[9110-05-P]

DEPARTMENT OF HOMELAND SECURITY

Transportation Security Administration

49 CFR Part 1540

Docket No. TSA-2013-0004

RIN 1652-AA67

Passenger Screening Using Advanced Imaging Technology

AGENCY: Transportation Security Administration, DHS.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The Transportation Security Administration (TSA) is proposing to revise its civil aviation security regulations to clarify that TSA may use advanced imaging technology (AIT) to screen individuals at security screening checkpoints. This proposed rule is issued to comply with a decision of the U.S. Court of Appeals for the District of Columbia Circuit, which ordered TSA to engage in notice-and-comment rulemaking on the use of AIT for screening. The Court decided that TSA should provide notice and invite comments on the use of AIT technology for primary screening.

DATES: Submit comments by [Insert date 90 days after date of publication in the Federal Register].

ADDRESSES: You may submit comments, identified by the TSA docket number to this rulemaking, to the Federal Docket Management System (FDMS), a government-wide, electronic docket management system, using any one of the following methods:

Electronically: You may submit comments through the Federal eRulemaking portal at http://www.regulations.gov. Follow the online instructions for submitting comments.

Mail, In Person, or Fax: Address, hand-deliver, or fax your written comments to the Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building Ground Floor, Room W12-140, Washington, DC 20590-0001; fax (202) 493-2251. The Department of Transportation (DOT), which maintains and processes TSA's official regulatory dockets, will scan the submission and post it to FDMS.

See SUPPLEMENTARY INFORMATION for format and other information about comment submissions.

FOR FURTHER INFORMATION CONTACT: Chawanna Carrington, Project Manager, Passenger Screening Program, Office of Security Capabilities, Transportation Security Administration, 701 South 12th Street, Arlington, VA 20598-6016; telephone: (571) 227-2958; facsimile: (571) 227-1931; e-mail: Chawanna.Carrington@tsa.dhs.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

TSA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from this rulemaking action. See ADDRESSES above for information on where to submit comments.

With each comment, please identify the docket number at the beginning of your comments. TSA encourages commenters to provide their names and addresses. The

most helpful comments reference a specific portion of the rulemaking, explain the reason for any recommended change, and include supporting data. You may submit comments and material electronically, in person, by mail, or fax as provided under ADDRESSES**,** but please submit your comments and material by only one means. If you submit comments by mail or delivery, submit them in an unbound format, no larger than 8.5 by 11 inches, suitable for copying and electronic filing.

If you would like TSA to acknowledge receipt of comments submitted by mail, include with your comments a self-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it to you.

TSA will file all comments to our docket address, as well as items sent to the address or email under "FOR FURTHER INFORMATION CONTACT," in the public docket, except for comments containing confidential information and sensitive security information (SSI).[1] Should you wish your personally identifiable information redacted prior to filing in the docket, please so state. TSA will consider all comments that are in the docket on or before the closing date for comments and will consider comments filed late to the extent practicable. The docket is available for public inspection before and after the comment closing date.

Handling of Confidential or Proprietary Information and Sensitive Security Information (SSI) Submitted in Public Comments

Do not submit comments that include trade secrets, confidential commercial or financial information, or SSI to the public regulatory docket. Please submit such comments separately from other comments on the rulemaking. Comments containing

[1] "Sensitive Security Information" or "SSI" is information obtained or developed in the conduct of security activities, the disclosure of which would constitute an unwarranted invasion of privacy, reveal trade secrets or privileged or confidential information, or be detrimental to the security of transportation. The protection of SSI is governed by 49 CFR part 1520.

this type of information should be appropriately marked as containing such information and submitted by mail to the address listed in FOR FURTHER INFORMATION CONTACT section.

TSA will not place comments containing SSI in the public docket and will handle them in accordance with applicable safeguards and restrictions on access. TSA will hold documents containing SSI, confidential business information, or trade secrets in a separate file to which the public does not have access, and place a note in the public docket explaining that commenters have submitted such documents. TSA may include a redacted version of the comment in the public docket. If an individual requests to examine or copy information that is not in the public docket, TSA will treat it as any other request under the Freedom of Information Act (FOIA) (5 U.S.C. 552) and the FOIA regulations of the Department of Homeland Security (DHS) found in 6 CFR part 5.

Reviewing Comments in the Docket

Please be aware that anyone is able to search the electronic form of all comments in any of our dockets by the name of the individual who submitted the comment (or signed the comment, if an association, business, labor union, etc., submitted the comment). You may review the applicable Privacy Act System of Records Notice published in the Federal Register on April 11, 2000 (65 FR 19477) and modified on January 17, 2008 (73 FR 3316).

You may review TSA's electronic public docket on the Internet at http://www.regulations.gov. In addition, DOT's Docket Management Facility provides a physical facility, staff, equipment, and assistance to the public. To obtain assistance or to review comments in TSA's public docket, you may visit this facility between 9:00 a.m. to

5:00 p.m., Monday through Friday, excluding legal holidays, or call (202) 366-9826. This docket operations facility is located in the West Building Ground Floor, Room W12-140 at 1200 New Jersey Avenue, SE, Washington, DC 20590.

Availability of Rulemaking Document

You can get an electronic copy using the Internet by--

1) Searching the electronic FDMS web page at http://www.regulations.gov;

2) Accessing the Government Printing Office's web page at http://www.gpoaccess.gov/fr/index.html; or

3) Visiting TSA's website at http://www.tsa.gov and accessing the link for "Stakeholders" at the top of the page, selecting the link for "Research Center" in the left column, and then the link for "Security Regulations" in the left column.

In addition, copies are available by writing or calling the individual in the FOR FURTHER INFORMATION CONTACT section. Make sure to identify the docket number of this rulemaking.

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I. EXECUTIVE SUMMARY

A. Purpose of the Regulation

TSA is proposing to amend its regulations to specify that screening and inspection of an individual conducted to control access to the sterile area of an airport or to an

aircraft may include the use of advanced imaging technology (AIT), also referred to as whole body imaging, as a screening method. Terrorists have repeatedly attempted to cause harm with the aid of weapons and devices smuggled aboard aircraft. It is the primary mission of DHS to prevent terrorist attacks within the United States and to reduce the vulnerability of the United States to terrorism.[2] The use of AIT is an important tool in accomplishing that mission.

This NPRM is being issued to comply with the decision rendered by the U.S. Court of Appeals for the District of Columbia Circuit in Electronic Privacy Information Center v. U.S. Department of Homeland Security.[3] In that case, the U.S. Court of Appeals directed TSA to conduct notice-and-comment rulemaking on the use of AIT as a screening method for passengers. The Court did not require TSA to stop using AIT to screen passengers, explaining that "vacating the present rule would severely disrupt an essential security operation," and that the rule is "otherwise lawful."[4]

B. Summary of Major Provisions

The proposed rule codifies the use of AIT to screen individuals at aviation security screening checkpoints. This NPRM discusses the following points regarding the use of AIT:

- The threat to aviation security has evolved to include the use of non-metallic explosives, non-metallic explosive devices, and non-metallic weapons.

[2] 49 U.S.C. 114.

[3] 653 F.3d 1 (D.C. Cir. 2011).

[4] Id. at 8.

- AIT currently provides the best available opportunity to detect non-metallic anomalies[5] concealed under clothing without touching the passenger and is an essential component of TSA's security layers.
- Congress has authorized TSA to procure and deploy AIT for use at security checkpoints.
- TSA implemented stringent safeguards to protect the privacy of passengers undergoing AIT screening when AIT units were initially deployed and enhanced privacy even further by upgrading its millimeter wave AIT units with automatic target recognition (ATR) software. An AIT unit equipped with ATR creates a generic outline, not an image of a specific individual, and eliminates the need for operator interpretation of an image. TSA is removing all units that are not equipped with ATR from its checkpoints by May 31, 2013.[6]
- The safety of the two types of AIT equipment initially deployed was tested by TSA and independent entities and all results confirmed that both the backscatter and millimeter wave technologies are safe because the x-ray or radio waves emissions are well below applicable safety and health standards, and are so low as to present a negligible risk to passengers, airline crew members, airport employees, and TSA employees.[7]

[5] An anomaly is any object that would not ordinarily be found on someone's person.
[6] The manufacturer of these units will bear the costs of removal and storage. TSA is following the Federal Management Regulation process to transfer and donate this equipment to other DHS components and then to other Federal, State, and local government agencies, if necessary. TSA will not hold any public auction or sale and will not donate or abandon any of the equipment to the public in the interests of security.
[7] See, http://www.tsa.gov/ait-safety.

- TSA has provided a detailed explanation of AIT procedures on its website at www.tsa.gov/ait-how-it-works (which allows opt out procedures for passengers) and posted signs at airport checkpoints to notify passengers about AIT and alternative screening procedures. The level of acceptance by passengers has been high; the vast majority of passengers do not object to AIT screening.
- TSA's experience in using AIT confirms that it is effective in detecting small, non-metallic items hidden underneath passenger clothing that could otherwise escape detection. When an item is detected, additional screening must be performed to determine whether the item is prohibited.

C. Costs and Benefits

When estimating the cost of a rulemaking, agencies typically estimate future expected costs imposed by a regulation over a period of analysis. As the AIT machine life cycle from deployment to disposal is eight years, the period of analysis for estimating the cost of AIT is eight years. However, as AIT deployment began in 2008, there are costs that have already been borne by TSA, the traveling public, and airport operators that were not due to this rule. Consequently, in the Initial Regulatory Impact Analysis for this rule, TSA is reporting the AIT-related costs that have already occurred (years 2008-2011), while considering the additional cost of this rulemaking to be years 2012-2015. By reporting the costs that have already happened and estimating future costs in this manner, TSA considers and discloses the full eight-year life cycle of AIT deployment.

