

Statement of
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Good morning Chairman Chaffetz, Ranking Member Tierney, and distinguished Members of the Subcommittee. We appreciate the opportunity to appear before you today to discuss the Transportation Security Administration's (TSA) use of Advanced Imaging Technology (AIT) at airport security checkpoints, including the effectiveness and safety of this technology and our emphasis upon protecting passengers' privacy. The use of AIT enables TSA to carry out its core mission to maximize transportation security in the face of an evolving terrorist threat while maintaining efficient checkpoint screening operations.

Working in concert with our international, federal, state, local, tribal, territorial and private sector partners, TSA's mission is to prevent terrorist attacks and reduce the vulnerability of the nation's transportation system to terrorism. AIT is a powerful advancement in our continuing effort to improve aviation security, which also includes work with the law enforcement and intelligence communities, strengthening supply chain security, and increased international cooperation. While we have made significant advances in reducing the threat to aviation security, al-Qaeda and other terrorist organizations remain intent upon attacking the aviation system. We have witnessed the evolution of this threat from checked baggage, to carry-on baggage, and now to air cargo and non-metallic explosives hidden on the body.

One of the most salient examples is the bombing plot by al-Qaeda in the Arabian Peninsula resulting in the December 25, 2009, alleged attempt by Umar Farouk Abdulmutallab to blow up

a U.S.-flagged airplane en route to Detroit using a non-metallic explosive device that was not and could not have been discovered by a metal detector.

TSA works diligently to protect and secure the U.S. transportation domain against the evolving threat as terrorists adapt their tactics to attempt to circumvent our technology and procedures. We continue to modernize our technology deployments, including AIT. We have deployed nearly 500 AIT machines at domestic airports throughout the country to enhance security by safely screening passengers for metallic and non-metallic weapons and explosives – including objects concealed under layers of clothing, while protecting the privacy of the traveler. We have also deployed new portable explosive trace detection machines, Advanced Technology X-ray systems, and bottled liquid scanners to enhance our security technology in the aviation domain.

We also have deployed additional behavior detection officers, Federal Air Marshals and explosives-detection canine teams at airports throughout the country. Nearly a year ago, in April 2010, we implemented new, enhanced security measures for all air carriers with international flights to the U.S. that use real-time, threat-based intelligence to better mitigate the evolving terrorist threat. Last November, we achieved a major aviation security milestone: 100 percent of passengers on flights within or bound for the United States are now checked by TSA against government watchlists through the Secure Flight Program, as recommended in the *9/11 Commission Report*.

AIT is Effective at Detecting Metallic and Non-Metallic Threat Items

AIT represents the very latest in passenger screening technological advancement and addresses a broad range of threats, many of which cannot be addressed by older technologies like metal detectors. TSA's work with AIT began in 2007 and has included testing and evaluation in both the laboratory and in airports. Our extensive experience with AIT has made us the world leader in its implementation in the aviation environment. The agency tested and piloted the use of AIT at several airports around the country prior to the December 2009 attempted attack. As a result, TSA was able to accelerate AIT deployment following the incident to enable our Transportation Security Officers to quickly and effectively detect metallic and non-metallic threat items.

Based upon our analysis of the latest intelligence and after studying available technologies and other processes, TSA has concluded AIT is an effective method to detect threat items concealed on passengers while maintaining efficient checkpoint screening operations. Accordingly, in January 2010, TSA determined that AIT should be deployed as part of its primary screening program. TSA continually evaluates these technologies, their software and associated screening procedures to ensure that they are effective against established and anticipated threats, while continuing to protect passenger privacy, civil rights and civil liberties.

TSA's goal is to deploy nearly 1,275 AIT machines by the end of calendar year 2012, providing AIT coverage at more than half our operational screening lanes. The ability to deploy AIT to airports and the number of machines deployed are directly affected by the amount of funding and

available resources. Accordingly, the President's budget request for FY 2012 includes a approximately \$105.2 million in base and additional funding to continue deployment of AIT.

AIT is a Safe and Reliable Screening Method

The safety of the traveling public is TSA's number one priority. Our technology policies require compliance with consensus-based scientific safety standards including those administered by the Health Physics Society and accredited by the American National Standards Institute for screening equipment using ionizing radiation.

AIT machines are safe and efficient. The radiation dose from backscatter AIT machines has been independently evaluated by the Food and Drug Administration, the National Institute of Standards and Technology, and the Johns Hopkins University Applied Physics Laboratory, all of which have affirmed that the systems comply with established standards for safety. Public versions of our safety testing reports are available on TSA's website at www.tsa.gov.

A single screening using backscatter technology produces a radiation dose equivalent to approximately two minutes of flying on an airplane at a cruising altitude of 30,000 feet. Millimeter wave technology does not emit ionizing radiation and instead uses radio frequency energy. The energy projected by these units is a fraction of other commercially approved radio frequency devices, such as cell phones and two-way radios.

