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Volume 41

Number 1 *Symposium—Commercial Speech:
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Shiffrin*

Article 19

9-1-2007

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Sara Kornblatt

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Sara Kornblatt, *Are Emerging Technologies in Airport Passenger Screening Reasonable under the Fourth Amendment*, 41 Loy. L.A. L. Rev. 385 (2007).

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ARE EMERGING TECHNOLOGIES IN AIRPORT PASSENGER SCREENING REASONABLE UNDER THE FOURTH AMENDMENT?

*Sara Kornblatt**

I. INTRODUCTION

September 11, 2001 ushered in a new era in a multitude of ways. At the forefront is the issue of airport security and passenger screening. The United States faces the task of protecting our citizens, our buildings, our skies, and our country from another attack similar to that harrowing day that changed America forever. Technologies have emerged to help thwart a future strike. Airports across the nation have started to implement some of these technologies. Americans now may be subject to “backscatter x-rays”¹ and “explosive trace portals”² prior to boarding aircraft at our nation’s airports. These tools present a tenuous balancing act between the need for national security and citizens’ constitutional rights against warrantless searches and seizures as afforded by the Fourth Amendment.

The Fourth Amendment protects against unreasonable searches and seizures.³ What amounts to “unreasonable” is the ultimate question. This note will examine modern society’s definition of “unreasonable” as it relates to the limits placed on technology by the

* J.D. Candidate, May 2008, Loyola Law School, Los Angeles; B.A., Graphic Design, Wittenberg University. My great appreciation to Professors Susan Smith Bakhshian and John Nockleby for their thoughtful input, all of the editors and staff of Loyola of Los Angeles Law Review for their hard work, and my family for their unwavering support.

1. Backscatter x-rays are an emerging passenger screening technology, which can produce an image of a person’s body and the objects they are carrying underneath their clothing. *See infra* Part II.D.

2. Explosive trace portals are machines used to detect trace amounts of elements used in explosives emanating from a passenger’s body or clothing. *See infra* Part II.C.

3. U.S. CONST. amend. IV.

Fourth Amendment. This note will also scrutinize two specific airport passenger screening technologies and where they fall on the reasonableness scale. While the answer may be that our Fourth Amendment protections are impacted by these technologies, this note will also look at whether the definition of "unreasonable" has been affected by a climate of fear; thus, what may have seemed unreasonable before September 11th may now be deemed reasonable. In addition, this note will examine search methods that filter into general society once they become ubiquitous in airports. Part II will explore the evolution of airport passenger screening. Part III will trace the evolution of the Fourth Amendment through case law and the "special needs" doctrine as it relates to passenger screening. Part IV will apply current law to the current and emerging screening technologies and will analyze their constitutionality. Ultimately, this note will argue that while backscatter x-rays and explosive trace portals are useful *secondary* screening tools, they are unreasonable searches when used for *primary* passenger screening. Finally, Part V will present a possible resolution to the dilemma created by our need for security and our desire for privacy yet will conclude that certain technology may remain too invasive to be labeled reasonable.

II. THE EVOLUTION OF PASSENGER SCREENING TECHNOLOGY

A. Background and Purpose

Airline passenger screening originated as a preventative tool against airline hijackings during the late 1960s and early 1970s.⁴ On September 11, 1970, a date that is eerily coincidental, President Nixon set forth a plan to combat airplane hijacking.⁵ The program required the airlines to develop inspection methods and install surveillance equipment at all appropriate U.S. airports.⁶ As a result, the Federal Aviation Administration (FAA) established the Anti-Hijacking program.⁷ U.S. airlines worked with the Departments of

4. COMM. ON COMMERCIAL AVIATION SEC. ET AL., AIRLINE PASSENGER SECURITY SCREENING: NEW TECHNOLOGIES AND IMPLEMENTATION ISSUES 1, 6 (1996).

5. *Id.* at 6.

6. *Id.*

7. *Id.*

Defense and Transportation to ascertain whether military x-ray machines and metal detectors could help prevent hijackings.⁸

The FAA issued a rule on February 1, 1972, dictating that air carriers must screen all passengers using behavioral profiling, magnetometers, identification checks, physical searches, or some combination of these systems.⁹ Unfortunately, hijackings did not abate; on December 5, 1972, the FAA announced emergency rules mandating screening of all passengers and carry-on baggage for passenger flights.¹⁰ This program required airlines to implement security systems that would prevent passengers from bringing weapons, explosives, and incendiary devices onto an airplane.¹¹ The primary focus of these screenings was, and continues today to be, metallic objects.¹² However, as turmoil throughout the world increased and U.S. airlines became even more attractive to international terrorists, the FAA recognized the need to expand airport screening systems.¹³ The capacity to detect different types of metals, as well as plastic explosives and other threatening materials, has become a necessity.¹⁴

B. Magnetometers (Metal Detectors)

A magnetometer is an electronic metal detector resembling a door frame.¹⁵ A person who walks through the portal passes through a magnetic field, activating a warning light or signal.¹⁶ Metal detection portals produce a magnetic field that generates eddy currents in metallic or ferromagnetic objects that pass through the portal.¹⁷ If a passenger carries metal through the portal in an amount equal to or greater than the calibration of the detector, eddy currents are created.¹⁸ When the eddy currents are detected, an alarm sounds

8. *Id.*

9. *Id.*

10. *Id.*

11. *Id.*

12. *Id.*

13. *See id.*

14. *Id.*

15. *Gibson v. State*, 921 S.W.2d 747, 752 n.1 (Tex. App. 1996).

16. *Gibson*, 921 S.W.2d at 751–52.

17. COMM. ON COMMERCIAL AVIATION SEC. ET AL., *supra* note 4, at 13.

18. *Id.*

and screening personnel step in to determine if in fact a dangerous object or weapon is present.¹⁹

The science behind the operation of the magnetometer is built upon the fact that a magnetic field, made up of lines of flux, encircles the earth.²⁰ Since steel and other ferromagnetic metals conduct better than air, metal will bend the flux lines as the lines seek the path of least resistance by passing through the metal rather than the air.²¹ When distortions happen near a “fluxgate magnetometer,” a signal is created which can detect the magnetic disturbances.²²

C. Trace Detection Technologies

Trace detection entails inferring the presence of explosives or other dangerous substances from air or material samples physically collected from bodies or clothing.²³ As of September 2006, thirty-seven U.S. airports utilized trace detection machines known as “puffers.”²⁴ A puffer is a tall, transparent tube that a person steps into.²⁵ Rapid blasts of air (“not quite enough to ruffle the hair”²⁶) dislodge trace particles from the person’s skin and clothes, sucking them into a filter to be instantly analyzed to determine if that person has been in the presence of explosives or narcotics.²⁷ The entire process takes approximately fifteen seconds.²⁸ Currently, this technology is only being used by the Transportation Security Administration (“TSA”) as a secondary inspection for passengers selected for further screening.²⁹

19. *Id.*

20. *Lopez*, 328 F. Supp. at 1085.

21. *Id.*

22. *Id.*

23. COMM. ON COMMERCIAL AVIATION SEC. ET AL., *supra* note 4, at 4, 16–19.

24. Scott Lindlaw, *Airport Screening Technology Developed*, AP ONLINE, 9/8/06 APWIRE 21:24:07 (Westlaw).

25. *Id.*

26. *Id.*

27. *Airport Screening Technology: Full Exposure*, ECONOMIST, Aug. 19, 2006, at 21; *see also* Lindlaw, *supra* note 24.

28. Eric Lipton, *Screening Tools Slow to Arrive in U.S.*, N.Y. TIMES, Sept. 3, 2006, at 22. Puffers were developed by Sandia National Laboratories in 1997 and are manufactured by General Electric and Smiths Detection. *Id.* They are the only machines that automatically examine a person from head to toe for residue from explosives. *Id.*

29. Alex Halperin, *Airport Security Goes High-Tech*, BUS. WK., Aug. 10, 2006, available at http://www.businessweek.com/technology/content/aug2006/tc20060810_208055.htm.

