BENDING BROKEN RULES: THE FOURTH AMENDMENT
IMPLICATIONS OF FULL-BODY SCANNERS
IN PREFLIGHT SCREENING

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“The means of defence agst. [sic] foreign danger, have been always the
instruments of tyranny at home.”
- James Madison1

“[T]he public does have . . . under our Constitution the right to expect,
that no matter the threat, the search to counter it will be as limited as
possible, consistent with meeting the threat.”
- Judge James L. Oakes2

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College (IL). I am indebted to Professor Thomas K. Clancy for his guidance and for his
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the love and support of my wife, Liz, for which I am truly grateful. I dedicate this Article
to my legal hero, Judge Mike Taylor.

1 James Madison, Remarks at the Constitutional Convention (June 29, 1787), in 1 THE
RECORDS OF THE CONSTITUTIONAL CONVENTION OF 1787, at 465 (Max Farrand ed.,
1911).

2 United States v. Albarado, 495 F.2d 799, 806 (2d Cir. 1974).
I. INTRODUCTION

[1] In the face of emerging technology, the Fourth Amendment’s guarantee of protection against unreasonable searches and seizures is especially susceptible to erosion. As Justice Scalia wrote in *Kyllo v. United States*, “[i]t would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology.” In *Katz v. United States*, technology compelled a dramatic shift in the Supreme Court’s interpretation of the Fourth Amendment. Prior to *Katz*, the Court generally interpreted the Fourth Amendment to prevent only the search and seizure of tangible things, and looked to areas of the common law, such as trespass, to determine whether government action violated Fourth Amendment rights. *Katz* marked a transition from the limited protection of tangible property to a broader concept of privacy.

[2] The advent of full-body scanners in airports presents complex and novel Fourth Amendment issues. The fact that the Supreme Court has never decided a case involving the constitutionality of preflight screening, leaving the circuits with little guidance on how to resolve such cases, underscores the significance of these issues.

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3 See U.S. Const. amend IV (guaranteeing that “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.”).


6 See Olmstead v. United States, 277 U.S. 438, 464 (1928) (“The amendment itself shows that the search is to be of material things-the person, the house, his papers, or his effects.”).

7 See *Katz*, 389 U.S. at 353, 359 (“The fact that the electronic device employed to conduct the search did not happen to penetrate the wall of the booth can have no constitutional significance. . . . Wherever a man may be, he is entitled to know that he will remain free from unreasonable searches and seizures.”).

8 See United States v. Aukai, 497 F.3d 955, 959 n.2 (9th Cir. 2007) (en banc).
There are two types of full-body scanners currently used to conduct pre-flight screenings: millimeter wave and backscatter x-ray devices. These technologies are collectively referred to as “full-body scanners,” “whole-body imaging,” or “advanced imaging technology.” At present, airport security performs full-body scans only on consenting passengers (inasmuch as consent to the method of mandatory screening is “voluntary”).

Not surprisingly, a bill introduced in the Senate on June 24, 2010 sought to mandate the use of full-body scanners for primary screening throughout the nation’s airports. It is a fair inference that the Department of Homeland Security intends this technology not merely to supplement current preflight screening systems, but to supplant them. The

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The Secretary of Homeland Security shall ensure that advanced imaging technology and other advanced technology with the capability to detect weapons, on-body plastic explosives, and other nonmetallic explosives, are deployed, individually or in combination with each other, in a timely and effective manner for the primary screening of aircraft passengers in accordance with this subsection.

Id. § 4.

13 Using full-body imaging devices solely for secondary screening creates a loophole: passengers carrying non-metal contraband who escape detection by Behavior Detection
implications raised under the proposed mandatory use of full-body scanning technology during preflight screening require the Court, once again, to determine “what limits there are upon [the] power of technology to shrink the realm of guaranteed privacy.”

This Article analyzes the potential implications of using full-body imaging devices in a non-voluntary context. Part II discusses the historical trajectory of preflight screening. Part III summarizes other methods of preflight screening. Part IV discusses full-body scanners and the unique dangers they pose to Fourth Amendment guarantees. Part V then surveys the various approaches the Supreme Court may take when analyzing the reasonableness of full-body scanners in the preflight context. Finally, Part VI argues that the use of full-body imaging scanners as primary screening methods in airports is wholly unreasonable, and that airport security should use fully-body scanners only for secondary screening where probable cause exists.

II. THE ORIGINS OF PREFLIGHT SCREENING

Preflight, suspicionless security screening measures were first implemented in the 1960s and 1970s. Noting the epidemic of airplane hijackings and terrorist activity, courts generally blessed entranceway searches in airports, government buildings, and similar places. Since the beginning of preflight screening, particularly after the deadly hijackings of

Officers and successfully pass the magnetometer may evade even a request for a full-body scan. See infra notes 25-26 and accompanying text. Certainly, the TSA believes these machines are best suited to primary screening, raising the possibility that passengers will become accustomed to their presences and dulled to their intrusiveness over time.


16 Id. at 851-52; see, e.g., United States v. Albarado, 495 F.2d 799, 806 (2d Cir. 1974); United States v. Cyzewski, 484 F.2d 509, 512 (5th Cir. 1973); United States v. Davis, 482 F.2d 893, 910 (9th Cir. 1973); United States v. Slocum, 464 F.2d 1180, 1182 (3d Cir. 1972); United States v. Epperson, 454 F.2d 769, 771 (4th Cir. 1972).
September 11, 2001 (“9/11”), the scope of suspicionless searches has expanded, with new methods and technologies gaining similar judicial approval.\textsuperscript{17} In late 2001, in response to the 9/11 attacks, the now ubiquitous Transportation Safety Administration (“TSA”) assumed control of airport security.\textsuperscript{18} The TSA, now “responsible for security in all modes of transportation,”\textsuperscript{19} mandates the screening of all passengers before they enter the sterile area or board the aircraft.\textsuperscript{20}

III. STANDARD PASSENGER SCREENING METHODS

[7] A transportation safety officer (“TSO”) screens all passengers before they can gain access to the sterile area beyond the first checkpoint.\textsuperscript{21} Preflight screening is divided into two stages: primary screening, which all passengers undergo, and secondary screening, which is reserved for passengers who fail primary screening.\textsuperscript{22} The procedures for screening checked and carry-on baggage also have Fourth Amendment implications; however, discussion of those issues is beyond the scope of this Article.

\textsuperscript{17} See, e.g., Cassidy v. Chertoff, 471 F.3d 67, 73, 87 (2d Cir. 2006); MacWade v. Kelly, 460 F.3d 260, 263 (2d Cir. 2006); see also Kyle P. Hanson, Note, Suspicionless Terrorism Checkpoints Since 9/11: Searching for Uniformity, 56 Drake L. Rev. 171, 172 (2007).


\textsuperscript{19} Id. § 114(d).

\textsuperscript{20} See 49 C.F.R. § 1540.105(a)(2) (“No person may . . . [e]nter, or be present within, a . . . sterile area without complying with the systems, measures, or procedures being applied to control access to, or presence or movement in, such areas.”). See also id. §1540.5 (“Sterile area means a portion of an airport defined in the airport security program that provides passengers access to boarding aircraft and to which the access generally is controlled by TSA . . . through the screening of persons and property.”).

\textsuperscript{21} See PRIVACY ASSESSMENT OF WBI, supra note 9, at 2.

\textsuperscript{22} See id.
A. Primary Screening Methods

[8] After surrendering their carry-on baggage for an x-ray machine inspection, passengers undergo the first preflight screening: the magnetometer walkthrough.\textsuperscript{23} Passengers walk through the doorframe-like device, which sounds an alarm if the passenger has an amount of metal above the calibration of the machine.\textsuperscript{24} Passengers cannot perceive the magnetic field, and the search is nearly instantaneous. Additionally, the magnetometer merely indicates the presence or absence of a threshold amount of metal on the passenger.\textsuperscript{25} Therefore, magnetometer searches are minimally invasive.

