

**GAO**

Report to the Chairman, Subcommittee  
on Aviation, Committee on  
Transportation and Infrastructure,  
House of Representatives

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September 2003

**AIRPORT  
PASSENGER  
SCREENING**

**Preliminary  
Observations on  
Progress Made and  
Challenges Remaining**





Highlights of [GAO-03-1173](#), a report to the Chairman, Subcommittee on Aviation, Committee on Transportation and Infrastructure, House of Representatives

## Why GAO Did This Study

Passenger screening is critical to the security of our nation's aviation system, particularly in the aftermath of the September 11, 2001, terrorist attacks. The Transportation Security Administration (TSA) is tasked with securing all modes of transportation, including the screening of airline passengers. TSA has met numerous requirements in this regard, such as deploying more than 50,000 federal screeners at over 440 commercial airports nationwide. To determine whether TSA's passenger screening program is achieving its intended results, GAO is conducting an ongoing evaluation of TSA's efforts to (1) ensure that passenger screeners are effectively trained and supervised, (2) measure screener performance in detecting threat objects, and (3) implement and evaluate the contract screening pilot program.

## What GAO Recommends

Because our evaluation is ongoing and our results are preliminary, we are not making any recommendations.

[www.gao.gov/cgi-bin/getrpt?GAO-03-1173](http://www.gao.gov/cgi-bin/getrpt?GAO-03-1173).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Cathleen A. Berrick, (202) 512-8777, or [Berrickc@gao.gov](mailto:Berrickc@gao.gov).

# AIRPORT PASSENGER SCREENING

## Preliminary Observations on Progress Made and Challenges Remaining

### What GAO Found

The Transportation Security Administration (TSA) was tasked with the tremendous challenge of building a large federal agency responsible for securing all modes of transportation, while simultaneously meeting ambitious deadlines to enhance the security of the nation's aviation system. Although TSA has made significant progress related to its passenger screening program, challenges remain.

TSA recognized that ongoing training of screeners on a frequent basis, and effective supervisory training, is critical to maintaining and enhancing skills. However, TSA has not fully developed or deployed recurrent or supervisory training programs. Although TSA has not yet deployed these programs, it has taken steps in establishing recurrent and supervisory training, including developing six recurrent training modules that will soon be deployed to all airports, as well as working with the U.S. Department of Agriculture (USDA) Graduate School to tailor its off-the-shelf supervisory course to the specific training needs of TSA's screening supervisors.

TSA currently collects little information regarding screener performance in detecting threat objects. The primary source of information collected on screener's ability to detect threat objects is covert testing conducted by TSA's Office of Internal Affairs and Program Review. However, TSA does not consider the results of these tests as a measure of screener performance, but rather a "snapshot" of a screener's ability to detect threat objects at a particular point in time. Additionally, TSA does not currently use the Threat Image Projection system, which places images of threat objects on x-ray screens during actual operations and records whether screeners identify the threat. However, TSA plans to fully activate the Threat Image Projection system with significantly more threat images than previously used, as well as implement an annual screener certification program in October 2003. TSA also recently completed a screener performance improvement study and is taking steps to address the deficiencies identified during the study.

As required by the Aviation and Transportation Security Act, TSA implemented a pilot program using contract screeners in lieu of federal screeners at 5 commercial airports. However, TSA has not yet determined how to evaluate and measure the performance of the pilot program airports, or prepare for airports potentially applying to opt-out of using federal screeners, as allowed by the act, beginning in November 2004. Although TSA has not begun evaluating the performance of the pilot program airports, it plans to award a contract by October 1, 2003, to compare the performance of pilot screeners with federal screeners and determine the reasons for any differences. Numerous airport operators have contacted TSA to express an interest in obtaining more information to assist in their decision regarding opting-out of using federal screeners.

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## Abbreviations

AAAE	American Association of Airport Executives
ACI	Airports Council International
ATSA	Aviation and Transportation Security Act
DOT	Department of Transportation
FAA	Federal Aviation Administration
FSD	Federal Security Directors
LMS	On-Line Learning Management System
OIAPR	Office of Internal Affairs and Program Review
OIG	Office of Inspector General
OJT	on-the-job training
PMIS	Performance Management Information System
SOP	standard operating procedure
TIP	Threat Image Projection
TSA	Transportation Security Administration
USDA	U.S. Department of Agriculture

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G A O

Accountability \* Integrity \* Reliability

United States General Accounting Office  
Washington, DC 20548

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September 24, 2003

The Honorable John Mica  
Chairman, Subcommittee on Aviation  
Committee on Transportation and Infrastructure  
House of Representatives

Dear Mr. Chairman:

Passenger screening is a critical component to the security of our nation's aviation system. Passenger screeners use metal detectors, X-ray machines, explosive trace detection machines, and physical searches to examine passengers and their baggage to identify threat objects. On November 19, 2001, prompted by the terrorist attacks of September 11, 2001, the President signed the Aviation and Transportation Security Act (ATSA), with a primary goal of strengthening the security of the nation's aviation system. ATSA created the Transportation Security Administration (TSA) and mandated specific improvements to aviation security, including the federalization of passenger screening at over 440 commercial airports in the United States by November 19, 2002.