There is some concern that puffers could produce false-positives, which would slow down airport screening lines if the machines were used as a primary screening tool.³⁰ For example, fertilizer can be used as a bomb ingredient, and someone who spread fertilizer on a lawn and went to the airport without changing shoes would be identified by the puffer as having residue from explosive materials.³¹ Another drawback to using puffers for primary screening is that they cannot detect liquid explosives, which are attractive to terrorists, as recent events demonstrated.³²

D. Imaging Technologies

The U.S. Department of Homeland Security ("Homeland Security") found that airport screeners using magnetometers (metal detection portals, discussed above) performed terribly when attempting to identify weapons in carry-on baggage or hidden on people's bodies.³³ These poor field test results are Homeland Security's justification for using "backscatter" x-rays.³⁴

"Imaging technologies can *see through* clothes and produce an image of the human body underneath."³⁵ Active imaging analyzes radiation which is scattered when the body is irradiated with x-rays.³⁶ The process is simple. A person stands in front of a large box and a very low power x-ray beam sweeps across the body.³⁷ Using three-dimensional imaging, a computer converts the data into a picture of the person on a monitor.³⁸ Objects that scatter or give off radiation in a different manner than the human body will look distinctive in the image.³⁹ "Reflective" or backscatter x-rays can see objects that a metal detector may miss, such as those made from ceramics and

30. *Id.*

31. *Id.*

32. *See* Lipton, *supra* note 28.

33. Joe Sharkey, *On the Road: Airport Screeners Could Get X-Rated X-Ray Views*, N.Y. TIMES, May 24, 2005, at C5.

34. *Id.*

35. COMMITTEE ON COMMERCIAL AVIATION SECURITY ET AL., *supra* note 4, at 3.

36. *Id.*

37. Fred Reed, *Scanner Virtually Disrobes Passenger*, WASH. TIMES, May 22, 2003, available at <http://www.washtimes.com/business/20030521-094809-8963r.htm>.

38. *Id.*

39. COMMITTEE ON COMMERCIAL AVIATION SECURITY ET AL., *supra* note 4, at 3.

plastics.⁴⁰ These x-rays have been proven to be safe, penetrating a mere 1/10th of an inch into the skin.⁴¹ In less than eight seconds, the scan is complete, and no pat-down has to be performed.⁴²

However, as helpful as this technology may be in detecting illicit materials, it also produces a problem many see as equally disturbing.⁴³ "The pictures are of near-pornographic quality. . . . It amounts to a black-and-white strip search."⁴⁴ Appearing in the image are not only concealed weapons, explosives, wallets, and coins but also rolls of fat, the size of breasts and genitals, and catheter tubes.⁴⁵ Filters have been created to blur the genital area in response to arguments that the images are too intrusive.⁴⁶ "Cloaking" software has also been developed which converts the images into "something resembling a generic chalk outline of the body, identifying plastic, ceramic, biological and other nonmetallic and metallic objects on the body."⁴⁷ Manufacturers of the backscatter machines recognize that cloaking may reduce detection power, but this limitation may be a trade-off that is required in order to balance security and privacy issues.⁴⁸

40. Airport Screening Technology: Full Exposure, *supra* note 27.

41. Reed, *supra* note 37. The amount of radiation from a backscatter x-ray amounts to less than three microrrem, which "is so low that a passenger would have to go through the screening portal approximately 1,000 times to receive the same radiation dose as would be received from cosmic ray exposure at high altitude during one transcontinental flight from New York to Los Angeles." COMMITTEE ON COMMERCIAL AVIATION SECURITY ET AL., *supra* note 4, at 31. "A person would have to be scanned with backscatter approximately 80,000 times merely to receive the amount of radiation contained in one dental X-ray." Michael C. Murphy & Michael R. Wilds, *X-Rated X-Ray Invades Privacy Rights*, 12 CRIM. JUST. POL'Y REV. 333, 338 (2001).

42. Reed, *supra* note 37.

43. *Id.*

44. *Id.*

45. *Id.*; AM. CIVIL LIBERTIES UNION, AIRPORT SECURITY: INCREASED SAFETY NEED NOT COME AT THE EXPENSE OF CIVIL LIBERTIES (2002), <http://www.aclu.org/safefree/resources/16748res20020612.html>.

46. Airport Screening Technology: Full Exposure, *supra* note 27.

47. Austin Considine, *Will New Airport X-Rays Invade Privacy?*, N.Y. TIMES, Oct. 9, 2005, at 3.

48. *Id.* The two companies that manufacture the backscatter technology are Rapiscan Systems, a division of OSI Systems, and American Science and Engineering. *Id.*

III. EVOLUTION OF THE LAW

A. *The Fourth Amendment*

The Fourth Amendment provides 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.”⁴⁹

The question, of course, is what do those words actually mean in an airport? The following section will examine how the courts have construed the Fourth Amendment with regard to airport passenger screening. Next, a few detailed interpretations of the Fourth Amendment’s requirements such as the expectation of privacy and reasonableness will be discussed. Finally, the special needs doctrine will be introduced. This principle will be further analyzed in Part IV where the Fourth Amendment will be applied to the two emerging passenger screening technologies discussed in Part II.

B. *Case Law*

The courts first must determine whether something constitutes a search. If there is no search, Fourth Amendment protections do not apply.⁵⁰

1. Expectation of Privacy

Katz v. United States is a landmark Fourth Amendment case.⁵¹ While the case had no connection to airports, it is the starting point for this article’s analysis because of its discussion of privacy, search and seizure, and governmental action.⁵² The U.S. Supreme Court’s 1967 opinion presents a threshold test for determining whether the Fourth Amendment applies to a particular intrusion.⁵³

49. U.S. CONST. amend. IV.

50. See generally *Katz v. United States*, 389 U.S. 347, 360–62 (1967) (Harlan, J., concurring) (establishing a two-prong reasonableness test for determining whether a Fourth Amendment search has occurred).

51. *Id.*

52. *Id.* The defendant was convicted of violating a statute prohibiting bets via wire. See *id.* at 359. The Court had to determine whether the defendant’s privacy had been violated when the government listened to and recorded the defendant’s telephone conversation in a public telephone booth. *Id.* at 348. Holding that because the defendant had justifiably relied upon his privacy, the government’s actions amounted to an unconstitutional search and seizure. *Id.* at 353.

53. *Id.*

Justice Stewart wrote for the majority and stated that the Fourth Amendment does not extend to things a person knowingly and publicly reveals.⁵⁴ On the other hand, the Fourth Amendment may protect something a person tries to keep private, even in a public area.⁵⁵ Justice Harlan's concurrence expands upon what protection the Fourth Amendment provides to people, stating: "there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.'"⁵⁶ Harlan's test has since been adopted by the Supreme Court as the method of determining what constitutes a search, triggering protection by the Fourth Amendment.⁵⁷

2. Administrative Searches and Consent

"[S]earch[es] of public or commercial premises carried out by a regulatory authority for the purpose of enforcing compliance with health, safety, or security regulations" are deemed administrative searches.⁵⁸ Private searches are those "conducted by a private person rather than by a law-enforcement officer."⁵⁹ The issue of consent and how it relates to the general public's awareness of airport screening procedures is a concept important to the analysis of whether emerging technologies are reasonable searches and whether they will be barred by the Fourth Amendment. The language of the Fourth Amendment requires "probable cause" prior to a search.⁶⁰ Probable cause relates to the likelihood, not certainty, of the existence of criminal activity.⁶¹ Administrative searches are an exception to the

54. *Id.* at 351.

