

COMMENTS OF THE ELECTRONIC PRIVACY INFORMATION CENTER

to the

TRANSPORTATION SECURITY ADMINISTRATION of the

DEPARTMENT OF HOMELAND SECURITY

Passenger Screening Using Advanced Imaging Technology

49 CFR Part 1540

[Docket No. TSA-2013-0004]

RIN 1652-AA67

June 24, 2013

Almost two years after the U.S. Court of Appeals for the District of Columbia Circuit ordered the Transportation Security Administration (“TSA”) of the Department of Homeland Security (“DHS”) to “promptly” solicit public comment on its decision to deploy nude body scanners (“NBS”) for primary screening at airports,¹ and the filing of three mandamus petitions,² the TSA issued a notice of proposed rulemaking on the agency’s use of body scanners at U.S. airports.³

Pursuant to TSA’s notice, the Electronic Privacy Information Center (“EPIC”) now submits these comments to oppose the TSA’s proposed rule change, which led to the wasted expenditures of several hundred million dollars, the adoption of ineffective screening technology, and unnecessary and intrusive violations of air traveler privacy. That the agency pursued the

¹ *EPIC v. U.S. Dept. of Homeland Sec.*, 653 F.3d 1 (D.C. Cir. 2011) available at http://epic.org/privacy/body_scanners/EPIC_v_DHS_Decision_07_15_11.pdf.

² *In re EPIC*, 12-1307, (D.C. Cir. 2012).

³ Passenger Screening Using Advanced Imaging Technology, 78 Fed. Reg. 18,287-18,302 (proposed March 26, 2013) (to be codified at 49 C.F.R. pt 1540) (hereinafter “Proposed Rule”).

course even after dozens of civil liberties organizations twice petitioned the Secretary for a public comment opportunity underscores the importance of agency compliance with the Administrative Procedure Act.

EPIC endorses a noninvasive regulatory alternative of walk through metal detectors (“WTMD”) and explosive trace detection (“ETD”) devices (“Regulatory Alternative Three”). This option was considered by the agency but rejected for reasons that still remain unclear.

EPIC also submits these comments to discuss the inadequacy of TSA’s notice of proposed rulemaking (“NPRM”) under the Administrative Procedure Act (“APA”), 5 U.S.C. § 500 *et seq.* Simply put, the TSA’s NPRM failed to meet the legal standard for adequate notice under the APA because the agency did not sufficiently describe the NBS program.⁴ Moreover, the agency failed to correctly state the holding of the U.S. Court of Appeals that gave rise to this agency rulemaking. Further, because the agency has not “examine [d] the relevant data,” nor has it “articulated a satisfactory explanation for its proposal,” TSA’s continued and future use and deployment of NBS in airports is “arbitrary and capricious.”⁵ And finally, TSA’s continued and future use and deployment of NBS is “without observance of procedure required by law” because the agency failed to fully assess costs and benefits of NBS compared to WTMD and ETD devices, as the agency was required to do under Executive Orders 13563 and 12866.⁶

EPIC’s comments: (1) provide historical and procedural context of the TSA’s NPRM; (2) briefly overview the scope of the TSA’s NPRM; (3) discuss the negative impact that the TSA’s proposal has on individual privacy rights; and (4) describe the many ways in which the TSA’s proposal fails to meet legal standards under the APA, including: (A) the NPRM’s ambiguous key terms; (B) the TSA’s failure to establish the effectiveness of the agency’s proposed screening

⁴ 5 USC § 553 (b)(3). *United Church Bd. for World Ministries v. S.E.C.*, 617 F. Supp. 837, 840 (D.D.C. 1985).

⁵ 5 U.S.C. § 706 (2)(A). *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm*, 463 U.S. 29, 30 (1983).

⁶ 5 USC 706 § 2(D). *New York Pub. Interest Research Grp., Inc. v. Johnson*, 427 F.3d 172, 183 (2d Cir. 2005).

procedures; (C) the TSA's failure to justify the necessity of body scanners in its "layered approach"; (D) the TSA's inadequate scientific assessment of body scanner health risks; (E) body scanners' negative impact on travelers with special needs; (F) the TSA's insufficient evaluation of alternatives; and (G) TSA's nonexistent or insufficient body scanner data protection requirements.

1. EPIC Sued the TSA for its Unlawful Deployment of Body Scanners

EPIC is a public interest research center in Washington, D.C., established in 1994 to focus public attention on emerging civil liberties issues and to protect privacy, the First Amendment, and constitutional values.

During the spring of 2009, the TSA, without any explicit act by Congress, made a decision to deploy body scanners as the primary screening technique in American airports.⁷ The TSA purchased and deployed approximately one thousand additional body scanners.⁸

Following this development, EPIC and a broad coalition of civil liberties, civil rights, and religious organizations and traveler associations twice petitioned the agency to suspend the body scanner program. In 2009, EPIC and a coalition of privacy advocates, scientists, legal experts, and lawmakers petitioned DHS Secretary Napolitano to suspend the use of body scanners pending notice-and-comment rulemaking as required by law under 5 U.S.C. § 553(e).⁹ In addition to voicing health and privacy concerns, the groups asked for a public rulemaking before scanners were deployed, stating, "[m]ore must be known about these devices. The American public is directly impacted by the planned use of these systems and should be given an opportunity to express its views."¹⁰ In 2010, EPIC and other groups again petitioned Secretary Napolitano to

⁷ Joe Sharkey, *Whole-Body Scans Pass First Airport Tests*, N.Y. Times, April. 6, 2009, at B6

⁸ *Id.*

⁹ Letter from American Association of Small Property Owners, *et al.*, to Secretary Janet Napolitano, U.S. Department of Homeland Security (May 31, 2009), *available at* http://epic.org/privacy/airtravel/backscatter/Napolitano_ltr-wbi-6-09.pdf.