TSA was tasked with the tremendous challenge of building a large federal agency responsible for securing all modes of transportation, while simultaneously meeting ambitious deadlines to federalize aviation security as mandated by ATSA. TSA has met numerous requirements related to its passenger screening program, including deploying more than 50,000 federal screeners at over 440 commercial airports nationwide, developing and implementing a basic screener training program, and establishing a pilot program at 5 airports where screening of passengers and property would be conducted by private screening companies and overseen by TSA.

To determine whether TSA's passenger screening program is achieving its intended results, the Subcommittee on Aviation, House Committee on Transportation and Infrastructure, requested that we review various aspects of the program. Specifically, the Subcommittee asked that we evaluate TSA's efforts to (1) ensure that passenger screeners are effectively trained and supervised, (2) measure screener performance in detecting threat objects, (3) implement and evaluate the contract screening pilot program, and (4) address airport-specific staffing needs, while reducing the screener workforce. On September 5, 2003, we briefed

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the Subcommittee staff on our preliminary observations of TSA's passenger screening program based on our work to date.

This report summarizes and updates the information presented at that briefing. Because our work is still on going, the observations discussed in this report are preliminary.

In conducting our work, we obtained and reviewed TSA documentation related to screener training, testing and supervision; the contract screening pilot program; screener staffing levels; and airport security concerns. We also interviewed relevant officials at TSA headquarters and field offices, airports, and several aviation associations. A more detailed description of our scope and methodology is contained later in this report.

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## Results in Brief

TSA has deployed basic and remedial screener training programs, but has not fully developed or deployed a recurrent or supervisory training program to ensure that screeners are effectively trained and supervised. However, recognizing that training of screeners on a frequent basis and effective supervision are critical to screener performance, TSA has taken some positive steps in this direction. These steps include designing an On-Line Learning Management System (LMS) that will be fielded in October 2003, and working with the U.S. Department of Agriculture's (USDA) Graduate School to tailor its off-the-shelf supervisory course to the specific training needs of TSA's screening supervisors.

TSA currently collects little information to measure screener performance in detecting threat objects. The primary source of information collected on screeners' ability to detect threat objects is operational testing conducted by TSA's Office of Internal Affairs and Program Review (OIAPR).<sup>1</sup> However, TSA does not consider the results of OIAPR's covert tests as a measure of screener performance, but rather a "snapshot" of a screener's ability to detect threat objects at a particular point in time, and as a system-wide performance indicator. In addition, the Threat Image Projection (TIP) system, which the Federal Aviation Administration (FAA) deployed in late 1999 to measure and improve screener performance in

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<sup>1</sup>TSA defines an operational screening test as any covert test of a screener, conducted by TSA, on any screener function to assess the screener's threat item detection ability and/or adherence to TSA-approved procedures.

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detecting threat objects, was shut down immediately following the September 11th terrorist attacks for fear that it would result in screening delays and panic.<sup>2</sup> However, TSA officials reported that they have recently begun fielding TIP to airports, with significantly more threat images than used by the FAA. Further, TSA has not yet implemented an ATSA requirement for an annual proficiency review for all screeners, but plans to begin implementing an annual screener certification program in October 2003. TSA also developed a Performance Management Information System (PMIS) to collect and maintain information on the performance of TSA's passenger and baggage screening operations. However, PMIS contains little information on screener performance in detecting threat objects.<sup>3</sup>

Consistent with ATSA, TSA implemented a pilot program using contract screeners at 5 commercial airports, but has not yet determined how to evaluate and measure the performance of the pilot program airports. However, TSA plans to award a contract by October 1, 2003, to compare the performance of pilot screeners with federal screeners and determine the reasons for any differences. While the purpose of the screener pilot program is to determine the feasibility of using private screening companies rather than federal screeners, TSA initially required private screening companies to adhere to all of the procedures and protocols used by federal screeners. However, TSA recently provided the contractors with some flexibility, such as allowing them to determine and maintain their own staffing levels and to make independent hiring decisions. ATSA also gives airport operators the option of applying to transition from using federal screeners to private screeners beginning in November 2004; however, TSA has not begun to plan for the possible transition of airports from a federal system to a private screening company. Numerous airport operators have contacted TSA to express an interest in obtaining more information to assist in their decision regarding using private screeners.

To address airport-specific staffing needs and accomplish workforce reduction goals, TSA developed a staffing model to determine staffing

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<sup>2</sup>TIP places images of threat objects on x-ray screens during actual operations and records whether screeners identify the threat. TIP was designed by FAA to help screeners remain alert, train them to become more adept at detecting harder to spot threat objects, and continuously measure screener performance.