55. *Id.* The Court stated that making a phone call from a glass telephone booth where he could be seen did not cause the defendant to believe his words would also be heard. "To read the Constitution more narrowly is to ignore the vital role that the public telephone has come to play in private communication." *Id.* at 352.

56. *Id.* at 361.

57. *See* *Kyllo v. United States*, 533 U.S. 27, 33 (2001) ("[A] Fourth Amendment search occurs when the government violates a subjective expectation of privacy that society recognizes as reasonable." (citing *Katz v. United States*, 389 U.S. 347, 361 (1967))).

58. BLACK'S LAW DICTIONARY 1378 (8th ed. 2004).

59. *Id.*

60. *See* U.S. CONST. amend. IV.

61. *Spinelli v. United States*, 393 U.S. 410, 419 (1969).

Fourth Amendment's requirement for a warrant based on probable cause, but they remain subject to the requirement of reasonableness.⁶²

The 1973 Ninth Circuit decision in *United States v. Davis* concerned a defendant who was convicted of trying to board an airplane with a loaded gun in his briefcase.⁶³ The Court held that even if the search of the defendant's briefcase was conducted by a private employee of the airline, the search was state action⁶⁴ for purposes of the Fourth Amendment because the search was part of the national anti-hijacking effort instituted in 1972.⁶⁵ The Court stated that evaluation of airport searches should be conducted using standards related to "administrative" searches.⁶⁶ Administrative searches are not carried out to gather evidence as part of a criminal investigation.⁶⁷ Rather, administrative searches are performed "as part of a general regulatory scheme in furtherance of an administrative purpose."⁶⁸ The Court explained that airline passenger screening is part of a general regulatory scheme, in furtherance of the administrative purpose of preventing weapons or explosives from being carried on to airplanes, in order to prevent hijackings.⁶⁹

To be valid, administrative searches must meet the standard of reasonableness as required by the Fourth Amendment.⁷⁰ To be reasonable, a passenger "screening search must be as limited in its intrusiveness as is consistent with satisfaction of the administrative need that justifies it."⁷¹ Consequently, valid passenger screening

62. *United States v. Davis*, 482 F.2d 893, 908–10 (9th Cir. 1973).

63. *Id.* at 895.

64. State action is "[a]nything done by a government; esp., in constitutional law, an intrusion on a person's rights (esp. civil rights) either by a governmental entity or by a private requirement that can be enforced only by governmental action." BLACK'S LAW DICTIONARY 1444 (8th ed. 2004).

65. *Davis*, 482 F.2d at 903–04.

66. *Id.* at 908.

67. *Id.*

68. *Id.*

69. *Id.* The Court went on to explain that the essential purpose of the regulatory scheme is to discourage people from carrying weapons or explosives on to airplanes, not to actually discover those materials and arrest people carrying them. *Id.* Further, if passenger screening devolves into general searches for evidence of crimes, courts will have to exclude any evidence obtained from those searches. *Id.* at 909.

70. *Id.* at 910.

71. *Id.* "The scope of the search must be 'strictly tied to and justified by' the circumstances which rendered its initiation permissible." *Id.* (quoting *Terry v. Ohio*, 392 U.S. 1 (1968)). *Terry*

searches at airports must acknowledge a person's right to decide not to board an airplane and therefore not be subject to the search.⁷² The Court utilized the issue of consent as the measurement of whether the search was prohibited by the Fourth Amendment.⁷³ A person has the choice, as a matter of constitutional law, to submit to a search of her person and carry-on baggage, as a condition to boarding an airplane, or to leave.⁷⁴ The passenger's choice can be seen as either a decision to give up the right to leave or a decision to submit to the search.⁷⁵ Either way, the choice is seen as "a 'consent,' granting the government a license to do what it would otherwise be barred from doing by the Fourth Amendment."⁷⁶ This consent must be voluntary.⁷⁷ The Court suggested that airports make the options available to passengers approaching screening areas so obvious that someone who decides to board an airplane has consented to the screening.⁷⁸ However, at the time the incident at issue occurred, in 1971, "[t]he nature and scope of airport searches were not then widely known."⁷⁹ Therefore, without clear notice of the choice to be screened or not board the airplane, attempting to board the airplane was not necessarily consent.⁸⁰

Passenger consent to airport screening searches and the general population's awareness of the forms of screening procedures employed at airports are critical components of the analysis of whether the Fourth Amendment will permit or prevent the use of emerging screening technologies. Both consent and awareness are

frisks, as they have come to be known, allow police to pat down a person who has been legitimately stopped if the police have reason to believe the person is armed and dangerous. *Terry v. Ohio*, 392 U.S. 1 (1968). The justification for this frisk is that the police are allowed to protect themselves while questioning a person about possible criminal activity. *Id.* *Terry* frisks are therefore not extended to encompass airport screening searches because that "would result in intrusions upon privacy unwarranted by the need." *Davis*, 482 F.2d at 907. "There is no reason to believe that the incidence of concealed weapons is greater among airline passengers than among members of the public generally, and *Terry* does not justify the wholesale 'frisking' of the general public in order to locate weapons and prevent future crimes." *Id.* at 907-08.

72. *Davis*, 482 F.2d at 910-11.

73. *Id.* at 913.

74. *Id.*

75. *Id.*

76. *Id.*

77. *Id.* at 913-14 (discussing *Schneckloth v. Bustamonte*, 412 U.S. 218 (1973)).

78. *Id.* at 914.

79. *Id.*

80. *Id.*

aspects of reasonableness. The more the public knows about newer technologies and the more the public accepts their use, the greater the likelihood the technologies will be deemed reasonable searches under the Fourth Amendment.

3. Danger Satisfies Reasonableness Test

As demonstrated throughout this article, determining reasonableness is the crux of the Fourth Amendment search issue. In 1973, the Fifth Circuit decided that some situations present a level of danger such that the reasonableness test is per se satisfied.⁸¹

Lee Skipwith III was convicted of cocaine possession after an airport screening search revealed drugs, but not weapons.⁸² In *United States v. Skipwith*, the Fifth Circuit affirmed the Middle District of Florida, holding that the search was constitutional.⁸³ The Court found that a balance must be struck between the harm and the need to determine what is reasonable.⁸⁴ “When the risk is the jeopardy to hundreds of human lives and millions of dollars of property inherent in the pirating or blowing up of a large airplane, the danger *alone* meets the test of reasonableness.”⁸⁵

The *Skipwith* Court expanded on *United States v. Moreno*⁸⁶ by holding that “those who actually present themselves for boarding on an air carrier, like those seeking entrance into the country, are subject to a search based on mere or unsupported suspicion.”⁸⁷ The Court analogized the difference between the main airport and the boarding gate to the difference between the borders of the country and the interior of the country.⁸⁸

The defendant also unsuccessfully argued that the search he was subjected to was too broad in scope: that the search was

81. *United States v. Skipwith*, 482 F.2d 1272 (5th Cir. 1973).

82. *Id.*

83. *Id.* The drugs were also held to be properly admitted into evidence at trial. *Id.* This line of inquiry is outside the scope of this article.

84. *Id.* at 1276.

85. *Id.* The Court further explained that the search must have a reasonable scope, must be conducted in good faith in order to prevent hijacking, and the passenger must have received advance notice of the search in such a manner that he could avoid the search by opting not to fly. *Id.*

86. 475 F.2d 44 (5th Cir. 1973) (holding that reasonableness should be determined on a case-by-case basis for searches of people in the general airport area).

87. *Skipwith*, 482 F.2d at 1276.