TSA reports that the net cost of AIT deployment from 2008-2011 has been $841.2 million (undiscounted) and that TSA has borne over 99 percent of all costs related to AIT deployment. TSA projects that from 2012-2015 net AIT-related costs will be approximately $1.5 billion (undiscounted), $1.4 billion at a three percent discount rate, and $1.3 billion at a seven percent discount rate. During 2012-2015, TSA estimates it will also incur over 98 percent of AIT-related costs with equipment and personnel costs being the largest categories of expenditures. Table 1 below reports the costs that have already occurred (2008-2011) by cost category, while Table 2 shows the additional costs TSA is attributing to this rulemaking (2012-2015). Table 3 shows the total cost of AIT deployment from 2008 to 2015.

Table 1: Net Cost[8] Summary of AIT Deployment from 2008-2011 by Cost Component

(Costs already incurred in $ thousands - undiscounted)

Year	Passenger Opt Outs	Industry Utilities	TSA Costs				Total
			Personnel	Training	Equipment	Utilities	
2008	$7.0	$5.7	$14,689.1	$389.5	$37,425.2	$18.8	$52,535.3
2009	$32.2	$5.7	$15,618.6	$88.0	$42,563.6	$20.4	$58328.5
2010	$262.2	$158.2	$247,566.7	$5,332.8	$119,105.4	$241.4	$372,666.6
2011	$1,384.2	$186.7	$284,938.7	$15,354.4	$55,567.2	$269.1	$357,700.2
Total	**$1,685.6**	**$356.3**	**$562,813.0**	**$21,164.7**	**$254,661.3**	**$549.6**	**$841,230.6**

[8] TSA removed costs related to Walk Through Metal Detectors (WTMDs) that would have occurred regardless of AIT deployment to obtain an estimated net cost for AIT.

Table 2: Cost Summary (Net Cost of AIT Deployment 2012-2015) by Cost Component

(AIT Costs in $ thousands)

Year	Passenger Opt Outs	Industry Utilities	TSA Costs				Rapiscan Removal	Total
			Personnel	Training	Equipment	Utilities		
2012	$2,716.5	$325.7	$375,886.9	$12,043.0	$116,499.3	$473	$0.0	$507,924.4
2013	$3,991.7	$329.3	$280,844.3	$4,277.5	$51,588.8	$324.4	$1,809.6	$343,165.7
2014	$4,238.7	$312.0	$263,677.6	$4,190.5	$51,397.8	$317.7	$0.0	$324,134.2
2015	$5,611.8	$300.3	$278,580.2	$4,144.2	$68,052.6	$365.7	$0.0	$357,054.9
Total	**$16,558.7**	**$1,267.3**	**$1,198,969.0**	**$24,655.2**	**$287,538.5**	**$1,480.9**	**$1,809.6**	**$1,532,279.2**
Discounted 3%	$15,265.0	$1,178.9	$1,118,459.3	$23,810.2	$269,233.7	$1,380.7	$1,705.7	$1,431,033.5
Discounted 7%	$13,766.6	$1,075.8	$1,024,344.7	$22,048.8	$247,810.4	$1,263.8	$1,580.6	$1,311,890.7

Table 3: Cost Summary (Net Cost of AIT Deployment 2008-2015) by Cost Component (AIT Costs in $ thousands - undiscounted)

Year	Passenger Opt Outs	Industry Utilities	TSA Costs				Rapiscan Removal	Total
			Personnel	Training	Equipment	Utilities		
2008	$7.0	$5.7	$14,689.1	$389.5	$37,425.2	$18.8	$0.0	$52,535.3
2009	$32.2	$5.7	$15,618.6	$88.0	$42,563.6	$20.4	$0.0	$58,328.5
2010	$262.2	$158.2	$247,566.7	$5,332.8	$119,105.4	$241.4	$0.0	$372,666.6
2011	$1,384.2	$186.7	$284,938.7	$15,354.4	$55,567.2	$269.1	$0.0	$357,700.2
2012	$2,716.5	$325.7	$375,866.9	$12,043.0	$116,499.3	$473.0	$0.0	$507,924.4
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2014	$4,238.7	$312.0	$263,677.6	$4,190.5	$51,397.8	$317.7	$0.0	$324,134.2
2015	$5,611.8	$300.3	$278,580.2	$4,144.2	$68,052.6	$365.7	$0.0	$357,054.9
Total	**$18,944.4**	**$1,623.6**	**$1,761,782.0**	**$45,819.9**	**$542,199.9**	**$2,030.4**	**$1,809.6**	**$2,373,509.9**

The operations described in this proposed rule produce benefits by reducing security risks through the deployment of AIT that is capable of detecting both metallic and non-metallic weapons and explosives.[9] Terrorists continue to test our security measures in an attempt to find and exploit vulnerabilities. The threat to aviation security

[9] Metal detectors and AITs are both designed to detect metallic threats on passengers, but go about it in different ways. Metal detectors rely on the inductance that is generated by the metal, while AIT relies on the metal's reflectivity properties to indicate an anomaly. AIT capabilities exceed metal detectors because AIT can detect metallic/non-metallic weapons, non-metallic bulk explosives, and non-metallic liquid explosives.

has evolved to include the use of non-metallic explosives. AIT is a proven technology based on laboratory testing and field experience and is an essential component of TSA's security screening because it provides the best opportunity to detect metallic and non-metallic anomalies concealed under clothing without the need to touch the passenger. Since it began using AIT, TSA has been able to detect many kinds of non-metallic items, small items, and items concealed on parts of the body that would not have been detected using the WTMD.

II. Background

A. The Evolving Threat to Aviation Security

The need for security screening at airports dates back to the 1960s when the most significant threat to aviation security was hijacking. To combat this threat, metal detectors were installed at airports and used by air carriers to detect firearms and other metallic weapons. In 1974, Congress passed the Air Transportation Security Act,[10] which directed the Federal Aviation Administration (FAA) to require all passengers to be screened by weapon-detecting devices, and conduct research to develop and evaluate systems, procedures, facilities, and devices to protect persons and property aboard aircraft. Since that time, technological and procedural improvements have been implemented to keep pace with evolving threats.

Following the events of September 11, 2001, it was clear that the security screening at airports was insufficient to protect the traveling public against the threat posed by Al Qaeda and other terrorists who sought to harm the United States by targeting civil aviation. In response to those events, TSA was created to ensure freedom of movement for people and commerce by preventing terrorist attacks, reducing the

[10] Pub. L. 93-366.

vulnerability of the United States to terrorism, and effectively securing all modes of transportation, including aviation.

Pursuant to law, TSA is required to "provide for the screening of all passengers and property, including United States mail, cargo, carry-on and checked baggage, and other articles, that will be carried aboard a passenger aircraft . . . ."[11] Regulations restricting the carriage of weapons, explosives, and incendiaries on an individual's person or accessible property and requiring individuals to submit to the screening and inspection of their person and accessible property prior to entering a sterile area or boarding an aircraft were transferred from FAA to TSA in February 2002.[12] TSA took over operation of the screening checkpoints from the air carriers and began instituting additional protocols and new equipment to detect individuals and items that could pose a threat to aviation security.

The FAA had begun exploring AIT in the mid-1990s and started testing and evaluating AIT in 2000. Once TSA was established, the evaluation of AIT and other technology that could detect metallic and non-metallic threats continued. TSA began testing early AIT equipment and protocols to evaluate the size of the units, image quality, detection capabilities, safety, and other operational issues.

Since September 11, 2001, the nature of the threat to transportation security has evolved as terrorists continue to test our security measures in an attempt to find and exploit vulnerabilities. As the recent instances described below demonstrate, non-metallic explosives have become one of the greatest threats to aviation security. TSA has responded to the developing threats by deploying new screening protocols and increasing

[11] 49 U.S.C. 44901.

[12] See 49 CFR 1540.107 and 1540.111.

its use of technology to improve its ability to detect weapons, explosives, and incendiaries.

On December 22, 2001, on board an airplane bound for the United States, Richard Reid attempted to detonate a non-metallic bomb concealed in his shoe. Following this terrorist attempt, screening procedures were revised by enhancing the screening of footwear.

In 2004, terrorists mounted a successful attack on two domestic Russian passenger aircraft using explosives that were concealed on the torsos of female passengers. TSA responded to this demonstrated security vulnerability by implementing a variety of enhancements to its standard operating procedures. Revised pat-down protocols that increased the thoroughness of pat-downs on the female torso were among the enhancements implemented to improve the ability to detect explosives concealed on the body.

In 2006, terrorists in the United Kingdom plotted to bring on board aircraft liquid explosives that would be used to construct and detonate a bomb while in flight. Following this threat, TSA again adjusted its security procedures by limiting the amount of liquids that could be brought on board aircraft and enhancing the screening of liquids, aerosols, and gels. TSA also deployed technology to improve detection of liquid explosives.

On December 25, 2009, a bombing plot by Al Qaeda in the Arabian Peninsula (AQAP) culminated in Umar Farouk Abdulmutallab's attempt to blow up an American aircraft over the United States using a non-metallic explosive device hidden in his underwear. TSA's pat-down procedures then in effect may not have detected the device.

TSA modified its screening procedures to improve its ability to detect explosives hidden in an area of the body that previously was not thoroughly searched and hastened to expand deployment of AIT to improve its ability to detect non-metallic explosives concealed on the body through the use of technology, rather than the pat-down.[13]

In October 2010, AQAP attempted to destroy two airplanes in flight using non-metallic explosives hidden in two printer cartridges. TSA immediately instituted new screening requirements for cargo bound for the United States.