<sup>3</sup>TSA officials recently reported that they plan to modify PMIS to collect data on screener performance in the future.

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levels at each airport, and recently hired an outside consultant to assist the agency in determining whether identified staffing levels are appropriate. Federal Security Directors (FSD), who are responsible for overseeing security at each of the nation's commercial airports, have expressed concern that they have had limited authority to respond to airport specific staffing needs, such as reacting to fluctuations in daily and/or seasonal passenger flow. TSA headquarters officials acknowledged that their initial staffing efforts created imbalances in the screener workforce and have taken steps to correct identified imbalances, such as such as authorizing the hiring of part-time screeners at over 200 airports—the first of which began working on September 15, 2003.

Because our observations are preliminary and our evaluation is ongoing, we are not making recommendations at this time.

TSA officials reviewed a draft of this report and provided technical comments, which we incorporated as appropriate.

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## Background

ATSA created TSA as an agency within the Department of Transportation (DOT) to ensure security for all modes of transportation, to include aviation.<sup>4</sup> ATSA set forth specific enhancements to aviation security for TSA to implement and established deadlines for completing many of them. These enhancements included federalizing passenger screeners at more than 440 commercial airports by November 19, 2002;<sup>5</sup> screening checked baggage for explosives by December 31, 2002; enhancing screener training standards; and establishing and managing a 2-year pilot program at five airports—one in each airport category—where screening of passengers and property would be conducted by a private screening company and overseen by TSA. Additionally, ATSA included a provision that allows airport operators to apply to opt-out of using federal screeners in favor of private screeners beginning November 19, 2004.

Prior to the passage of ATSA, air carriers were responsible for screening passengers and most used private security firms to perform this function. Longstanding concerns existed regarding screener performance in

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<sup>4</sup>The Homeland Security Act, signed into law on November 25, 2002, transferred TSA to the new Department of Homeland Security.

<sup>5</sup>The December 31, 2002, deadline was extended to December 31, 2003, in some cases by the Homeland Security Act.



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detecting threat objects. Inadequate training and poor supervision, along with rapid turnover and inadequate attention to human factors, were historically identified as key contributors to poor screener performance.<sup>6</sup> As early as 1987, we reported that too little attention had been paid to (1) individual aptitudes for effectively performing screening duties; (2) the sufficiency of screener training and screeners' ability to comprehend training; and (3) the monotony of the job and distractions that reduced screeners' vigilance.<sup>7</sup> Additional studies have shown that effective training can lead to more effective performance and lower turnover rates for passenger screeners.

Concerns have long existed over screeners' inability to detect threat objects during covert tests at passenger screening checkpoints. In 1978, screeners failed to detect 13 percent of the potentially dangerous objects FAA agents carried through checkpoints during tests—a level that was considered “significant and alarming.”<sup>8</sup> In 1987, screeners did not detect 20 percent of the objects during the same types of tests.<sup>9</sup> In addition, we reported that FAA tests conducted between 1991 and 1999 showed that screeners' ability to detect objects was not improving, and in some cases was worsening. In tests conducted in the late 1990s, as the testing objects became more realistic and more closely approximated how a terrorist might attempt to penetrate a checkpoint, screeners' ability to detect dangerous objects declined even further.<sup>10</sup>

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<sup>6</sup>U.S. General Accounting Office, *Aviation Security: Long-Standing Problems Impair Airport Screeners' Performance*, [GAO/RCED-00-75](#) (Washington, D.C.: June 28, 2000). “Human factors” refers to the demands a job places on the capabilities of, and the constraints it imposes on, the individuals performing the function. Reports on the human factors involved in checkpoint screening date back more than 20 years and include repetitive tasks screeners perform, the close and constant monitoring required to detect threat objects, and the stress involved in dealing with the public, who may dislike being screened or demand faster action to avoid missing their flights.

<sup>7</sup>U.S. General Accounting Office, *Aviation Security: Slow Progress in Addressing Long-Standing Screener Performance Problems*, [GAO/T-RCED-00-125](#) (Washington, D.C.: March 16, 2000).

<sup>8</sup>U.S. General Accounting Office, *Aviation Security: Vulnerabilities Still Exist in the Aviation Security System*, [GAO/T-RCED/AIMD-00-142](#) (Washington, D.C.: Apr. 6, 2000).

<sup>9</sup>See footnote 8.

<sup>10</sup>U.S. General Accounting Office, *Aviation Security: Terrorist Acts Demonstrate Urgent Need to Improve Security at the Nation's Airports*, [GAO-01-1162T](#) (Washington, D.C.: Sept. 20, 2001).