88. *Id.* at 1276–77.

constitutionally limited to a frisk for weapons and he should not have been required to empty his pockets.⁸⁹ Noting that “[t]he range and variety of devices real and simulated which can be used to intimidate the crew of an aircraft when it is aloft are almost limitless[,]” the Court found that the officer “was justified in undertaking a search with sufficient scope to reveal any object or instrumentality that Skipwith could reasonably have used to effect an act of air piracy.”⁹⁰

The amount of danger posed to the public by a person who seeks to blow up an airplane, coupled with the concept of airport boarding gates as analogous to our nation’s borders, has created a situation in the United States where courts may view passenger airport screening searches as virtually per se reasonable. The important issue for emerging screening technologies is whether factors unique to those technologies make the reasonableness of their use less certain.

4. Magnetometers are Administrative Searches

A section of the *Gibson v. State*⁹¹ decision addressed whether the defendant was subjected to unlawful restraint by being required to pass through a metal detector before entering a courthouse.⁹² This part of the opinion traces the evolution of case law related to the Fourth Amendment, administrative searches, and airport searches.⁹³

Gibson was a Texas attorney who petitioned for a writ of habeas corpus alleging that his liberty was restrained by the Sheriff of El Paso County, who had required that Gibson walk through a metal detector and pass his belongings through an x-ray machine, similar to the requirements in airports, before being allowed to enter the courthouse.⁹⁴ The Court restated the long-standing finding that “[t]he use of a magnetometer is a ‘search’ within the meaning of the Fourth Amendment.”⁹⁵ The Court explained that only unreasonable

89. *Id.* at 1277. The officer asked Skipwith to empty his pockets once he noticed a three inch by two inch bulge in his pants pocket, after discovering he was traveling under a false name, and after noticing that the defendant was very nervous and appeared to be under the influence of drugs or alcohol. *Id.* at 1273–74. The officer later testified that he believed the bulge was a gun, although it turned out to be a plastic bag containing cocaine. *Id.* at 1274.

90. *Id.* at 1277. The court went on to find that the three inch by two inch pocket bulge clearly fell within the limit of such a search. *Id.*

91. 921 S.W.2d 747 (Tex. App. 1996).

92. *Id.* at 756.

93. *Id.* at 756–59.

94. *Id.* at 751–52.

95. *Id.* at 757 (citing *United States v. Epperson*, 454 F.2d 769, 770 (4th Cir. 1972)).

searches and seizures are forbidden by the Constitution and that “[w]arrantless searches are per se unreasonable unless the search falls within one of ‘a few specifically established and well-delineated exceptions.’”⁹⁶

The courthouse magnetometer search was a warrantless search, the reasonableness of which must be determined by weighing the governmental interest against the invasion of privacy caused by the search.⁹⁷ As the Court analyzed the reasonableness of the situation at hand, it evaluated prior decisions that related to magnetometer searches at airports.⁹⁸ The Court determined that the proper standard to be used to assess magnetometer searches is that of the administrative search because at its heart, an administrative search is not conducted to gather evidence as part of a criminal investigation, but rather is performed as part of a general regulatory scheme in furtherance of an administrative purpose.⁹⁹

5. Avoiding Airport Screening Searches by Electing Not to Fly

The main airport area has been distinguished from the boarding gate area.¹⁰⁰ Airport screening searches are not conducted until a person wishes to move into the boarding gate area. Since September 11, 2001, only ticketed passengers are allowed to pass through to the boarding gates.¹⁰¹ The question of specifically when a person can change her mind about whether to be screened and to fly was addressed in *Torbet v. United Airlines, Inc.*¹⁰²

At a Los Angeles International Airport security checkpoint, Hugo Torbet walked through the metal detector and sent his carry-on bag through the x-ray scanner.¹⁰³ Torbet’s bag was selected for a

96. *Gibson*, 921 S.W.2d at 757 (quoting *Katz v. United States*, 389 U.S. 347, 357 (1967)).

97. *Id.* “The search must be ‘justified at its inception’ and ‘reasonably related in scope to the circumstances which justified the interference in the first place.’” *Id.* (quoting *Terry v. Ohio*, 392 U.S. 1, 20 (1968)).

98. *Id.* at 757–59.

99. *Id.* at 757–58. *See supra* Part III.B.2.

100. *See supra* Part III.B.3.

101. Each airline may make exceptions for minors traveling alone, the elderly, or those with physical challenges. FlyDenver.com, Frequently Asked Questions About Security Procedures, <http://www.flydenver.com/guide/tips/security.asp> (last visited Oct. 7, 2007).

102. 298 F.3d 1087 (9th Cir. 2002). *But see United States v. Aukai*, No. 04-10226, 2007 WL 2283585, at *5 (9th Cir. Aug. 10, 2007); *infra* note 111.

103. *Id.* at 1088.

random search, but he refused to consent or agree.¹⁰⁴ Torbet declared that he wished to leave the airport rather than consent to the search but was told by a police officer (who had been called for by security personnel) that he could not leave until his bag was searched.¹⁰⁵ Nothing of significance was found in the search, and Torbet continued on to his flight.¹⁰⁶

Torbet later sued on a number of grounds, challenging “the policy that bags be subject to random search without reasonable suspicion that the bags contain weapons or explosives.”¹⁰⁷ The District Court found for the defendants.¹⁰⁸ Torbet appealed on only one of his claims, arguing “that random post-x-ray searches are facially invalid, in the absence of express consent, unless the x-ray scan arouses suspicion.”¹⁰⁹

The Ninth Circuit disagreed, stating that under *Davis*,¹¹⁰ screening procedures at airports must be reasonable to comply with the Fourth Amendment.¹¹¹ “An airport screening search is reasonable if: (1) it is no more extensive or intensive than necessary, in light of current technology, to detect weapons or explosives; (2) it is confined in good faith to that purpose; and (3) passengers may avoid the search by electing not to fly.”¹¹² The passenger’s choice not to fly must occur before she puts luggage on the x-ray conveyor.¹¹³ The Court then held that by putting his bag on the x-ray conveyor belt, Torbet impliedly consented to the random search.¹¹⁴

104. *Id.*

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.* at 1089.

109. *Id.*

110. *United States v. Davis*, 482 F.2d 893 (9th Cir. 1973). *But see United States v. Aukai*, No. 04-10226, 2007 WL 2283585, at *5 (9th Cir. Aug. 10, 2007); *infra* note 111.

111. *Torbet*, 298 F.3d at 1089 (discussing *Davis*, 482 F.2d at 904, 910).

112. *Id.* (citing *Davis*, 482 F.2d at 913).

113. *Id.* (citing *United States v. Pulido-Baquerizo*, 800 F.2d 899, 901–02 (9th Cir. 1986)).

114. *Id.* “[P]assengers placing luggage on an x-ray machine’s conveyor belt for airplane travel at a secured boarding area impliedly consent to a visual inspection and limited hand search of their luggage if the x-ray scan is inconclusive in determining whether the luggage contains weapons or other dangerous objects.” *Id.* (quoting *Pulido-Baquerizo*, 800 F.2d at 901). On August 10, 2007, the Ninth Circuit clarified its position on consent and essentially overruled the holdings of *Davis* and *Torbet* in *United States v. Aukai*, No. 04-10226, 2007 WL 2283585, at *5 (9th Cir. Aug. 10, 2007). The court stated that “[t]he constitutionality of an airport screening search . . . does not depend on consent . . . and requiring that a potential passenger be allowed to

6. Warrantless, Suspicionless Searches

Christian Hartwell was arrested for possession of crack cocaine after setting off a metal detector at a security checkpoint in the Philadelphia International Airport.¹¹⁵ A hand-held wand magnetometer was subsequently used to determine what had caused the portal detector alarm.¹¹⁶ The parties dispute what transpired next,¹¹⁷ but based on the uncontested facts, both the District Court and Third Circuit held that the search was justified.¹¹⁸

The Third Circuit held that the administrative search doctrine permitted the search and did not evaluate the lower court's alternate theories.¹¹⁹ While a search in the absence of suspicion or

revoke consent to an ongoing airport security search makes little sense in a post-9/11 world.” *Id.* The court further explained that the use of either a theory of ongoing consent, as in *Davis*, or a theory of irrevocable implied consent, as in *Torbet*, does not make sense when consent is not required for the administrative search in the first place. *Id.* “[A]ll that is required is the passenger’s election to attempt entry into the secured area of an airport. Under current TSA regulations and procedures, that election occurs when a prospective passenger walks through the magnetometer or places items on the conveyor belt of the x-ray machine.” *Id.*

115. *United States v. Hartwell*, 436 F.3d 174, 175 (3rd Cir. 2006).

