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Electronic Visual Surveillance and the Reasonable Expectation of Privacy

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ELECTRONIC VISUAL SURVEILLANCE AND THE
REASONABLE EXPECTATION OF PRIVACY

*Max Guirguis**

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The ingenious mind of man can conjure up subtle methods of search through modern electronics as reprehensible as kicking down a door. United States v. Hall, 488 F.2d 193, 198 (9th Cir. 1973).

I. INTRODUCTION

The terrorist assault of 2001 on the United States altered the delicate balance between individual security and national security. Within days of the attack, a nation that once placed a uniquely high value on personal privacy seemed ready to swap it for public safety, and what was once denounced as Orwellian was suddenly embraced as reasonable. But as the traumatic memories of the tragedy begin to heal, many Americans are

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again questioning the legal propriety of the modern surveillance tools that government has recently employed in its longtime war on crime and late war on terror. Preeminent among these tools are electronic visual surveillance and the face-recognition technology used in some public surveillance cameras. As of yet, the U.S. Supreme Court has addressed neither issue.

The purpose of this Article is twofold. First, it seeks to examine the issue of electronic visual surveillance from a legal perspective. Second, and attendant to this, it seeks to establish clear standards to regulate this new technology and limit its intrusiveness. Toward this end, I will begin by briefly discussing the uses, potential benefits, and civil concerns of continuous video surveillance of public places by government-installed cameras, and proceed to investigate the various constitutional issues surrounding this technology. As I go along, I will propose guidelines to keep the practice constitutional and minimally intrusive. Finally, and by way of conclusion, I will summarize my findings and suggestions. Since the High Court has not assessed the constitutionality of public video surveillance, I will draw on illustrative lower federal court cases as well as the analysis of legal scholars to set the appropriate guidelines.

II. USES AND POTENTIAL ABUSES OF ELECTRONIC VISUAL SURVEILLANCE

Public video surveillance has recently become one of the most conspicuous manifestations of, and effective instruments in, the exercise of the state's police powers. The development of surveillance technology, and its late convergence with state of the art computers, databases, and telecommunication systems, has dramatically enhanced government's ability to perform its law enforcement functions. But, it has equally increased the tension between the need of government to combat the daily threats to public safety and the right of law-abiding citizens to be secure from the potential privacy abuses of modern policing technology.

Law enforcement authorities around the world attest that closed circuit television (CCTV) cameras help investigate and solve crimes by recording illegal and violent acts as they occur.¹ The evidence caught live on

1. In one year, video surveillance cameras captured 75% of all the crimes investigated by Canadian law enforcement or private security. A similar video surveillance system used in the national rapid transit system in Paris has detected 83% of all criminal incidents. See Marcus Nieto, *Public Video Surveillance: Is It an Effective Crime Prevention Tool?*, June 1997, available at <http://www.library.ca.gov/CRB/97/05> (last visited Oct. 15, 2004). The English town of Scunthorpe, a popular tourist destination, reported a 50% drop in crime in the first year cameras were

videotape is among the most reliable and is known to result in the highest conviction rate because, unlike people, the camera and the tape cannot lie.² Videotaping makes the credibility of the witness or claims by the suspect or the officer a less critical issue by presenting the court with indisputable and objective evidence, free from personal predilection and subjective assessment.³ With their long-range and wide-area monitoring capabilities, surveillance cameras have a significant deterring effect, and have helped police foil many of the crimes that take place in public such as vandalism, mugging, car theft, drug distribution, and drive-by shooting.⁴ In some cases, CCTV cameras have enabled police to intervene during the commission of an unlawful act and catch the culprit red-handed.⁵ CCTV

introduced. See John Spittlehouse, *Reaping Benefits of eBig Brother*, SCUNTHORPE EVENING TELEGRAPH, Aug. 16, 2002, at 4. The installation of 50 security cameras in the Kabukicho entertainment district of Tokyo, Japan, reduced crime by about 13% in one year. Security cameras will be installed in 6 more entertainment quarters. See *Big Brother Cramping Criminals' Style*, DAILY YOMIURI, July 23, 2003, at 3. During the first 7 months of installing public surveillance cameras in high-crime Chicago neighborhoods, serious crime went down by 17% and all other crimes went down by 46%. See Fran Spielman, *Police Cams to Add Gunshot Detectors*, CHI. SUN-TIMES, Apr. 7, 2004, at 11; see also *infra* note 4.

2. Cook County Sheriff's Office in Illinois achieved a DUI Conviction rate of 99% because of incriminating tapes showing motorists unable to walk a straight line. See Maureen O'Donnell, *Grants to Help Catch Speeders; Cameras Pay Off for Sheriff's Policy*, CHI. SUN-TIMES, May 22, 2000, at 22.