¹⁰ *Id.*

suspend the use of NBS pending notice-and-comment rulemaking as required.¹¹ The petition raised a number of concerns, including violations of “the Fourth Amendment, the RFRA, the Privacy Act, and the APA.”¹²

After the Secretary failed to act on EPIC’s petitions, EPIC brought suit in the Court of Appeals for the District of Columbia Circuit, challenging the TSA’s unlawful deployment of airport body scanners on various constitutional and statutory grounds, as well as the agency’s failure to undertake a public rulemaking as required by the APA.¹³

On July 15, 2011, the D.C. Circuit Court of Appeals ruled that the TSA unlawfully deployed nude body scanners in US airports for primary screening when it failed to give the public the opportunity to comment on the program.¹⁴ The Court found that “the TSA has not justified its failure to issue notice and solicit comments.”¹⁵ The Court also said that the agency practice imposed a substantial burden on the public. According to the Court, “few if any regulatory procedures impose directly and significantly upon so many members of the public.”¹⁶

The Court expressed concern about the TSA’s use of body scanners. “It is clear that by producing an image of the unclothed passenger, an AIT scanner intrudes upon his or her personal privacy in a way a magnetometer does not,” wrote the federal appeals court.¹⁷ The judges expressed skepticism about the TSA’s claim that a pat-down “is the only effective alternative method of screening passengers.”¹⁸ Importantly, the D.C. Circuit found that individuals were not required to undergo the body scanner program instituted by the TSA. “No passenger is ever required to submit to an AIT scan.”¹⁹ The Court, however, did acknowledge that “[m]any

¹¹ Letter from Electronic Privacy Information Center, *et al.*, to Secretary Janet Napolitano and Chief Privacy Officer Mary Ellen Callahan, U.S. Department of Homeland Security (Apr. 21, 2010), *available at* http://epic.org/privacy/airtravel/backscatter/petition_042110.pdf.

¹² *Id.*

¹³ *EPIC v. DHS*, 653 F.3d.

¹⁴ *Id.* at 11.

¹⁵ *Id.*

¹⁶ *Id.* at 6.

¹⁷ *Id.* at 6.

¹⁸ *Id.* at 3.

¹⁹ *Id.*

passengers nonetheless remain unaware of this right [not to undergo body scanner screening], and some who have exercised the right have complained that the resulting pat-down was unnecessarily aggressive.”²⁰ The Court was also assured by TSA that the agency had “taken steps to mitigate the effect a scan might have upon passenger privacy.”²¹ On this basis, the Court concluded that the TSA’s use of body scanners did not violate the Fourth Amendment or federal privacy statutes.

The Court ordered the TSA to “promptly” undertake a public notice-and-comment rulemaking on its use of body scanners at U.S. airports.²²

When the agency failed to act promptly, EPIC twice filed motions asking the Court to enforce its own order.²³ The Court declined these motions. After a year of agency inaction, EPIC filed a Writ of Mandamus on July 17, 2012, asking the Court to enforce its own order and force the agency to initiate the notice and comment rulemaking process within sixty days.²⁴

Finally, on March 26, 2013, more than twenty months after the initial court decision in *EPIC v. DHS*, the TSA proposed a two-sentence change to the regulation concerning airport screening.²⁵

(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.

²⁰ *Id.*

²¹ *Id.* at 4.

²² *Id.* at 11.

²³ See Petitioners’ Motion to Enforce the Court’s Mandate, *EPIC v. DHS*; Petitioners’ Second Motion to Enforce the Court’s Mandate, *EPIC v. DHS*, available at http://epic.org/privacy/body_scanners/epic_v_dhs_suspension_of_body.html.

²⁴ Petition for a Writ of Mandamus to Enforce the Court’s Mandate, *EPIC v. DHS*, available at http://epic.org/privacy/body_scanners/epic_v_dhs_suspension_of_body.html.

²⁵ 49 C.F.R. § 1540.017 (2013).

Prior to the closing of the NPRM's comment period, the TSA was forced to remove backscatter body scanners amid massive backlash, including Congressional critiques, activist letters, and various EPIC lawsuits.²⁶

2. Scope of the Notice of Proposed Rulemaking

Section I of the TSA's NPRM summarizes the proposed rule. Section II describes background information on the proposed rule. Section III describes body scanner screening protocols. Section IV describes body scanner deployment, and Section V describes the TSA's rulemaking analyses and notices. In Section V, the agency notes that it considered but did not evaluate the use of WTMD and ETD as an alternative screening procedure to the continued deployment of body scanners.

3. Body Scanners Perform Invasive Virtual Strip Searches and EPIC has Uncovered Documents Revealing the Machines' Inadequate Privacy Safeguards, Ineffectiveness, and Potential Health Risks

Since their deployment in U.S. airports in 2006, privacy advocates, constitutional scholars, technology experts and the general public have opposed body scanners because the machines are invasive and amount to a "virtual strip search."²⁷ Body scanners produce detailed,

²⁶ Mike Ahlers, *TSA Removes Body Scanners Criticized as Too Revealing*, CNN, (May 30, 8:38 AM), <http://www.cnn.com/2013/05/29/travel/tsa-backscatter>. See also MAJORITY STAFF OF SUBCOM. ON TRANSPORTATION SECURITY COMM. ON HOMELAND SECURITY, REBUILDING TSA INTO A SMARTER, LEANER ORGANIZATION (2012), available at http://homeland.house.gov/sites/homeland.house.gov/files/092012_TSA_Reform_Report.pdf; Letter from Ralph Nadar and Marc Rotenberg to President Barack Obama (Feb. 24, 2010), available at http://epic.org/privacy/airtravel/backscatter/EPIC-Nader_WBI_Letter.pdf; *EPIC v. DHS (Suspension of Body Scanner Program)*, EPIC, http://epic.org/privacy/body_scanners/epic_v_dhs_suspension_of_body.html (last visited June 24, 2013); *Whole Body Imaging Technology and Body Scanners*, EPIC, <http://epic.org/privacy/airtravel/backscatter/> (last visited June 24, 2013); *Body Scanners and Radiation Risks*, EPIC, http://epic.org/privacy/body_scanners/radiation.html (last visited June 24, 2013).