[9] The TSA also deploys specially trained agents to execute a process called Screening of Passengers by Observation Techniques (“SPOT”).\textsuperscript{26} The SPOT program is based on the Facial Action Coding System (“FACS”) developed by psychologists in 1978.\textsuperscript{27} The technique involves Behavior Detection Officers (“BDOs”) vigilantly watching for passengers who elicit a threshold degree of suspicion.\textsuperscript{28} BDOs are “trained to detect

\textsuperscript{23} See Julie Solomon, Comment, Does the TSA Have Stage Fright? Then Why Are They Picturing You Naked?, 73 J. AIR L. & COM. 643, 646-47 (2008).

\textsuperscript{24} See id. at 651 n.42 (citing United States v. Albarado, 495 F.2d 799, 805 (2d Cir. 1974)).

\textsuperscript{25} Cf. United States v. Place, 462 U.S. 696, 703 (1983) (holding that having a dog sniff a bag to detect the presence of illegal narcotics is not a search under the Fourth Amendment, and noting that such activity is minimally intrusive and does not reveal anything other than the presence or absence of contraband).


\textsuperscript{28} U.S. DEP’T OF HOMELAND SEC., PRIVACY IMPACT ASSESSMENT FOR THE SCREENING OF PASSENGERS BY OBSERVATION TECHNIQUES (SPOT) PROGRAM 2 (2008), available at http://www.dhs.gov/xlibrary/assets/privacy/privacy_pia_tsa_spot.pdf. Once an individual triggers further investigation, the TSA “may collect,” inter alia, a passenger’s full name, permanent addresses, employer information, social security number, date of birth, race,
involuntary physical and physiological reactions that may indicate stress, fear or deception regardless of race, gender, age, or religion.”

Passengers demonstrating certain flagged characteristics are subject to secondary screening. In 2009, BDOs subjected nearly 100,000 passengers to further screening. The TSA also uses highly trained dogs to detect traces of explosive substances in some locations.

B. Secondary Screening Methods

The TSA conducts secondary screening due to “a compelling need for further investigation after an initial magnetometer reading showing metal.” The methods employed during secondary screening are more invasive, with the level of invasiveness corresponding to the degree of suspicion aroused by the passenger who failed primary screening.

height, and weight as well as photographs of carry-on luggage and identifying information of traveling companion. See id.

29 Id.; see also GEORGE ORWELL 1984 62 (Harcourt Brace Jovanovich 1949) (“It was terribly dangerous to let your thoughts wander when you were in any public place or within range of a telescreen. The smallest thing could give you away. A nervous tic, an unconscious look of anxiety, a habit of muttering to yourself – anything that carried with it the suggestion of abnormalty, of having something to hide. In any case, to wear and improper expression on your face (to look incredulous when a victory was announced, for example) was itself a punishable offense. There was even a word for it in Newspeak: facecrime, it was called.”).

30 Id.

31 See Florence & Friedman, supra note 27, at 427.


33 United States v. Albarado, 495 F.2d 799, 808 (2d Cir. 1974).

34 See, e.g., United States v. Hartwell, 436 F.3d 174, 180 (3d Cir. 2006) (discussing the increased level of invasiveness accompanying subsequent screenings).
Upon failing a magnetometer walkthrough, the TSO may give the passenger an opportunity to remove any metal objects from his person and walk through the magnetometer again. This increase in scrutiny is the least intrusive “next step” of the screening process. The Second Circuit has held a second walkthrough or a similar minimally intrusive screening is required before a TSO may perform a frisk. Similarly, security often uses handheld magnetometers to determine the specific location of offending metal on a passenger’s person. While more invasive than the walk-through magnetometer, the intrusion is still substantially less than a manual frisk.

If a passenger fails magnetometer technology screening, TSA agents then perform a manual pat-down. These searches are highly invasive. In Terry v. Ohio, the Supreme Court described such frisks as “serious intrusions upon the sanctity of the person, which may inflict great indignity and arouse strong resentment, [which are] not to be undertaken lightly.” While security often limits its searches to the

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35 See Albarado, 495 F.2d at 802, 808.

36 See id.

37 See id. at 808 (holding that a frisk of a passenger who failed a magnetometer walkthrough was unreasonable because less intrusive measures, such as a second walkthrough, were available).

38 See, e.g., id. at 809 (mentioning the use of a handheld magnetometer as a method of secondary screening less invasive than a frisk).

39 See generally id. at 803, 807 (explaining that although handheld magnetometer searches are short of unobtrusive, there is no physical touching, and the duration is brief as compared to a frisk).

40 See, e.g., id. at 807.

41 See Terry v. Ohio, 392 U.S. 1, 16-17 (1961) (declaring the assertion that a frisk is a “petty indignity” is “simply fantastic”).

42 Id. at 17.
passenger’s outer clothing, security may also perform a full frisk. The line between a pat-down and a frisk is not a bright one.

[13] While not commonplace, strip searches do occur in the airport context, and are thus relevant to the full-body scanner discussion. “The lawfulness of a strip search depends on whether the circumstances reasonably justify such an intrusive invasion of privacy.” Although the intrusiveness of a strip search is tremendous, courts have upheld strip searches conducted incident to arrest and within the penal context. In fact, the Supreme Court has held that inmates, by virtue of their status, have fewer constitutional protections; therefore, they are subject to more invasive searches upon “less than probable cause.” Similarly, the Supreme Court has upheld searches of schoolchildren conducted on less than probable cause when the search furthered legitimate, pedagogical concerns. The Court predicated such holdings on the proposition that schoolchildren do not enjoy the constitutional rights of free adults. Nevertheless, the Supreme Court limited the ability of school officials to

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43 See Albarado, 495 F.2d at 807.

44 See id. (“[T]he right to pat-down carries with it authorization for a full frisk since presumably . . . we are authorizing what is necessary to get the job done.”).


46 United States v. Cofield, 391 F.3d 334, 336 (1st Cir. 2004) (citing Bell v. Wolfish, 441 U.S. 520, 559 (1979)).

47 See, e.g., id. at 338.

48 See, e.g., Bell, 441 U.S. at 560.

49 Id.


51 See, e.g., Vernonia, 515 U.S. at 655 (citing T.L.O., 469 U.S. at 341); T.L.O., 469 U.S. at 341.
conduct strip searches of students in *Safford Unified School District # 1 v. Redding*.\(^{52}\)

**IV. FULL-BODY SCANNERS**

[14] Full-body scanners have made a splash in media outlets, and their presence in United States airports is increasing.\(^{53}\) In the preflight screening context, “full-body scan” refers to scans conducted with either millimeter wave or backscatter x-ray technology.\(^{54}\) According to the TSA website, as of November 18, 2010 “there [were] 385 imaging technology units at 68 airports.”\(^{55}\) It is likely that these numbers will grow, as the Department of Homeland Security planned to use funds from the American Recovery and Reinvestment Act (“ARRA”) to purchase and then distribute 450 full-body scanners during 2010.\(^{56}\)

A. How They Work

[15] Millimeter wave scanners emit radio waves in the millimeter wave portion of the electromagnetic spectrum.\(^{57}\) Two revolving antennas direct

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\(^{52}\) See 129 S. Ct. 2633, 2642 (2009) (“Here, the content of the suspicion failed to match the degree of intrusion.”).


\(^{54}\) See Privacy Assessment of WBI, *supra* note 9, at 2.

\(^{55}\) **AIT**, *supra* note 10.