116. *Id.*

117. *Id.* at 176. The defendant claimed he was taken to a private screening room by a Transportation Security Administration agent. *Id.* at 176. The agent repeatedly requested that Hartwell take out what was in his pockets. *Id.* After multiple refusals, the agent reached into the defendant’s pocket, pulled out a package of drugs, and called the Philadelphia police. *Id.* The police then searched the defendant, found two more packages of drugs, and arrested him. *Id.*

In contrast, the government claimed that neither the TSA agent nor the police reached into the defendant’s pocket without consent. *Id.* The agent said that Hartwell requested a private screening and then refused to reveal the contents of his pocket. He then “nervously backed away” from the agent and “suddenly dropped his pants.” *Id.* This behavior caused the agent to call for backup. *Id.* When a police officer arrived, the defendant handed over a package of drugs when prompted to do so. *Id.* Hartwell then pretended to fall on the floor and dropped another drug package. *Id.*

Neither the defendant nor the government disputed that the defendant set off the metal detector. *Id.* at 175. Hartwell did not contest that he was told to remove all metal objects from his body prior to screening or that he was asked multiple times to remove objects from a specific pocket. *Id.* The District Court found the officers’ actions were justified on these facts, regardless of which version of the story was true. *Id.* at 176.

118. *Id.* at 175–76. The District Court held the search was permissible under three theories: 1) the search was not unreasonable, and therefore was constitutional under the Fourth Amendment; 2) the search “was a ‘consensual administrative search’;” and 3) the defendant gave his implied consent to the search when he submitted to the screening process; thus, once the alarm sounded, the defendant was required by law to finish the search to determine what had triggered the alarm. *Id.* at 176 (quoting *United States v. Hartwell*, 296 F.Supp.2d 596, 602 (E.D. Pa. 2003)).

119. See *id.* at 177–78. In this opinion, published on the day he received his commission to be Justice of the United States Supreme Court, Judge Alito noted that airport security screenings prior to boarding a plane are searches. One controversy in this case concerned whether the defendant was subject to multiple searches or one extended search. While there is case law on

wrongdoing is normally unreasonable, the Supreme Court has acknowledged a few circumstances in which this rule is inapplicable.¹²⁰ “These circumstances typically involve administrative searches of ‘closely regulated’ businesses, other so-called ‘special needs’ cases, and suspicionless ‘checkpoint’ searches.”¹²¹ The Court stated that suspicionless searches at checkpoints “are permissible under the Fourth Amendment when a court finds a favorable balance between ‘the gravity of the public concerns served by the seizure, the degree to which the seizure advances the public interest, and the severity of the interference with individual liberty.’”¹²²

The Court then found that the airport checkpoint in this case passed this balancing test.¹²³ First, the Court emphasized the importance of preventing terrorist attacks against airplanes.¹²⁴ Next, the Court found that the public interest is advanced by security checkpoints at airports because without searches, there is no reliable way to determine which passengers may hijack a plane.¹²⁵ Finally, the Court stated that this case involved minimally intrusive search procedures.¹²⁶

Hartwell is significant for several reasons. First, it is quite recent, having been decided on January 31, 2006.¹²⁷ Second, the opinion takes a definitive position on an aspect of screenings that courts have been divided on by stating that the described search was valid under administrative search doctrine.¹²⁸ Third, the Court addressed administrative searches at length and established a test to determine whether such warrantless, suspicionless searches are

both sides of this argument, the Court here followed *Skipwith* and similar cases, which “analyze an entire checkpoint search, including ‘[m]etal detectors, visual inspection, and rare but potential physical searches,’ as a single search.” *Id.* (quoting *United States v. Skipwith*, 482 F.2d 1272, 1275–76 (5th Cir. 1973)).

120. See *Hartwell*, 436 F.3d at 178.

121. *Id.* The special needs doctrine is addressed *infra* Part III.C.

122. *Hartwell*, 436 F.3d at 178–79 (citing *Illinois v. Lidster*, 540 U.S. 419, 427 (2004)).

123. *Id.* at 179.

124. *Id.*

125. *Id.* at 179–80.

126. *Id.* at 180. The Court found that the procedures used “were well-tailored to protect personal privacy, escalating in invasiveness only after a lower level of screening disclosed a reason to conduct a more probing search.” *Id.*

127. *Id.* at 174.

128. *Id.* at 177.

constitutional.¹²⁹ This test will be an important tool for evaluating new security screening technologies. Finally, the opinion was written by then Circuit Judge—but now Supreme Court Justice—Alito,¹³⁰ and his position may give us a glimpse into the future about how the Supreme Court may interpret the Fourth Amendment as it relates to new technologies in airport passenger screening.

C. *The Special Needs Doctrine*

The “special needs” doctrine is an exception to the general rule that warrantless and suspicionless searches are presumed to be unreasonable.¹³¹ This doctrine allows government officials to conduct searches in the absence of any suspicion of criminality in limited circumstances where the purpose of the search is not to gather evidence for the investigation of crime.¹³²

This doctrine originated in Justice Blackmun’s 1985 concurring opinion in *New Jersey v. T.L.O.*¹³³ Blackmun agreed with the majority’s balancing test; however, he noted that “[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.”¹³⁴ The special needs doctrine was embraced in later cases by a majority of the Court as the standard for evaluating whether suspicionless searches are valid.¹³⁵

Recently, the Second Circuit evaluated checkpoint searches at New York City subway stations.¹³⁶ Because the search program was aimed only at detecting explosives and people were free to refuse to be searched if they left the subway, the Court held that protecting the subway from terrorist attack was a special need aside from general

129. *Id.* at 177–81.

130. *Id.* at 174.

131. *Fourth Amendment ‘Special Needs’ Doctrine Justifies Suspicionless Subway Checkpoints*, 75 U.S. L. WK. 1115, 1115 (2006) [hereinafter *Special Needs*].

132. Tracy Maclin, *Is Obtaining an Arrestee’s DNA a Valid Special Needs Search Under the Fourth Amendment? What Should (and Will) the Supreme Court Do?*, 33:1 J.L. MED. & ETHICS 102, 107 (2005); see also *Special Needs*, *supra* note 131, at 1115.

133. 469 U.S. 325 (1985).

134. *Id.* at 351.