²⁷ Marnie Hunter, *Body Scanners not 'Magic Technology' Against Terror*, CNN, December 30, 2009, available at <http://www.cnn.com/2009/TRAVEL/12/30/airport.security.screening/index.html>. See also Jeffrey Rosen, *The TSA is Invasive, Annoying, and Unconstitutional*, Washington Post, November 28, 2010, available at <http://www.washingtonpost.com/wp-dyn/content/article/2010/11/26/AR2010112604290.html>; Gary Stoller, *Full-Body Scans of Fliers Set Off Debate over Privacy, Health*, USA Today, July 12, 2010, available at http://usatoday30.usatoday.com/money/industries/travel/2010-07-13-bodyscans13_ST_N.htm.

three-dimensional images of individuals.²⁸ For example, through a Freedom of Information Act (“FOIA”) request, EPIC obtained hundreds of pages of traveler complaints describing a variety of problems, including the invasive nature of the machines and complaints about improper signage, and a lack of transparency regarding the pat-down alternative.²⁹ The complaints indicate that TSA was not fulfilling its duty to inform passengers of their options regarding NBS machines. The complaints also establish that the body scanners are effectively mandatory, because the agency routinely denies air travelers alternative screening opportunities. Furthermore, in this rulemaking TSA has received thousands of comments opposing NBS because of the privacy threats the machines impose.³⁰

To deploy the millimeter wave body scanners in U.S. airports, TSA has contracted with several companies, including L-3 Communications.³¹ As a result of FOIA litigation, EPIC uncovered that the vendors had designed the body scanner machines to include Ethernet connectivity, USB access, and hard disk storage. These capabilities enable the capture, storage, and transfer of the images of the naked human body.³²

Since January 2008, the TSA has published four Privacy Impact Assessments (“PIAs”) regarding the agency’s deployment of body scanners in U.S. airports.³³ All of these have failed to

²⁸ See e.g., *Body Scanner FAQ*, EPIC, available at http://epic.org/privacy/body_scanners/body_scanner_faq.html; *Whole Body Imaging Technology and Body Scanners*, EPIC, available at <http://epic.org/privacy/airtravel/backscatter/>; Matthew Zuras, *Florida Courthouse Stored 35,000 Body-Scan Images*, Switched, August 4, 2010, available at <http://www.switched.com/2010/08/04/florida-courthouse-stored-35-000-body-scan-images/>; Lena Groeger, *Scanning the Scanners: A Side-by-Side Comparison*, ProPublica, December 28, 2011, available at <http://www.propublica.org/special/scanning-the-scanners-a-side-by-side-comparison>.

²⁹ *EPIC v. Department of Homeland Security – Full Body Scanner Radiation Risks*, EPIC, available at http://epic.org/privacy/airtravel/backscatter/epic_v_dhs_radiation.html.

³⁰ *Passenger Screening Using Advance Imaging Technology*, DEPARTMENT OF HOMELAND SECURITY, available at <http://www.regulations.gov/#!docketDetail;D=TSA-2013-0004>.

³¹ Galen Moore, *TSA Picked Mass. Firm for New, Less Revealing Full-Body Scans*, Boston Business Journal, January 19, 2013, available at http://www.bizjournals.com/boston/blog/mass_roundup/2013/01/tsa-millimeter-wave-full-body-scanner.html.

³² *EPIC v. Department of Homeland Security*, EPIC, available at http://epic.org/privacy/airtravel/backscatter/epic_v_dhs.html.

³³ *Privacy Documents for the Transportation Security Administration (TSA)*, DEPARTMENT OF HOMELAND SECURITY, available at <http://www.dhs.gov/privacy-documents-transportation-security-administration-tsa>.

identify the numerous privacy risks to air travelers. For example, the assessments do not examine or evaluate the inherent privacy risks of devices specifically designed to include Ethernet connectivity, USB access, and hard disk storage.

Further, there has been bipartisan opposition to body scanners in airports for a variety of reasons, including privacy, health, and safety implications. In fact, one of Congress's key problems with body scanners was the production of detailed, nude images. For this reason, Congress mandated that body scanners must have generic image filters.³⁴

As a result of FOIA litigation, EPIC also determined that the devices were designed to store and record images of air passengers and did not have the ability to detect powdered explosives such as pentaerythritol tetranitrate ("PETN"). PETN was the explosive used in the failed 2009 Christmas Day "underwear bomb" plot,³⁵ and has been consistently used in previous domestic and international terror and assassination attempts.³⁶ This runs counter to TSA assertions regarding the effectiveness of NBS programs as the "best" available method for detecting non-metallic explosive materials.

In another FOIA lawsuit against DHS, EPIC obtained documents concerning the radiation risks of TSA's airport body scanners.³⁷ The documents include agency emails, radiation studies, memoranda of agreement concerning radiation testing programs, and results of some radiation tests.³⁸ One document set reveals that even after TSA employees identified cancer clusters possibly linked to radiation exposure, the agency failed to issue employees dosimeters -

³⁴ U.S. House. *FAA Modernization and Reform Act of 2012, Conference Report* (to Accompany H.R. 658) (112 H. Rpt. 381), available at <http://www.gpo.gov/fdsys/pkg/CRPT-112hrpt381/pdf/CRPT-112hrpt381.pdf>.

³⁵ David Ariosto and Deborah Feyerick, *Christmas Day Bomber Sentenced to Life in Prison*, CNN, February 17, 2012, available at <http://www.cnn.com/2012/02/16/justice/michigan-underwear-bomber-sentencing>.

³⁶ Kenneth Chang, *Explosive on Plane was Used in Past Plots*, N.Y. Times, October 30, 2010, available at http://www.nytimes.com/2010/10/31/world/middleeast/31petn.html?_r=0.

³⁷ *EPIC v. Department of Homeland Security – Full Body Scanner Radiation Risks*, available at http://epic.org/privacy/airtravel/backscatter/epic_v_dhs_radiation.html.

³⁸ *Id.*

safety devices that could assess the level of radiation exposure.³⁹ Another document indicates that the DHS mischaracterized the findings of the National Institute of Standards and Technology, stating that NIST "affirmed the safety" of full body scanners.⁴⁰ The documents obtained by EPIC reveal that NIST disputed that characterization and stated that the Institute did not, in fact, test the devices.⁴¹

Additionally, for the reasons below, TSA's proposal is arbitrary and capricious and was conducted without adhering to required procedures.