In May 2012, AQAP developed another non-metallic explosive device that could be hidden in an individual's underwear and detonated while on board an aircraft. Fortunately, this device was obtained by an undercover operative and was not given to a potential suicide bomber. The device was provided to the Federal Bureau of Investigation for technical and forensic analysis and the results indicate that terrorists have modified certain characteristics of the bomb in comparison with the December 25, 2009 bomb in an attempt to avoid the 2009 bombing attempt's design failure.

As evidenced by the incidents described above, TSA operates in a high-threat environment. Terrorists look for security gaps or exceptions to exploit. The device used in the December 25, 2009 attempt is illustrative. It was cleverly constructed and intentionally hidden on a sensitive part of the body to avert detection. If this attack were successful as planned, the lives of the almost 300 passengers and crew and potentially people on the ground would have been in jeopardy.

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[13] On January 7, 2010, the President issued a "Presidential Memorandum Regarding 12/25/2009 Attempted Terrorist Attack," which charged TSA with aggressively pursuing enhanced screening technology in order to prevent further such attempts, while at the same time protecting passenger privacy. A copy of that memorandum is available in the docket for this rulemaking and can be found at http://www.whitehouse.gov/the-press-office/presidential-memorandum-regarding-12252009-attempted-terrorist-attack.

As these examples of the real and ever-evolving threats to aviation security demonstrate, non-metallic explosives are now one of the foremost known threats to passenger aircraft. The best defense against these and other terrorist threats remains a risk-based, layered security approach that uses a range of screening measures, both seen and unseen. This includes the use of AIT, which is proven technology for identifying non-metallic explosives during passenger screening, such as the device Umar Farouk Abdulmutallab attempted to detonate on Christmas Day 2009. TSA requests comment on the threat to aviation security described above and the risk-based, layered security approach it has adopted.

B. Layers of Security

TSA deploys approximately 50,000 Transportation Security Officers (TSOs) at more than 446 domestic airports with over 700 security checkpoints to screen nearly 2 million passengers each day using various screening methods and technologies. Although the airport checkpoints are the most visible layer of security used by TSA, TSA also relies extensively on intelligence regarding potential and actual terrorist threats to inform and identify what security measures are necessary to meet the nature of those threats. Other security layers include checking passenger manifests against records from the Government known or suspected terrorist watch lists through TSA's Secure Flight program, examining identity and travel documents, using explosives detection systems, and conducting random security operations at the checkpoint and throughout the airport.

Because even the best intelligence does not identify in advance every individual who would seek to do harm to passengers, aviation security, and the United States, TSA must rely on the security expertise of its frontline personnel – TSOs, Federal Air

Marshals, Transportation Security Specialists-Explosives, Behavior Detection Officers, and explosives detection canine teams, among others – to help prevent acts of terrorism.

Effective technology is an essential component of TSA's arsenal of tools to detect and deter threats against our nation's transportation systems. Since its creation, TSA has deployed an increasingly sophisticated range of next generation detection equipment – including bottled liquid scanners, advanced technology x-ray systems, explosives trace detection (ETD) units, and AIT – as the threats to aviation security change and become more sophisticated. As recent history illustrates, TSA changes its screening equipment and procedures as needed to respond to evolving threats based on experience and the latest intelligence. TSA's layered approach and its ability to deploy new security methods to respond to the latest threats are necessary to provide adequate security for the traveling public. Advanced Imaging Technology currently provides the best opportunity to detect metallic and non-metallic threats concealed on the body under clothing without physical contact.[14]

C. Congressional Direction to Pursue AIT

In 2004, Congress directed TSA to continue to explore the use of new technologies to improve its threat detection capabilities.[15] Specifically, the law provides:

Deployment and use of detection equipment at airport screening checkpoints

- Weapons and explosives.--The Secretary of Homeland Security shall give a high priority to developing, testing, improving, and deploying, at airport screening checkpoints, equipment that detects nonmetallic, chemical, biological, and radiological weapons, and explosives, in all forms, on individuals and in their personal

[14] In September 2012, TSA initiated a limited procurement for next generation AIT units for the purpose of testing such units in a laboratory environment. The outcome of the testing will determine if the units will proceed to testing in an airport environment. TSA anticipates that next generation AIT units will have enhanced detection capabilities, faster passenger throughput, and a smaller footprint.
[15] 49 U.S.C. 44925.

property . . . the types of weapons and explosives that terrorists would likely try to smuggle aboard an air carrier aircraft.

- [The TSA Administrator shall submit] . . . a strategic plan to promote the optimal utilization and deployment of explosive detection equipment at airports to screen individuals and their personal property. Such equipment includes walk-through explosive detection portals, document scanners, shoe scanners, and backscatter x-ray scanners.

Additional references in congressional reports accompanying appropriations and authorizing legislation demonstrate Congress' continued direction to DHS and TSA to pursue enhanced screening technologies and imaging technology, including:

1) Explanatory Statement, House Appropriations Committee Print for Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009 (FY09 DHS Appropriations) Pub. L. 110-329 at p. 640:

> The bill provides $250,000,000 for Checkpoint Support to deploy a number of emerging technologies to screen airline passengers and carry-on baggage for explosives, weapons, and other threat objects by the most advanced equipment currently under development. TSA is directed to spend funds on multiple whole body imaging technologies including backscatter and millimeter wave as directed in the Senate report.

2) H. Rep. 110-862 at p. 64, FY09 DHS Appropriations:

> Over the past year, TSA has made some advances in testing, piloting, and deploying next-generation checkpoint technologies that will be used to screen airline passengers and carry-on baggage for explosives, weapons, and other threats. Even with this progress, however, additional funding is necessary to expedite pilot testing and deployment of advanced checkpoint explosive detection equipment and screening techniques to determine optimal deployment as well as preferred operational and equipment protocols for these new systems. Eligible systems may include, but are not limited to, advanced technology screening systems; whole body imagers; . . . The Committee expects TSA to give the highest priority to deploying next-generation technologies to designated Tier One threat airports.

3) S. Rep. 110-396 at p. 60, FY09 DHS Appropriations:

> WHOLE BODY IMAGERS. The Committee is fully supportive of emerging technologies at passenger screening checkpoints, including the whole body imaging program currently underway at Category X airports.

> These technologies provide an increased level of screening for passengers by detecting explosives and other non-metal objects that current checkpoint technologies are not capable of detecting. The Committee directs that funds for whole body imaging continue to be spent by TSA on multiple imaging technologies, including backscatter and millimeter wave.

4) H. Rep.110-259, at page 363, Conference Report to Implementing Recommendations of 9/11 Commission Act of 2007, Pub. L. 110-53, sec. 1601 - Airport checkpoint screening fund:

> The National Commission on Terrorist Attacks Upon the United States (the 9/11 Commission) asserted that while more advanced screening technology is being developed, Congress should provide funding for, and TSA should move as expeditiously as possible to support, the installation of explosives detection trace portals or other applicable technologies at more of the nation's commercial airports. Advanced technologies, such as the use of non-intrusive imaging, have been evaluated by TSA over the last few years and have demonstrated that they can provide significant improvements in threat detection at airport passenger screening checkpoints for both carry-on baggage and the screening of passengers. The Conference urges TSA to deploy such technologies quickly and broadly to address security shortcomings at passenger screening checkpoints. [16]

D. U.S. Court of Appeals Decision in EPIC v. DHS

In July 2010, the EPIC petitioned the U.S. Court of Appeals for the District of Columbia Circuit for review of TSA's use of AIT as a primary screening device to screen airline passengers. EPIC argued that the use of AIT violated various federal statutes and the Fourth Amendment to the Constitution and should have been the subject of notice-and-comment rulemaking.

[16] See also, sec. 109 of the Aviation and Transportation Security Act (ATSA), Pub. L. 107-71 (2001), as amended by sec. 1403(b) of the Homeland Security Act of 2002, Pub. L. 107-296, **"**(7) Provide for the use of voice stress analysis, biometric, or other technologies to prevent a person who might pose a danger to air safety or security from boarding the aircraft of an air carrier or foreign air carrier in air transportation or intrastate air transportation" and Title IV of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5 ". . . for procurement and installation of checked baggage explosives detection systems and checkpoint explosives detection equipment."

The Court of Appeals issued a decision on July 15, 2011, which rejected nearly all of EPIC's claims.[17] In ruling on EPIC's Fourth Amendment claim, the Court held that screening passengers at an airport is an administrative search that does not rely on individualized suspicion. "Instead, whether an administrative search is 'unreasonable' within the condemnation of the Fourth Amendment 'is determined by assessing, on the one hand, the degree to which it intrudes upon an individual's privacy and, on the other, the degree to which it is needed for the promotion of legitimate governmental interests'."[18]

The Court found that the "balance clearly favors the Government here."[19] The Court recognized the clear need for AIT screening, and the advantages the AIT provides over the WTMD. The Court stated that "[t]he need to search airline passengers 'to ensure public safety can be particularly acute' and, crucially, an AIT scanner, unlike a magnetometer, is capable of detecting, and therefore of deterring, attempts to carry aboard airplanes explosives in liquid or powder form."[20]

As explained in the decision, the AIT scanners then in use produce a "crude image of an unclothed person . . . ."[21] In rejecting EPIC's privacy argument, the Court recognized that TSA has taken steps:

> [T]o mitigate the effect a scan using AIT might have upon passenger privacy: Each image produced by a scanner passes through a filter to obscure facial features and is viewable on a computer screen only by an officer sitting in a remote and secure room. As soon as the

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[17] Electronic Privacy Information Center v. U.S. Department of Homeland Security, 653 F.3d 1 (D.C. Cir. 2011).

[18] Id. at 10 (quoting United States v. Knights, 534 U.S. 112, 118-119 (2001)).

[19] Id.

[20] Id. (quoting City of Indianapolis v. Edmond, 531 U.S. 32, 47-48) (internal citation omitted).