135. Maclin, *supra* note 132 at 109.

136. *MacWade v. Kelly*, 460 F.3d 260 (2nd Cir. 2006).

law enforcement.¹³⁷ This is the threshold showing the special needs doctrine requires.¹³⁸ The plaintiffs unsuccessfully argued that defending the subway against terrorists only constitutes a special need if an attack is imminent.¹³⁹ The Second Circuit concluded that an emergency did not have to exist in order to qualify a crime prevention search as a special need.¹⁴⁰

The doctrine next requires a court to analyze the validity of a suspicionless search by weighing opposing factors against each other. Such factors include whether the government interest for the search program is immediate and substantial, whether the person being searched has an actual and reasonable expectation of privacy surrounding the item being searched, whether the search is minimally intrusive, and whether the search program effectively advances the government interest.¹⁴¹ Taking these factors in turn, the Court first stated that significant weight can be assigned to the government's interest in preventing great harm to the public, whether or not an express threat exists.¹⁴² In fact, "[a]ll that is required is that the 'risk to public safety [be] substantial and real' instead of merely 'symbolic.'"¹⁴³ Next, the Court decided that subway passengers have an expectation of privacy with regards to objects they carry in closed, opaque bags.¹⁴⁴ However, the subway checkpoint search minimally intruded upon the passengers' privacy expectation.¹⁴⁵ Finally, the Court stated that it was not their place to perform an in depth

137. *Id.* at 270–71. "Accordingly, preventing a terrorist from bombing the subways constitutes a special need that is distinct from ordinary post hoc criminal investigation." *Id.* at 271. The court then noted that the *Hartwell* decision rejected a "Fourth Amendment challenge to airport checkpoints and recogniz[ed] the need to 'prevent[] terrorist attacks on airplanes.'" *Id.* (citing *United States v. Hartwell*, 436 F.3d 174, 179 (3rd Cir. 2006)).

138. *Special Needs*, *supra* note 131, at 1115.

139. *MacWade*, 460 F.3d at 271. The plaintiffs based their argument on a comment made by the U.S. Supreme Court in *City of Indianapolis v. Edmond*: "Of course, there are circumstances that may justify a law enforcement checkpoint where the primary purpose would otherwise, but for some emergency, relate to ordinary crime control." *Special Needs*, *supra* note 131, at 1115 (quoting *City of Indianapolis v. Edmond*, 531 U.S. 32, 44 (2000)).

140. *Special Needs*, *supra* note 131, at 1115; *see also MacWade*, 460 F.3d at 271.

141. *Special Needs*, *supra* note 131, at 1115–16; *see also MacWade*, 460 F.3d at 270–71 (explaining that the second facet of the special needs doctrine is to determine the reasonableness of a search by balancing several factors).

142. *MacWade*, 460 F.3d at 272.

143. *Id.* (quoting *Chandler v. Miller*, 520 U.S. 305, 322–23 (1997)).

144. *Id.* at 272–73.

145. *Id.* at 272.

analysis of the efficacy of the checkpoint search program.¹⁴⁶ Rather, the Court found that the program was an effective deterrent, in part because “expert testimony established that terrorists seek predictable and vulnerable targets, and the [New York Police Department’s subway] Program generates uncertainty that frustrates that goal, which, in turn, deters an attack.”¹⁴⁷ The Court therefore held that the subway checkpoint search program was reasonable and constitutional under the special needs doctrine.¹⁴⁸

IV. APPLICATION OF THE LAW

Tracing the evolution of the law as it applies to airport screenings reveals a number of disturbing points about our Fourth Amendment protections. A review of the cases related to airport searches illustrates that the private person rarely wins and that searches are almost always found to be reasonable.¹⁴⁹ Further, avoiding screening by electing not to fly does not amount to a real choice on the part of the passenger.

Searches must be reasonable under the Fourth Amendment, but reasonableness for airport searches is judged by weighing the individual’s right to be free from intrusion against the general public’s interest in traveling safely by air.¹⁵⁰ As declared in *Torbet*, the test for determining whether an airport screening search is reasonable, which stems from *Davis*, consists of three elements: “(1) it is no more extensive or intensive than necessary, in light of current technology, to detect weapons or explosives; (2) it is confined in good faith to that purpose; and (3) passengers may avoid the search by electing not to fly.”¹⁵¹

146. *Id.*

147. *Id.* at 274.

148. *Id.* at 275.

149. *See supra* Part III.

150. *United States v. Marquez*, 410 F.3d 612, 616 (9th Cir. 2005) (citing *United States v. Pulido-Baquerizo*, 800 F.2d 899, 901 (9th Cir. 1986)).

151. *See Torbet v. United Airlines, Inc.*, 298 F.3d 1087, 1089 (9th Cir. 2002) (citing *United States v. Davis*, 482 F.2d 893, 913 (9th Cir. 1973)). *But see United States v. Aukai*, No. 04-10226, 2007 WL 2283585, at *5 (9th Cir. Aug. 10, 2007); *supra* note 114.

A. Magnetometers (Metal Detectors)

The law is clear that metal detectors, or magnetometers, are reasonable searches at airports.¹⁵² A person walking through a metal detection portal is subject to a minimal invasion of privacy, and the portal “does not annoy, frighten or humiliate those who pass through it.”¹⁵³ In perhaps the clearest statement of why metal detector searches are reasonable, the Fourth Circuit stated, “[T]he use of a magnetometer to detect metal . . . is not a resented intrusion on privacy, but, instead, a welcome reassurance of safety. Such a search is more than reasonable; it is a compelling necessity to protect essential air commerce and the lives of passengers.”¹⁵⁴

When magnetometers were first introduced as a regular part of airport screening in the early 1970's, most people laughed at the thought of security personnel going through their bags and determining what they were carrying on their bodies.¹⁵⁵ But as history reveals, we adjusted to metal detector screenings prior to boarding planes, and now society regards them as normal.¹⁵⁶ In fact, now people may even be hesitant to get on a plane if there was no security screening prior to boarding. Acceptance of this type of warrantless and suspicionless search has trickled into other parts of society as well.¹⁵⁷ There are metal detectors at courthouses, schools, and stadiums.¹⁵⁸ While some may find magnetometers at these types

152. See *Gibson v. State*, 921 S.W.2d 747, 757–58, 763 (Tex. App. 1996) (finding that metal detector searches at the El Paso County Courthouse were reasonable).

153. *United States v. Albarado*, 495 F.2d 799, 806 (2nd Cir. 1974).

154. *United States v. Epperson*, 454 F.2d 769, 772 (4th Cir. 1972).

155. WAYNE LAFAYE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 10.6 (3d ed. 1996).

156. Paul Glastris, . . . *One That Should Be The Best, But Isn't*, WASHINGTON MONTHLY, Mar. 1998, at 27.

157. For example, in 1994, the Kentucky Attorney General released an opinion regarding metal detector searches in schools. Stating that the administrative search doctrine had been used to find metal detector searches in airports constitutional, the opinion found that the doctrine also supported the use of metal detectors in schools due to the increased number of weapons being brought into schools. The Attorney General further noted that the administrative search doctrine had also been used to uphold the use of metal detectors in courthouses. Op. Ky. Att'y Gen. 94-58 (1994).

158. “It is, for example, common practice to require every prospective airline passenger, or every visitor to a public building, to pass through a metal detector that will reveal the presence of a firearm or an explosive.” Mich. Dep't of State Police v. Sitz, 496 U.S. 444, 473 (1990) (Stevens, J., dissenting). “The metal detectors has [sic] their advent at the airports. Their use has spread to prisons and courts. At the time of submitting this petition, their use has spread to some

of locations annoying, society in general has allowed their use without an uproar that Fourth Amendment rights are being violated.¹⁵⁹

It is a slippery slope to be mindful of, particularly in light of the much more intrusive search technologies that are emerging for use in airports. We risk eroding our Fourth Amendment rights to the point of being meaningless if we allow our adjustment to technology in airports to become an automatic approval for using that technology in other contexts.¹⁶⁰ The White House Commission on Aviation Safety and Security was reminded of this consequence in 1996: “[B]e mindful that the security system adopted for airports today will likely be imposed in other arenas tomorrow. Just as magnetometers and X-ray machines have found their ways into government buildings, banks and schools, so may the enhanced security measures the Commission may recommend.”¹⁶¹ These other contexts do not share many of the characteristics of airports that made the searches “reasonable” in the first place. For example, courthouses and stadiums are not analogous to national borders. One cannot elect to not attend school if one does not wish to consent to a search.¹⁶² We need to be wary of new technologies used for airport searches reaching into other parts of society without our first performing a thorough examination of what rights would be eroded by their allowance.¹⁶³

urban schools.” Petition for Writ of Certiorari at 36–37, *Lamson v. United States*, 510 U.S. 1013 (1993), *cert. denied*, (No. 93-663).