\(^{56}\) See Press Release, U.S. Dep’t of Homeland Sec. Office of the Press Sec’y, Secretary Napolitano Announces Additional Recovery Act-Funded Advanced Imaging Technology Deployments (July 20, 2010), available at http://www.dhs.gov/ynews/releases/pr_1279642622060.shtm (“ARRA, signed into law by President Obama on Feb. 17, 2009, committed more than $3 billion for homeland security projects through DHS and the General Services Administration (GSA). Of the $1 billion allocated to TSA for aviation security projects, $734 million is dedicated to screening checked baggage and $266 million is allocated for checkpoint explosives detection technologies.”).

the radio waves across the entire surface of an individual’s body. 58 Upon striking a surface, the waves reflect back to the scanner, and a computer constructs a three-dimensional, nude model of the passenger. 59 By comparing the reflected waves to electromagnetic waves emitting from the human body, the millimeter wave machines construct an image that contrasts “flesh, metal and plastic.” 60

[16] Backscatter x-ray scanners blast the entire surface of the body with a “low-intensity x-ray beam.” 61 When this beam hits an object, the beam bounces off the surface (“scatter”) at differing angles, depending on the composition of the surface. 62 The backscatter x-ray scanner produces an image of a passenger’s entire body surface and, based on the angles of the backscatter, indicates the presence of many types of foreign objects. 63

B. Privacy Protection Efforts

[17] The TSA has instituted protective measures to reduce violations of privacy. 64 First, the TSA instituted several spatial protections. The TSO viewing the full-body scan remains isolated from the passenger being screened. 65 Thus, the TSO viewing the image cannot see the passenger, and the TSO assisting the passenger cannot see the image. Notably, there is no guarantee the person viewing the image will be the same gender as

58 Id.
59 Id. at 645.
60 Id. at 657.
61 Id. at 653.
62 See id.
64 AIT, supra note 10.
65 PRIVACY ASSESSMENT OF WBI, supra note 9, at 2.
the person being screened. Finally, the operation of full-body scanners must comply with a standard operating procedure (the details of which are not available to the public).66

[18] The TSA also employs technological measures that mitigate the vividness of the images.67 The “millimeter wave technology blurs all facial features and backscatter technology has an algorithm applied to the entire image.”68 Additionally, although full-body scanners have “the capability of collecting and storing an image, the image storage functions will be disabled by the manufacturer before the devices are placed in an airport.”69 As such, “[i]mages will be maintained on the screen only for as long as it takes to resolve any anomalies,” and “[t]he image is deleted in order to permit the next individual to be screened.”70 Finally, any TSO charged with viewing the images “will be prohibited from bringing any device into the viewing area that has any photographic capability.”71

C. Privacy Risks

[19] While the TSA heralds full-body scanners as the future of antiterrorism efforts, it is necessary to consider the negative effects of using such devices. The American Civil Liberties Union aptly calls this technology a “virtual strip-search,”72 because the images, while they do

66 Id. at 4-5.
67 See Privacy, supra note 11; PRIVACY ASSESSMENT OF WBI, supra note 9.
68 Privacy, supra note 11; see also PRIVACY ASSESSMENT OF WBI, supra note 9, at 4.
69 PRIVACY ASSESSMENT OF WBI, supra note 9, at 4.
70 Id. See generally infra Part IV.C (stating a machine does not delete an image automatically if the image remains on the screen until there is a determination of the source of any suspicious areas).
71 PRIVACY ASSESSMENT OF WBI, supra note 9, at 4;
not display typical photographic quality, betray intimate details of passengers’ bodies. It is unquestionable that a serious intrusion occurs when the government takes intimate images of citizens, blurring algorithms notwithstanding. Thus, each image constitutes a fundamental intrusion of passenger privacy, a conclusion drawing support from the Supreme Court’s reasoning in Redding, which indicated that simply ensuring the TSOs “will not see everything” does not align full-body scans with the Fourth Amendment.

[20] There are a growing number of troubling accounts of adverse encounters with full-body scanners. In addition to body parts, full-body

http://www.aclu.org/national-security/aclu-urges-senate-examine-/tsa%E2%80%99s-privacy-violations-post-911-record; see also Mock, supra note 26, at 229.


74 See generally Mock, supra note 26, at 230. Algorithms that blur faces and other intimate details arguably mitigate the degree of intrusiveness, but they do not preclude an intrusion.

75 See Safford Unified Sch. Dist. # 1 v. Redding, 129 S. Ct. 2633, 2641 (holding that a search requiring the exposure of a student’s breast and pelvic regions is categorically distinct and requires justification by school authorities for going beyond a search of the student’s belongings and outer clothing).

imaging machines display various medical apparatuses, such as catheters and prosthetics.\textsuperscript{77} This leads to invasive follow-up screening to confirm the innocuous nature of prosthetics and other medical devices.\textsuperscript{78}

[21] The potential retention of full-body scan images also threatens passenger privacy. Although TSOs “will be prohibited from bringing any device into the viewing area that has any photographic capability,”\textsuperscript{79} the TSA cannot guarantee this rule will remain inviolate. Perhaps the most troubling aspect, the scanned images remain on the screen until affirmatively deleted.\textsuperscript{80} Despite the TSA’s claims of “automatic” deletion,\textsuperscript{81} the screening agent must take some affirmative act to erase an image.\textsuperscript{82} “Automatic” implies the deletion occurs without any human intervention, but a more thorough review of the process reveals that deletion is not actually automatic.\textsuperscript{83} The retention of images on the screen until affirmatively deleted widens the conduit for potential abuse.

\textsuperscript{77} Statement of Timothy D. Sparapani, ACLU Legislative Counsel, at a Hearing Regarding the U.S. Transportation Security Administration’s Physical Screening of Airline Passengers and Related Cargo Screening Before the U.S. Senate Committee on Commerce, Science, and Transportation, ACLU, http://www.aclu.org/cpredirect/24856 (last visited Nov. 18, 2010).

\textsuperscript{78} See id. (“Even the presence of a seemingly innocuously shaped item, such as a prosthetic device or implant, will require subsequent (and potentially humiliating) verification. Thus, X-ray backscatter requires a tremendous invasion of privacy with little speed or efficiency gains.”).

\textsuperscript{79} PRIVACY ASSESSMENT OF WBI, supra note 9, at 4.

\textsuperscript{80} See id.

\textsuperscript{81} See Privacy, supra note 11 (“[E]ach image is automatically deleted from the system after it is cleared by the remotely located security officer.”).

\textsuperscript{82} See PRIVACY ASSESSMENT OF WBI, supra note 9, at 4. Even if the manufacturer of the machine disables its storage capability, such action is vitally short of automatic deletion. See id.

\textsuperscript{83} See id. (“[A]n image will remain on the screen until the item is cleared either by the TSO recognizing the item on the screen, or by a physical screening by the TSO with the individual.”).
Regardless of the deletion mechanism, retention of images is not the ultimate privacy violation. What happens to the images after they are taken is merely symptomatic of the actual intrusion: the scan producing the images. If a police officer took photographs of a home while conducting an illegal search, destruction of the photographs would not cure the constitutional violation. The photographs, like the full-body scan images, are fruits of the violation, not the actual violation. Thus, the TSA’s disingenuous assertions regarding the fate of the images are relevant to the degree of injury, which comes into play only after the violation of a passengers’ person.

The procedure whereby a TSO views the images from a remote location exacerbates the privacy violation. In United States v. Skipwith, the Fifth Circuit identified three factors that mitigate the intrusiveness of pat-downs in the context of secondary searches. The court reasoned that “[u]nlike searches . . . where often the office and the subject are the only witnesses, these [pat-downs] are made under supervision and not far from the scrutiny of the traveling public.” In a sense, full-body imaging systems foreclose a passenger’s ability to confront his or her accuser.

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85 See Scott, 524 U.S. at 362-63.


87 See Mock, supra note 26, at 238 (“[T]he technology produces extremely detailed images that expose intimate parts of the body and invade basic privacy expectations.”).

88 See Privacy, supra note 11 (“[T]he officer who assists the passenger never sees the image the technology produces. The officer who views the image is remotely located in a secure resolution room and never sees the passenger.”).