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## Scope and Methodology

Our preliminary observations are based on our review of TSA documentation related to screener training, testing, and supervision; the contract screening pilot program; screener staffing levels; and airport security concerns. We interviewed TSA headquarters' officials in Arlington, Virginia; and interviewed FSDs, their staffs, and screeners at 12 commercial airports throughout the nation;<sup>11</sup> 10 airport operators; officials at 5 air carriers; and officials from 4 aviation associations—American Association of Airport Executives (AAAE), Airports Council International (ACI), Air Transport Association, and Regional Airline Association. We also reviewed our prior reports that addressed issues related to the performance of airport passenger screeners. We conducted our work from May through September 2003 in accordance with generally accepted government auditing standards. Because our review is still ongoing, the results presented in this report are preliminary.

To complete our work, we will continue to collect and review TSA documentation related to each of our four objectives, including obtaining and analyzing the results of TSA's operational tests. We will also administer a survey to all 158 FSDs to obtain their perspectives on general and airport specific information related to each of our four objectives. Additionally, we will visit at least 8 additional airports to conduct interviews with FSDs, their staffs, members of the screener workforce, and airport operators. We will also interview representatives of all 5 pilot program airports, as well as airport operators at all category X airports, to obtain information on their coordination with TSA and their plans, if any, to apply to opt-out of the federal screening program beginning November 19, 2004. Finally, we will continue to meet with TSA headquarters officials to obtain current information related to the issues addressed in this report. We anticipate issuing a final report in April 2004.

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<sup>11</sup>As of September 19, 2003, we have visited the following 12 commercial airports: Baltimore-Washington International; Dallas-Ft. Worth International; Dallas Love-Field; Kansas City International; Little Rock National; Orlando International; Orlando Sanford; Portland International; Seattle-Tacoma International; Tampa International; Washington-Dulles International; and Washington Reagan National.

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## Recurrent and Supervisory Training Programs Not Fully Developed

TSA developed basic and remedial screener training programs, but has not fully developed or deployed a recurrent or supervisory training program to ensure that screeners are effectively trained and supervised.

Comprehensive and frequent training is key to passenger screeners' ability to detect threat objects. Studies have shown that on-going training can lead to more effective performance and lower turnover rates for passenger screeners. According to TSA, there are three key elements of passenger screener training: (1) basic training, (2) remedial training, and (3) recurrent training. As required by ATSA, TSA established a basic screener-training program comprised of 40 hours of classroom instruction and 60 hours of on-the-job training (OJT). TSA reported that all of its screeners who work independently have completed basic screener training and that those who failed an operational test received required remedial training.<sup>12</sup>

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## Basic Training

TSA requires screeners to complete a minimum of 40 hours of classroom instruction and 60 hours of OJT prior to making independent screening decisions. This requirement is an increase over FAA's basic training requirements when it oversaw passenger screening, which called for 12 hours of classroom instruction and 40 hours of OJT. According to TSA officials, all screeners who work independently have met the basic screener training requirements.<sup>13</sup> TSA contractors are responsible for delivering and tracking basic screener classroom training, while OJT is tracked locally at each airport. TSA encourages, but does not require, screening managers, who are responsible for overseeing screening functions to participate in classroom training, even if they do not have prior screening experience. Nevertheless, 2 of the 12 FSDs we interviewed said that they require their screening managers to observe basic screener training.

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## Remedial Training

Consistent with ATSA, TSA requires remedial training for any screener who fails an operational test and prohibits screeners from performing the screening function related to the test they failed until they successfully

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<sup>12</sup>The PMIS currently reports the breakdown of those screeners trained for passenger and baggage screening as well as the number of cross-trained screeners by airport.

<sup>13</sup>We plan to verify whether passenger screeners received basic training as required during the remainder of our evaluation.

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complete the training.<sup>14</sup> FSDs must certify that screeners identified as requiring remedial training complete the training before they can perform the screening function identified as a performance weakness. TSA's Aviation Operations Division is responsible for tracking the completion of remedial training following the failure of covert tests. The tracking of remedial training initiated for reasons other than failing a covert test is the responsibility of the FSDs or their designees. TSA reported that all screeners requiring remedial training have received the training.<sup>15</sup>

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## Recurrent Training

TSA has not fully developed or deployed a recurrent training program, but has recognized that ongoing training of screeners on a frequent basis is critical to maintaining and enhancing screener skills. According to agency officials, TSA established a training task force comprised of airport Training Coordinators, screeners, and headquarters officials to conduct an assessment of training needs. As a result of the task force's suggestions, TSA is developing six recurrent training modules—the first of which TSA plans to deploy to all airports beginning in October 2003. TSA plans to release each of the remaining five modules as they are finalized, which they anticipate will occur throughout 2004. TSA officials also said that they designed and are currently pilot testing an On-Line Learning Management System (LMS) comprised of 366 various training courses, which they expect to field in October 2003. Officials said that they were not further along in implementing their recurrent training modules or LMS due to budget considerations.