159. In fact, cases regarding metal detectors are virtually non-existent at the Supreme Court level. “This Court has never dealt with a case involving the legality of stationary metal detector searches at federal building that house courts such as those in which defendant practices. Indeed, the Court has never taken certiorari in cases involving challenges to metal detector searches at airports.” Petition for Writ of Certiorari at 36–37, *Lamson*, 510 U.S. 1013 (No. 93-663).

160. “The process of intrusion into one’s daily life is rapidly becoming routine as society becomes desensitized to the creeping encroachment on individual privacy. Increasing intrusions on privacy at venues other than border checkpoints or airports naturally follow. . . . Hence, the slippery slope of eroding privacy begins.” Murphy & Wilds, *supra* note 41, at 340.

161. *Civil Liberties Implications of Airport Security Measures: Hearing Before White H. Comm. in Aviation Safety and Security*, (1996) (statement of Gregory T. Nojeim, Legis. Counsel, American Civil Liberties Union), available at http://www.epic.org/privacy/faa/aclu_testimony.html.

162. Massachusetts passed the first compulsory school attendance law in 1852. Every state in the nation had a similar law by 1918. Samuel L. Blumenfeld, *Are Compulsory School Attendance Laws Necessary? Part I*, THE BLUMENFELD EDUCATION LETTER, Sept. 1990, at 1, 5.

163. See generally *Dukes*, 580 N.Y.S.2d at 853 (comparing administrative searches using metal detectors in schools to those in airports and courthouses). *Dukes* was the first case that

B. Trace Detection Technologies

The “puffer” machines being utilized at more and more airports intrude minimally on the privacy of passengers, similar to metal detectors. Therefore, the analysis of whether puffers satisfy the reasonableness test is virtually identical to that for magnetometers.¹⁶⁴

The American Civil Liberties Union (“ACLU”) favors machines such as puffers because they “preserve the privacy and dignity of passengers far more than pat-downs, physical searches, and backscatter x-rays.”¹⁶⁵ However, false positives are a continuing concern with this technology.¹⁶⁶ Items such as heart medicines may be so similar chemically to an explosive that the alarm is triggered.¹⁶⁷ The ACLU suggests that Congress oversee the implementation of puffers to make certain that there is not an unacceptably high percentage of false positives and that people who prompt false positives are treated fairly.¹⁶⁸

It should be noted that trace detection machines that can identify chemical signatures could be used to recognize illegal drugs.¹⁶⁹ Use in this capacity would constitute an illegal search “because airport searches are authorized only to identify objects or materials that are a threat to the safety of the airplane.”¹⁷⁰ Since illegal drugs do not in and of themselves threaten airplane safety, airport security is not allowed to search specifically for drugs.¹⁷¹

While no court has yet been faced with deciding the constitutionality of trace detection portals, the analogy to metal detectors and the reasonableness of their use at airports seems

litigated the issue of metal detectors in schools. Charles J. Russo & Jacqueline A. Stefkovich, *Search and Seizure in the Schools*, NASSP BULL. (Nat’l Assn. of Secondary Sch. Principals), Sept. 1998, at 31.

164. See *supra* Part IV.A.

165. *Principles for Evaluating Physical Screening Techniques and Technologies Consistent with Constitutional Norms: Hearing on the U.S. Transportation Security Administration’s Physical Screening of Airline Passengers and Related Cargo and Airport Screening Before the U.S. S. Comm. on Commerce, Science, and Transportation* [hereinafter *Hearings*] (statement of Timothy D. Sparapani, Legislative Counsel, American Civil Liberties Union), available at <http://www.aclu.org/privacy/gen/24856leg20060404.html>.

166. See *supra* Part II.C.

167. See *supra* Part II.C.

168. See *supra* Part II.C.

169. COMMITTEE ON COMMERCIAL AVIATION SECURITY ET AL., *supra* note 4, at 42.

170. *Id.*

171. *Id.*

certainly predictable. Because the intrusion on personal privacy is negligible, there is little concern that the use of this emerging technology in passenger screening will erode our Fourth Amendment rights. In the absence of an invasion of bodily privacy, there seems to be little basis to declare puffers to be unreasonable searches.

C. Imaging Technologies

Backscatter x-rays are certainly considered searches under the *Katz* test.¹⁷² People have an expectation of privacy for what is under their clothes.¹⁷³ Whether backscatter x-rays are reasonable searches under the Fourth Amendment is far from clear. What is clear is that many groups oppose the use of this technology. Privacy International awarded the Federal Aviation Administration the “Most Invasive Proposal” Award for the BodyScan scanners being placed in airports for use by customs.¹⁷⁴ Privacy International presents its “Big Brother Awards” annually in the United States (as well a number of other countries) to organizations that invade personal privacy the most.¹⁷⁵

Although ten years ago imaging technologies such as backscatter x-rays were just beginning to be developed, privacy concerns were already contemplated.¹⁷⁶ As with trace detection of illegal drugs, imaging technology presents the ability to discover illegal items on a passenger’s body that are not threatening and therefore are not within the scope of the constitutional search.¹⁷⁷ The Panel on Passenger Screening stated, “Fourth Amendment challenges based on illegal search or on an improperly carried out search must be expected when these technologies are implemented in airports.”¹⁷⁸ Another issue the Panel predicted in 1996 related to archiving the

172. See *supra* Part III.B.1.

173. Addie S. Ries, Comment, *America’s Anti-Hijacking Campaign—Will It Conform to Our Constitution?*, 3 N.C. J.L. & TECH. 123, 134 (2001).

174. The award statue is called the “Orwell” and depicts a boot stomping on a head. See The 2000 U.S. Big Brother Awards, Privacy Int’l, Apr. 5, 2000, <http://www.privacyinternational.org/bigbrother/us2000/>.

175. *Id.*

176. See COMMITTEE ON COMMERCIAL AVIATION SECURITY ET AL., *supra* note 4, at 14–16, 44.

177. *Id.* at 41.

178. *Id.*

images.¹⁷⁹ They noted that the ability to store images of passengers until flights arrived safely at their destinations could generate invasion of privacy lawsuits.¹⁸⁰ The Panel stressed that protocols related to the use and disposal of the images of passengers' bodies must be developed to safeguard this highly sensitive and personal data.¹⁸¹

Those who support the use of backscatter x-rays point out that courts have allowed passenger searches via metal detectors under the administrative search doctrine and the public has grown accustomed to submitting to searches in many places in addition to airports.¹⁸² Therefore, the issue with backscatter x-rays (and other emerging technologies) is how they differ from metal detectors.¹⁸³ One argument is that an increased need for security in our airports could create a justification for the courts to allow suspicionless searches no matter what level of privacy intrusion is created.¹⁸⁴ A second argument is that the backscatter x-ray would be used as an alternative to hand or strip-searches, both of which are more intrusive than the backscatter.¹⁸⁵ Finally, backscatter x-rays detect plastic explosives and weapons components that metal detectors miss.¹⁸⁶

A middle ground view of imaging technologies goes directly to the reasonableness requirement of the Fourth Amendment.¹⁸⁷ The question then is whether the search was reasonable under the circumstances.¹⁸⁸ How is this decided? "The greater the level of suspicion, the more intrusive the search may be. . . . [I]ntrusion is keyed to embarrassment, indignity, and invasion of privacy."¹⁸⁹

On the other side, opponents of backscatter x-rays for passenger screening loudly protest the invasion of privacy caused by this technology. Backscatter x-rays utilized as a primary screening tool

179. *Id.*

180. *Id.*

181. *Id.*

182. Murphy & Wilds, *supra* note 41, at 336–37.

183. *See id.* at 334.