89 See 482 F.2d 1272, 1275 (5th Cir. 1973).

90 Id. at 1276.

91 See Privacy, supra note 11 (stating the officer and screened passenger never see each other).
While it is clear that the degree of intrusiveness is great, the question remains whether the technological intermediary between passenger and screener actually mitigates the invasiveness. Functionally, full-body scans are comparable to a system where a passenger physically disrobes, dons a mask, and stands before a camera while a remotely located TSO inspects the passenger via a grainy video feed. The chief difference is that with a full-body scan, the TSA saves the passenger the inconvenience of physically disrobing. The same fundamental intrusion occurs in either case: the government peeks under passengers’ clothes.

[24] The potential surreptitious interception of images presents an additional concern. The remoteness of the TSO viewing the full-body images requires transmission of the images from the receptors on the scanner to where the images are processed and displayed. Although the exact process of transmission remains unclear, the interception of images along this path is quite possible.

[25] Although the TSA claims full-body scanning devices further the goals of safety while minimizing intrusiveness, the technology has weaknesses. Any discussion of reasonable uses for full-body scanners must consider the efficacy of the scanners. How much safety is attained through the sacrifice of liberty to full-body scanners? It seems reasonable

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92 See Robyn E. Blumner, Government, Don’t Dare Scan My Body, St. Petersburg Times, Oct. 19, 2008, at 5P, available at http://www.tampabay.com/opinion/columns/article858283.ece (“Do we really have to show the TSA - some man in a windowless booth - what we otherwise reserve for our spouses and personal physicians in order to fly?”); supra note 73 and accompanying text.

93 Either way the passenger is little more than a “disrobed faceless form[,] of no position.” See generally BOB DYLAN, CHIMES OF FREEDOM (Columbia Records 1964), reprinted in JENNY LEDDEEN, PROPHECY IN THE CHRISTIAN ERA 179 (1995).

94 See Privacy, supra note 11.

to infer that terrorists who intend to highjack a plane will diligently seek ways to circumvent full-body scanners. ⁹⁶ One glaring deficiency is the scanners’ potential inability to detect pentaerythritol tetranitrate, the powdery explosive used in the unsuccessful bombing attempt of a Northwest Airlines flight on December 25, 2009, remains a glaring deficiency. ⁹⁷ Because the images show only the epidermis, subdermal objects escape detection. ⁹⁸ A British intelligence agency even intercepted information indicating that female terrorists might use explosive breast implants to bring down planes. ⁹⁹ Furthermore, full-body scans do not discover any objects in the alimentary canal. ¹⁰⁰ Of course, quantifying the efficacy of any deterrent proves difficult when every non-terrorist who flies commercially is a potential false positive. ¹⁰¹

[26] The Electronic Privacy Information Center (“EPIC”) waged a war against the Department of Homeland Security to prevent the proliferation of full-body scanners. ¹⁰² EPIC filed two lawsuits for injunctive relief and to obtain documentation related to full-body scanners under the Freedom

⁹⁶ See Hanson, supra note 17, at 172.

⁹⁷ EPIC Petition, supra note 95, at 5-6.


⁹⁹ Blake, supra note 98.

¹⁰⁰ See ACLU Back grounder, supra note 72.

¹⁰¹ Any assertion that a particular measure “deters” hijacking attempts is nothing more than a hypothesis. One can neither prove nor disprove such hypothesis; they can only support or refute it with evidence.

of Information Act. Additionally, EPIC petitioned the Department of Homeland Security to suspend the use of full-body scanners at domestic airports. The petition garnered the support of thirty groups, the diversity of which demonstrates the breadth of opposition to full-body scanners.

D. Health Risks

In addition to threatening passenger privacy rights, the full-body imaging machines potentially pose health risks to passengers. After conducting a series of tests, the TSA concluded that “the radiation doses for the individuals being screened, operators, and bystanders were well below the dose limits specified by the American National Standards Institute (ANSI).” The TSA compared the energy doses to doses received from other sources: “For comparison, the energy projected by millimeter wave technology is thousands of times less than a cell phone transmission. A single scan using backscatter technology produces exposure equivalent to two minutes of flying on an airplane.”

Yet members of the medical profession and a few pilot unions have expressed concern regarding the amount of radiation emitting from

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104 See generally EPIC Petition, supra note 95.

105 See id. at 9 (including, among others, the American Civil Liberties Union, Asian American Legal Education and Defense Fund, Campaign for Liberty, Consumer Federation of America, Council on American Islamic Relations, Muslim Legal Fund of America, National Center for Transgender Equality, Republican Liberty Caucus, and the Rutherford Institute).


107 Id.

108 Id.
these scanners. In a letter to John P. Holdren, President Obama’s Director and Advisor of Science and Technology, four professors from the University of California, San Francisco, noted, “The majority of [the backscattering scanners’] energy is delivered to the skin and the underlying tissue [and] while the dose would be safe if it were distributed throughout the volume of the entire body, the dose to the skin may be dangerously high.” The professors also acknowledged “that real independent safety data do not exist,” and outlined several concerns including: the high risk for the immunocompromised, such as individuals with cancer or HIV; the lack of research on radiation exposure for children and the elderly, who are more susceptible to health complications; the risks to pregnant woman and to the fetus; and the risks of mutagenesis of testicular and breast tissue. Despite these concerns, the TSA remains confident in the safety of full-body scanners.

V. REASONABLENESS STANDARDS

[29] In government search or seizure challenges, the threshold inquiry asks whether the government activity amounted to a search or seizure


110 Letter from John Sedat, supra note 109.

111 Id.

112 See Safety, supra note 106.
under the Fourth Amendment.\textsuperscript{113} Government conduct that does not amount to a search or seizure does not trigger Fourth Amendment protections.\textsuperscript{114} However, if government conduct is a search or seizure, the inquiry turns on whether the search or seizure was reasonable.\textsuperscript{115} Courts consider preflight screenings searches under the Fourth Amendment, and generally hold them to be reasonable even when initiated without suspicion.\textsuperscript{116} Given the significant threat millimeter wave and backscatter x-ray scanners pose to passenger privacy, courts must determine when the use of such technology is reasonable under the Fourth Amendment.

[30] Unfortunately, Fourth Amendment jurisprudence has not produced a definitive test for reasonableness.\textsuperscript{117} As Thomas K. Clancy noted, the different tests applied by the Supreme Court form a collage of overlapping and, at times, inconsistent standards for determining reasonableness.\textsuperscript{118}

\textsuperscript{113} See Cupp v. Murphy, 412 U.S. 291, 294 (1973) (finding the detention of an individual constituted a seizure of his person before noting the implication of the Fourth Amendment); see also THOMAS K. CLANCY, THE FOURTH AMENDMENT: ITS HISTORY AND INTERPRETATION 3 (2008).

\textsuperscript{114} See Texas v. Brown, 460 U.S. 730, 739-40 (1983) (finding that a police officer action did not constitute a search and, therefore, did not implicate the Fourth Amendment); see also CLANCY, supra note 113, at 3-4.

\textsuperscript{115} See Elkins v. United States, 364 U.S. 206, 222 (1960) (noting that the Fourth Amendment only prohibits “unreasonable” searches and seizures); see also CLANCY, supra note 113, at 3-4.

\textsuperscript{116} See, e.g., United States v. Epperson, 454 F.2d 769, 770 (4th Cir. 1972) (“We agree that the use of the magnetometer in these circumstances was a ‘search’ within the meaning of the Fourth Amendment. By this device a government officer, without permission, discerned metal on Epperson’s person. That he did so electronically rather than by patting down his outer clothing or ‘frisking’ may make the search more tolerable and less offensive-but it is still a search.”); see also United States v. Albarado, 495 F.2d 799, 803-04 (2d Cir. 1974) (noting that such searches seem reasonable given their necessity and public acceptance); United States v. Skipwith, 482 F.2d 1272, 1277 (5th Cir. 1973) (applying reasonableness standard); United States v. Slocum, 464 F.2d 1180, 1182-83 (3d Cir. 1972) (“Reasonableness is the ultimate standard.”).

\textsuperscript{117} See CLANCY, supra note 113, at 468.