4. The TSA's Proposal Violates the Administrative Procedure Act Because it Does Not Provide Sufficient Notice for Public Comment, is Arbitrary and Capricious, and the TSA Did Not Observe Legally Required Procedures

The APA requires NPRMs contain "either the terms or substance of the proposed rule or description of the subjects and issues involved."⁴² "The adequacy of the notice must be tested by determining whether it would fairly apprise interested persons of the 'subjects and issues' before the agency."⁴³ Proposals that are "too general and open-ended to have fairly apprised the public" do not meet the APA standard of requisite notice.⁴⁴ As discussed below, TSA's proposed rule contains ambiguous key terms that do not fairly apprise the public of the NBS program. Accordingly, TSA's two-sentence proposal violates the APA. The agency must therefore issue an unambiguous proposal and again solicit public comments, or abandon its current proposal because it has not fairly apprised the public of the NBS program.

Further, as discussed below, in deploying NBS in airports, the TSA did not consider relevant factors concerning effectiveness, stronger alternatives, and health risks, which resulted in "clear error [s] of judgment."⁴⁵ Therefore, the agency's proposal is arbitrary and capricious.

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² 5 U.S.C. § 553(b).

⁴³ *Prometheus Radio Project v. F.C.C.*, 652 F.3d 431, 449 (3d Cir. 2011) (quoting *Prometheus Radio Project v. F.C.C.*, 373 F.3d 372, 411 (3d Cir. 2004)).

⁴⁴ *Id.* at 453.

⁴⁵ *State Farm*, 463 U.S. at 31 (1983).

Moreover, because the agency did not fully “assess the costs and benefits” of its proposal and alternatives as required by Executive Orders 13563 and 12866, the NPRM was issued “without observance of procedure required by law.”⁴⁶

For these reasons, discussed in detail below, the TSA cannot lawfully adopt its proposal.

A. The Proposed Rule Contains Ambiguous Key Terms

Ambiguous or undefined terms are rampant in the proposed rule. The proposed statutory amendment seeks to explicitly authorize NBS in 49 CFR 1540.107(d), and it defines NBS as “screening technology used to detect concealed anomalies without requiring physical contact with the individual being scanned.”⁴⁷ This definition does not mention production of images, and is broad enough to encompass most screening technologies, even non-imaging methods such as metal detectors. Such lack of definition of key terms extends to the TSA’s “layered approach” in countering terrorist threats,⁴⁸ as well as in describing the capabilities of the NBS program. The proposed rule veers from stating it is the best in “non-metallic”⁴⁹ to both “metallic and non-metallic.”⁵⁰ In either case, TSA does not cite evidence supporting its claims.

The TSA repeatedly refers to NBS’ ability to detect non-metallic “anomalies.”⁵¹ The agency, however, fails to clarify what qualifies as an “anomaly” or how detection of such anomalies advances its objectives. At other instances, the agency’s analysis emphasizes NBS’ ability to detect non-metallic “threats,”⁵² but does not distinguish between such “threats” and “anomalies.” The present language of the proposed rule does not provide adequate notice to the passengers most likely to be affected by the rule, and therefore, the TSA has violated the APA by

⁴⁶ 5 USC § 706 (2)(D).

⁴⁷ Proposed Rule, 78 Fed. Reg. 18,302.

⁴⁸ See *infra*, C.

⁴⁹ Proposed Rule, at 18291.

⁵⁰ *Id.* at 18289–90.

⁵¹ *Id.*; see also Transportation Sec. Admin., Passenger Screening Using AIT Initial Regulatory Impact Analysis, 1652-AA67, 116 (March 19, 2013) (hereinafter “Regulatory Impact Analysis”) *passim*.

⁵² Regulatory Impact Analysis at 117–19, 128.

providing insufficient notice for public comment under the APA.⁵³ The public cannot submit fully informed arguments and proposal to the TSA without the agency clearly disclosing what NBS technology does and how the agency uses it for security purposes.⁵⁴

Further, TSA misrepresents that the agency NBS detection capabilities work “without touching the passenger.”⁵⁵ However, by design the NBS program requires TSA agents to physically touch passengers if the machine detects any anomaly, including medical devices or prosthetics.⁵⁶

B. The TSA Fails to Establish the Effectiveness of the Agency’s Proposed Screening Procedures

The TSA fails to support its claim that NBS are the “best available” technology to detect anomalies during pre-departure screening.⁵⁷ The TSA does not sufficiently ascertain the effectiveness of the AIT program in comparison to the alternatives as required by law.⁵⁸ Therefore, the proposed rule is not only “arbitrary and capricious,” but also the TSA has issued the proposed rule “without observance of procedure required by law.”⁵⁹

The TSA Initial Regulatory Impact Analysis, like most of the NPRM, is unsubstantiated and relies on TSA’s assumptions and estimates. Citing to absolutely no independent studies or research, TSA blithely states “[p]assengers using [NBS] screening will not experience any increase in wait times as a result of this technology.”⁶⁰ Then, based on the agency’s “estimates”⁶¹ and passengers “assumed to opt out,”⁶² TSA states in a conclusory fashion “[t]he small percentage of passengers opting out of [NBS] screening in favor of a pat-down experience

⁵³ 5 U.S.C. § 553 (b)(3).

⁵⁴ *Prometheus Radio Project v. F.C.C.*, 652 F.3d 431, 453 (3d Cir. 2011); *DeBraun v. Meissner*, 958 F. Supp. 227, 232 (E.D. Pa. 1997).

⁵⁵ Regulatory Impact Analysis at 114.

⁵⁶ *See infra* section E discussion on medical devices and prosthetics.

⁵⁷ *See e.g.*, Regulatory Impact Analysis at 116; Proposed Rule at 18292.

⁵⁸ *See infra*, F.

⁵⁹ 5 U.S.C. § 706 (2) (A), (D).

⁶⁰ Regulatory Impact Analysis at 49.

⁶¹ *Id.* at 49–50.

