

**Are Emerging Technologies in Airport Passenger Screening
Reasonable Under the Fourth Amendment?**

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 is faced with the task of protecting our citizens, our buildings, our skies, and our country from another attack similar to that harrowing day that changed the world 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" and "explosive trace portals" 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 right against warrantless search and seizure as afforded by the Fourth Amendment.

The Fourth Amendment protects against unreasonable searches and seizures. 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 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 or may

not be that our Fourth Amendment protections are implicated 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 11 may now be deemed reasonable. This note will also examine the "unconstitutional conditions" doctrine and the "special needs" doctrine as they apply to airport searches and similar 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, 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 opining that while backscatter x-rays and explosive trace portals are useful secondary screening tools, if used for primary passenger screening they are unreasonable searches. 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.¹ On September 11, 1970, a date that is eerily coincidental, President Nixon set forth a plan to combat airplane hijacking.² The program required the airlines to develop inspection methods and install surveillance equipment at all appropriate U.S. airports.³ As a result, the Federal Aviation Administration (FAA) established the Anti-Hijacking program.⁴ United States airlines worked with the Departments of Defense and Transportation to ascertain whether military x-ray machines and metal detectors could help prevent hijackings.⁵

The FAA issued a rule on February 1, 1972, dictating that air carriers must screen all passengers using behavior

¹ **Comm. on Commercial Aviation Sec., Nat'l Research Council, Airline Passenger Screening: New Technologies and Implementation Issues** 1, 6 (Nat'l Acad. Press 1996).

² Id. at 6.

³ Id.

⁴ Id.

⁵ Id.

profiling, magnetometers, identification check, or physical search, or some combination of these systems.⁶ 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.⁷ This program required security systems implemented by the airlines which would prevent passengers from bringing weapons, explosives, and incendiary devices onto an airplane.⁸ The primary focus of these screenings was, and continues today to be, metallic objects.⁹ 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.¹⁰ The capacity to detect different types of metals, as well as plastic explosives and other threatening materials, has become a necessity.¹¹

⁶ Id.

⁷ Id.

⁸ Id.

⁹ Id.

¹⁰ Id.

¹¹ Id.

B. Magnetometers (Metal Detectors)

A magnetometer is an electronic metal detector resembling a door frame.¹² A person who walks through the portal passes through a magnetic field, activating a warning light or signal.¹³ Metal detection portals produce a magnetic field that generates eddy currents in metallic or ferromagnetic objects that pass through the portal.¹⁴ 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.¹⁵ When the eddy currents are detected, an alarm sounds and screening personnel step in to determine if in fact a dangerous object or weapon is present.¹⁶

The science behind the operation of the magnetometer is built upon the fact that a magnetic field made up of lines of

¹² *United States v. Lopez*, 328 F.Supp. 1077, 1085 (E.D.N.Y. 1971).

¹³ *Gibson v. State*, 921 S.W.2d 747 (Tex. Ct. App. 1996).

¹⁴ **Comm. on Commercial Aviation Sec., Nat'l Research Council**, supra note 1, at 13.

¹⁵ **Id.**

¹⁶ Id.

flux encircles the earth.¹⁷ 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.¹⁸ When distortions happen near a "fluxgate magnetometer," a signal is created which can detect the magnetic disturbances.¹⁹

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.²⁰

As of September 2006, 37 U.S. airports utilize trace detection machines known as "puffers."²¹ A puffer is a tall,

¹⁷ *United States v. Lopez*, 328 F.Supp. 1077, 1085 (E.D.N.Y. 1971).

¹⁸ Id.

¹⁹ Id.

²⁰ **Comm. on Commercial Aviation Sec., Nat'l Research Council**, supra note 1 at 4, 16 - 19.

²¹ Scott Lindlaw, Airport Screening Technology Developed, *Forbes.com*, Sept. 8, 2006, <http://www.forbes.com/feeds/ap/2006/09/08/ap3003993.html>.

transparent tube that a person steps into.²² Rapid blasts of air (“not quite enough to ruffle the hair”²³) dislodge trace particles from the person’s skin and clothes which are sucked into a filter and instantly analyzed to determine if that person has been in the presence of explosives or narcotics.²⁴ The entire process takes approximately 15 seconds.²⁵ Currently, this technology is only being used by the Transportation Security Administration (TSA) as a secondary inspection for passengers selected for further screening.²⁶

²² Id.

²³ Id.

²⁴ New Methods to Prevent Terrorism on Aeroplanes Are Being Developed, **Economist**, Aug. 17, 2006, available at http://www.economist.com/science/displayStory.cfm?story_id=7801578; Scott Lindlaw, supra note 20.