\textsuperscript{118} See generally id. at 470-509.
The unparalleled intrusiveness of full-body scans and lack of Supreme Court guidance necessitate a deconstruction of preflight screening jurisprudence and application of a reasonableness standard responsive to the need to thwart terrorist hijackings while securing passenger privacy rights. Accordingly, this section, employing Thomas K. Clancy’s survey of the law in The Fourth Amendment: Its History and Interpretation as a model, makes a broad sweep across Fourth Amendment jurisprudence, discussing the various standards for reasonableness and assessing the appropriateness of those standards for preflight screening.

A. Warrant Requirement

[31] The Supreme Court based many of its early Fourth Amendment decisions on an interpretation that the probable cause requirement in the Warrant Clause defines “unreasonable” in the Reasonableness Clause. The Warrant Clause states “no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.” For some time, the Court indicated that all searches must comply with the Warrant Clause (i.e. must be pursuant to a warrant supported by probable cause) to comport with the Fourth Amendment. But while warrants are preferable for general crime fighting searches, they are impractical in other circumstances.

[32] The Court has identified exceptions to the warrant requirement for situations in which the requirement would unduly hamper law

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119 Id.

120 See, e.g., Taylor v. United States, 286 U.S. 1, 6 (1932); Weeks v. United States, 232 U.S. 383, 393 (1914); see also CLANCY, supra note 113, at 471.

121 U.S. CONST. amend IV.

122 See, e.g., Taylor, 286 U.S. at 6; Agnello v. United States, 269 U.S. 20, 29 (1925); Weeks, 232 U.S. 3 at 393; see also CLANCY, supra note 113, at 471.

123 See, e.g., United States v. Ventresca, 380 U.S. 102, 106 (1965) (discussing the Supreme Court’s general preference for searches executed under the authority of a warrant).
enforcement.\textsuperscript{124} (1) when officers or citizens face imminent danger;\textsuperscript{125} (2) when there is risk of flight,\textsuperscript{126} and (3) when there is potential that incriminating evidence will be lost or destroyed.\textsuperscript{127} But, “[o]nly in those exceptional circumstances in which special needs, beyond the normal need for law enforcement, make the warrant and probable-cause requirement impracticable, is a court entitled to substitute its balancing of interests for that of the Framers.”\textsuperscript{128} Thus, “warrantless searches are \textit{per se} unreasonable, subject only to a few specifically delineated and well-recognized exceptions.”\textsuperscript{129}

\textbf{B. Special Needs Doctrine}

Special needs searches are analytically distinct from standard Fourth Amendment searches. The special needs doctrine provides an exception to the Fourth Amendment “‘when special needs, beyond the normal need for law enforcement, make the warrant and probable-cause requirement impracticable.’”\textsuperscript{130} Nevertheless, “[t]o pass constitutional muster, an administrative search must meet the \textit{Fourth Amendment’s} standard of reasonableness.”\textsuperscript{131} Although the Court has yet to rule directly on the constitutionality of preflight searches,\textsuperscript{132} it has upheld other

\textsuperscript{125} See Brigham City v. Stuart, 547 U.S. 398, 403 (2006).
\textsuperscript{127} See Ker v. California, 374 U.S. 23, 40 (1963).
\textsuperscript{129} Id. at 354 (Brennan, J., concurring in part and dissenting in part).
\textsuperscript{131} United States v. Davis, 482 F.2d 893, 910 (9th Cir. 1973).
\textsuperscript{132} United States v. Aukai, 497 F.3d 955, 959 n.2 (9th Cir. 2007) (en banc) (stating that the Supreme Court has thrice suggested that administrative preflight searches are reasonable under the Fourth Amendment); see City of Indianapolis v. Edmond, 531 U.S. 32, 47-48 (2000); Chandler v. Miller, 520 U.S. 305, 323 (1997) (“where the risk to public
suspicionless searches “[under] limited circumstances in which the usual rule does not apply.”

[34] In National Treasury Employees Union v. Von Raab, the Court upheld suspicionless drug testing of armed government employees, specifically drug interdiction officers. The Court noted that a reasonable governmental search does not always necessitate a warrant, probable cause, or “individualized suspicion.” Searches without such elements prove reasonable when “the Government's need to discover such latent or hidden conditions, or to prevent their development, is sufficiently compelling to justify the intrusion on privacy entailed by conducting such searches without any measure of individualized suspicion.”

Considering the likelihood of armed officers confronting dangerous and volatile situations, the Court noted “the Government's need to conduct the suspicionless searches . . . outweighs the privacy interests of employees engaged directly in drug interdiction.”

[35] Courts have extended the special needs doctrine to include public school searches. In Vernonia School District v. Acton, the Court found that drug tests conducted on student athletes demonstrated a special need, preempting requirements of individualized suspicion. Additionally, safety is substantial and real, blanket suspicionless searches calibrated to the risk may rank as ‘reasonale’); Nat’l Treasury Emps. Union v. Von Raab, 489 U.S. 656, 675 n.3 (1989).

133 See Edmond, 531 U.S. at 37.


136 Id. at 668 (emphasis added).

137 Id.


139 See id. at 664-65 (upholding the drug-testing of student-athletes after considering the nature of the privacy interest at issue, the character of the intrusion, the governmental interest, and the efficacy of the search in promoting the interest).
some courts have extended the doctrine to exempt preflight screening from Fourth Amendment warrant and probable cause requirements. In *United States v. Moreno*, the Fifth Circuit noted that airline hijackers often raise suspicion only after the opportunity passes for law enforcement to prevent harm. Noting the difficulties in detecting perpetrators and the chaotic nature of airport security checkpoints, the court upheld the reasonableness of suspicionless preflight screening.

[36] Administrative searches are a subcategory of special needs searches. They serve “as part of a general regulatory scheme in furtherance of an administrative purpose, namely, to prevent the carrying of weapons or explosives aboard aircraft, and thereby to prevent hijackings.” In *Chandler v. Miller*, the Supreme Court stated in dicta “that where the risk to public safety is substantial and real, blanket suspicionless searches calibrated to the risk may rank as ‘reasonable’—for example, searches now routine at airports.”

[37] Notably, officials do not conduct administrative searches for generalized crime fighting, but in the course of overseeing some regulated activity such as code-enforcement searches of apartment complexes. In

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140 *See, e.g.*, United States *v. Moreno*, 475 F.2d 44, 48 (5th Cir. 1973).

141 *See id.* (finding the particular dangers of airline hijackings give rise to exigent circumstances allowing for reasonable search without individualized suspicion).

142 *Id.* at 49-50. Interestingly, this decision conflicts with the premise underpinning the TSA’s behavior detection program. The TSA program is based on the rationale that BDOs can sniff out would-be hijackers. *See PRIVACY IMPACT ASSESSMENT, supra* note 28, at 2. The Fifth Circuit asserts that suspicionless preflight searches are reasonable because would-be hijackers provide almost no naturally perceptible indication of their intentions. *Moreno*, 475 F.2d at 49-50.

143 *See, e.g.*, United States *v. Davis*, 482 F.2d 893, 908 (9th Cir. 1973), abrogated by United States *v. Aukai*, 497 F.3d 955 (9th Cir. 2007) (en banc).

144 *Id.*

145 520 U.S. 305, 323 (1997) (emphasis added). Note, again, the language employed by the Court is responsive to the relative intrusiveness of the search.

New York v. Burger, the Supreme Court upheld a New York statute authorizing warrantless searches of a junkyard because the business was heavily regulated and the searches were in furtherance of the administrative scheme.\footnote{See 482 U.S. 691, 715-16 (1987).} This application was used in United States v. Edwards, in which the Second Circuit noted that suspicionless preflight searches do not fit into previously recognized warrant exceptions, but are more closely analogized to administrative searches.\footnote{See 498 F.2d 496, 498, 498 n.5 (2d Cir. 1974).} Similarly, in United States v. Aukai, the Ninth Circuit upheld a preflight magnetometer search as a reasonable administrative search despite a lack of individualized suspicion.\footnote{See 497 F.3d 955, 963 (9th Cir. 2007) (en banc). The court relied on the Supreme Court’s rationale in New York v. Berger to reach the conclusion that the search was reasonable. Id. at 959.} While the administrative search doctrine justifies some preflight searches, it does not provide a license to conduct all searches. The invasiveness of full-body scans is far greater than typical administrative searches. Therefore, the administrative searches doctrine is not an appropriate tool to measure the reasonableness of full-body scans.

