Gore Commission recommended that passenger profiling should only last until explosives detection systems are reliable and fully deployed.

Explosives Detection Equipment Usage. Our analysis indicates the CTX 5000 SP is underutilized by air carriers. For example, daily usage rates on 10 of 11 units installed and operating during our review were significantly less than the CTX 5000 SP certified processing speed of about **225 bags per hour**. At five locations, 10 CTX 5000 SPs were screening less than **200 bags per day**. Usage of the CTX 5000 SP needs to be increased for several reasons. First, it offers a high potential for improving aviation security. Second, it represents a significant outlay of Federal funds. Third, continued

---

<sup>11</sup> For additional details on FAA’s certification process and how it has evolved, see Detection of Explosives for Commercial Aviation Security, National Research Council (Publication NMAB-471, 1993); Aviation Security: Development of New Security Technology Has Not Met Expectations (GAO/RCED-94-142, May 19, 1994); and Second Interim Report to the Federal Aviation Administration Technical Center, Committee on Commercial Aviation Security, National Research Council (Report No. DOT/FAA/AR-97/57, July, 1997).

low use may affect operator proficiency and prevent FAA from effectively measuring the reliability of the equipment.

Further, for existing and future deployments FAA and industry need to agree on several important issues including usage rates, and who will pay for maintenance of the new equipment and future operator training. Negotiations between FAA and the air carriers have been ongoing since June 1997. In our view, these issues must be resolved in the very near future to ensure that progress continues.

### **OBSERVATIONS ON ACTIONS TO ENHANCE AVIATION SECURITY**

Until recently, U.S. airlines had very little experience with integrating new explosives detection equipment and related security initiatives into airline and airport operations. FAA and the industry have found that integrating new explosives detection systems, particularly the CTX 5000 SP, with day-to-day operations is more complex than first imagined. Making this task more difficult is the fact that each airport is unique, and airline operating philosophies differ as well. The success of industry and government efforts will rely on the development of an effective security plan that includes the cooperation and commitment of all facets of the aviation security community.

To meet current and future threats to aviation security, FAA needs an integrated strategic plan to guide its efforts and prioritize funding needs. The planning efforts of the Associate Administrators for Civil Aviation Security and Research and Acquisitions, including the Technical Center, must be integrated towards common goals, objectives, and milestones. Concentration on deployment (what to buy, when and where to put it) is not the complete solution. Included in this plan should be a balanced approach covering basic research, equipment deployment and use, certification and operations testing processes, data collection and analysis on actual equipment and operator performance, and regulation and enforcement. FAA should



work with the aviation industry (air carriers, shippers, airport operators) in developing this integrated security plan.

Key issues this plan should address include:

- Human Factors. Human factor issues associated with the new equipment deployment cannot be underestimated. FAA believes--and we agree--that screeners are absolutely critical in improving security. FAA has long been concerned about the low pay and high turnover of security personnel responsible for screening passengers and bags. FAA test results of new explosives detection equipment indicate the equipment can correctly identify a potential threat but the operator can make a wrong decision and “clear” the bag. While FAA is funding the implementation of important tools to help screeners improve their skills, such as the Screener Proficiency Evaluation and Reporting System, additional human factor research, and data collection and analysis of operator performance will be necessary to ensure FAA can reach its security goals and meet the challenges of a changing aviation industry.
- Balanced Approach. Linking of new detection technology with other security measures continues to offer tremendous benefits and flexibility and can help focus security resources. A mix of technologies and procedures can be adjusted to meet different threat levels and should be refined over the next several years, based on new research and actual field experience.
- Operational Data Analysis. Deployment offers an exceptional opportunity to collect data on the operational performance of explosives detection equipment. This could lead to identification of barriers that can be addressed in the next generation of explosives detection equipment. This type of data would also assist

FAA in revising the certification processes and operator training requirements, and developing regulatory standards that incorporate both the needs of FAA to ensure aviation security and the needs of air carriers and airports to operate safely and efficiently.

- Public Acceptance. Finally, public acceptance of new measures and technology is critical. In 1996, the National Research Council raised the issue of public acceptance associated with new screening technologies and noted that acceptance or rejection of a technology both by the people required to use it (airlines) and by the people affected by it (passengers) is just as important as the performance and effectiveness of the technology.<sup>12</sup> A key factor is the perceived level of threat and how this is communicated to the traveling public. Thus, the Council cautions that a technology could fail for non-technical reasons.

Mr. Chairman, that concludes my statement. I would be happy to answer any questions you or the members of the Subcommittee might have.

---

<sup>12</sup> See Airline Passenger Security Screening: New Technologies and Implementation Issues, National Research Council (Publication NMAB-482-1, 1996.)