²⁵ Eric Lipton, Screening Tools Slow to Arrive in U.S., **N.Y. Times**, Sept. 3, 2006, at 11. Puffers were developed by Sandia National Laboratories in 1997 and are manufactured by General Electric and Smiths Detection. Id. They are the only machines which automatically examine a person from head to toe for residue of explosives. Id.

²⁶ Alex Halperin, Airport Security Goes High-Tech, **Bus. Week Eur. On Yahoo! Fin.**, Aug. 13, 2006,

There is some concern that puffers could produce false-positives that would slow down airport screening lines if the machines were used as a primary screening tool.²⁷ For example, because fertilizer can be used as a bomb ingredient, someone who spread fertilizer on their lawn and went to the airport without changing their shoes would be identified by the puffer as having residue of explosive materials on their body.²⁸ Another drawback to using puffers for primary screening is that they cannot detect liquid explosives, which are attractive to terrorists, as recent events demonstrated.²⁹

D. Imaging Technologies

The United States 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-

<http://uk.biz.yahoo.com/13082006/244/airport-security-high-tech.html>.

²⁷ Id.

²⁸ Id.

²⁹ Lipton, supra note 24.

on baggage or hidden on people's bodies.³⁰ These poor field test results are Homeland Security's justification for using "backscatter" x-rays.³¹

"Imaging technologies can see through clothes and produce an image of the human body underneath."³² Active imaging analyzes radiation which is scattered when the body is irradiated with x-rays.³³ 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.³⁴ Using three-dimensional imaging, a computer converts the data into a picture of the person on a monitor.³⁵ Objects that scatter or give off radiation in a different manner than the human body will look distinctive in

³⁰ Joe Sharkey, On the Road; Airport Screeners Could Get X-Rated X-Ray Views, **N.Y. Times**, May 24, 2005, at C5.

³¹ Id.

³² **Comm. on Commercial Aviation Sec., Nat'l Research Council**, supra note 1, at 3, 14 - 16.

³³ Id. at 3.

³⁴ Fred Reed, Scanner Virtually Disrobes Passenger, **Wash. Times**, May 22, 2003, <http://www.washtimes.com/business/20030521-094809-8963r.htm>.

³⁵ Id.

the image.³⁶ "Reflective" or backscatter x-rays can see objects that a metal detector may miss, such as those made from ceramics and plastics.³⁷

These x-rays have been proven to be safe, penetrating a mere 1/10th of an inch into the skin.³⁸ In less than eight

³⁶ **Comm. on Commercial Aviation Sec., Nat'l Research Council,** supra note 1, at 3.

³⁷ New Methods to Prevent Terrorism on Aeroplanes Are Being Developed, supra note 24.

³⁸ Reed, supra note 34. The amount of radiation from a backscatter x-ray amounts to less than three microrem, 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." **Comm. on Commercial Aviation Sec., Nat'l Research Council,** supra note 1, 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).

seconds, the scan is complete, and no pat-down has to be performed.³⁹

However, as helpful as this technology may be in detecting illicit materials, they also produce a problem many see as equally disturbing.⁴⁰ “The pictures are of near-pornographic quality.... It amounts to a black-and-white strip search.”⁴¹ 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.⁴² Filters have been created to blur the genital area in response to arguments that the images are too intrusive.⁴³ 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

³⁹ Reed, supra note 34.

⁴⁰ Id.

⁴¹ Id.

⁴² 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>.

⁴³ New Methods to Prevent Terrorism on Aeroplanes Are Being Developed, supra note 24.

body.”⁴⁴ Manufacturers of the backscatter machines recognize that cloaking may reduce detection power, but that may be a trade-off that is required in order to balance security and privacy issues.⁴⁵

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....”⁴⁶

⁴⁴ Austin Considine, Will New Airport X-Rays Invade Privacy?, **N.Y. Times**, Oct. 9, 2005, <http://travel2.nytimes.com/2005/10/09/travel/09xray.html?ei=5070&en=d9b0f1a73708dd7d&ex=1162267200&adxnnl=1&adxnnlx=1162094831-PRDYC/rksrr5rr333hMnyw>.

⁴⁵ Id. The two companies that manufacture the backscatter technology are Rapiscan Systems, a division of OSI Systems, and American Science and Engineering. Id.

⁴⁶ **U.S. Const.** amend. IV.

The question, of course, is what do those words actually mean in an airport? The following section will examine how the Fourth Amendment has been construed by the courts with regard to airport passenger screening. Next, a few detailed interpretations of the Fourth Amendment's requirements such as 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.⁴⁷

i. Expectation of Privacy

Katz v. United States is a landmark Fourth Amendment case.⁴⁸ While the case had no connection to airports, it is the starting point for this article's analysis because of its discussion of

⁴⁷ Id.