C. Balancing

[38] Courts also apply a balancing test to make reasonableness determinations.\footnote{See Mich. Dep’t of State Police v. Sitz, 496 U.S. 444, 455 (1990); CLANCY, supra note 113, at 489.} The test consists of “‘balancing [a search’s] intrusion on [an] individual's Fourth Amendment interests against its promotion of legitimate government interests.’”\footnote{E.g., Hiibel v. Sixth Judicial Dist. Court, 542 U.S. 177, 188 (2004) (quoting Delaware v. Prouse, 440 U.S. 648, 654 (1979)).} This balancing approach supplies a framework for analysis that ad hoc reasonableness does not, but the way courts loads the scales results in the erosion of Fourth Amendment protections.\footnote{CLANCY, supra note 113, at 490-91; see Sitz, 496 U.S. at 455. It is worth noting that the Court expressly limited its holding to finding that the initial intrusion (the initial stop

148 See 498 F.2d 496, 498, 498 n.5 (2d Cir. 1974).
149 See 497 F.3d 955, 963 (9th Cir. 2007) (en banc). The court relied on the Supreme Court’s rationale in New York v. Berger to reach the conclusion that the search was reasonable. Id. at 959.
152 CLANCY, supra note 113, at 490-91; see Sitz, 496 U.S. at 455. It is worth noting that the Court expressly limited its holding to finding that the initial intrusion (the initial stop
normal crime fighting (such as preflight searches), the Supreme Court loads the government’s side of the scale with the weight of all harm the governmental regulation seeks to prevent. The individual who challenges a search stands alone on the other side of the scale. This inequitable balancing scheme is glaring in the case of Michigan State Department of Police v. Sitz, where the Court weighed the entire nationwide problem of drunken driving against Sitz’s personal interest. Unsurprisingly, the Court held the balance tipped in favor of the government.

[39] A further problem with the balancing approach occurs when judges place a “thumb on the scale” in favor of the government. As Guido Calabresi argues, this advanced credit is even more dangerous than it initially appears because such a decision sets a precedent, which recalibrates the scale in favor of the government. Thus, when courts apply precedent in a subsequent case, they apply it along with another judicial thumb on the scale, further recalibrating the scale in favor of the

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of the vehicle) was reasonable. See id. at 450-51. Thus, the Court only applied the balancing test to determine the reasonableness of the initial intrusion, not to determine whether the treatment beyond the initial intrusion was reasonable. See id.

153 See CLANCY, supra note 113, at 498 (citing Sitz, 496 U.S. at 451, which balanced the damage caused by intoxicated drivers nationwide against the interest of a single driver).


155 See id.; CLANCY, supra note 113, at 497.

156 See id.

157 See id. at 455.


159 Calabresi, supra note 158 at 112.
government. This process results in a serial erosion of Fourth Amendment protections.

[40] Sitz foreshadows the dangers of using the balancing test in the preflight screening context. The government has a tremendous interest in preventing terrorist attacks, which arguably is a greater interest than the prevention of drunken driving. Even though a compulsory full-body scan greatly intrudes upon individual privacy, it would not likely outweigh the government’s interest in preventing terrorist hijackings. In fact, it is hard to imagine an individual interest greater than the national (perhaps global) interest in preventing terrorism. Thus, individuals would lose significant Fourth Amendment protection if courts apply the Sitz balancing test in cases involving the preflight screening process.

D. Ad Hoc Reasonableness

[41] Courts sometimes make ad hoc determinations of reasonableness by weighing the peculiar facts and circumstances of each individual case. Like the warrant preference, this approach looks to the text of the amendment and, finding reasonableness to be the only criterion, determines whether a particular search is “reasonable” under the totality of the circumstances. In United States v. Aukai, the Ninth Circuit adopted this approach, holding a preflight search reasonable because it was “no more extensive nor intensive than necessary, in the light of

160 Id.

161 See Sitz, 496 U.S. at 458 (Brennan, J., dissenting) (“By holding that no level of suspicion is necessary before the police may stop a car for the purpose of preventing drunken driving, the Court potentially subjects the general public to arbitrary or harassing conduct by the police.”).

162 Cf. id. at 451 (“No one can seriously dispute the magnitude of the drunken driving problem or the States’ interest in eradicating it.”).

163 See CLANCY, supra note 113, at 485.

164 See generally id. at 486-89.

165 See generally id.
current technology, to detect the presence of weapons or explosives [and] that it [was] confined in good faith to that purpose." Furthermore, some courts purport to consider preflight searches reasonable under the doctrine of administrative searches, but in fact conduct an ad hoc reasonableness determination.

[42] The primary deficiency of ad hoc reasonableness determinations is that the ambiguous term “reasonable” offers the sole source of guidance. As such, a court may uphold a search as reasonable where a person poses no suspicion of a threat to safety. Additionally, a court may uphold a search as reasonable under an ad hoc reasonableness standard despite the availability of less intrusive alternatives. But, as the Court stated in Davis v. Mississippi, “[i]nvestigatory seizures would subject unlimited numbers of innocent persons to the harassment and ignominy incident to involuntary detention [and n]othing is more clear than that the Fourth Amendment was meant to prevent wholesale intrusions upon the personal security of our citizenry.” The emerging technologies of full-body scanners create “wholesale intrusions” of passenger privacy and as such, pose serious threats to Fourth Amendment protections. Thus, the practice of making ad hoc determinations of reasonableness fails to limit sufficiently the application of those technologies.

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166 497 F.3d 955, 962 (9th Cir. 2007) (en banc) (first and second alteration in original) (quoting United States v. Davis, 482 F.2d 893, 913 (9th Cir. 1973)).

167 See, e.g., United States v. Albarado, 495 F.2d 799, 804 n.9 (2d Cir. 1974). In Albarado, the Court noted that the Ninth Circuit, in Davis, considered preflight screening an administrative search but stated there was “no analytical significance” to that categorization. See id.

168 See CLANCY, supra note 113, at 485-86.


171 See id.
E. Consent

When a person consents to a search, courts do not require probable cause. However, an individual must give consent “voluntarily . . . and not the result of duress or coercion, express or implied.” The Fifth and Eleventh Circuits have held that “consent to the screening process is . . . implied and irrevocable,” in the context of preflight searches because a passenger “has every opportunity to avoid the procedure by not entering the boarding area.” Conversely, in United States v. Albarado, the Second Circuit held that providing a choice of flying or enjoying Fourth Amendment protection coerces away from passengers constitutional rights, noting that opting to exercise one’s Fourth Amendment rights in lieu of flying could subject one to “considerable hardship.” The court dismissed the notion the government could announce its intention to deprive citizens of Fourth Amendment protection in a widely used medium of travel and then claim citizens using that medium consented to have their rights violated. The Second Circuit decided Albarado in 1974, and since then the argument that air travel is a modern necessity has grown more compelling.


173 Id.

174 See Mock, supra note 26, at 233 (citing United States v. Herzbrun, 723 F.2d 773, 776 (11th Cir. 1984) (dealing only with the minimally intrusive magnetometer searches); United States v. Skipwith, 482 F.2d 1272, 1276-77 (5th Cir. 1973)).

175 Skipwith, 482 F.2d at 1276.

176 See 495 F.2d at 806-07; see also United States v. Kroll, 481 F.2d 884, 886 (8th Cir. 1973) (stating that choosing other means of interstate and international travel would place incalculable burdens on businesses).