[21] Id. at 3.

> passenger has been cleared, moreover, the image is deleted; the officer cannot retain the image on his computer, nor is he permitted to bring a cell phone or camera into the secure room.[22]

The Court also noted that three Privacy Impact Assessments (PIAs) of the AIT program had been completed and were sufficient. "[T]he petitioners make no more specific objection that would enable us to disturb the [Chief Privacy Officer's] conclusion that the privacy protections built into the AIT program are sufficiently 'strong'."[23]

In its decision, the Court acknowledged that Congress authorized TSA to prescribe the details of the screening process. The Court noted that "Congress did . . . in 2004, direct the TSA to 'give a high priority to developing, testing, improving, and deploying' at airport screening checkpoints a new technology 'that detects nonmetallic, chemical, biological, and radiological weapons, and explosives, in all forms'."[24] The Court observed that TSA responded to this directive through the development and procurement of AIT scanners, which enable the operator of the machine to detect non-metallic objects, such as a liquid or powder, which a metal detector cannot detect, without touching the passengers coming through the checkpoint.[25]

TSA tested the use of AIT machines in 2009 for primary screening at a limited number of airports. The Court acknowledged that "based on the apparent success of the test, the TSA decided early in 2010 to use the scanners everywhere for primary screening."[26] The Court also pointed out that passengers are not required to go through

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[22] Id. at 4.

[23] Id. at 9.

[24] Id. at 3 (quoting sec. 4013 of the Intelligence Reform and Terrorism Prevention Act of 2004, Pub. L. 108-458, 118 Stat. 3719).

[25] Id.

[26] Id.

the AIT screening process. The Court stated "no passenger is ever required to submit to an AIT scan . . . [and] signs at the security checkpoint notify passengers they may opt instead for a patdown."[27] The Court also rejected EPIC's claims that the AIT is unlawful under the Video Voyeurism Prevention Act and the Religious Freedom Restoration Act.

In ruling on EPIC's Administrative Procedure Act claim, the Court determined that TSA did not justify "its failure to initiate notice-and-comment rulemaking before announcing it would use AIT scanners for primary screening."[28] Even though privacy precautions had been implemented, the Court stated "it is clear that by producing an image of the unclothed passenger, an AIT scanner intrudes upon . . . personal privacy in a way a magnetometer does not."[29] Thus, the Court found the use of the AIT in primary screening "substantively affects the public to a degree sufficient to implicate the policy interests animating notice-and-comment rulemaking."[30] The Court did not require TSA to stop using AIT. "[D]ue to the obvious need for the TSA to continue its airport security operations without interruption, we remand the rule to the TSA but do not vacate it . . . ."[31]

III. AIT Screening Protocols

A. Types of AIT Equipment

TSA engaged in extensive laboratory and operational testing before approving the two types of AIT equipment initially deployed. In February 2007, TSA initiated a pilot operation at an airport to test AIT detection capability in the secondary screening position

[27] Id.

[28] Id.

[29] Id. at 6.

[30] Id.

[31] Id. at 8.

for aviation passengers who set off the alarm of the WTMD. In January 2008, TSA published a PIA to cover AIT screening of all passengers at the security screening checkpoint. Throughout 2007 and 2008, additional AIT units were tested in the secondary screening position and TSA continued to evaluate different types of AIT equipment, including both general-use x-ray backscatter and millimeter wave. In 2009, TSA began to evaluate using AIT in the primary screening position as an alternative to WTMD.[32] Deploying AIT in the primary position to screen all passengers for both metallic and non-metallic threats allows TSA to use the technology to its full capability. In February 2010, TSA submitted a report to Congress on privacy protections and deployment of AIT.[33]

TSA has compared AIT to other transportation security equipment and manual processes, including ETD, WTMD, and pat-downs. Based on the testing results, TSA determined that AIT currently offers the best opportunity to detect both metallic and non-metallic threat items concealed underneath clothing, such as the explosives carried by Mr. Abdulmutallab, without physical contact.

One type of AIT equipment initially deployed by TSA, the Rapiscan Secure 1000, uses backscatter technology. Unlike a traditional x-ray machine, which relies on the transmission of x-rays through an object, general-use backscatter technology projects low

[32] In addition to the AIT equipment described below, TSA evaluated infrared (IR) technology, which scans for temperature differences on the body's surface or for temperature imbalances between the body, clothes, and any hidden objects.

[33] "Advanced Imaging Technologies: Passenger Privacy Protections," Fiscal Year 2010 Report to Congress, February 25, 2010.

level x-ray beams over the body surface at high speed. The reflection or "backscatter" of the beam is detected and digitized to create an image.[34]

The L-3 ProVision, another type of AIT equipment currently deployed by TSA, uses millimeter-length radio waves. Millimeter wave technology bounces electromagnetic waves off of the human body to detectors in the machine, which a computer then interprets in order to create a black and white image.[35]

Working with the DHS Science & Technology Directorate and private industry, TSA began testing ATR software in 2010. Automatic Target Recognition software generates a generic outline and not an individual image.[36] In July 2011, TSA began installing ATR software on millimeter wave AIT units and completed installation on all millimeter wave units currently in use. This advancement significantly enhances privacy by eliminating the passenger-specific images referred to in the EPIC v. DHS decision.

As part of the Federal Aviation Administration Modernization and Reform Act of 2012, Congress mandated that all AIT units must be equipped with ATR by June 1, 2012.[37] As permitted by law, the deadline was extended to June 1, 2013. While all of the millimeter wave units have been equipped with the ATR software, Rapiscan was unable to develop ATR software that would work on the general-use backscatter units. As a result, TSA terminated its Rapiscan ATR delivery order and all Rapiscan general-use

[34] An example of the image produced by the backscatter technology is posted on TSA's web site at http://www.tsa.gov/travelers-guide/ait-how-it-works.

[35] See "Safety of AIT" for a discussion of the safety of the millimeter wave equipment. The Food and Drug Administration has found that millimeter wave is safe and states on its website that "[m]illimeter wave security systems which comply with the limits set in the applicable national non-ionizing radiation safety standard . . . cause no known adverse health effects." http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/SecuritySystems/ucm227201.htm#2.

[36] Examples of the generic outline that the ATR software produces are available on TSA's web site at http://www.tsa.gov/travelers-guide/ait-how-it-works.

[37] Pub. L. 112-95.

backscatter AIT units currently deployed at TSA checkpoints are being removed from operation by Rapiscan.[38] By June 1, 2013, only AIT equipped with ATR will be used at TSA checkpoints.

TSA will continue to evaluate current AIT systems and associated screening procedures, as well as any new technologies and procedures that may be considered for deployment, to ensure that they are safe and meet all relevant government and consensus industry standards, are effective against established and anticipated threats, and require the least disruption and intrusion on passenger privacy possible.

B. Privacy Safeguards for AIT

The use of ATR software enhances passenger privacy by eliminating images of individual passengers, as well as the need for a TSO to view the individual images to identify anomalies.[39] Automatic Target Recognition software auto-detects anomalies concealed on the body and displays these on a generic outline, which is viewable on a screen located on the AIT equipment. These anomalies are then resolved through additional screening. Automatic Target Recognition-enabled units deployed at airports are not capable of storing or printing the generic outline that will be visible to passengers. TSA has installed the software on all currently-deployed millimeter wave units. As noted above, AIT units without ATR software are being removed from operation and only ATR-equipped AIT units will be used at the checkpoint as of June 1, 2013.

Section 222 of the Homeland Security Act requires that the Privacy Office assure that the use of technologies sustain and do not erode privacy protections relating to the use, collection, and disclosure of personal information, and to conduct a privacy impact

[38] http://blog.tsa.gov/2013/01/rapiscan-backscatter-contract.html.
[39] Before the installation of ATR software, TSA required that all millimeter wave machines blur the face of the passenger.

assessment (PIA) for proposed rules impacting the privacy of personal information (6 U.S.C. 142). Even before the development of the ATR software, TSA instituted rigorous safeguards to protect the privacy of individuals who are screened using AIT. In addition, as noted by the Court in EPIC v. DHS, the DHS Chief Privacy Officer has conducted several PIAs on the use of AIT equipment to ensure that the public's privacy concerns related to AIT screening are adequately addressed. These PIAs meet the requirements of section 222 for this NPRM and describe the strict measures TSA uses to protect privacy.[40] To the extent that TSA receives substantive comments on privacy issues related to the use of AIT, they will be addressed in the final rule and any resulting changes will be addressed appropriately in a revised PIA.

While graphic images purportedly from TSA's AIT machines have been circulated in the media, those images were not the type produced by TSA's AIT equipment. Neither of the AIT technologies that have been used by TSA produced photographs or images that would enable personal identification. As deployed by TSA, neither technology is able to store, print, or export any image.

When using the backscatter technology, TSA requirements dictated that a filter be applied to prevent a detailed image of an individual. In addition, the images were viewed by a trained TSO in a locked, remote location. The anonymity of the individual being screened was preserved, since the TSO assisting the individual at the AIT unit never saw the image, and the TSO viewing the image never saw the individual being screened. No TSA personnel were permitted to view both the image and the individual. The backscatter units did not store, print, or export any images. Storage capability was

[40] The most recent update to the PIA is posted on the DHS website at http://www.dhs.gov/xlibrary/assets/privacy/privacy-pia-tsa-ait.pdf and is available in the docket for this rulemaking.

disabled prior to deployment, and TSA airport personnel were not able to activate the storage capability. In addition, the backscatter images were transmitted securely between the unit and the viewing room so they could not be lost, modified, or disclosed. The images produced by the backscatter units were encrypted during transmission. The images were deleted from the screen in the viewing room when the individual was cleared. TSOs in the viewing room were prohibited from bringing electronic devices such as cameras, cell phones, or other recording devices into the room. Violations of these procedures subjected the TSO to disciplinary action, which included termination.