Fourteen of the 22 passenger screeners and supervisors we interviewed expressed the need for recurrent training.<sup>16</sup> They were particularly interested in receiving additional training related to recognizing x-ray images of threat objects. In addition, 10 of the 12 FSDs we interviewed reported implementing their own locally developed recurrent training courses rather than waiting for the training modules to be deployed by

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<sup>14</sup>Screening supervisors and managers may also require screeners to participate in corrective action training based on their observations of performance deficiencies, such as failure to follow a standard operating procedure.

<sup>15</sup>We plan to verify whether identified passenger screeners received 3 hours of remedial training as required by TSA during the remainder of our evaluation.

<sup>16</sup>As we did not select statistical samples of passenger screeners and supervisors to interview, the views of those we interviewed should not be considered representative of the views of all screeners and supervisors at the airports we visited.

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headquarters. TSA's OIAPR found that screeners at airports that conducted frequent, on-going training performed better during covert tests—TSA's form of operational testing—than screeners who did not receive recurrent training.

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## Supervisory Training

TSA describes its screening supervisors as the key to a strong defense in detecting threat objects. In September 2001, we reported on the results of our survey of aviation stakeholders and aviation and terrorism experts concerning options for conducting screening. The respondents identified better supervision as one of the factors necessary for improving screener performance.<sup>17</sup> Additionally, DOT's Office Inspector General (OIG) recently reported that screener supervisors are the key to effective screening,<sup>18</sup> and TSA's OIAPR identified a lack of supervisory training as a cause for screener testing failures. FSDs and TSA headquarters officials recognize the need to enhance the skills of screening supervisors through supervisory training. TSA is currently working with USDA to tailor its off-the-shelf supervisory course to the specific needs of TSA's screening supervisors. TSA recently reported that it is sending supervisors to the basic USDA supervisor's course until the customized course is fielded, which it expects to occur in April 2004. To supplement the classroom training, TSA also plans to establish a supervisory training module for recurrent training. We plan to review TSA's training initiatives further during the remainder of our evaluation.

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<sup>17</sup>U.S. General Accounting Office, *Aviation Security: Vulnerabilities in, and Alternatives for, Preboard Screening Security Operations*, [GAO-01-1171T](#) (Washington, D.C.: Sept. 25, 2001). The survey respondents identified compensation and improved training as the highest priorities of improving screener performance. In addition to identifying a need for better supervision, they also believed that the implementation of performance standards, team and image building, awards for exemplary work, and certification of individual screeners would improve screener performance.

<sup>18</sup>Statement of the Honorable Kenneth M. Mead, Inspector General, U.S. Department of Transportation, before the National Commission on Terrorist Attacks Upon the United States, May 22, 2003.

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## Little Information Exists to Measure Screeners' Performance in Detecting Threat Objects

Currently, the results of TSA's OIAPR's operational, or covert, testing is the only indication of screener performance in detecting threat objects. However, TSA does not view the results of OIAPR's covert testing as a measure of screener performance, but rather as a "snapshot" of a screener's ability to detect threat objects at a particular point in time. Although OAIAPR conducts fewer covert tests of passenger screeners than previously conducted by the FAA, TSA considers its tests more rigorous than FAA's tests because they more closely approximate techniques terrorists might use. In addition to conducting operational testing, TSA plans to fully activate the Threat Image Projection system and implement a screener certification program in October 2003 to collect additional information on screener performance. TSA also developed a Performance Management Information System to collect and maintain information on the performance of its passenger and baggage screening operations. However, PMIS contains little data on screener performance in detecting threat objects. TSA officials said that they plan to expand PMIS to collect some performance information, but did not identify a timeframe for when the data will be collected.

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## Operational Testing

TSA defines an operational screening test as any covert test of a screener, conducted by TSA, on any screener function to assess the screener's threat item detection ability and/or adherence to TSA-approved procedures. When a screener fails a test, he or she is required to receive immediate remedial training, and is prohibited from performing the function related to the failed test until he or she satisfactory completes the training. Currently, OIAPR's covert testing is the only source of operational testing conducted of passenger screeners. These tests are designed to identify systematic problems affecting the performance of screeners in the areas of training, policy, and equipment. TSA does not view the results of OIAPR's covert testing as a measure of screener performance, but rather a "snapshot" of a screener's ability to detect threat objects at a particular point in time and as an indicator of systemwide screener performance. OIAPR testing to date has shown weaknesses in screeners' ability to detect threat objects. Testing conducted by the DOT's OIG, the Department of Homeland Security's OIG, and GAO have also identified screener performance weaknesses.