TSA is sensitive to the needs of all types of travelers. For example, Transportation Security Officers (TSOs) are trained to work with parents to ensure a respectful screening process for the entire family, while providing the best possible security for all travelers. TSA never separates a child from the adult accompanying him or her and the adult traveling with the child observes the entire screening process. AIT is safe for children and children of all ages may undergo screening using AIT as long as they are able to stand with their hands above their head for the five to seven seconds needed to conduct the scan.

AIT Procedures Protect Passenger Privacy and Civil Rights and Civil Liberties

Strict safeguards to protect passenger privacy and ensure anonymity have been put in place by TSA as it has deployed AIT. The machines deployed by TSA at airports cannot store or print passenger images, and images are maintained on the monitor only for as long as it takes to resolve any anomalies. Images from TSA screening operations cannot be, have not been and are not retained for any purpose.

Further, TSOs reviewing the image are unable to see the individual undergoing screening, and a TSO screening the passenger cannot see the image. AIT machines do not produce photographic quality images that would permit recognition of the person screened. A facial blur has also been applied to both the millimeter wave and backscatter technologies.

The Department of Homeland Security's (DHS) Chief Privacy Officer has conducted a Privacy Impact Assessment of the AIT machines and updated those assessments as the program has developed. The full results of that assessment are available to the public on the Privacy Office's website at www.dhs.gov/privacy. TSA's screening protocols ensure that such screening does not unreasonably intrude on a passenger's privacy in the airport environment and that the public's privacy concerns related to AIT screening are adequately addressed. According to our statistics, more than 98 percent of individuals selected for AIT screening have opted to be screened by this technology over other screening methods such as a pat down. In addition, there have been a number of public polls indicating public acceptance of the technology at nearly 80 percent. TSA provides notice to the public of the use of the AIT machines prior to the passenger's entering the machine. The notice also advises the individual that they may decline AIT screening, and be screened by a pat-down instead.

If an anomaly is discovered by the TSO operating the AIT machine, TSA procedures require TSOs to use additional inspection methods to determine whether the anomaly is a threat. These methods may include visual inspection, swabbing for explosives, or a pat-down to resolve the anomaly.

TSA has been working to ensure passengers' civil rights and civil liberties are also protected. We are pursuing technology enhancements, such as Automatic Target Recognition, which we will discuss in more detail shortly, to enhance passenger privacy. Additionally, TSA and other DHS outreach and privacy offices have conducted extensive outreach to communities representing persons with disabilities and special medical needs, as well as major medical centers, to discuss AIT and other challenges encountered by members of these communities during the screening process. We will continue to work with these communities to make refinements and adjustments to our screening protocols that are respectful of the needs of these individuals while ensuring the security of the traveling public. This collaboration has already resulted in refinements. For example, TSA has developed a notification card to allow passengers with disabilities to communicate discreetly to a TSO that they have a condition or disability that might affect their screening.

Field Testing of Automatic Target Recognition (ATR)

While we are rapidly deploying AIT machines to U.S. airports, we also are exploring enhancements to this technology to further address privacy issues and civil rights and civil liberties concerns. Specifically, TSA is field testing auto-detection software, referred to as Automatic Target Recognition (ATR), which enhances passenger privacy by eliminating passenger-specific images and instead highlighting the area with a detected anomaly on a generic outline of a person. Pat-downs used to resolve such anomalies will be limited to the areas of the body displaying an alarm unless the number of anomalies detected requires a full-body pat down. If no anomalies are detected, the screen displays the word "OK" with no icon. With ATR, the

screen will be located on the outside of the machine and can be viewed by the TSO and the passenger.

As with current AIT software, ATR-enabled units deployed at airports are not capable of storing or printing images. This software eliminates the need for a TSO to view passenger images in a separate room because no actual image of the passenger is produced, reducing associated staffing and construction costs. ATR software represents a substantial step forward in addressing passenger privacy concerns, while maintaining TSA's standards for detection. TSA plans to continually update and test enhanced versions of the software in order to ensure that technology with the highest detection standards is in use.

Advancing and Refining Our Screening Approach

Earlier this month, TSA Administrator John S. Pistole outlined his vision of airport security in the future. This is a direction in which we are already moving, based upon the evolution of our multi-layered approach to transportation security. TSA is looking to focus its resources and to streamline and enhance the passenger experience at security checkpoints applying new risk-based screening procedures and uses of technology. It is expected that AIT and ATR will continue to play an important role in that evolution, by enabling passengers to move through security expeditiously while being assured that the best available technology, as part of an effective layered technology system, has been used to check all passengers and baggage for items that can be used to cause injury or carry out a terrorist act.

Conclusion

We want to thank the Subcommittee for holding a hearing on the use of AIT by TSA at our nation's airports and for its diligent work in overseeing the agency's efforts to ensure transportation security. We are pleased to answer any questions you might have.