To give further effect to the Fair Information Practice Principles that are the foundation for privacy policy and implementation at DHS, individuals may opt-out of the AIT in favor of physical screening. TSA provides notice of the use of AIT and the opt-out option at the checkpoint so that individuals may exercise an informed judgment on AIT. Signs are posted that explain the technology and state "use of this technology is optional. If you choose not to be screened by this technology you will receive a thorough pat down."[41] TSA requests comment on the privacy safeguards discussed above and on the ability of passengers to opt-out of AIT screening.

C. Safety of AIT

AIT equipment has been subject to extensive testing that has confirmed that it is safe for individuals being screened, equipment operators, and bystanders.[42] The exposure to ionizing x-ray beams emitted by the backscatter machines that are being removed pursuant to statute, as well as the non-ionizing electromagnetic waves from the millimeter wave machines is well within the limits allowed under relevant national health

[41] See AIT Signs at http://www.tsa.gov/ait-how-it-works.
[42] See AIT: Safety at http://www.tsa.gov/ait-safety.

and safety standards. Prior to procuring and deploying both backscatter and millimeter wave AIT equipment, TSA tested the units to determine whether they would be safe for use in passenger screening. As explained further below, TSA determined that the general-use backscatter and millimeter wave technologies were safe for use in screening the public because the x-ray and radio waves emissions were so low as to present a negligible risk to passengers, airline crew members, airport employees, and TSA employees.

1. Millimeter Wave Units

The millimeter wave AIT systems that will be the only technology deployed at the checkpoint as of June 1, 2013 use non-ionizing radio frequency energy in the millimeter wave spectrum to generate a three-dimensional image based on the energy reflected from the body. Millimeter wave imaging technology meets all known national and international health and safety standards. In fact, the energy emitted by millimeter wave technology is 1,000 times less than the international limits and guidelines. The millimeter wave AIT systems that TSA uses must comply with the 2005 Institute of Electrical and Electronics Engineers, Inc. Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields (IEEE Std. C95.1™-2005) as well as the International Commission on Non-Ionizing Radiation Protection Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields, Health Physics 74(4); 494-522, published April 1998. TSA's millimeter wave units are also consistent with Federal Communications Commission OET Bulletin 65, Health Canada Safety Code 6, and RSS-102 Issue 3 for Canada. The FDA has also confirmed

that millimeter wave security systems that comply with the IEEE Std. C95.1™-2005 cause no known adverse health effects.[43]

2. Backscatter Units

As required by statute, TSA will remove all currently deployed Rapiscan backscatter units by May 31, 2013. When in use, TSA addressed potential health concerns regarding the ionizing radiation emitted by general-use backscatter technology. TSA's procurement specifications required that the backscatter units must conform to the consensus radiation safety standard of the American National Standards Institute (ANSI)[44] and Health Physics Society (HPS)[45] for the design and operation of security screening systems that use ionizing radiation. That standard is ANSI/HPS N43.17, which was first published in 2002 and revised in 2009.[46]

The annual dose limits in ANSI/HPS N43.17 are based on dose limit recommendations for the general public published by the National Council on Radiation Protection and Measurements[47] in Report 116, "Limitations of Exposure to Ionizing

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[43] http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/SecuritySystems/ucm227201.htm.

[44] ANSI is a private, non-profit organization that administers and coordinates the U.S. voluntary standards and conformity assessment system. The Institute oversees the development and use of voluntary consensus standards by providing neutral, third-party accreditation of the procedures used by standards developing organizations, and approving their documents as American National Standards.

[45] HPS is a scientific organization of professionals who specialize in radiation safety. Its mission is to support its members and to promote excellence in the science and practice of radiation safety. As an independent nonprofit scientific organization, HPS is not affiliated with any government or industrial organization or private entity.

[46] American National Standard, "Radiation Safety for Personnel Security Screening Systems Using X-Ray or Gamma Radiation," ANSI/HPS N43.17 (2009); Health Physics Society, McLean, VA. Copies can be ordered at: http://webstore.ansi.org/faq.aspx#resellers.

[47] The National Council on Radiation Protection and Measurements was founded in 1964 by Congress to cooperate with the International Commission on Radiological Protection, the Federal Radiation Council, the International Commission on Radiation Units and Measurements, and other national and international organizations, both governmental and private, concerned with radiation quantities, units, and measurements as well as radiation protection.

Radiation."[48] The dose limits were set with consideration given to individuals, such as pregnant women, children, and persons who receive radiation treatments, who may be more susceptible to radiation health effects. Further, the standard also takes into consideration the fact that individuals are continuously exposed to ionizing radiation from the environment. ANSI/HPS N43.17 sets the maximum permissible dose of ionizing radiation from a general-use system per security screening at 0.25 microsieverts.[49] The standard also requires that individuals should not receive 250 microsieverts or more from a general-use x-ray security screening system in a year.

The radiation dose (effective dose) a passenger receives from a general-use backscatter AIT screening has been independently evaluated by the Food and Drug Administration's (FDA's) Center for Devices and Radiological Health, the National Institute for Standards and Technology, and the Johns Hopkins University Applied Physics Laboratory. All results affirmed that the effective dose for individuals being screened, operators, and bystanders was well below the dose limits specified by ANSI/HPS N43.17.[50] These results were confirmed in a report issued by the DHS Office of Inspector General (OIG) in February 2012.[51] The OIG report found that the independent surveys show that backscatter radiation levels are below the established limits and that TSA complied with ANSI/HPS N43.17.

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[48] Copies of the report can be ordered at: http://www.ncrppublications.org/Reports/116.

[49] The biological effect of radiation is measured in sieverts. One sievert equals 1,000 millisieverts and one millisievert equals 1,000 microsieverts.

[50] TSA's website at http://www.tsa.gov/travelers-guide/ait-safety contains many articles and studies that discuss AIT safety, including a description of the built-in safety features of the Rapiscan Secure 1000, an Archives of Internal Medicine report on the risks of imaging technology, the FDA evaluation of backscatter technology, and other independent safety assessments of AIT.

[51] Department of Homeland Security, Office of Inspector General, "Transportation Security Administration's Use of Backscatter Units," OIG-12-38, February 2012.

Typical doses from backscatter machines are no more than 0.05 microsieverts per screening, well below the ANSI/HPS N43.17 maximum dosage of 0.25 microsievert per screening. An individual would have to have been screened by the Rapiscan Secure 1000 more than 13 times daily for 365 consecutive days before exceeding the ANSI/HPS standard.

By comparison, a traveler would have to be screened via Rapiscan/backscatter AIT 2,000 times to equal the dosage received in a single chest x-ray, which delivers 100 microsieverts of ionizing radiation. A typical bite-wing dental x-ray of 5 microsieverts would be equivalent to 100 backscatter screenings, and a two-view mammogram that delivers 360 microsieverts would be equivalent to 7,200 backscatter screenings.[52] A passenger flying one-way from Washington, D.C. to Los Angeles is exposed to approximately 19.1 microsieverts of ionizing radiation over the course of the 4.7 hour flight.[53]

ANSI/HPS also reflects the standard for a negligible individual dose of radiation established by the National Council on Radiation Protection and Measurements at 10 microsieverts per year. Efforts to reduce radiation exposure below the negligible individual dose are not warranted because the risks associated with that level of exposure are so small as to be indistinguishable from the risks attendant to environmental radiation that individuals are exposed to every day.[54] The level of radiation issued by the Rapiscan

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[52] HPS Fact Sheet: Radiation Exposure from Medical Exams and Procedures, January 2010, http://hps.org/documents/Medical_Exposures_Fact_Sheet.pdf.

[53] Federal Aviation Administration, "What Aircrews Should Know About Their Occupational Exposure to Ionizing Radiation," DOT-FAA-AM-03-1 (October 2003) at p. 9. Available at: http://www.faa.gov/data_research/research/med_humanfacs/oamtechreports/2000s/media/0316.pdf.

[54] The World Health Organization estimates that each person is exposed, on average, to 2.4 millisieverts (i.e., 2400 microsieverts) of ionizing radiation each year from natural sources. www.who.int/ionizing_radiation/about/what_is_ir/en/index2.html.

Secure 1000 is so low that most passengers would not have exceeded even the negligible individual dose. In fact, an individual would have to be screened more than 200 times a year by a Rapiscan Secure 1000 before he or she would exceed the negligible individual dose and, even then, the exposure would be below the ANSI/HPS N43.17 standard.

The European Commission released a report conducted by the Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) on the risks related to the use of security scanners for passenger screening that use ionizing radiation such as the general-use backscatter AIT machines.[55] The committee found no short term health effects that can result from the doses of radiation delivered by security scanners. In the long term, it found that the potential cancer risk cannot be estimated, but is likely to remain so low that it cannot be distinguished from the effects of other exposures including both ionizing radiation from other natural sources, and background risk due to other factors.

The ANSI/HPS N43.17 standard also requires that any general-use backscatter machine have safety interlocks to terminate emission of x-rays in the event of any system problem that could result in abnormal or unintended radiation emission. The Rapiscan Secure 1000 had three such features. First, the unit was designed to cease x-ray emission once the programmed scan motion ends. That feature could not be adjusted. Second, the unit was programmed to terminate emission once the requisite number of lines of data necessary to create an image was received. Both of these automatic features reduced the

[55] The SCENIHR is an independent committee that provides the European Commission with the scientific advice it needs when preparing policy and proposals relating to consumer safety, public health and the environment. The committee is made up of external experts. The report can be found at http://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_o_036.pdf.

possibility that emissions could continue if the unit malfunctions. Finally, the unit had an emergency stop button that would terminate x-ray emission.