Prior to the creation of TSA, FAA conducted thousands of covert tests annually of passenger screeners. Most of these tests were compliance tests in which FAA agents attempted to get nine test objects, such as guns and grenades, past screeners conducting x-ray, metal detector, and physical searches at airport checkpoints. The DOT OIG described these tests as

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unlike the techniques that terrorists would employ.<sup>19</sup> In 1997, FAA incorporated simulated improvised explosive devices into its compliance testing and performed, on average, more than 2,000 of these test each year. In addition to compliance tests, FAA's special headquarters based testing unit, often called the Red Team, conducted more realistic tests using harder to detect threat objects by agents not known to screeners.<sup>20</sup>

TSA's OIAPR has conducted fewer covert tests than conducted by FAA, but considers its testing methods more rigorous than either of FAA's compliance or Red Team tests because they more closely approximate techniques terrorists might use. OIAPR officials further said that their tests are intentionally designed to have a high probability of failure in an effort to identify vulnerabilities and areas needing improvement. Additionally, unlike testing conducted under FAA, OIAPR staff that perform the tests reported that they provide immediate feedback to screeners, their managers, and the FSDs to explain how they beat the system and provide instant remedial training. We plan to review OIAPR's operational testing in more detail during the remainder of our evaluation.

Based on an anticipated increase in staff from about 100 in fiscal year 2003 to 200 in fiscal year 2004, OIAPR plans to conduct twice as many covert tests next year. In addition, TSA recently established 5 mission support centers located throughout the country, which according to TSA, will be staffed with OIAPR personnel available to conduct additional covert tests.<sup>21</sup> These centers will also be staffed with mobile testing teams that will work with FSDs in their region to conduct screener training using some of the test objects OIAPR uses in its covert tests.

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<sup>19</sup>At the May 22, 2003, hearing of the National Commission on Terrorist Attacks Upon the United States, DOT's IG, described FAA's standard protocols for testing how well screeners performed when using uncluttered carry-on bags with a firearm or simulated bomb inside. The IG said that it would be difficult for a screener to miss a test object when undergoing such a covert test.

<sup>20</sup>*Aviation Security: Screeners Continue to Have Serious Problems Detecting Dangerous Objects*, [GAO/RCED-00-159](#) (Washington, D.C.: June 2000). The tests performed by FAA's Red Team, a special headquarters based unit, were considered their most realistic tests because they used weapons and improvise devices, a wider variety of bags with more clutter in them, and headquarters-based agents who were not likely to be recognized by the screeners.

<sup>21</sup>The mission support centers are located in Atlanta, Dallas, Detroit, Philadelphia, and San Francisco.

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## Threat Image Projection (TIP) System

In late 1999, to help screeners remain alert, train them to become more adept at detecting harder to spot threat objects, and continuously measure screener performance, FAA began deploying TIP. TIP places images of threat objects on x-ray screens during actual operations and records whether screeners identify the threat object.<sup>22</sup> By frequently exposing screeners to a variety of images of dangerous objects on the x-ray screens, the system provides continuous OJT and allows for immediate supervisory feedback, on-the-spot training, and remedial training.

According to TSA officials, TIP was shut down immediately following the September 11th terrorist attacks due to concerns that it would result in screening delays and panic, as screeners might think that they were actually viewing a threat object. TSA officials recognize that TIP is a key tool in maintaining and enhancing screener performance, and said that they had begun reactivating TIP with significantly more images than FAA had in place. TSA officials said that TIP had not been reactivated sooner due to a lack of automated data collection via cellular modems; competing priorities; a lack of training; and a lack of resources needed to deploy TIP activation teams.

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## Annual Screener Certification

ATSA requires that each passenger screener receive an annual proficiency review to ensure he or she continues to meet all qualifications and standards required to perform the screening function. Although TSA has not yet implemented this requirement, it plans to develop an annual screener certification program comprised of three components, including (1) image recognition test; (2) knowledge of standard operating procedures (SOPs); and (3) practical demonstration of skills, to be administered by a contractor. TSA has not yet determined the level of performance that screeners must achieve to be certified, but officials said that they plan to require performance at a high, but reasonable level. Officials also said that they plan to remediate and retest screeners who fail

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<sup>22</sup>TIP is designed to test screeners' detection capabilities by projecting threat images, including guns and explosives, into bags as they are screened, or projecting images of bags containing threat objects onto the x-ray screen as live baggage is screened. Screeners are responsible for positively identifying the threat image and calling for the bag to be searched. Once prompted, TIP identifies to the screener whether the threat is real and then records the screener's performance in a database that FAA could access to analyze performance trends. TIP exposes screeners to threat images on a routine basis to enable them to become more adept at recognizing threat objects. The system records the screeners' responses to the projected images and provides a measure of their performance while assisting in keeping them alert.



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any portion of the test, but have not yet determined the number of times a screener may retake the test before termination. Certification is scheduled to begin in October 2003 and to be completed at all 442 airports by January 2004, in the order in which the airports began federal screening operations. TSA officials recently reported that they awarded a contract to conduct the practical demonstration component of the test; however, TSA has not developed a schedule for when the program will be fielded to the airports. We plan to review TSA's annual screener certification program during the remainder of our evaluation.