⁴⁸ Katz v. United States, 389 U.S. 347 (1967).

privacy, search and seizure, and governmental action.⁴⁹ The United States Supreme Court's 1967 opinion is helpful in applying the Fourth Amendment to airport settings as it presents a threshold test for determining whether the Fourth Amendment applies to a particular intrusion.⁵⁰

Justice Stewart wrote for the majority and stated that the Fourth Amendment does not extend to things a person knowingly and publicly reveals.⁵¹ On the other hand, the Fourth Amendment may protect something a person tries to keep private, even in a public area.⁵² Justice Harlan's concurrence expands upon what

⁴⁹ Id. The defendant was convicted of violating a statute prohibiting bets via wire. The Court had to determine whether the government listening to and recording the defendant when he spoke in a public telephone booth violated the defendant's privacy. Holding that the defendant's privacy, upon which he justifiably relied, was violated, the Court further held that this governmental action constituted a search and seizure.

⁵⁰ Id.

⁵¹ Id. at 351.

⁵² 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 be also be heard. "To read the Constitution more narrowly is to ignore the vital role that

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.'"⁵³ 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.

ii. Administrative Searches and Consent

"Search[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.⁵⁴ Private searches are those "conducted by a private person rather than a law-enforcement officer."⁵⁵ The issue of consent and how it relates to the passenger's or general public's knowledge of what type of screening procedures are utilized at airports is a concept important to the analysis

the public telephone has come to play in private communication."

Id. at 352.

⁵³ Id. at 361.

⁵⁴ **Black's Law Dictionary** (8th ed. 2004).

⁵⁵ Id.

of whether emerging technologies are or are not reasonable searches and whether they will be barred or allowed by the Fourth Amendment. The language of the Fourth Amendment requires "probable cause" prior to a search.⁵⁶ Probable cause relates to the likelihood, not certainty, of existence criminal activity.⁵⁷ Administrative searches are an exception to the Fourth Amendment's requirement for a warrant based on probable cause, but they remain subject to the requirement for reasonableness.⁵⁸

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.⁵⁹ 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 action⁶⁰ for purposes of the Fourth Amendment because the

⁵⁶ **U.S. Const.** amend. IV.

⁵⁷ *Spinelli v. United States*, 393 U.S. 410, 419 (1969).

⁵⁸ *United States v. Davis*, 482 F.2d 893, 908 (9th Cir. 1973).

⁵⁹ *Davis*, 482 F.2d at 895.

⁶⁰ State action is "anything 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 (8th ed. 2004).

search was part of the national anti-hijacking effort instituted in 1972.⁶¹ The Court stated that evaluation of airport searches should be conducted using standards related to "administrative" searches.⁶² Administrative searches are not carried out to gather evidence as part of a criminal investigation.⁶³ Rather, administrative searches are performed "as part of a general regulatory scheme in furtherance of an administrative purpose."⁶⁴ 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, which will prevent hijackings.⁶⁵

⁶¹ Davis, 482 F.2d at 904.

⁶² Id. at 908.

⁶³ Id.

⁶⁴ Id.

⁶⁵ Id. The Court went on to explain that the essential purpose of the regulatory scheme is to discourage people from 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.

To be valid, administrative searches must meet the standard of reasonableness as required by the Fourth Amendment.⁶⁶ 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."⁶⁷ Consequently, valid

⁶⁶ Id. at 910.

⁶⁷ 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 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.

passenger screening searches at airports must acknowledge a person's right to decide not to board an airplane and therefore not be subject to the search.⁶⁸ The Court utilized the issue of consent as the measurement of whether the search was prohibited by the Fourth Amendment.⁶⁹ A person has the choice, as a matter of constitutional law, to submit to a search of his person and carry-on baggage as a condition to boarding an airplane, or to leave.⁷⁰ 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.⁷¹ 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."⁷² This consent must be voluntary.⁷³ 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

⁶⁸ Id. at 910-11.

⁶⁹ Id. at 913.

⁷⁰ Id.

⁷¹ Id.

⁷² Id.

⁷³ Id. at 913-14 (discussing *Schneckloth v. Bustamonte*, 412 U.S. 218 (1973)).

consented to the screening.⁷⁴ However, at the time the incident at issue occurred, in 1971, “[t]he nature and scope of airport searches were not then widely known.”⁷⁵ Therefore, without clear notice of the choice to be screened or not board the airplane, attempting to board the airplane was not necessarily consent.⁷⁶

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 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.

iii. 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

⁷⁴ Id. at 914.

⁷⁵ Id.

⁷⁶ Id.

a level of danger such that the reasonableness test is per se satisfied.⁷⁷

Lee Skipwith III was convicted of cocaine possession after an airport screening search revealed drugs, but not weapons.⁷⁸ In United States v. Skipwith the Fifth Circuit affirmed the Middle District of Florida, holding that the search was constitutional.⁷⁹ The Court found that balance must be struck between the harm and the need to determine what is reasonable.⁸⁰ “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.”⁸¹

⁷⁷ United States v. Skipwith, 482 F.2d 1272 (5th Cir. 1973).