3. A video recording could be used at trial, not only to convict the actual perpetrator of an offence, but also to acquit the wrongly accused. For instance, in Orange County, California, a police videotape directly contradicted an officer's testimony, conclusively showing that the defendant was not read his Miranda rights prior to questioning him in the back of a patrol vehicle. See Scott Moxley, *Testilying: Video Embarrasses DA, Newport Cops*, OC WKLY., May 28, 1999, at 12. In Chicago, a public official was acquitted of DUI charges after a videotape of his arrest by a police officer clearly showed that he was not impaired, contrary to the officer's statement that he had stumbled while attempting to walk a straight line. See Stacy St. Clair, *Do Police Videotapes Lie? No, But It Might Not Tell the Whole Story at a DUI Stop, Some Say*, CHI. DAILY HERALD, May 22, 2001, at 1.

4. Within 3 years of the installation of a \$3 million system in 1998 in one London borough, assaults on individuals had declined 21%, vandalism 26%, and burglaries 39%. See Barbara Dority, *Big Brother Is Watching! A Brave New World – Or A Technological Nightmare?*, 61 THE HUMANIST 10 (2001). The British Home Office reports a 41% overall decrease in vehicle crime in car parks where CCTV has been installed. See *Tackling Crime in a World of Vast Change*, EVENING CHRON., Sept. 23, 2002, at 22; *Big Brother is Watching*, S. WALES EVENING POST, Feb. 19, 2003, at 15. Police in Darebin, Australia reported that residential, commercial, and aggravated burglaries had dropped by 16%, 19%, and 40%, respectively, in the first half of the 12-month security camera pilot project that debuted in January 2003. See Sally Norris, *New Assault on Crime*, MOONEE VALLEY LEADER Mar. 29, 2004, at 1.

5. Richard Pendlebury, *Hi-Tech Eyes Help to Crack Crime*, DAILY MAIL, Apr. 17, 1993, at 12.

cameras also have many functional uses in the areas of traffic management and highway safety, and have proven particularly useful during morning and evening peak hours. By observing the flow of traffic and freeway conditions from cameras located at strategic points, police can identify unsafe drivers, detect disabled and abandoned vehicles, plan rescue operations and direct resources to respond more effectively, eyewitness and capture incidents of hit-and-run and accidents as they happen, and reconstruct crash scenes more objectively and accurately.⁶

Video surveillance has been used for quite some time in the United Kingdom to monitor city centers, public transportation facilities, and high-crime neighborhoods. With over 4 million surveillance cameras observing virtually all aspects of life, from commuting to shopping to dining, Britain has more public surveillance cameras per capita than any other country in the world, where the ratio is 1 camera for every 14 people, and an average person living in a major city may be filmed 300 times a day.⁷ London Underground currently has 6000 CCTV cameras that cover 95% of stations, a number that could possibly increase by 50% in the next few years with the installation of cameras aboard the trains.⁸ The city of London alone has more than 150,000 CCTV cameras.⁹ Scotland's biggest city, Glasgow, launched the largest surveillance system in any European city in November 1994.¹⁰ The security cameras monitor the city's main business, commercial, and tourist areas.¹¹ The 200 cameras, which are to

6. The Department of Main Roads in Queensland, Australia, is now using an integrated Intelligent Transport System (ITS) to manage freeways and signalized intersections. The system presently operates 1200 signalized intersections and provides a wide range of services from traffic signal management to incident detection and response, and from travel time advisory to parking guidance. See Intelligent Transport System Queensland Web Site, at <http://www.itsq.com.au/> (last visited Oct. 15, 2004). In the United States, transportation management centers in several states also use traffic surveillance cameras to monitor roadways and report travel information to drivers via Internet web sites. See Keri A. Funderburg, *FHWA Honors Top Traveler Information Sites*, 67 PUB. ROADS (2004), available at <http://www.tfrc.gov/pubrds/04jan/iwatch.htm> (last visited Oct. 15, 2004).

7. Andrea Thompson, *Big Brother UK*, DAILY MAIL, Jan. 23, 2004, at 24; Mark Rice-Oxley, *Big Brother in Britain: Does More Surveillance Work?*, CHRISTIAN SCI. MONITOR, Feb. 6, 2004, at 7; Rowland Nethaway, *Security Cameras Seem to Be in All Public Places*, PALM BCH. DAILY NEWS, Apr. 19, 2004, available at <http://www.palmbeachdailynews.com/news/content/shared/news/politics/stories/04/17nethway.html> (last visited Oct. 15, 2004).