177 See United States v. Albarado, 495 F.2d 799, 807 n.14 (2d Cir. 1974) (comparing the argument that purchasing a plane ticket is impliciti consent to a search with a hypothetical situation where choosing to use the telephone impliedly consents to a wiretap and arguing that this would constitute a deprivation of “a necessity of modern living”).

178 See United States v. $124,570 U.S. Currency, 873 F.2d 1240, 1242 (9th Cir. 1989) (“Commercial air travel, once a luxury, has become a staple of modern existence.”).
Reviewing *Albarado* in light of the growing use of full-body scanners for preflight screening highlights the dangers of diminished expectations of privacy.\textsuperscript{179} As full-body technologies become more commonplace, their presence becomes less jarring, and tendency to acquiesce to the intrusion increases. The Supreme Court has recognized a right to interstate travel,\textsuperscript{180} but suspicionless preflight, full-body scans erode that right. Here again, if the government has authority to subject passengers to full-body scans for attempting to board an aircraft, the Fourth Amendment has little meaning in airports.

**F. Individualized Suspicion**

“A search or seizure is ordinarily unreasonable in the absence of individualized suspicion of wrongdoing.”\textsuperscript{181}

Full-scale searches – whether conducted in accordance with the warrant requirement or pursuant to one of its exceptions – are “reasonable” in Fourth Amendment terms only on a showing of probable cause to believe that a crime has been committed and that evidence of the crime will be found in the place to be searched.\textsuperscript{182}

In *City of Indianapolis v. Edmond*, the Supreme Court noted there are “only limited circumstances in which the usual rule does not apply.”\textsuperscript{183} The level of suspicion required for a search to be reasonable under an individualized suspicion analysis depends on the nature and duration of

\textsuperscript{179} See generally *Albarado*, 495 F.2d 799.

\textsuperscript{180} See *Edwards v. California*, 314 U.S. 160, 181 (1941) (striking down a California law that prohibited bringing indigent persons into the state because the law placed an undue burden on interstate travel).


\textsuperscript{183} 531 U.S. at 37.
the intrusion.\textsuperscript{184} Courts uphold searches incident to lawful, custodial arrests based on probable cause,\textsuperscript{185} and require articulated, reasonable suspicion (a lesser degree of suspicion than probable cause) for a stop and frisk.\textsuperscript{186} This distinction determines not only when a search may take place, but limits the scope of a stop and frisk search to dispelling the notion that the suspect is armed and dangerous.\textsuperscript{187}

\[47\] “Probable cause exists where ‘the facts and circumstances within [an officer’s] knowledge and of which [the officer] had reasonably trustworthy information (are) sufficient in themselves to warrant a man of reasonable caution in the belief that’ an offense has been or is being committed.”\textsuperscript{188} For these reasons, probable cause “does not set the constitutional floor” for determining whether a search is reasonable under the Fourth Amendment.\textsuperscript{189}

\[48\] As mentioned above, although requiring probable cause is not practicable for primary screening, requiring probable cause before subjecting passengers to involuntary secondary full-body scanner screenings does not hinder the efficient administration of anti-terrorism measures.\textsuperscript{190} The fact that probable cause does not set an absolute floor does not mean it cannot be a floor in some circumstances. Requiring

\textsuperscript{184} See Terry v. Ohio, 392 U.S. 1, 27 (1968); Albarado, 495 F.2d at 804-05; see also CLANCY, supra note 114, at 475.


\textsuperscript{186} See Terry v. Ohio, 392 U.S. 1, 27 (1968) (“[I]n determining whether the officer acted reasonably in such circumstances, due weight must be given, not to his inchoate and unpaticularized suspicion or ‘hunch,’ but to the specific reasonable inferences which he is entitled to draw from the facts in light of his experience.”).

\textsuperscript{187} See id. at 10.

\textsuperscript{188} Brinegar v. United States, 338 U.S. 160, 175-76 (1949) (quoting Carroll v. United States, 267 U.S. 132, 162 (1925)).

\textsuperscript{189} Mock, supra note 26, at 231.

\textsuperscript{190} Cf. United States v. Moreno, 475 F.2d 44, 49-50 (5th Cir. 1973).
probable cause before mandatory full-body screenings is entirely practical if the TSA relegates such methods to secondary screening.

[49] “[C]ategories of intrusions that are substantially less intrusive than full-scale searches or seizures may be justifiable in accordance with a balancing test even absent a warrant or probable cause, provided that the balancing test used gives sufficient weight to the privacy interests that will be infringed.” In *Terry v. Ohio*, the Supreme Court required a lesser degree of suspicion for a stop and frisk. Essentially, the Court determined the level of Fourth Amendment protection afforded to an individual hinges upon the level of suspicion the person arouses. *Terry* also provided limits to the scope of a stop and frisk, holding that a “Terry stop” amounts to a mini-search, allowing an officer to conduct a stop and frisk when he has a reasonable suspicion a crime is afoot and the suspect is armed.

[50] In *United States v. Epperson*, the Fourth Circuit expressly applied the *Terry* rationale in determining that preflight magnetometer searches comport with the Fourth Amendment given their limited scope and purpose. The court noted the needs prompting the Supreme Court’s decision in *Terry* were analogous to those at airports: the need to perform moderately invasive searches to dispel the notion that a person poses a danger. Similarly, in *United States v. Bell*, the Second Circuit held a

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192 See 392 U.S. at 30.

193 See id.

194 See id. at 30-31. Thus, the Court merely required reasonable suspicion rather than a warrant supported by probable cause. See id.

195 See 454 F.2d 769, 770-72 (4th Cir. 1972) (finding the scope and purpose of preflight magnetometer searches exempt such searches from the warrant requirement).

196 See id. at 771.
suspicionless magnetometer search reasonable and less intrusive than a Terry stop and frisk.\textsuperscript{197}

VI. FULL-BODY SCANS ARE UNREASONABLE UNDER THE FOURTH AMENDMENT ABSENT PROBABLE CAUSE

\textsuperscript{51} “[T]he ultimate strength of our constitutional guarantees lies in their unhesitating application in times of crisis and tranquility alike.”\textsuperscript{198} Accordingly, the danger of terrorist attacks alone provides insufficient justification under the Fourth Amendment for the wholesale application of full-body scanners. All methods of screening used by the TSA must strike a difficult balance of thwarting and deterring hijackings without violating the Fourth Amendment. In other words, if the TSA continues to advance the full-body scanners as a method of screening, it must be do so in a reasonable manner under the Fourth Amendment.

\textsuperscript{52} Making reasonableness determinations either on an ad hoc basis or by applying a Sitz-like balancing test effectively exempts the TSA from Fourth Amendment requirements.\textsuperscript{199} Similar to other types of searches, “an administrative screening search must be as limited in its intrusiveness as is consistent with satisfaction of the administrative need that justifies it.”\textsuperscript{200} Although full-body scanners make entering the sterile areas of airports with contraband more difficult, they pose grave danger to individual privacy. A prudent weighing of such factors is necessary to determine what constitutes reasonable use of full-body scanners. In light of these considerations, the TSA should not use full-body scanners unless a TSO has individualized suspicion that a passenger is carrying contraband that poses a threat to air security.\textsuperscript{201}

\textsuperscript{197} See 464 F.2d 667, 672-73 (2d Cir. 1972).

\textsuperscript{198} Id. at 676 (Mansfield, J., concurring).

\textsuperscript{199} See supra Parts V.C-D.

\textsuperscript{200} United States v. Davis, 482 F.2d 893, 910 (9th Cir. 1973), abrogated by United States v. Aukai, 497 F.3d 955 (9th Cir. 1973) (en banc); see supra Part V.B.