⁷⁸ Id.

⁷⁹ 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.

⁸⁰ Id. at 1276.

⁸¹ 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.

The Skipwith Court expanded on United States v. Moreno⁸² 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."⁸³ 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.⁸⁴

The defendant also unsuccessfully argued that the search he was subjected to was too broad in scope: that the search was constitutionally limited to a frisk for weapons and he should not have been required to empty his pockets.⁸⁵ Noting that

⁸² United States v. Moreno, 480 F.2d 44 (5th Cir. 1973), held that reasonableness should be determined on a case-by-case basis when regarding searches of people in the general airport area.

⁸³ Skipwith, 482 F.2d at 1276.

⁸⁴ Id. at 1276-77.

⁸⁵ 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

"[t]he range and variety of devices real and simulated which can be used to intimidate the crew of an aircraft while it is aloft is almost limitless[,]” the Court found that the officer “was justified in undertaking a search with sufficient scope to reveal an object or instrumentality that Skipwith could reasonably have used to effect an act of air piracy.”⁸⁶

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 U.S. where passenger airport screening searches may be viewed by the courts 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.

was a gun, although it turned out to be a plastic bag containing cocaine. Id. at 1274.

⁸⁶ Id. at 1277 (5th Cir. 1973). The Court went on to say that the three inch by two inch pocket bulge clearly fell within the limit of such a search. Id.

iv. Magnetometers are Administrative Searches

A section of the Gibson v. State⁸⁷ decision addressed whether the defendant was subjected to unlawful restraint by being required to pass through a metal detector before entering a courthouse.⁸⁸ This part of the opinion traces the evolution of case law related to the Fourth Amendment, administrative searches, and airport searches.⁸⁹

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 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.⁹⁰ The Court restated the long-standing finding that "the use of a magnetometer is a 'search' within the meaning of the Fourth Amendment."⁹¹ The Court explained that only unreasonable searches and seizures are forbidden by the Constitution, and that "warrantless searches

⁸⁷ Gibson v. State, 921 S.W.2d 747 (Tex. Ct. App. 1996).

⁸⁸ Id. at 756-759.

⁸⁹ Id.

⁹⁰ Id. at 747.

⁹¹ Id. at 757 (citing United States v. Epperson, 454 F.2d 769, 770 (4th Cir. 1972)).

are per se unreasonable unless the search falls within one of 'a few specifically established and well-delineated exceptions.'"⁹²

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.⁹³ As the Court analyzed the reasonableness of the situation at hand, it evaluated prior decisions that related to magnetometer searches at airports.⁹⁴ 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.⁹⁵

⁹² Gibson, 921 S.W.2d at 757 (quoting *Katz v. United States*, 389 U.S. 347, 357 (1967)).

⁹³ 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)).

⁹⁴ Id. at 757-59.

⁹⁵ Id. at 757-58. See supra text Part III.B.ii.

v. Avoiding Airport Screening Searches by Electing Not to Fly

The main airport area has been distinguished from the boarding gate area.⁹⁶ 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.⁹⁷ The question of specifically when a person can change his mind about whether to be screened and to fly was addressed in Torbet v. United Airlines Inc.⁹⁸

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.⁹⁹ Torbet's bag was selected for a random search, but he refused to allow it.¹⁰⁰

⁹⁶ See supra Part III.B.iii.

⁹⁷ Each airline may make exceptions for minors traveling alone, the elderly, or those with physical challenges. Denver International Airport, Frequently Asked Questions About Security Procedures, <http://www.flydenver.com/guide/tips/security.asp> (last visited Feb. 19, 2007).

⁹⁸ Torbet v. United Airlines Inc., 298 F.3d 1087 (9th Cir. 2002).

⁹⁹ Id. at 1088.

¹⁰⁰ Id.

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.¹⁰¹ Nothing of significance was found in the search, and Torbet continued on to his flight.¹⁰²

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.”¹⁰³ The District Court found for the defendants.¹⁰⁴ 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.”¹⁰⁵

The Ninth Circuit disagreed, stating that under Davis,¹⁰⁶ screening procedures at airports must be reasonable to comply with the Fourth Amendment.¹⁰⁷ “An airport screening search is

¹⁰¹ Id.

¹⁰² Id.

¹⁰³ Id.

¹⁰⁴ Id. at 1089.

¹⁰⁵ Id.

¹⁰⁶ United States v. Davis, 482 F.2d 893 (9th Cir. 1973).