⁶² *Id.* at 50.

increased wait times.”⁶³ TSA’s estimates and assumptions cannot replace research and evidence to support the agency’s proposal.

Related to TSA’s unsupported claims about NBS effectiveness is TSA’s overestimation of public acceptance of the passenger screening system. The TSA states that “the level of acceptance by passengers has been high; the vast majority of passengers do not object to AIT screening.”⁶⁴ Passenger behavior in often stressful, time-strapped situations without a viable, convenient and non-invasive alternative can hardly be an objective measure of acceptance, rather than resignation. For example, passengers routinely complain of waits of up to an hour to opt out of NBS, some of which may be retaliatory.⁶⁵ Moreover, TSA’s statement conveniently ignores that many passengers choose not to opt out because of anticipated inconvenience, delay, and even humiliation. Further, in assuming that the majority of passengers do not object, TSA does not count the unknown numbers of people who forego commercial flying altogether because of the body scanners. And the overwhelming majority of comments the agency has received reflect that the vast majority of passengers do, in fact, object to NBS.⁶⁶

Inaccuracies in TSA’s claims regarding NBS safety also undermine TSA’s claims about NBS effectiveness as well as general reliability of TSA’s NBS screening assessment as the best alternative. Evidence indicates that TSA mischaracterized the National Institute of Standards and Technology’s (“NIST”) “evaluation”⁶⁷ of NBS safety. Further, a Johns Hopkins study warns that radiation zones around the scanner could potentially exceed permissible limits of radiation.⁶⁸

⁶³ *Id.* at 49.

⁶⁴ Proposed Rule at 18,289.

⁶⁵ Christopher Elliott, *3 Troubling Ways the TSA Punishes Passengers Who Opt Out*, January 9, 2013, available at http://www.huffingtonpost.com/christopher-elliott/3-troubling-ways-the-tsa-_b_2435503.html.

⁶⁶ See e.g., “The vast majority of passengers . . . may object but do not want to deal with the hassle of TSA”; “I always opt out of the advanced screening . . . I am always subject to a long delay”. Comment, 78 Fed. Reg. 18289 (proposed March 26, 2013) (codified at 49 C.F.R. pt 1540), available at <http://www.regulations.gov/#!documentDetail;D=TSA-2013-0004-3315> and <http://www.regulations.gov/#!documentDetail;D=TSA-2013-0004-3340>.

⁶⁷ Email from NIST to DHS [names redacted] (November 16, 2010), available at http://epic.org/privacy/backscatter/radiation_NIST_USAToday.pdf.

⁶⁸ *Slides on AIT Study*, JOHNS HOPKINS UNIV. APPLIED PHYSICS LAB. at 179–180, available at http://epic.org/privacy/backscatter/radiation_hopkins.pdf.

Such concerns with the safety and health impacts of the NBS system undermine TSA claims of the program's effectiveness.⁶⁹

In the Initial Regulatory Impact Analysis, TSA repeatedly asserts that NBS are the “best available” opportunity to detect anomalies in pre-departure screening.⁷⁰ However, this inherently comparative statement is not substantiated with any comparative evidence. No study is cited when TSA claims “[NBS technology] is a proven technology based on laboratory testing and field experience,”⁷¹ let alone any that dispute its effectiveness.⁷² While the TSA lists detections of suspicious items, it does not prove either that NBS is better at detection than previously used methods or alternatives or that those objects would not otherwise have been detected.⁷³

Neither the Initial Regulatory Impact Analysis nor the proposed rule adequately demonstrates the effectiveness of the NBS. Thus, the TSA has failed to adequately assess costs and benefits as required by law, and has failed to adequately support its proposal.

C. The TSA Fails to Justify the Necessity of Body Scanners in its “Layered Approach”

The TSA asserts that the best way to respond to an evolving terrorist threat is a “risk-based, layered security approach that uses a range of screening measures.”⁷⁴ While not specifically defined, these “layers” seem to refer to the different varieties of methods used, including Transportation Security Officer (“TSO”)-led visible scanning, checking passenger records, explosive detection systems, and random security operations.⁷⁵ The merits of the NBS program on its own are hidden under this general approach, masking the actual effectiveness of this “layer,” and making the proposed rule unsupported by relevant data and otherwise arbitrary and capricious.

⁶⁹ See *infra* D.

⁷⁰ Proposed Rule at 18,289.

⁷¹ *Id.* at 18,290.

⁷² See *supra* note 48.

⁷³ Proposed Rule at 18,297.

⁷⁴ *Id.* at 18,291.

⁷⁵ *Id.*

The most significant problem to TSA's layered approach is the inability to gauge cause and effect. In coming to the conclusion that body scanners are the best technology, TSA follows this line of argument: 1) effective technology is important for counterterrorism. 2) the agency has responded to threat by gathering A) new; and B) diverse screening measures. 3) NBS are one of these measures. 4) NBS are the best available method.⁷⁶ This analysis mistakenly derives effectiveness from variety and novelty alone.

On the other hand, the layered approach makes it very difficult to assess for non-cause and effect: it is hard to assess for weaknesses and what doesn't work. The TSA lists changes to their screening program in response to different terrorist attacks in the last 10 years,⁷⁷ but this is insufficient to demonstrate each, or any, program's effectiveness in countering terrorism. The list is after-the-fact and TSA does not prove nor support that NBS played a role in reducing these terrorist threats. Some of terrorist attack examples from different countries, and thus TSA once again fails to show that NBS are an effective layer within the "layered approach."⁷⁸ An adequate example would demonstrate how NBS detected an attempted terrorist attack while showing that it would not have been possible with other pre-existing methods. The TSA's NPRM fails to do that.

The layered approach ultimately removes TSA accountability to come up with efficient, cost-effective screening approaches that the agency can clearly demonstrative have benefits that outweigh the costs. As it stands, the layered approach can too easily be abused to hide ineffectiveness of specific approaches in a cloud of "general effectiveness."⁷⁹ TSA must revise this approach and determine instead which of the layers work and diagnose effectiveness of implementation so that specific, targeted solutions can be prescribed to counter threats.

⁷⁶ *Id.* at 18,292.