Upon installation, a radiation emission survey was conducted on each Rapiscan Secure 1000 to ensure the unit operated properly. Preventive maintenance checks, including radiation safety surveys, were performed at least once every six months; after any maintenance that affected the radiation shielding, shutter mechanism, or x-ray production components; after any incident where damage was suspected; or after a unit was moved. The U.S. Army Public Health Command also conducted an independent radiation survey on deployed systems. The report confirmed that the general-use backscatter units tested were well within applicable national safety standards.[56]

The DHS Office of the Chief Procurement Officer is also requesting the National Academy of Sciences to review previous studies as well as the current processes used by DHS and equipment manufacturers to estimate radiation exposure resulting from general-use backscatter equipment and to provide a report on whether radiation exposures comply with applicable health and safety standards and whether system design operating procedures and maintenance procedures are appropriate.

D. AIT Procedures at the Checkpoint

TSA's regulations require that "[i]ndividuals may not enter or be present within a secured area, air operations area, security identification display area, or sterile area without complying with the systems, measures, or procedures used to control access to such areas."[57] In addition, "[i]ndividuals may not enter a sterile area or board an aircraft without submitting to the screening and inspection of their person and accessible property

[56] The report is available on TSA's web site at http://www.tsa.gov/travelers-guide/ait-safety.

[57] 49 CFR 1540.105(a)(2).

in accordance with the procedures being applied to control access to that area or the aircraft."[58] Federal law also requires that air carriers refuse to transport a passenger who does not consent to a search of his person or baggage,[59] and authorizes air carriers to refuse to transport a passenger or property the carrier decides is, or might be, inimical to safety.[60]

The specific security procedures, systems, or measures that TSA deploys are included in its Standard Operating Procedures (SOPs). The SOPs instruct the TSOs how to conduct the screening measures currently in use. Terrorists continue to seek ways to thwart aviation security measures and could use information on TSA procedures, such as the instructions on how to operate AIT equipment and the AIT equipment specifications, to plan and execute attacks. Therefore, the SOPs are SSI and are not made public as such disclosure would prove detrimental to transportation security.[61]

In response to the decision in EPIC v. DHS, TSA is proposing to add the following language to its current regulations at 49 CFR 1540.107, quoted above, to specifically address AIT screening:

> (d) The screening and inspection described in (a) may include the use of advanced imaging technology. For purposes of this section, advanced imaging technology is defined as screening technology used to detect concealed anomalies without requiring physical contact with the individual being screened.

In addition, TSA has posted information on its website on what individuals can expect when submitting to AIT screening. AIT screening is currently optional, but when opting out of AIT screening, a passenger will receive a pat-down. When TSA deploys AIT

[58] 49 CFR 1540.107(a).

[59] 49 U.S.C. 44902(a), 49 CFR 1544.201(c).

[60] 49 U.S.C. 44902(b).

[61] SSI is defined in footnote 1.

equipment at a screening lane, a sign is posted to inform the public that AIT may be used as part of the screening process prior to passengers entering the machine so that each passenger may exercise an informed decision on the use of AIT. The sign also indicates that a passenger who chooses not to be screened by AIT will receive a pat-down. However, TSA has found that since 2009, fewer than two percent of passengers opt for a pat-down in lieu of AIT screening.[62]

TSA's website[63] explains that AIT looks for any items, both metallic and non-metallic, that might be anywhere on the body. It recommends that individuals remove all items from pockets and their person and place them in carry-on baggage prior to entering the checkpoint. It notes that removal will lessen the chance that additional screening will be required. The website also explains that for AIT units not equipped with ATR, the TSO who views the image cannot see the individual; while for AIT equipped with ATR software, the screen with the generic outline is located on the scanner and is visible to the passenger and the TSO. The website states that AIT is optional.

After any items are removed, individuals are directed to enter the AIT. Once inside, individuals are directed to stand with arms raised, and to remain still for several seconds while the image is created. When using AIT with ATR, the image is not an image of the individual passenger, rather a generic outline that indicates where the anomaly is detected. Individuals are directed to exit the opposite side of the portal. Once

[62] TSA's web site describes the results of independent polling on AIT acceptance showing strong public support for and understanding of the need for AIT. See http://www.tsa.gov/ait-more-information. In addition, passengers with joint replacements or other medical devices that would regularly set off the alarm on a metal detector often prefer AIT because it is quicker and less invasive than a pat-down. See http://www.tsa.gov/traveler-information/advanced-imaging-technology-ait. An internet campaign in 2010 failed in an attempt to disrupt checkpoint operations by urging passengers to request a pat-down in lieu of AIT screening during the Thanksgiving holiday travel period. See "Opt Out Turns Into Opt In," The TSA Blog, November 24, 2010, http://blog.tsa.gov/2010_11_24_archive.html.

[63] http://www.tsa.gov/travelers-guide/ait-how-it-works.

the image is reviewed and any anomalies are resolved, the image is deleted. This process usually takes less than a minute.

TSA has also refined its procedures to make sure that the screening process addresses the needs of families. TSA never separates a child from an accompanying adult and makes sure that the accompanying adult observes the entire screening process. Advanced Imaging Technology is safe for children, and children 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. However, TSA no longer requires children who are 12 years old or younger to be screened by AIT and will direct those passengers to the WTMD unless instructed otherwise by an accompanying adult.[64] TSA has also implemented procedures to accommodate those passengers with disabilities and medical conditions that make them ineligible for AIT screening because they cannot stand in the necessary pose.

IV. Deployment of AIT

As of February 22, 2013, TSA has deployed over 800 AIT machines at approximately 200 airports in the United States.[65] TSA is removing the 174 Rapiscan general-use backscatter units from its checkpoints and by June 1, 2013, only units equipped with ATR software will be used to conduct screening.

Since it began using AIT, TSA has been able to detect many kinds of non-metallic items, small items, and items concealed on parts of the body that would not have been detected using metal detectors. Once an anomaly is detected, additional screening is required to determine if the item is prohibited.

[64] See Advanced Imaging Technology (AIT) at http://www.tsa.gov/traveler-information/traveling-children.
[65] TSA maintains a list of airports that have AIT machines on its website at http://www.tsa.gov/travelers-guide/ait-frequently-asked-questions.

Since January 2010, this technology has helped TSA officers detect hundreds of prohibited, dangerous, or illegal items concealed on passengers.[66] TSA's procurement specifications require that any AIT system must meet certain thresholds with respect to the detection of anomalies concealed under an individual's clothing. While the detection requirements of AIT are classified, the procurement specifications require that any approved system be sensitive enough to detect smaller items, such as a pager, wallet, or small bottle of contact lens solution.

Experience has confirmed that AIT will detect metallic and non-metallic items, including material that could be in various forms concealed under an individual's clothing. For example, a non-metallic martial arts weapon called a "Tactical Spike" was discovered in the sock of a passenger in Pensacola, Florida after being screened by AIT.[67] Advanced Imaging Technology is also effective in detecting metallic items. In December, 2011, a loaded .38 caliber firearm in an ankle holster was discovered during AIT screening of a passenger at Detroit Metropolitan Airport.[68] The versatility of AIT in detecting both metallic and non-metallic concealed items without physical contact makes it more effective than metal detectors as a tool to protect transportation security.

Some of the items discovered concealed on passengers during AIT screening are small items, such as weapons made of composite, non-metallic materials, including a three inch pocket knife hidden on a passenger's back; little packets of powder, including a packet the size of a thumbprint; and a syringe full of liquid hidden in a passenger's

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[66] Remarks of TSA Administrator John S. Pistole, Homeland Security Policy Institute, George Washington University, November 10, 2011.

[67] "TSA Week In Review: Non Metallic Martial Arts Weapon Found with Body Scanner," http://blog.tsa.gov/2011/12/tsa-week-in-review-non-metallic-martial.html.

[68] http://blog.tsa.gov/2011/12/loaded-380-found-strapped-to-passengers.html.

underwear.[69] A plastic dagger hidden in the hemline of a passenger's shirt was detected using AIT[70] and a plastic dagger concealed inside a comb was detected in a passenger's pocket.[71] Advanced Imaging Technology's capability to identify these small items is important because in addition to weapons and explosive materials, TSA also searches for improvised explosive device components, such as timers, initiators, switches, and power sources. Such items may be very small. Advanced Imaging Technology enhances TSA's ability to find these small items and further assists TSA in detecting threats.

V. Rulemaking Analyses and Notices

A. Regulatory Evaluation Summary and Economic Impact Analyses

Changes to Federal regulations must undergo several economic analyses. First, Executive Order (E.O.) 12866, Regulatory Planning and Review (58 FR 51735, October 4, 1993), as supplemented by E.O. 13563, Improving Regulation and Regulatory Review (76 FR 3821, January 21, 2011), directs each Federal agency to propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996) requires agencies to consider the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act (19 U.S.C. 2531-2533) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the

[69] "Advanced Imaging Off To a Great Start," April 20, 2010, at http://blog.tsa.gov/2010/04/advanced-imaging-technology-off-to.html and "Advanced Imaging Technology – Yes, It's Worth It," March 31, 2010, at http://blog.tsa.gov/2010/03/advanced-imaging-technology-yes-its.html.

[70] "TSA Week in Review: Plastic Dagger Found With Body Scanner," May 4, 2012, at http://blog.tsa.gov/2012/05/tsa-week-in-review-plastic-dagger-found.html.

[71] "TSA Week in Review: Comb Dagger Discovered With Body Scanner, 28 Loaded Guns, and More," August 17, 2012 at http://blog.tsa.gov/2012/08/tsa-week-in-review-comb-dagger.html.

United States. Fourth, the Unfunded Mandates Reform Act of 1995 (UMRA) (2 U.S.C. 1531-1538) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of $100 million or more annually (adjusted for inflation).