¹⁰⁷ Torbet, 298 F.3d at 1089 (citing Davis, 482 F.2d at 904, 910).

reasonable if: (1) it is not 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."¹⁰⁸ The election not to fly must occur prior to the passenger putting luggage on the x-ray conveyor.¹⁰⁹ The Court then held that by putting his bag on the x-ray conveyor belt Torbet impliedly consented to the random search.¹¹⁰

vi. Warrantless, Suspicionless Searches

Christian Hartwell was arrested for possession of crack cocaine after setting off a metal detector at a security

¹⁰⁸ Id. (citing Davis, 482 F.2d at 913).

¹⁰⁹ Id. (citing United States v. Pulido-Baquerizo, 800 F.2d 899, 901-02 (9th Cir. 1986)).

¹¹⁰ 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).

checkpoint in the Philadelphia International Airport.¹¹¹ A hand-held wand magnetometer was subsequently used to determine what had caused the portal detector alarm.¹¹² What transpired next is disputed by the parties,¹¹³ but based on the undisputed facts,

¹¹¹ *United States v. Hartwell*, 436 F.3d 174, 175 (3rd Cir. 2006).

¹¹² Id.

¹¹³ The defendant claimed he was taken to a private screening room by a Transportation Security Administration agent. The agent repeatedly requested that Hartwell show what was in his pockets. After multiple refusals, the agent reached into the defendant's pocket, pulled out a package of drugs, and called the Philadelphia police. The police then searched the defendant, found two more packages of drugs, and arrested him.

In contrast, the government claimed that neither the TSA agent nor the police reached into the defendant's pocket without consent. The agent said that Hartwell requested a private screening and then refused to show the contents of his pocket. He then "nervously backed away" from the agent and "suddenly dropped his pants." This caused the agent to call for backup. When a police officer arrived, the defendant responded to the officer's request to remove items from his pocket by handing over a package of drugs. Hartwell then pretended to fall on the floor and dropped another drug package.

both the District Court and Third Circuit found the search was justified.¹¹⁴

The Third Circuit held the administrative search doctrine permitted the search and did not evaluate the lower court's

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

¹¹⁴ Id. The District Court held the search was permissible under three theories: 1) the search was not unreasonable, thereby 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 and once the alarm sounded, the defendant was required by law to finish the search to determine the alarm's cause. Id. at 175 (3rd Cir. 2006) (quoting *United States v. Hartwell*, 296 F.Supp.2d 596, 602 (E.D. Pa. 2003) (citing *United States v. Davis*, 482 F.2d 893 (9th Cir. 1973))).

alternate theories.¹¹⁵ While a search in the absence of suspicion or wrongdoing is normally unreasonable, the Supreme Court has acknowledged a few circumstances in which this rule is inapplicable.¹¹⁶ “These circumstances typically involve administrative searches of ‘closely regulated’ businesses, other so-called ‘special needs’ cases, and suspicionless ‘checkpoint’ searches.”¹¹⁷ The Court stated that suspicionless searches at checkpoints “are permissible under the Fourth Amendment when a

¹¹⁵ *United States v. Hartwell*, 436 F.3d 174, 177-78 (3rd Cir. 2006). In an 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 difficulty in this case concerned whether the defendant was subject to multiple searches or one extended search. While there is case law on 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)).

¹¹⁶ *Hartwell*, 436 F.3d at 178.

¹¹⁷ Id. The special needs doctrine is addressed infra Part III.C.

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.'"¹¹⁸

The Court then found that the airport checkpoint in this case passed this balancing test.¹¹⁹ First, the Court emphasized the importance of preventing terrorist attacks against airplanes.¹²⁰ Next, the Court found that the public interest is advanced by security checkpoints at airports because without searches, there is not a reliable way to determine which passengers may hijack a plane.¹²¹ Finally, the Court stated that minimally intrusive search procedures were utilized in this case.¹²²

¹¹⁸ Id. at 178-79 (citing *Illinois v. Lidster*, 540 U.S. 419, 427 (2004) (quoting *Brown v. Texas*, 443 U.S. 47, 51 (1979))).

¹¹⁹ Id. at 179.

¹²⁰ Id.

¹²¹ Id. at 179-80.

¹²² 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.

This case is significant for several reasons. First, it is quite recent, having been decided on January 31, 2006.¹²³ Second, the opinion takes a definitive position on an aspect of screenings that the courts have been divided on by stating that the administrative search doctrine permitted the search in this case.¹²⁴ Third, the Court addressed administrative searches at length and spelled out the test for when warrantless, suspicionless searches are permissible.¹²⁵ This test will be an important tool for evaluating new security screening technologies. Finally, the opinion was written by then-Judge Alito,¹²⁶ now Supreme Court Justice Alito, which may give us a glimpse into the future and 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

¹²³ Id. at 174.

¹²⁴ Id. at 177.

¹²⁵ Id. at 177-181.