⁷⁷ *Id.* at 18,291.

⁷⁸ *Id.*

⁷⁹ Michael Schmidt, *Report Says T.S.A. Screening is Not Objective*, N.Y. Times, June 4, 2013, available at <http://www.nytimes.com/2013/06/05/us/report-says-tsa-screening-program-not-objective.html>.

D. The TSA's Scientific Assessment of Body Scanner Health Risks are Inadequate

TSA's proposal and current deployment of NBS as the primary screening method at security checkpoints is not based on an adequate scientific assessment of the health risks. Thus, the TSA's proposal and current deployment of NBS is arbitrary and capricious.

According to TSA, it subjected body scanner equipment to "extensive testing" and concluded that "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."⁸⁰ Despite TSA's claim, the health risks of body scanners are not fully understood. Indeed, scientists and health experts have questioned the health risks of body scanners and called for further research.⁸¹ For these reasons, EPIC opposes TSA's proposed regulatory alternative, and endorses regulatory alternative three.⁸²

E. Body Scanners Negatively Impact Travelers with Special Needs

TSA's NBS proposal fails to consider the delay and embarrassment faced by air travelers with special needs, such as those who rely on medical devices.⁸³ Many medical devices, such as insulin pumps and defibrillators, are not suitable for NBS screening.⁸⁴ Individuals who rely on such devices must "opt-out" of NBS and subject themselves to additional screening.

⁸⁰ Proposed Rule at 18289.

⁸¹ See e.g., Michael Grabell, *Scientists Cast Doubt on TSA Tests of Full-Body Scanners*, ProPublica, May 16, 2011, available at <http://www.propublica.org/article/scientists-cast-doubt-on-tsa-tests-of-full-body-scanners>.

⁸² Proposed Rule at 18,289 ("Under this alternative, TSA continues to use WTMDs [walk through metal detectors] as the primary passenger screening technology. In addition, TSA supplements the WTMD screening by conducting ETD [explosives trace detection] screening on a randomly selected portion of passengers after screening by a WTMD.").

⁸³ See, e.g., *TSA Airport Security Screeners Disregard Procedures, Safety and Respect for Amputees, According to Amputee Coalition of America Survey*, AMPUTEE COALITION OF AMERICA (hereinafter "ACA") (June 23, 2010) (A survey of 7300 amputees conducted by the ACA showed that travelers with limb loss have been subjected to "inconsistent, unfair, abusive and often embarrassing screenings by TSA employees.") available at <http://www.amputee-coalition.org/absolutenm/anmviewer.asp?a=1232>.

⁸⁴ See, *Devices and Equipment that May Cause Interference*, MEDTRONIC, <http://www.medtronicdiabetes.com/lifestyle/equipmentinterference> (last visited June 14, 2013); *FAQs: How Do I Get My Pump Through Security?*, ANIMAS CORP., <http://www.animas.com/faq/other-airport->

Under TSA's proposal, an alarm triggered by the detection of an anomaly is "resolved through a pat-down."⁸⁵ As a consequence, special needs travelers who cannot go through NBS screening are subjected to full-body pat-downs every time they pass through a TSA screening area. Full-body pat-downs as the default secondary screening method is highly intrusive, and should be considered only after an assessment of alternatives. TSA's proposal fails to consider methods, such as screening with hand-held wands, which are less intrusive and also effective at detecting medical devices on a person.⁸⁶ TSA asserts that it has procedures in place to accommodate travelers with special needs.⁸⁷ However, numerous instances indicate that TSA does not consistently follow these procedures, resulting in passenger delay and embarrassment.⁸⁸

NBS and full-body pat-downs for security screening disproportionately burdens individuals with special needs. For this reason, EPIC strongly endorses regulatory alternative three, WTMD and ETD devices. Regarding travelers with special needs, the advantages of

security (last visited June 14, 2013); *Living With Your Implantable Cardioverter Defibrillator (ICD)*, AM. HEART ASSOC.,

http://www.heart.org/HEARTORG/Conditions/Arrhythmia/PreventionTreatmentofArrhythmia/Living-With-Your-Implantable-Cardioverter-Defibrillator-ICD_UCM_448462_Article.jsp (last visited June 14, 2013) (Individuals with defibrillator should "[s]tay away from magnets and strong electrical fields.")

⁸⁵ Proposed Rule at 18,289.

⁸⁶ Metal wands can detect the vast majority of medical devices less intrusively, including hip replacements, pins, implantable loop recorders, and Implantable Cardioverter-Defibrillators (ICDs). While pacemakers will generally not be "affect[ed] . . . in a permanent way," it is "advised not to place a metal detecting wand directly over the pacemaker" for more than 1–2 seconds. See *Living with a Pacemaker or Implantable Cardioverter Defibrillator (ICD)*, JOHNS HOPKINS MEDICINE, available at

http://www.hopkinsmedicine.org/healthlibrary/conditions/cardiovascular_diseases/living_with_a_pacemaker_or_implantable_cardioverter_defibrillator_icd_85,P00227/; *Living with a Medtronic Pacemaker*, MEDTRONIC, available at <http://www.medtronic.com/patients/bradycardia/living-with/daily-living/index.htm>; *Precautions for Device Patients ICD*, TRIHEALTH, available at <http://www.trihealth.com/institutes.../Precautions-for-device-patients.aspx>.

⁸⁷ *Travelers with Disabilities and Medical Conditions*, TSA, <http://www.tsa.gov/traveler-information/travelers-disabilities-and-medical-conditions> (last visited June 14, 2013).