B. Executive Orders 12866 and 13563 Assessment

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. This rule is a "significant regulatory action" that is economically significant under sec. 3(f)(1) of E.O. 12866. Accordingly, the Office of Management and Budget (OMB) has reviewed this regulation.

In conducting these analyses, TSA has determined:

1) This rulemaking is a "significant regulatory action" as defined in the E.O.

2) An Initial Regulatory Flexibility Analysis suggests this rulemaking would not have a significant economic impact on a substantial number of small entities.

3) This rulemaking would not constitute a barrier to international trade.

4) This rulemaking does not impose an unfunded mandate on State, local, or tribal governments, or on the private sector under UMRA.

These analyses, available in the docket, are summarized below. This NPRM proposes to codify the use of AIT to screen passengers boarding commercial aircraft for

weapons, explosives, and other prohibited items concealed on the body. These costs are incurred by airport operators, the traveling public, Rapiscan, and TSA. Some airport operators incur utility costs for the additional electricity consumed by AIT machines. The small percentage of passengers (approximately one percent) who choose to opt out of AIT screening will incur opportunity costs due to the additional screening time needed to receive a pat-down. Rapiscan, a company that manufactures AIT machines, will incur a cost to remove backscatter AIT units in 2013 that have been deployed in previous years.[72] TSA incurs equipment costs associated with the life cycle of AIT machines (testing, acquisition, maintenance, etc.); personnel costs to hire TSOs to operate the AIT machines; utility costs at reimbursed airports; and training costs to train TSOs to operate AIT, and to detect and resolve any anomalies that may be discovered during AIT screening.

When estimating the cost of a rulemaking, agencies typically estimate future expected costs imposed by a regulation over a period of analysis. Because the AIT machine life cycle from deployment to disposal is eight years, the period of analysis for estimating the cost of AIT is also eight years. However, as AIT deployment began in 2008, there are costs that have already been borne by airport operators, the traveling public, and TSA that were not due to this rule. Consequently, in the Initial Regulatory Impact Analysis for this rule, TSA is reporting the AIT-related costs that have already occurred (years 2008-2011), but TSA considers the additional cost of this rulemaking to be years 2012-2015. By reporting the costs that have already happened and estimating

[72] On December 21, 2012, TSA terminated part of its contract with Rapiscan for the Convenience of the Government because it could not meet development related issues in regards to ATR by the Congressionally-mandated June 2013 deadline. As a result of the contract termination, Rapiscan will pay for the removal of all units still in the field.

future costs in this manner, TSA will have considered and disclosed the full eight-year life cycle of AIT deployment.

TSA reports that the net cost of AIT deployment from 2008-2011 has been $841.2 million (undiscounted) and that TSA has borne over 99 percent of all costs related to AIT deployment. TSA projects that from 2012-2015 total AIT-related costs will be approximately $1.5 billion (undiscounted), $1.4 billion at a three percent discount rate, and $1.3 billion at a seven percent discount rate. During 2012-2015, TSA estimates it will also incur over 98 percent of AIT-related costs with equipment and personnel costs being the largest categories of costs. Table 4 below reports the costs that have already happened (2008-2011) by cost category, while Table 5 shows the additional costs TSA is attributing to this rulemaking (2012-2015). Table 6 shows the total cost of AIT deployment from 2008 to 2015.

Table 4: Net Cost[73] Summary of AIT Deployment from 2008-2011 by Cost Component

(Costs already incurred in $ thousands - undiscounted)

Year	Passenger Opt Outs	Industry Utilities	TSA Costs				Total
			Personnel	Training	Equipment	Utilities	
2008	$7.0	$5.7	$14,689.1	$389.5	$37,425.2	$18.8	$52,535.3
2009	$32.2	$5.7	$15,618.6	$88.0	$42,563.6	$20.4	$58,328.5
2010	$262.2	$158.2	$247,566.7	$5,332.8	$119,105.4	$241.4	$372,666.6
2011	$1,384.2	$186.7	$284,938.7	$15,354.4	$55,567.2	$269.1	$357,700.2
Total	**$1,685.6**	**$356.3**	**$562,813.0**	**$21,164.7**	**$254,661.3**	**$549.6**	**$841,230.6**

Table 5: Cost Summary (Net Cost of AIT Deployment 2012-2015) by Cost Component

(AIT Costs in $ thousands)

Year	Passenger Opt Outs	Industry Utilities	TSA Costs				Rapiscan Removal	Total
			Personnel	Training	Equipment	Utilities		
2012	$2,716.5	$325.7	$375,866.9	$12,043.0	$116,499.3	$473.0	$0.0	$507,924.4
2013	$3,991.7	$329.3	$280,844.3	$4,277.5	$51,588.8	$324.4	$1,809.6	$343,165.7
2014	$4,238.7	$312.0	$263,677.6	$4,190.5	$51,397.8	$317.7	$0.0	$324,134.2
2015	$5,611.8	$300.3	$278,580.2	$4,144.2	$68,052.6	$365.7	$0.0	$357,054.9
Total	**$16,558.7**	**$1,267.3**	**$1,198,969.0**	**$24,655.2**	**$287,538.5**	**$1,480.9**	**$1,809.6**	**$1,532,279.2**
Discounted 3%	$15,265.0	$1,178.9	$1,118,459.3	$23,810.2	$269,233.7	$1,380.7	$1,705.7	$1,431,033.5
Discounted 7%	$13,766.6	$1,075.8	$1,024,344.7	$22,048.8	$247,810.4	$1,263.8	$1,580.6	$1,311,890.7

[73] TSA removed costs related to WTMD that would have occurred regardless of AIT deployment to obtain an estimated net cost for AIT.

Table 6: Cost Summary (Net Cost of AIT Deployment 2008-2015) by Cost Component (AIT Costs in $ thousands - undiscounted)

Year	Passenger Opt Outs	Industry Utilities	TSA Costs				Rapiscan Removal	Total
			Personnel	Training	Equipment	Utilities		
2008	$7.0	$5.7	$14,689.1	$389.5	$37,425.2	$18.8	$0.0	$52,535.3
2009	$32.2	$5.7	$15,618.6	$88.0	$42,563.6	$20.4	$0.0	$58,328.5
2010	$262.2	$158.2	$247,566.7	$5,332.8	$119,105.4	$241.4	$0.0	$372,666.6
2011	$1,384.2	$186.7	$284,938.7	$15,354.4	$55,567.2	$269.1	$0.0	$357,700.2
2012	$2,716.5	$325.7	$375,866.9	$12,043.0	$116,499.3	$473.0	$0.0	$507,924.4
2013	$3,991.7	$329.3	$280,844.3	$4,277.5	$51,588.8	$324.4	$1,809.6	$343,165.7
2014	$4,238.7	$312.0	$263,677.6	$4,190.5	$51,397.8	$317.7	$0.0	$324,134.2
2015	$5,611.8	$300.3	$278,580.2	$4,144.2	$68,052.6	$365.7	$0.0	$357,054.9
Total	**$18,244.4**	**$1,623.6**	**$1,761,782.0**	**$45,819.9**	**$542,199.9**	**$2,030.4**	**$1,809.6**	**$2,373,509.9**

This preamble (in the Background section above) has previously explained in detail the need for AIT and the Congressional direction to pursue AIT. In summary, terrorists continue to test our security measures in an attempt to find and exploit vulnerabilities. The threat to aviation security has evolved to include the use of non-metallic explosives, non-metallic explosive devices, and non-metallic weapons. Below are examples of this threat:

- On December 22, 2001, on board an airplane bound for the United States, Richard Reid attempted to detonate a non-metallic bomb concealed in his shoe.
- On December 25, 2009, a bombing plot by Al Qaeda in the Arabian Peninsula (AQAP) culminated in Umar Farouk Abdulmutallab's attempt to blow up an American aircraft over the United States using a non-metallic explosive device hidden in his underwear

- In October 2010, AQAP attempted to destroy two airplanes in flight using non-metallic explosives hidden in two printer cartridges.
- In May 2012, during the most recent terrorist plot thwarted, AQAP developed another non-metallic explosive device that could be hidden in an individual's underwear and detonated while on board an aircraft.

As evidenced by the incidents described in the above sections, TSA operates in a high-threat environment. Terrorists look for security gaps or exceptions to exploit. The device used in the December 25, 2009, attempt is illustrative. It was cleverly constructed and intentionally hidden on a sensitive part of the body to avert detection. If detonated, the lives of the almost 300 passengers and crew and untold numbers of people on the ground would have been in jeopardy.

Advanced Imaging Technology is proven technology which provides the best opportunity to detect metallic and non-metallic anomalies concealed under clothing without touching the passenger and is an essential component of TSA's security. Since it began using AIT, TSA has been able to detect many kinds of non-metallic items, small items, and items concealed on parts of the body that would not have been detected using metal detectors. In addition, risk reduction analysis shows that the chance of a successful terrorist attack on aviation targets generally decreases as TSA deploys AIT. However, the results of TSA's risk-reduction analysis are classified.

Passengers do not experience additional wait time due to use of AIT equipment because the x-ray screening of carry-on baggage constrains the overall screening process; they wait for their personal belongings regardless of which passenger screening technology is used.