¹²⁶ Id. at 174.

be unreasonable.¹²⁷ 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.¹²⁸

This doctrine originated in Justice Blackmun's 1985 concurring opinion in New Jersey v. T.L.O.¹²⁹ Blackmun agreed the balancing test the majority applied was correct; 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

¹²⁷ Fourth Amendment 'Special Needs' Doctrine Justifies Suspicionless Subway Checkpoints, 75 **U.S. L. Week** 1115, 1115 (2006).

¹²⁸ 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? 170 (Boston University School of Law, Working Paper Series, Public Law & Legal Theory, Working Paper No. 06-15, 2006), available at http://www.bu.edu/law/faculty/scholarship/workingpapers/abstracts/2006/pdf_files/MaclinT062806.pdf. Fourth Amendment 'Special Needs' Doctrine Justifies Suspicionless Subway Checkpoints, supra note 127, at 1115.

¹²⁹ New Jersey v. T.L.O., 469 U.S. 325 (1985).

court entitled to substitute its balancing of interests for that of the Framers.”¹³⁰ 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.¹³¹

Recently, the Second Circuit evaluated checkpoint searches at New York City subway stations.¹³² 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 law enforcement.¹³³ This is the

¹³⁰ Id. at 351.

¹³¹ Maclin, supra note 128 at 172.

¹³² MacWade v. Kelly, 460 F.3d 260 (2nd Cir. 2006).

¹³³ 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 opinion then cited to United States v. Hartwell, noting that decision rejected a “Fourth Amendment challenge to airport checkpoints and recogniz[ed] the need to ‘prevent terrorist attacks on airplanes.’” Id. at 271 (citing United States v. Hartwell, 436 F.3d 174, 179 (3rd Cir. 2006)).

threshold showing the special needs doctrine requires.¹³⁴ The plaintiffs unsuccessfully argued that defending the subway against terrorists only constitutes a special need if an attack is imminent.¹³⁵ The Second Circuit concluded that an emergency did not have to exist in order to qualify a crime prevention search as a special need.¹³⁶

The doctrine next requires the court analyzing the validity of a suspicionless search to balance opposing factors such as whether the government interest for the search program is immediate and substantial, whether the person being searched has

¹³⁴ Fourth Amendment 'Special Needs' Doctrine Justifies Suspicionless Subway Checkpoints, supra note 127, at 1115.

¹³⁵ 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." Fourth Amendment 'Special Needs' Doctrine Justifies Suspicionless Subway Checkpoints, supra note 127, at 1115 (quoting City of Indianapolis v. Edmond, 531 U.S. 32, 44 (2000)).

¹³⁶ Id. See also MacWade v. Kelly, 460 F.3d 260, 271 (2nd Cir. 2006).

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.¹³⁷ 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.¹³⁸ In fact, "[a]ll that is required is that the 'risk to public safety [be] substantial and real' instead of merely symbolic."¹³⁹ Next, the Court decided that subway passengers have an expectation of privacy with regards to objects they carry in closed, opaque bags.¹⁴⁰ However, the subway checkpoint search minimally intruded upon the passengers' privacy expectation.¹⁴¹ Finally, the Court

¹³⁷ Fourth Amendment 'Special Needs' Doctrine Justifies Suspicionless Subway Checkpoints, supra note 127, at 1115. See also MacWade, 460 F.3d at 270-71 (explaining the second facet of the special needs doctrine is to determine the reasonableness of a search by balancing several factors).

¹³⁸ MacWade, 460 F.3d at 272.

¹³⁹ Id. (quoting Chandler v. Miller, 520 U.S. 305, 322-23 (1997)).

¹⁴⁰ Id.

¹⁴¹ Id.

stated that it was not their place to perform an in depth analysis of the efficacy of the checkpoint search program.¹⁴² 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."¹⁴³ The Court therefore held that the subway checkpoint search program was reasonable and constitutional, by use of the special needs doctrine.¹⁴⁴

IV. Application of the Law

Tracing the evolution of the law as it applies to airport screenings reveals a number of points about our Fourth Amendment protections that are disturbing. A review of the cases related to airport searches illustrates that the private person rarely wins and the searches are almost always found to be reasonable.¹⁴⁵ Further, avoiding screening by electing not fly does not amount to a real choice by the passenger.

¹⁴² Id. at 273.

¹⁴³ Id. at 274.

¹⁴⁴ Id. at 275.

¹⁴⁵ See supra Part II.

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.¹⁴⁶ As declared in Torbet, the test for determining whether an airport screening search is reasonable stems from Davis and consists of three elements: "(1) it is not 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."¹⁴⁷

¹⁴⁶ 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)).

¹⁴⁷ 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)).