⁸⁸ See, *TSA Agents Destroy Teen's \$10K Insulin Pump*, FOX NEWS FOX NATION (May 9, 2012), <http://nation.foxnews.com/tsa/2012/05/09/tsa-agents-destroy-teens-10k-insulin-pump>. See also Suzanne Choney, *TSA Forces Cancer Survivor to Show Prosthetic Breast*, NBC News, Nov. 20, 2010, 11:51AM, available at

<http://www.nbcnews.com/id/40278427/ns/travel-news/t/tsa-forces-cancer-survivor-show-prosthetic-breast/#.Ubshihybs3U>; Genevieve Shaw Brown, *TSA Embarrasses Woman En Route to 'End of Life' Trip*, ABC News, Oct. 9, 2012, 4:11PM, <http://abcnews.go.com/blogs/lifestyle/2012/10/tsa-embarrasses-woman-en-route-to-end-of-life-trip/>; Ben Mutzabaugh, *Screening of 95 yr-old Woman Puts TSA Back in Spotlight*, USA Today, June 28, 2011, 12:16PM, available at <http://travel.usatoday.com/flights/post/2011/06/cnn-florida-screening-incident/175723/1>.

regulatory alternative three are two-fold: First, travelers using medical devices sensitive to electromagnetic radiation are no longer in danger of damage to their health or medical devices. Second, special needs travelers are not subjected to highly intrusive full-body pat-downs.

F. The TSA's Evaluation of Alternatives is Insufficient

a. The Agency's Comparison Is Inadequate

The Administrative Procedure Act requires that an agency proposing a new rule allow interested persons an opportunity to participate in the rulemaking process.⁸⁹ This requirement is not simply satisfied by having an open comment period; interested parties do not have “meaningful” opportunity to comment if an agency has not disclosed to the public the data on which its conclusions rest.⁹⁰ Exceptions exist when an agency is relying on its own special expertise.⁹¹ While TSA claims that NBS technology is “the most effective technology available to detect non-metallic anomalies concealed under clothing,” and cites an internal study as the basis for this claim,⁹² TSA provides no scientific basis on which it has evaluated the efficacy of NBS and its proposed alternatives. Instead, TSA’s regulatory impact analysis relies heavily on anecdotal evidence of NBS success, claiming that “[e]xperience” is a reasonable basis on which to determine NBS detection capabilities.⁹³ Even if TSA possesses agency expertise in this field, it has failed to inform the public of its metric. Without a concrete standard of evaluation, the public does not have meaningful opportunity to comment on this proposed rulemaking, and TSA has therefore violated the APA.

Further, TSA’s proposal is arbitrary and capricious because even using TSA’s own articulated rationale, TSA does not adequately support its claims that NBS are more effective than WTMD and ETD devices. TSA states that the value of NBS over other alternatives is the scanners’ ability to detect non-metallic, non-explosive weapons or IED components. However,

⁸⁹ 5 U.S.C. § 553(c) (2012).

⁹⁰ *U.S. v. Nova Scotia Food Prods. Corp.*, 568 F.2d 240, 251 (2d Cir. 1977).

⁹¹ *Id.*

⁹² Regulatory Impact Analysis at 114, n.97.

⁹³ *See Id. and* The TSA Blog, <http://blog.tsa.gov> (last visited June 11, 2013).

TSA offers few examples of NBS uncovering non-metallic weapons.⁹⁴ Instead, almost all of the evidence TSA provides of NBS triumphs involve metallic weapons⁹⁵—weapons that would be just as easily uncovered with metal detectors, if not more so likely.⁹⁶ When TSA does identify the sort of “non-metallic threats” it seeks to eliminate, such threats are in fact overwhelmingly explosive which could be detected by other means.⁹⁷ Body scanners’ ability to detect other non-metallic “anomalies” may be irrelevant and outside the scope of this rulemaking.

For its authority to explore the security measures contained in its Initial Regulatory Impact Analysis, TSA cites a 2004 congressional directive providing that priority should be given to developing “equipment that detects nonmetallic, chemical, biological, and radiological weapons, and explosives . . . that terrorists would likely try to smuggle aboard an air carrier aircraft.”⁹⁸ In spite of this qualifier — weapons and explosives “that terrorists would likely try to smuggle aboard an air carrier aircraft” — the TSA has demonstrated an overly broad interpretation of Congress’s authorization. The TSA cites repeatedly to NBS’ ability to uncover nonmetallic weapons such as “a non-metallic . . . three inch pocket knife” and “a plastic dagger concealed inside a comb,”⁹⁹ but fails to establish how such weapons are likely to be smuggled aboard by terrorists. In interpreting this statutory authorization as including *all* weapons, as TSA appears to do, the agency has overstepped its legal authority.

Sufficient analysis must evaluate NBS and alternatives on the ability to detect weapons and explosives likely to be used by terrorists, and demonstrate that NBS best achieves this goal with concrete evidence. The analysis on which the TSA currently relies fails to do either satisfactorily.

⁹⁴ Regulatory Impact Analysis at 114–5.

⁹⁵ The TSA Blog, <http://blog.tsa.gov> (last visited June 11, 2013).

⁹⁶ See Lee Morgan, *How to Get ANYTHING Through TSA Nude Body Scanners: Blogger Exposes Loophole in \$1 Billion Fleet*, The Daily Mail, March 7, 2012, available at <http://www.dailymail.co.uk/news/article-2111417/TSA-nude-body-scanners-Jonathan-Corbett-video-exposes-loophole.html> (discussing a blogger’s successful attempt to “fool” TSA body scanners).

⁹⁷ See *id.* (focusing on terrorists’ use of non-metallic bombs and presenting a “preventable scenario” of a bomb detonation onboard an aircraft).

⁹⁸ Regulatory Impact Analysis at 29 (citing 49 U.S.C. § 44925(a) (2012)).

⁹⁹ *Id.* at 115.

b. The Agency Does Not Fairly and Accurately Compare NBS With Alternatives

An agency action may also be deemed arbitrary and capricious if the agency has “entirely failed to consider an important aspect of the problem.”¹⁰⁰ TSA has acted arbitrarily and capriciously by failing to address shortcomings of NBS in its comparison with regulatory alternatives. In its assessment of the disadvantages of regulatory alternative three, TSA draws attention to a number of shortcomings while ignoring that similar shortcomings similarly exist in the use of NBS. The agency discusses briefly that ETD can “negatively impact the passenger’s screening experience” due to the time it takes to perform an ETD causing a decrease in passenger throughput levels, while stating that NBS provides for a higher throughput rate.¹⁰¹ This discussion fails to take into account similar negative impacts from using NBS. Because of potentially high false positive rates,¹⁰² a greater number of passengers may be subject to time-consuming pat-downs than simply those who opt out. The TSA’s analysis only considers the cost of opt-outs and fails to mention false positives as a reason for passengers receiving pat-downs.¹⁰³ False positives, however, *are* mentioned in the analysis of ETD screening, though without any reference to data on the likelihood of such false positives or false alarms.¹⁰⁴ TSA also references the possibilities of mechanical failure in ETD screening, yet fails to address such possibilities with regards to NBS screening.¹⁰⁵

The TSA also ignores the fact that virtually every other country apart from the United States has rejected the use of body scanners for airport screening. In late 2011, the European

¹⁰⁰ *State Farm*, 463 U.S. at 43.