\textsuperscript{201} See United States v. Cyzewski, 484 F.2d 509, 513 (5th Cir. 1973) (“Airport security measures are reasonable . . . insofar as they permit government agents to determine
[53] The Fourth Circuit’s decision in *Epperson* provides an appropriate starting point for analyzing what role, if any, full-body scanners should play in counterterrorism efforts. Notwithstanding the *Epperson* court’s approval of suspicionless magnetometer searches, the court recognized that the reasonableness of a governmental search depends upon the degree of intrusiveness of the governmental action. Therefore, just as a frisk of a person on the street requires a greater degree of individualized suspicion (reasonable suspicion) than a less intrusive magnetometer search on an airline ticketholder (no suspicion), a highly invasive full-body scan on an airline passenger must require an even greater degree of individualized suspicion. Considering the intrusiveness of full-body scans, courts should require probable cause as the level of individualized suspicion.

[54] Although requiring probable cause to conduct a full-body scan forecloses the use of full-body scanners for suspicionless primary screening, it neither unduly hinders the TSA’s counterterrorism efforts nor prevents the use of full-body devices. While an absolute definition of probable cause is elusive, the theory underpinning the various definitions “is a reasonable ground for belief of guilt.” Thus, the TSA whether a suspect presents an immediate danger to air commerce.”). Like a *Terry* stop, the justification for the intrusion is danger, and the TSO may not extend the search beyond what is necessary to ensure safety. See *id*. Preflight screening has demonstrated an uncanny propensity for discovering illegal narcotics. See generally *Aukai*, 497 F.3d at 958; United States v. Edwards, 498 F.2d at 499; United States v. Skipwith, 482 F.2d 1272, 1274 (5th Cir. 1973); *Cyzewski*, 484 F.2d at 510; *Bell*, 464 F.2d at 669; United States v. Slocum, 464 F.2d 1180, 1181 (3d Cir. 1972).


203 See *id*.

204 See *Terry v. Ohio*, 392 U.S. 1, 27 (1968).


206 See CLANCY, supra note 113, at 475-76 (citing Ornelas v. United States, 517 U.S. 690, 695 (1996) (“Articulating precisely what ‘reasonable suspicion’ and ‘probable cause’ mean is not possible.”)).

may subject a person attempting to board an aircraft to a full-body scan “where ‘the facts and circumstances within [a TSO’s] knowledge and of which [the TSO] had reasonably trustworthy information [are] sufficient in themselves to warrant a man of reasonable caution in the belief that’ an offense has been or is being committed.” Furthermore, depending on the particular circumstances, a passenger required to undergo primary screening might, in the course of such screening, produce sufficient evidence to “warrant . . . the belief that an offense has been or is being committed.”

[55] Additionally, to comply with the Fourth Amendment, courts should require TSOs to exhaust less intrusive screening methods before resorting to a full-body scan. While no clear judicial mandate exists requiring that TSOs exhaust less intrusive means, courts consistently include the non-intrusiveness of magnetometers as a factor in determining the reasonable use of such devices for preflight searches. Reciprocally, the highly intrusive nature of full-body scans should render them unreasonable when conducted without individualized suspicion or before exhausting less intrusive measures.

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208 Id. at 175-76 (third alteration in original) (citing Carroll v. United States, 267 U.S. 132, 162 (1925)).

209 Airport security may impose secondary screening because a passenger failed primary screening or because the passenger caught the attention of a BDO. See supra Part III.B.

210 Brinegar, 338 U.S. at 175-76 (internal quotations omitted) (citing Carroll v. United States, 267 U.S. 132, 162 (1925)). The suspected offense would be violation of 49 C.F.R. § 1540.105(a)(2) (prohibiting any attempt to “[e]nter . . . a secured . . . or sterile area without complying with the systems, measures, or procedures being applied to control access to, or presence or movement in, such areas.”).

211 See United States v. Albarado, 495 F.2d 799, 808 (2d Cir. 1974) (“[T]he rule is easy to state: exhaust the other efficient and available means, if any, by which to discover the location and identity of the metal activating the magnetometer before utilizing the frisk.”).

212 See United States v. Slocum, 464 F.2d 1180, 1182 (3d Cir. 1972) (citing United States v. Epperson, 454 F.2d 769, 771 (4th Cir. 1972)).
As the Second Circuit noted in *Albarado*, “the public does have the expectation, or at least under our Constitution the right to expect, that no matter the threat, the search to counter it will be as limited as possible, consistent with meeting the threat.” It is one thing to subject a person to a minimally intrusive magnetometer search for attempting to board a plane, but as the Supreme Court recognized in *Sitz*, the justification for the initial intrusion does not extend to any additional searches stemming from the initial intrusion. By analogy, the reasonableness of a suspicionless magnetometer search does not make a pat-down reasonable, absent independent justification. Extending this reasoning down the chain of preflight screening methods, the reasonableness of a pat-down has no bearing on the reasonableness of a subsequent strip search or full-body scan. Ultimately, each intrusion must stand on its own reasonableness justifications.

Unlike arrestees, prisoners, and schoolchildren, airline ticketholders should retain full Fourth Amendment protection. It strains credulity to argue that citizens surrender full constitutional protection by seeking to board an aircraft; and as such, courts should not analogize preflight screening to searches of schoolchildren or persons in custody. The awareness of ticket purchasers that some manner of screening may occur does not exempt the TSA from normal Fourth Amendment requirements. Even savvy frequent fliers “have the expectation, or at least under our Constitution the right to expect, that no matter the threat,

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213 *Albarado*, 495 F.2d at 806.

214 See *Sitz v. Mich. Dep’t of State Police*, 496 U.S. 444, 450-51 (1990); see also *Albarado*, 495 F.2d at 808 (“At the outset it should be noted that any further investigation after activation of the magnetometer is for the metal which did the activation; activating the magnetometer is not a general license to search for anything.”).

215 See *Slocum*, 464 F.2d at 1183 (considering the reasonableness of a magnetometer search as well as the reasonableness of a subsequent search of a passenger’s bag after the passenger failed the magnetometer search).

216 See supra notes 45-52 and accompanying text.

217 See *Albarado*, 495 F.2d at 806.
the search to counter it will be as limited as possible, consistent with meeting the threat.\textsuperscript{218}

VII. CONCLUSION

[58] The deployment of full-body scanners in airports throughout the United States poses a great threat to passenger privacy. Although courts agree that suspicionless preflight magnetometer searches are reasonable under the Fourth Amendment, there is no agreed-upon standard for making this determination. Nevertheless, a theme has developed that magnetometer searches are reasonable because they are minimally intrusive and prevent grave danger.\textsuperscript{219} However, the advent of preflight full-body scans renders this paradigm insufficient to preserve passengers’ Fourth Amendment protections.

[59] The looming possibility that full-body scans will become mandatory for all or some passengers demands an assessment of the amount of privacy the Fourth Amendment guarantees in airports. The use of full-body scanners to conduct suspicionless searches in airports is repugnant to the fundamental values protected under the Fourth Amendment. For airline ticketholders to have any meaningful Fourth Amendment protection, use of full-body scanners should be prohibited unless there is probable cause to believe a particular passenger possesses contraband that poses a threat to airline security. A probable cause requirement would not upset the TSA’s current screening system or unduly burden the TSA’s counterterrorism efforts. Additionally, it would not overrule preflight screening precedent regarding substantially less invasive magnetometer searches. Finally, requiring probable cause for full-body scans remains in accord with Fourth Amendment jurisprudence,

\textsuperscript{218} Id.

\textsuperscript{219} See \textit{Slocum}, 464 F.2d at 1182 (“[U]se of the magnetometer \textit{per se} is justified by a reasonable governmental interest in protecting national air commerce.”); \textit{Epperson}, 454 F.2d at 771 (“We think the search for the sole purpose of discovering weapons and preventing air piracy . . . fully justified the minimal invasion of personal privacy by magnetometer.”); \textit{see also Albarado}, 495 F.2d at 803-804 (acknowledging that magnetometer searches constitute an exception to the usual warrant requirement).
which correlates the permissible degree of intrusion with the level of suspicion aroused by the individual being searched.\textsuperscript{220}

\textsuperscript{220} See, \textit{e.g.}, City of Indianapolis v. Edmond, 531 U.S. 32, 42 (2000).