A. Magnetometers (Metal Detectors)

The law is clear that metal detectors, or magnetometers, are reasonable searches at airports.¹⁴⁸ 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."¹⁴⁹ In perhaps the clearest statement of why metal detector searches are reasonable, the Fourth Circuit stated, "the 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."¹⁵⁰

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

¹⁴⁸ Gibson v. State, 921 S.W.2d 747, 757 (Tex. Ct. App. 1996) (citing United States v. Epperson, 454 F.2d 769, 770 (4th Cir. 1972)).

¹⁴⁹ United States v. Albarado, 495 F.2d 799, 806 (2nd Cir. 1974)).

¹⁵⁰ United States v. Epperson, 454 F.2d 769, 772 (4th Cir. 1972).

determining what they were carrying on their bodies.¹⁵¹ But as history reveals, we adjusted to metal detector screenings prior to boarding planes, and now society regards them as normal.¹⁵² In fact, now people may even be hesitant to get on 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.¹⁵³ There are metal

¹⁵¹ **Wayne LaFave, Search and Seizure: A Treatise on the Fourth Amendment** § 10.6 (3d ed. 1996).

¹⁵² Paul Glastris, ...One That Should Be The Best, But Isn't, **Washington Monthly**, Mar. 1998, available at http://findarticles.com/p/articles/mi_m1316/is_n2_v20/ai_6424713.

¹⁵³ 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).

detectors at courthouses, schools, and stadiums.¹⁵⁴ While some may find magnetometers at these types of locations annoying, society in general has allowed their use without an uproar that our Fourth Amendment rights are being violated.¹⁵⁵

¹⁵⁴ "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." Michigan Dept. of State Police v. Sitz, 496 U.S. 444 (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 urban schools." Petition for Writ of Certiorari at 36-37, Lamson v. United States, cert. denied, 510 U.S. 1013 (1993) (No. 03-3674).

¹⁵⁵ 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 v. United States, cert. denied, 510 U.S. 1013 (1993) (No. 03-3674).

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.¹⁵⁶ 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.”¹⁵⁷ These other contexts do not share

¹⁵⁶ “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 38, at 333.

¹⁵⁷ Gregory T. Nojeim, Legislative Counsel, Am. Civil Liberties Union, Civil Liberties Implications of Airport Security Measures, Statement Before White House Commission in Aviation

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.¹⁵⁸

i. Doctrine of Unconstitutional Conditions

Proceeding down that slippery slope of magnetometers prompts an aside regarding the doctrine of unconstitutional conditions. This doctrine asserts that the government cannot force a person to relinquish a constitutional right in exchange for a discretionary benefit that has little relation to that right.¹⁵⁹

Safety and Security (Sept. 5, 1996)

(http://www.epic.org/privacy/fee/aclu_testimony.html).

¹⁵⁸ 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 1, **Freedom Daily**, Mar. 1991, <http://www.fff.org/freedom/0391c.asp>.

¹⁵⁹ Dolan v. City of Tigard, 512 U.S. 374, 385 (1994). See also Perry v. Sindermann, 408 U.S. 593, 597 (1972) (explaining that despite the fact that one does not have a right to a government

In the airport context, the benefit that the government confers is the use of government facilities for air transport and the use of the nation's air lanes. The government grants this benefit on the condition that people relinquish their Fourth Amendment right to be free from searches absent probable cause. As stated above, the doctrine requires that the relinquishment of the right must be substantially related to the benefit conferred. Since metal detector searches are designed to prevent airline hijackings and to promote the safety of air travel, the condition is substantially related to the benefit. September 11 further demonstrated the substantial relationship between the necessity of relinquishing the right to be free from searches absent probable cause and the benefit of traveling by air. Therefore, with regards to airport screenings, the condition the government imposes is constitutional.

However, that same search via use of a metal detector may not satisfy the doctrine in the school or courthouse context. This is because entering schools and courthouses are not discretionary benefits, as is using an airport. There is a fundamental constitutional right to go to school (in fact, the

benefit and the government may have many reasons for denying one a benefit, denial may not be based on an infringement of constitutionally protected interests).

government has made this mandatory¹⁶⁰) and to go to court, but not to fly.¹⁶¹ This means the government has no right to block people from accessing schools or courts. The level of scrutiny applied to the examination of the substantial relationship between the right relinquished and the benefit conferred is roughly the same as the standard of review used for direct infringements of the constitutional right involved. Since strict scrutiny is utilized for fundamental rights, the analysis of whether the conditions imposed on people entering schools and courthouses are unconstitutional would be much more stringent than the analysis used in the airport context.

It may be that metal detector searches can be shown to be substantially related to entering schools and courthouses, even using strict scrutiny. But what about the emerging airport screening technologies that are more intrusive? It is not yet

¹⁶⁰ E.g., *People v. Dukes*, 580 N.Y.S.2d 850, 853 (1992). See also supra note 158 (discussing states' enactments of compulsory school attendance laws).