¹⁰¹ Regulatory Impact Analysis at 111–2.

¹⁰² *See, e.g.*, Michael Grabell and Christian Salewski, *Sweating Bullets: Body Scanners Can See Perspiration as a Potential Weapon*, ProPublica, December 19, 2011, available at <http://www.propublica.org/article/sweating-bullets-body-scanners-can-see-perspiration-as-a-potential-weapon> (“In Germany, the false positive rate was 54 percent . . .”).

¹⁰³ Regulatory Impact Analysis at 50 (“TSA estimates the number of passengers receiving a pat-down from the historical number of individuals who opt out of screening.”).

¹⁰⁴ *Id.* at 111.

¹⁰⁵ *Id.*

Union issued a ruling that banned the use of backscatter body scanners in all airports.¹⁰⁶ Italy decided to abandon its use of millimeter wave scanners because they were found “slow and ineffective.”¹⁰⁷ Law enforcement officials in Germany described body scanners as “useless” because of a high false alarm rate.¹⁰⁸

TSA’s failure to adequately compare regulatory alternatives to NBS is arbitrary and capricious.

G. NBS Data Protection Requirements are Nonexistent or Insufficient

The TSA’s proposed rule does not include safeguards against storing, copying or otherwise circulating images from NBS scanners. The problem of detailed nude images that could be stored¹⁰⁹ eventually led to the removal of all Rapiscan backscatter scanners from airports.¹¹⁰ In earlier disclosures, the TSA had indicated that storage ability is required for “testing, training and evaluation purposes.”¹¹¹ The proposed rule does not adequately address this problem, thus undermining NBS feasibility as an alternative.

While TSA seeks a statutory amendment to explicitly allow NBS scanning,¹¹² it does not guarantee corresponding safeguards against violations of travelers’ privacy. Instead, the TSA attempts to assuage travelers with classified internal Standard Operating Procedures and potential discipline for TSOs who violate the rules: neither of these are real safeguards against privacy breaches as they can be changed at any time without notice or rulemaking procedures, and are not

¹⁰⁶ David DiSalvo, *Europe Bans Airport Body Scanners for “Health and Safety” Concerns*, Forbes, November 15, 2011, available at <http://www.forbes.com/sites/daviddisalvo/2011/11/15/europe-bans-airport-body-scanners-over-health-and-safety-concerns/>.

¹⁰⁷ *Italy to Abandon Airport Body Scanners*, Sydney Morning Herald, September 24, 2010, available at <http://www.smh.com.au/travel/travel-news/italy-to-abandon-airport-body-scanners-20100924-15pgu.html>.

¹⁰⁸ *Airport Body Scanners Useless: German Police*, AFP, July 30, 2011, available at <http://www.google.com/hostednews/afp/article/ALeqM5jGUyRTjF-WA40GLjIMEo6dFgSxIw?docId=CNG.d76d1890df3edca8dd08181cb6808c7f.881>.

¹⁰⁹ Declan McCullagh, *Feds Admit Storing Checkpoint Body Scan Images*, CNET, August 4, 2010, 4:00AM), available at http://news.cnet.com/8301-31921_3-20012583-281.html.

¹¹⁰ Mike Ahlers, *TSA Removing ‘Virtual Strip Search’ Body Scanners*, CNN, January 19, 2013, 1:08PM) <http://www.cnn.com/2013/01/18/travel/tsa-body-scanners>.

¹¹¹ Letter from Gale Rossides to Honorable Bennie G. Thompson, Committee on Homeland Security (February 24, 2010), available at http://epic.org/privacy/airtravel/backscatter/TSA_Reply_House.pdf.

¹¹² 49 CFR 1540.107(d).

binding by statute.¹¹³ While the TSA claims that storage functions are disabled during the scanning process, cannot be activated by the TSOs on duty, and the equipment does not “store, export or print any images,”¹¹⁴ this promise rings hollow amidst a total lack of data protection responsibility imposed on the TSA.

The proposed rule also lacks essential clarification regarding the status of the image before application of the “generic outline” filters. While the new machines display a generic human outline rather than the raw nude image, the scanner must still apply this filter to the initially produced nude image.¹¹⁵ The TSA does not state what happens to the initial image before the filter is applied. Further clarification is needed on the safeguards that exist to protect the initial image after scanning. Statutory authorization of NBS without the corresponding data protection standards and statutory penalties for violation render the proposed rule inadequate in protecting traveler privacy.

The proposed rule does not contain sufficient data protection provisions to ensure that the NBS technology will not experience the widespread breaches that were problematic with the backscatter scanner models. For this reason, EPIC supports Regulatory Alternative 3 rather than the continued use of NBS.

Conclusion

TSA’s continued use and deployment of invasive nude body scanners is arbitrary and capricious and was executed without legally required procedures. Further, TSA’s ambiguous language within its notice of proposed rulemaking does not fairly apprise the public on the nude body scanner program. Accordingly, TSA cannot legally adopt its proposal, and should instead adopt regulatory alternative three, which consists of walk through metal detection and explosive trace detection devices.

¹¹³ Regulatory Impact Analysis at 100.

¹¹⁴ *Id.*

¹¹⁵ *Id.*

EPIC anticipates the TSA's response to its substantive comments and fully intends to exercise its right to seek judicial relief concerning the agency's final decision.¹¹⁶

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¹¹⁶ 5 U.S.C. § 706. *See also EPIC v. DHS*, 653 F.3d 1 (D.C. Cir. 2011).