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## Performance Management Information System

TSA's Performance Management Information System—PMIS—for passenger and baggage screening operations contains little data on screener performance in detecting threat objects. PMIS collects information on workload, staffing, and equipment and is used to identify some performance and policy issues, such as the level of absenteeism, average time for equipment repairs, and status of TSA's efforts to meet goals for 100 percent baggage screening.<sup>23</sup> (See app. I for examples of information collected and contained in PMIS.) Additionally, TSA uses PMIS data to identify needed changes to SOPs.<sup>24</sup> Officials further reported that PMIS has the ability to generate reports that enable TSA to track its progress toward meeting its performance goals as well as to generate reports by region, FSD, airport, and/or individual screening checkpoint. PMIS has been deployed to all airports with federal screeners. FSDs are responsible for designating a staff person to enter performance data into PMIS on a daily basis.

TSA officials reported that they are planning to integrate performance information from various systems into PMIS to assist the agency in making strategic decisions. TSA also recently reported that it is developing a screener performance index, which is supposed to include information such as the results of TIP tests, training tests, and certification tests. We plan to review these plans in more detail during the remainder of our evaluation.

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<sup>23</sup>TSA officials said that PMIS also contains other metrics, including human resources, sizing, checkpoint, feedback, and incidents.

<sup>24</sup>For example, using PMIS data, TSA determined that passengers were unintentionally leaving money at the screening checkpoints when they were divesting themselves of all objects that could possibly cause the walkthrough metal detectors to alarm. In response to this finding, TSA established a protocol instructing screeners on how to address this issue.

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## Screener Performance Improvement Study

TSA is taking steps to improve screener performance. In July 2003, TSA completed a Screener Performance Improvement Study, which was designed to identify root causes for gaps between current screener performance and TSA's desired performance—defined as 100 percent interception of prohibited items coming through the passenger screening checkpoints. As part of its study, TSA identified four significant screener performance deficiencies. TSA concluded that four key factors contributed to the identified deficiencies: (1) lack of skills, knowledge, or information; (2) low motivation; (3) ineffective work environment; and (4) incorrect or missing incentives. To address the screener performance deficiencies identified in the study, TSA developed several key solutions, including the need to establish adequate training facilities at airports; staff airports adequately to allow time for training; reconfigure checkpoints to eliminate distractions; implement TIP at all airports; and enhance supervisory skills. According to TSA officials, the appropriate TSA components are currently developing action plans for each of the deficiencies identified in the Performance Improvement Study. The plans are to include action steps, timelines, required resources, and anticipated outcomes. We plan to review these plans during the remainder of our evaluation.

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## An Assessment of the Contract Screening Pilot Program Has Not Yet Begun

TSA has implemented a pilot program using contract screeners at 5 airports, but has not determined how to evaluate and measure the performance of the pilot program airports. The purpose of the 2-year pilot program is to determine the feasibility of using private screening companies rather than federal screeners. Initially, TSA required private screening companies to adhere to all of the procedures and protocols used for federal screeners. However, TSA recently provided the pilot contractors with some flexibility, such as allowing them to determine and maintain their own staffing levels and make independent hiring decisions. While TSA has not yet determined how to evaluate and measure the performance of the pilot program airports, it plans to award a contract by October 1, 2003, to compare the performance of pilot screeners with federal screeners and determine the reasons for any differences. TSA officials said that the Office of Management and Budget requested that they include in their evaluation ways to allow more innovation by contract screening companies.

Although ATSA allows airports to apply to opt-out of using federal screeners beginning in November 2004, TSA has not begun to plan for the possible transition of airports from a federal system to a private screening company. Airports Council International officials said that numerous

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airports have contacted them expressing an interest in obtaining more information to assist in their decision regarding opting-out. Six of the 10 airport operators we interviewed said that they had not made any decisions regarding opting-out, and all 10 said they had not received any information from TSA regarding the option.<sup>25</sup> However, the airport operators said that they would like information to assist them in deciding whether to opt-out, such as determining who bears responsibility for funding the screening contract; airport liability in the event of an incident linked to a screener failure; how well the current pilot program airports are performing; performance standards to which contract screeners will be held; and TSA's role in overseeing contracted screening.

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## TSA Continuing to Work to Identify Appropriate Staffing Levels at the Nation's Airports

Initially, TSA headquarters determined screener-staffing levels for all airports without actively seeking input from FSDs. Eight of the 12 FSDs we interviewed said that they had limited authority to respond to airport specific staffing needs, such as reacting to fluctuations in daily and/or seasonal passenger flow. However, TSA headquarters officials said that during the second stage of their workforce reduction process, they solicited input from FSDs, airport officials, and air carriers. TSA headquarters officials acknowledged that their initial staffing efforts created imbalances in the screener workforce and have taken steps to correct identified imbalances, such as such as authorizing the hiring of part-time screeners at over 200 airports—the first of which began working on September 15, 2003.