8. Yvonne Singh, *Who Is Watching over Us?*, EVENING STANDARD, May 17, 2004, at J2, J3.

9. *Id.*

10. Bill Caven, *TV Surveillance Launched but £540,000 Needed to Make it Last*, THE HERALD, Nov. 2, 1994, at 3.

11. *Id.*

double over the next several years, feed into a central control room and are monitored 18-24 hours a day.¹² Glasgow credits the system with a 68% crime reduction rate after three years from initial installation.¹³ Crime has also dropped by a dramatic 75% in the neighboring town of Airdrie that employs similar surveillance techniques.¹⁴

Despite their ubiquity, crime prevention surveillance systems are widely supported by the British public.¹⁵ In fact, one of England's earliest surveillance systems was installed at the insistence of the public and was even partially paid for by local businesses.¹⁶ That was the system of the historic city of Northampton, which was introduced in the early 1990s in the wake of the IRA intense bombing campaigns. The security cameras in Northampton, as in other British towns, have a pan-tilt-zoom capacity, which allows police to detect and record virtually any activity taking place in the central pedestrian and vehicle routes around the clock.¹⁷ Both short- and long-term results were quite impressive. The cameras led to 17 arrests the same month they became fully operational.¹⁸ Two and a half years after the system's installation, police have solved 85% of all crimes in the monitored areas.¹⁹ By the mid-1990s, Northampton's crime record had been cut by 57%.²⁰

With over four times the population of Britain, the United States lags behind its European counterpart in public video surveillance, but it is gradually catching up. Surveillance systems were first introduced in a limited number of U.S. cities between 1993 and 1996. The number of anticrime surveillance projects increased as the initial experiments yielded positive results. In Tacoma, Washington, for instance, incidents involving assaults, trespassing, prostitution, and vandalism declined by 35% from

12. Vivienne Nicholl, *Plan to Double Number of "Spy" Cameras; Glasgow Bids for Cash Backing from Scottish Executive for New CCTV Scheme*, EVENING TIMES, Jan. 22, 2001, at 9.

13. Brian J. Taylor, *The Screening of America: Crime, Cops, and Cameras*, REASON, May 1997, at 45.

14. *Id.*

15. The popular city of Bath in southwest England is a case in point, where 88% of residents questioned about a new surveillance system favored its extension, and 93% said they felt safer in the monitored areas. See Aliya Frostick, *CCTV Network Success in Fight against Crime*, BATH CHRON., June 4, 2004, at 4. According to a Norfolk, U.K., council administration officer, 96% of the locals gave the city's public surveillance cameras their support. See Pendlebury, *supra* note 5.

16. The private sector contributed £20,000 toward the cost of the full system, which is estimated at £280,000. See Jimmy Burns, *Security Cameras Catch the Eye: The Early Success of a Surveillance System in Northampton Town Centre*, FIN. TIMES, May 1, 1993, at 6.

17. Joan Mcalpine, *Caught on Video Nasty*, THE SCOTSMAN, Nov. 2, 1994, at 15.

18. Burns, *supra* note 16.

19. *Id.*

20. Taylor, *supra* note 13, at 45.

1993 to 1994, the first year the cameras were put to use.²¹ New York City also began its own program in 1993. Within 5 years, the crime rate was down by 30% to 50% in public housing projects monitored by cameras.²² The number of cameras in New York City is estimated to have risen in the past 5 years from 2397 to 7200, a 300% increase.²³ Baltimore began its "Video Patrol" program in 1996 as an attempt to revive the downtown business district and local economy, by restoring public confidence.²⁴ The effort began with 16 cameras, which quadrupled in number following the success of the pilot project.²⁵ Baltimore's public cameras record both audio and video, allowing the police to watch and listen to what occurs in every street and sidewalk of the city's 16-block downtown area around the clock.²⁶ In Redwood City, California, few people have complained about similar intrusions because they are more concerned about gunfire than police sensors, as one resident put it.²⁷ The crime rate in the surveillance areas dropped 11% in the first year and 33% in the second year.²⁸

Seeing the positive results, many cities across the country have launched similar programs or have applied for state or federal grants to install their own systems. Reeling under one of the nation's highest homicide rates, in addition to being a prime target for terror, Washington D.C. has been upgrading its system to what may become the country's most extensive computerized surveillance network.²⁹ The D.C. system will link hundreds of government video cameras that already monitor streets, subway stations, schools and federal facilities, making it the first city in the United States to be able to view long stretches of the city and to create a digital record of images.³⁰ Many people seem to welcome the added protection and enjoy the enhanced safety. In fact, residents of the crime-

21. *City Ready for Close-up on Crime; Surveillance Camera to Monitor Downtown*, WORCESTER TELEGRAM & GAZETTE, Aug. 27, 2003, at B1.

22. Tom Mooney, *Providence Street Cameras Raise Questions of Privacy*, PROVIDENCE J.-BULL., Jan. 29, 1999, at 1A.

23. Sabrina Tavernise, *Watching Big Brother; On this Tour, Hidden Cameras Are Hidden No More*, N.Y. TIMES, Jan. 17, 2004, at B1.