In Tables 7 and 8 below, we present annualized cost estimates and qualitative benefits of AIT deployment. In Table 7, we show the annualized net cost of AIT deployment from 2012 to 2015. As previously explained, costs incurred from 2008-2011 occurred in the past and are not considered costs attributable to this proposed rule. However, given the life cycle of the AIT technology considered in this analysis is eight years; we have also added Table 8 showing the annualized net cost of AIT deployment from 2008-2015 (a full eight-year life cycle and includes the "sunk costs" from 2008 to 2011). Please note that while the total costs of AIT deployment for a full eight-year life cycle (2008-2015) are higher than the total costs of AIT deployment during the four-year period of 2012-2015, the annualized costs ($368,262.8 at seven percent discount) of the full eight-year cycle shown in Table 8 are actually lower than the annualized costs ($387,307.7 at seven percent discount) of the 2012-2015 deployment shown in Table 7. As previously shown in Tables 4 and 5, AIT deployment costs in 2008 and 2009 are relatively low compared with the later year AIT expenditures, resulting in lower annualized costs for the eight-year life cycle of 2008-2015. The costs are annualized and discounted at both three and seven percent and presented in 2011 dollars.

Table 7: OMB A-4 Accounting Statement ($ thousands for 2012-2015)

Category	*Primary Estimate*	*Minimum Estimate*	*Maximum Estimate*	*Source Citation (Initial RIA, preamble, etc.)*
BENEFITS				
Monetized benefits	Not estimated	Not estimated	Not estimated	Initial RIA
Annualized quantified, but unmonetized, benefits	0	0	0	Initial RIA
Unquantified benefits	The operations described in this proposed rule produce benefits by reducing security risks through the deployment of AIT technology that is capable of detecting both metallic and non-metallic weapons and explosives.			Initial RIA
COSTS				
Annualized monetized costs (discount rate in parenthesis)	(7%) $387,307.0			Initial RIA
	(3%) $384,986.7			
Annualized quantified, but unmonetized, costs	0	0	0	Initial RIA
Qualitative costs (unquantified)	Not estimated			Initial RIA
TRANSFERS				
Annualized monetized transfers: "on budget"	0	0	0	Initial RIA
From whom to whom?	N/A	N/A	N/A	None
Annualized monetized transfers: "off-budget"	0	0	0	Initial RIA
From whom to whom?	N/A	N/A	N/A	None
Miscellaneous Analyses/Category	***Effects***			***Source Citation (Initial RIA, preamble, etc.)***
Effects on state, local, and/or tribal governments	None			Initial RIA
Effects on small businesses	No significant economic impact anticipated. Prepared Initial Regulatory Flexibility Analysis.			Initial Regulatory Flexibility Analysis
Effects on wages	None			None
Effects on growth	None			None

Table 8: OMB A-4 Accounting Statement ($thousands , 2008-2015, Eight-year lifecycle)

Category	*Primary Estimate*	*Minimum Estimate*	*Maximum Estimate*	*Source Citation (Initial RIA, preamble, etc.)*
BENEFITS				
Monetized benefits	Not estimated	Not estimated	Not estimated	Initial RIA
Annualized quantified, but unmonetized, benefits	0	0	0	Initial RIA
Unquantified benefits	The operations described in this proposed rule produce benefits by reducing security risks through the deployment of AIT technology that is capable of detecting both metallic and non-metallic weapons and explosives.			Initial RIA
COSTS				
Annualized monetized costs (discount rate in parentheses)	(7%) $368,262.8			Initial RIA
	(3%) $326,410.1			
Annualized quantified, but unmonetized, costs	0	0	0	Initial RIA
Qualitative costs (unquantified)	Not estimated			Initial RIA
TRANSFERS				
Annualized monetized transfers: "on budget"	0	0	0	Initial RIA
From whom to whom?	N/A	N/A	N/A	None
Annualized monetized transfers: "off-budget"	0	0	0	Initial RIA
From whom to whom?	N/A	N/A	N/A	None
Miscellaneous Analyses/Category	***Effects***			***Source Citation (Initial RIA, preamble, etc.)***
Effects on state, local, and/or tribal governments	None			Initial RIA
Effects on small businesses	No significant economic impact anticipated. Prepared IRFA.			IRFA
Effects on wages	None			None
Effects on growth	None			None

As alternatives to the preferred regulatory proposal presented in the NPRM, TSA examined three other options. The following table briefly describes these options, which include a continuation of the current screening environment (no action), increased use of physical pat-down searches that supplements primary screening with WTMDs, and increased use of ETD screening that supplements primary screening with WTMDs. These alternatives, and the reasons why TSA rejected them in favor of the proposed rule, are discussed in detail in Chapter 3 of the regulatory evaluation located in this docket, and summarized in Table 9.

Table 9: Comparison of Regulatory Alternatives

Regulatory Alternative	Name	Description
1	No Action	Under this alternative, the passenger screening environment remains the same as it was prior to 2008. TSA continues to use WTMDs as the primary passenger screening technology and to resolve alarms with a pat-down.
2	Pat-Down	Under this alternative, TSA continues to use WTMDs as the primary passenger screening technology. In addition, TSA supplements the WTMD screening by conducting a pat-down on a randomly selected portion of passengers after screening by a WTMD.
3	ETD Screening	Under this alternative, TSA continues to use WTMDs as the primary passenger screening technology. In addition, TSA supplements the WTMD screening by conducting ETD screening on a randomly selected portion of passengers after screening by a WTMD.
4	AIT Screening (NPRM)	Under this alternative, the proposed alternative, TSA uses AIT as a passenger screening technology. Alarms would be resolved through a pat-down.

C. Regulatory Flexibility Act Assessment

The Regulatory Flexibility Act (RFA) of 1980 requires that agencies consider the impacts of their rules on small entities. For purposes of the RFA, small entities include small businesses, not-for-profit organizations, and small governmental jurisdictions. Individuals and States are not included in the definition of a small entity. TSA has included an Initial Regulatory Flexibility Analysis within the Initial Regulatory Impact Analysis.

This NPRM proposes to codify the use of AIT to screen passengers boarding commercial aircraft for weapons, explosives, and other prohibited items concealed on the body. The only additional direct cost small entities incur due to this rule is for utilities, as a result of increased power consumption from AIT operation. TSA identified 102 small entities that could have potentially incurred additional utility costs due to AIT; however, TSA reimburses the additional utility costs for five of these small entities. Consequently, this rule would cause 97 small entities to incur additional direct costs. Of the 97 small entities affected by this proposed rule, 96 are small governmental jurisdictions with populations less than 50,000. A privately-owned airport is considered small under SBA standards if revenue amounts to less than $30 million. TSA identified one small privately-owned airport.

The small entities incur an additional utility cost as a result of increased power consumption from AIT operation. To estimate the costs of the deployment of AIT on small entities TSA uses the average kilowatt hour (kWh) consumed per unit on an annual basis at federalized airports. Depending on the size of the airport, TSA estimates the average additional utility cost to range from $815 to $1,270 per year while the average annual revenue for these small entities ranges from $69.5 million to $133.1 million per year. Consequently, TSA estimates that the cost of this NPRM on small entities represents approximately 0.001 percent of their annual revenue. Therefore, TSA's Initial Regulatory Flexibility Analysis suggests that this rulemaking would not have a significant economic impact on a substantial number of small entities.

D. International Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. TSA has assessed the potential effect of this rulemaking and has determined that it will have only a domestic impact and therefore no effect on any trade-sensitive activity.

E. Unfunded Mandates Assessment

The Unfunded Mandates Reform Act of 1995 (UMRA) is intended, among other things, to curb the practice of imposing unfunded Federal mandates on State, local, and tribal governments. Title II of the Act requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in a $100 million or more expenditure (adjusted annually for inflation) in any one year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action."

This rulemaking does not contain such a mandate. The requirements of Title II of the Act, therefore, do not apply and TSA has not prepared a statement under the Act.

F. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501 et seq.) requires that TSA consider the impact of paperwork and other information collection burdens imposed on the public and, under the provisions of PRA sec. 3507(d), obtain approval from OMB for each collection of information it conducts, sponsors, or requires through

regulations. The PRA defines "collection of information" to be "the obtaining, causing to be obtained, soliciting, or requiring the disclosure to third parties or the public, of facts or opinion by or for an agency, regardless of form or format…imposed on ten or more persons." 44 U.S.C. 3502(3)(A). TSA has determined that there are no current or new information collection requirements associated with this proposed rule. TSA's use of AIT to screen passengers does not constitute activity that would result in the collection of information as defined in the PRA.

G. Executive Order 13132, Federalism

TSA has analyzed this proposed rule under the principles and criteria of E.O. 13132, Federalism. We determined that this action would not have a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government, and therefore would not have federalism implications.

H. Environmental Analysis

TSA has reviewed this action for purposes of the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4347) and has determined that this action will not have a significant effect on the human environment.

I. Energy Impact Analysis

The energy impact of the notice has been assessed in accordance with the Energy Policy and Conservation Act (EPCA), Pub. L. 94-163, as amended (42 U.S.C. 6362). TSA has determined that this rulemaking is not a major regulatory action under the provisions of the EPCA.

List of Subjects in 49 CFR Part 1540

Air carriers, Aircraft, Airports, Civil aviation security, Law enforcement officers, Reporting and recordkeeping requirements, Screening, Security measures.

The Proposed Amendment

For the reasons set forth in the preamble, the Transportation Security Administration proposes to amend Chapter XII, of Title 49, Code of Federal Regulations, as follows:

PART 1540 --CIVIL AVIATION SECURITY: GENERAL RULES

1. The authority citation for part 1540 is revised to read as follows:

Authority: 49 U.S.C. 114, 5103, 40113, 44901–44907, 44913–44914, 44916–44918, 44925, 44935–44936, 44942, 46105.

2. In § 1540.107, add paragraph (d) to read as follows:

§ 1540.107 Submission to screening and inspection.

* * * * *

(d) The screening and inspection described in (a) may include the use of advanced imaging technology. For purposes of this section, advanced imaging technology is defined as screening technology used to detect concealed anomalies without requiring physical contact with the individual being screened.

Issued in Arlington, Virginia, on March 20, 2013. .

John S. Pistole,

Administrator.

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