¹⁶¹ The fundamental right to travel does not translate to a fundamental right to fly. If one is denied a single mode of travel, even the most convenient mode, the right to travel has not been infringed upon. *Gilmore v. Gonzales*, 435 F.3d 1125, 1136-37 (2006).

settled that those are constitutional in the airport setting, much less anywhere else.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

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 they 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

¹⁶² See infra, Parts IV.B and IV.C.

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 which litigated the issue of metal detectors in schools. Charles J. Russo & Jacqueline A. Stefkovich, Search and Seizure in the Schools, **NASSP Bull.** (Nat'l Ass'n of Secondary School Principals), Sept. 1998.

¹⁶⁴ See supra Part IV.A.

of passengers far more than pat-downs, physical searches, and backscatter x-rays.”¹⁶⁵ 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 oversees 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 which can identify chemical signatures could be used to recognize illegal

¹⁶⁵ Timothy D. Sparapani, Legislative Counsel, Am. Civil Liberties Union, Testimony Regarding the U.S. Transportation Security Administration’s Physical Screening of Airline Passengers and Related Cargo and Airport Screening, Principles for Evaluating Physical Screening Techniques and Technologies Consistent with Constitutional Norms, Before the U.S. Senate Committee on Commerce, Science, and Transportation (Apr. 4, 2006) (<http://www.aclu.org/privacy/gen/24856leg20060404.html>).

¹⁶⁶ See supra Part II.C.

¹⁶⁷ Id.

¹⁶⁸ Id.

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 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 little basis to declare puffers to be unreasonable searches.

¹⁶⁹ **Comm. on Commercial Aviation Sec., Nat'l Research Council,**
supra note 1, at 42 .

¹⁷⁰ Id.

¹⁷¹ Id.

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 U.S. (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

¹⁷² See supra Part II.B.i.

¹⁷³ Addie S. Ries, America's Anti-hijacking Campaign--Will It Conform to Our Constitution?, 3 **N.C. J.L. & Tech.** 123 (2001).

¹⁷⁴ The award statue is called the "Orwell" and depicts a boot stomping on a head. See <http://www.privacyinternational.org/bigbrother/us2000/>.

¹⁷⁵ Id.

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 of the 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

¹⁷⁶ **Comm. on Commercial Aviation Sec., Nat'l Research Council,** supra note 1, at 14-16.

¹⁷⁷ Id. at 41.

¹⁷⁸ Id.

¹⁷⁹ Id.

¹⁸⁰ Id.

¹⁸¹ Id.

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 searches in many places in addition to airports.¹⁸² The issue with backscatter x-rays (and other emerging technologies) is therefore 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

¹⁸² Murphy & Wilds, supra note 38, at 336-37.

¹⁸³ Id. at 337.

¹⁸⁴ Id.

¹⁸⁵ Id. at 337-38.

¹⁸⁶ Id. at 337.

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 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. "Body-scanning is a debasing and humiliating procedure, and its routine use fails basic balancing tests....

¹⁸⁷ Steven Vina, *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).

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

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 44.

¹⁹² Id.

¹⁹³ “Even the presence of an 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 efficacy gains.” Sparapani, supra note 165.

The ACLU is against the use of backscatter x-rays for primary passenger screening.¹⁹⁴ "Passengers 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 prerequisite 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. 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

¹⁹⁴ **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>.

¹⁹⁵ Id.

¹⁹⁶ Am. Civil Liberties Union, supra note 190.

¹⁹⁷ Id.

only reasonable application for a technology which is so invasive. Under Skipwith, mere suspicion is all that is required to perform an airport passenger search.¹⁹⁸ The Skipwith opinion 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 which was narrowly tailored to protect privacy and which was utilized only after a regular screening revealed a foundation for a more involved search were permitted under the administrative search doctrine.²⁰² This rule would support the

¹⁹⁸ United States v. Skipwith, 482 F.2d 1272 (5th Cir. 1973).

See supra Part II.B.iii.

¹⁹⁹ Skipwith, 482 F.2d at 1272.

²⁰⁰ Ries, supra note 173.

²⁰¹ Id.

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

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 possibility that backscatter x-rays be used 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.

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 on passengers' privacy as minimally as possible. "The level of intrusion - the

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. **Am. Civil Liberties Union**, supra note 194.

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 requires this.²⁰⁵ This is similar to the analysis of whether a law infringes on a fundamental right involves determining whether the law survives strict scrutiny. 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 to the right of 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

²⁰⁴ Sparapani, supra note 165.

²⁰⁵ See supra Part III.B.ii.

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

reduced if passengers knew that the person viewing the detailed images of their bodies were in a remote location. Only if 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 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 to not let fear and 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 that was formerly considered unreasonable is now reasonable. There is no doubt we face sometimes 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.