TSA determined the current screener staffing levels using a computer-based modeling process that took into account the number of screening checkpoints and lanes at an airport; originating passengers; the number of airport workers requiring screening; projected air carrier service increases and decreases during calendar year 2003; and hours needed to accommodate screener training, leave, and breaks.<sup>26</sup> TSA recently hired an

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<sup>25</sup>Three of the remaining four airport operators we interviewed said they were not currently considering opting out of using federal screeners. At the pilot program airport we visited, the airport operator said that the airport plans to continue using contract screeners.

<sup>26</sup>TSA's screener workforce totaled 55,600 on March 31, 2003. Due primarily to budget constraints, the agency was directed to cut 3,000 positions to result in a screener workforce of 52,600 on June 1, 2003. An additional 3,000 positions were cut for a workforce of 49,600 full-time equivalents on September 30, 2003, the end of the fiscal year. TSA officials predicted that, based on the fiscal year 2004 budget, the screener staffing level will be down to 45,000 full-time equivalents by the end of fiscal year 2004.

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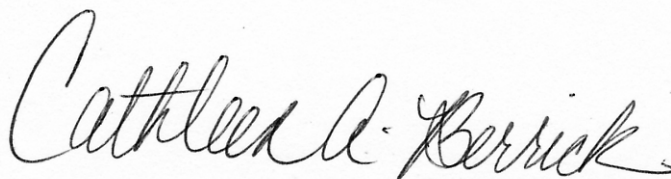
outside consultant to conduct a study of screener staffing levels at various airports. TSA officials stated that they will continue to review the staffing allocation provided through the modeling efforts to assess air carrier and airport growth patterns, and adjustments will be made as appropriate. We plan to review TSA's efforts to determine appropriate staffing levels for passenger screeners during the remainder of our evaluation.

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As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 5 days after its issue date. At that time, we will send copies of this report to the Secretary of the Department of Homeland Security and interested congressional committees. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you have any questions about this report, or wish to discuss it further, please contact me at (202) 512-8777 or Jack Schulze, Assistant Director, at (202) 512-4390. Key contributors to this report are listed in appendix II.

Sincerely yours,

A handwritten signature in black ink that reads "Cathleen A. Berrick". The signature is written in a cursive style with a large initial 'C' and a long, sweeping tail on the 'k'.

Cathleen A. Berrick  
Acting Director, Homeland Security  
and Justice Issues

# Appendix I: Examples of Information Maintained in TSA's Performance Management Information System

Category of information collected	Examples of information collected <sup>a</sup>
<b>Checkpoint</b>	Number of prohibited items
	Number of weapons surrendered at sweep screening <sup>b</sup>
	Number of cleared Explosive Trace Detection (ETD) alarms
	Percent of absenteeism
<b>Incidents</b>	Number of incidents
	Number of arrests
	Number of evacuations
	Number of disruptive passengers
<b>Feedback</b>	Customer complaints
	Discourteous treatment
	Nonstandard screening
	Lost, stolen, or damaged items
<b>Human Resources—Employee Census</b>	Total active authorized screeners
	Number of Screeners on light duty
	Number of Screening managers
	FSD staff
	Number of screeners trained on baggage only/passenger only/cross-trained
	Screener retention
<b>TSA-wide</b>	Federalization progress
	Number of airports complete
	Machines not in use
	Percent of airports using the CAPPS II system
	Average wait time at passenger screening checkpoints for federalized airports
<b>Sizing</b>	Number of gates in use
	Number of checkpoints
	Number of lanes
	Number of ETS, x-ray machines, explosive detection systems (EDS) machines
	Number of enplanements

**Appendix I: Examples of Information  
Maintained in TSA's Performance  
Management Information System**

<b>Category of information collected</b>	<b>Examples of information collected<sup>a</sup></b>
<b>Baggage status</b>	
	EDS/ETS shortage
	EDS/ETD inoperable
	Training shortage
	Staffing shortage
	Staff absent
<b>Baggage metrics</b>	
	Explosive materials
	Drugs
	Number of bags opened
	Number of screeners on duty
<b>Attainment</b>	
	Individual airport measures to achieve change in threat level by date and time

Source: TSA.

<sup>a</sup>For each of the data elements for which data are reported, the Performance Management Information System also contains several subsets of information. For example, the number of prohibited items includes information on the number of weapons (by category of weapon, such as deadly/dangerous weapon) surrendered at the checkpoint, at a gate, at a secondary screening point, etc.

<sup>b</sup>TSA officials described sweep screening as a method of screening in which screeners randomly stop passengers in the airport concourse for additional screening.

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# Appendix II: GAO Contacts and Staff Acknowledgments

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## GAO Contacts

Cathy A. Berrick (202) 512-8777  
Jack Schulze (202) 512-4390

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## Staff Acknowledgments

In addition to those named above, David Alexander, Lisa Brown, Christopher Jones, Stuart Kaufmann, Thomas Lombardi, Jan Montgomery, Edward Stephenson, Maria Strudwick, and Susan Zimmerman were key contributors to this report.

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