184. *Id.*

185. *Id.* at 337–38.

186. *Id.* at 337.

187. Steven Vina, Comment, *Virtual Strip Searches at Airports: Are Border Searches Seeing Through the Fourth Amendment?*, 8 TEX. WESLEYAN L. REV. 417, 424 (2002).

188. *Id.*

189. *United States v. Mejia*, 720 F.2d 1378, 1382 (5th Cir. 1983).

would likely have a more difficult time satisfying the reasonableness requirement of the Fourth Amendment. While magnetometers do not have the ability to detect explosives or biological weapons, trace detection portals would clearly be a less intrusive search than backscatter x-rays for that purpose. Opponents argue that “[b]ody-scanning is a debasing and humiliating procedure, and its routine use fails basic balancing tests. . . . This technology should be used as a last resort.”¹⁹⁰ Manufacturers of the technology say that using backscatter as a tool secondary to metal detectors defeats its advantages.¹⁹¹ They maintain that some of the passengers who do not set off a metal detector are exactly the people who should be screened with backscatter.¹⁹² However, a potential problem of backscatter x-rays if used as primary screening devices is that legal items might be mistaken for illegal ones, prompting a further search.¹⁹³

The ACLU is against the use of backscatter x-rays for primary passenger screening.¹⁹⁴ It contends that “[p]assengers expect privacy underneath their clothing and should not be required to display highly personal details of their bodies such as evidence of mastectomies, colostomy appliances, penile implants, catheter tubes, and the size of their breasts or genitals as a pre-requisite to boarding a plane.”¹⁹⁵ Further, security searches have been the cover for the sexual assault of many women.¹⁹⁶ Given the amount of detail the backscatter images reveal, “[a]buse of this powerful technology is not a hypothetical. . . . Given recent experiences, it is inevitable.

190. Press Release, Am. Civil Liberties Union, ACLU Calls for Removal of Controversial See-Through Scanner in Orlando (Mar. 15, 2002), <http://www.aclu.org/privacy/gen/14808prs20020315.html>. The press release goes on to argue that explosives detection equipment may provide the same amount of security as backscatter x-rays, but without an invasion of bodily privacy. *Id.*

191. Considine, *supra* note 47.

192. *Id.*

193. “Even the presence of an innocuously shaped item, such as a seemingly 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 efficacy gains.” *Hearings, supra* note 165 (testimony of Timothy D. Sparapani).

194. ACLU, Airport Security: Increased Safety Need Not Come at the Expense of Civil Liberties (2002), <http://www.aclu.org/safefree/resources/16748res20020612.html> [hereinafter Airport Security].

195. *Id.*

196. *Airport Security, supra* note 194.

Airport security personnel do not check their sexual impulses at the door when they arrive for work.”¹⁹⁷

Despite all of the legitimate privacy concerns this technology presents, it is likely to be accepted, just as metal detector searches have been. But the acceptance should be limited to use as a secondary screening tool, as that is the only reasonable application for a technology that is so invasive. Under *Skipwith*, mere suspicion is all that is required to perform an airport passenger search.¹⁹⁸ The *Skipwith* court permitted the scope of a search to be as broad as necessary to confirm the passenger had no weapons, while also mandating that the imposition on the passenger could be no greater than necessary.¹⁹⁹ Searches such as pat-downs and strip-searches have already been found to be reasonable for preventing passengers from carrying weapons onto airplanes.²⁰⁰ It is therefore likely that backscatter x-rays will be allowed as an alternative secondary search form since they are comparably invasive, if not actually less so than pat-downs and strip-searches.²⁰¹ The *Hartwell* court stated that a more highly invasive search that is narrowly tailored to protect privacy and utilized only after a regular screening is permitted under the administrative search doctrine.²⁰² This rule would support the use of backscatter x-rays as secondary screening tools and conceivably prevent their use for primary screening. The ACLU, one of the most vocal opponents of the use of backscatter x-ray for primary screening, supports its use as an alternative to body cavity searches, which have been legally triggered by other primary screening means.²⁰³

The use of backscatter x-rays for primary passenger screening in the future should be resisted. As many voices as possible should rally to defend the right to privacy and declare that this type of search is and will remain unreasonable to Americans, despite increasing terror fears.

197. *Id.*

198. *United States v. Skipwith*, 482 F.2d 1272, 1276 (5th Cir. 1973); *see supra* Part III.B.3.

199. *Skipwith*, 482 F.2d at 1276–77.

200. *Ries, supra* note 173, at 197.

201. *Id.*

202. *United States v. Hartwell*, 436 F.3d 174, 180 (3rd Cir. 2006).

203. “[S]uch technology may be used in place of an intrusive search, such as a body cavity search, when there is probable cause sufficient to support such a search. *Airport Security, supra* note 194.

V. PROPOSAL

In today's climate of terror and ever-evolving types of threats, it is probably not possible to draw a distinct line between what is a reasonable or unreasonable airline passenger search under the Fourth Amendment. The most important principle to cling to is to require that searches invade passengers' privacy as minimally as possible. Indeed, "[t]he level of intrusion—the degree to which a proposed measure invades privacy—should reflect the level of risk, and, if both are effective, the least intrusive physical screening technology or technique should always trump the more invasive technology."²⁰⁴ The administrative search exception to the Fourth Amendment makes this necessary.²⁰⁵ This is similar to applying a strict scrutiny analysis to a law that allegedly infringes upon a fundamental right. The government must show a compelling actual purpose for the law, the means must be narrowly tailored to the objective, and there can be no less restrictive ways to achieve the objective. Strict scrutiny should be applied to the utilization of emerging airport technologies that have the possibility of infringing on the right to privacy. Using the least personally invasive means of screening airline passengers is how to be certain that there is no method less restrictive of the right to privacy.

One method of making backscatter x-ray searches less intrusive on privacy²⁰⁶ is to have an agent off-site view the images in real time. The embarrassment factor would be greatly reduced if passengers knew that the person viewing the detailed images of their bodies were in a remote location. Only when the backscatter revealed a potentially prohibited item would an on-site agent be notified. By separating the image from the actual person, the general public would be relieved from some of the humiliation and indignity that backscatter x-rays could cause.

Of course, knowing that the person looking at an image of their virtually naked body is somewhere else may be of little consolation to many passengers. And people may feel violated simply because they feel they have done nothing to deserve this level of scrutiny. Even this possible method of lessening the impact of the privacy

204. *Hearings*, *supra* note 165 (testimony of Timothy D. Sparapani).

205. *See supra* Part III.B.2.

206. In addition to the cloaking technology, discussed *supra* in Part II.D.

invasion by the backscatter x-ray leaves the technology with too much power at the initial stage of passenger screening. Backscatter x-rays should be deemed unreasonable searches under the Fourth Amendment if used for primary screening. Only when utilized as a substitute for other methods currently used in secondary screening, such as pat-downs and cavity searches, should the backscatter x-ray be adjudged reasonable.

VI. CONCLUSION

Even in this post-September-11 era of heightened security needs, we must be cautious not to let fear and a desire for protection override our privacy concerns and warp the definition of “reasonable.” There is no going back once rights have been eroded. Society will become accustomed to the gradual deterioration of rights and one day wake to find that privacy rights have disappeared completely, and what was formerly considered unreasonable is now reasonable. There is no doubt we sometimes face unimaginable threats, and we should be vigilant in trying to guard against them. However, some emerging passenger screening technologies, such as backscatter x-rays, have the ability to intrude too far and should be considered unreasonable searches if used as a primary screening tool. We must never lose sight of the Fourth Amendment privacy rights Americans hold dear.