24. Nieto, *supra* note 1.

25. *Id.*

26. Timothy Egan, *Police Surveillance of Streets Turns to Video Cameras and Listening Devices*, N.Y. TIMES, Feb. 7, 1996, at A12.

27. *Id.*

28. Mark Helm, *Study Urges Regulation of Surveillance*, PATRIOT LEDGER, June 15, 1998, at 06.

29. Spencer S. Hsu, *D.C. Forms Network of Surveillance: Police System of Hundreds of Video Links Raises Issues of Rights, Privacy*, WASH. POST, Feb. 17, 2002, at C01.

30. *Id.*

ridden neighborhoods of the capital have petitioned government to install more surveillance cameras.³¹

Surveillance cameras are now used in combination with other technologies as a means of social control. The marriage between video surveillance and computer technology has been consummated by a highly sophisticated software program, FaceTrac,³² that utilizes the so-called automatic face-recognition technology to digitize and match up faces against a database of digital portraits in seconds.³³ It functions by measuring 128 distinct facial features and contours numerically — including the distance between the eyes, the slope and length of the nose, the angle of the jaw, and the thickness of the lips — to produce a unique template or precise mathematical profile of each scanned face.³⁴ The numerical code of the acquired image is then matched against the codes of individuals with outstanding arrest warrants stored in a law-enforcement database.³⁵ The program was originally developed by scientists at Massachusetts Institute of Technology (MIT) in the early 1990s as an attempt to make computers recognize their designated users, but has since been adapted by both government and the private sector for many other uses. These include identifying wanted or missing persons, preventing passport and driver license fraud, protecting automatic teller machines, and catching casino cheats.³⁶

An automatic face-identification system was used as a test project at Super Bowl XXXV, held at Raymond James Stadium in Tampa, Florida, in January 2001. Unbeknownst to the more than 100,000 fans and workers at the event, their facial images and identities were checked electronically against computer files of criminals as they passed through the turnstiles.³⁷

31. David A. Fahrenthold, *Crime-Plagued D.C. Neighborhoods Ask for Cameras*, WASH. POST, Mar. 10, 2003, at B01.

32. Graphco Technologies, the company that constructed the Super Bowl surveillance system, is one of several manufacturers of facial biometric devices. See Randy Dotinga, *Biometrics Benched for Super Bowl*, WIRED NEWS, Dec. 31, 2002, at <http://www.wired.com/news/culture/0,1284,56878,00.html> (last visited Nov. 27, 2004).

33. Declan McCullagh, *Call It Super Bowl Face Scan I*, WIRED NEWS, Feb. 2, 2001, at <http://www.wired.com/news/politics/0,1283,41571,00.html> (last visited Oct. 15, 2004).

34. Lev Grossman, *Welcome to the Snooper Bowl: Big Brother Came to Super Sunday. Setting off a New Debate about Privacy and Security in the Digital Age*, TIME, Feb. 12, 2001, at 72.

35. Jay Bookman, *Technology; In Your Face: The Ways Surveillance Equipment Can Scan, Tape, Track and Profile You*, ATLANTA J.-CONST., Mar. 25, 2001, at 1D.

36. Grossman, *supra* note 34; Vickie Chachere, *Super Bowl Surveillance Spurs Debate*, CHARLESTON GAZETTE, Feb. 12, 2001, at 8A; Catherine Watson, *New U.S. Passports Will Use Facial-Recognition Technology*, STAR TRIB., Sept. 28, 2003, at 8G.

37. Julia Scheeres, *When Your Mole Betrays You*, WIRED NEWS, Mar. 14, 2001, at <http://www.wired.com/news/politics/0,1283,42353,00.html> (last visited Oct. 15, 2004).

A relatively small database of 1700 faces assembled from FBI and police files was used in the undisclosed test,³⁸ in which 19 people with criminal histories were identified, but no arrests were made because none of them had committed crimes of a “significant nature,” according to a Tampa police spokesman.³⁹ Both the software provider and the police officers were satisfied with the software test.⁴⁰ A system similar to the one tested during the Super Bowl was installed in June 2001 in the historic entertainment district of Ybor City in downtown Tampa.⁴¹ A much larger database of 30,000 mug shots of known felons and runaways was linked to the 36 cameras installed around Ybor.⁴² Tampa was the first U.S. city to employ a face-scanning system,⁴³ but other cities have implemented similar systems since then.⁴⁴

This new technology, which may become the security tool of the future, is becoming increasingly popular with the war on terror shifting the boundaries of law enforcement. Security planners for the 2002 Winter Olympics have reportedly used 1000 video cameras — some equipped with digital face-recognition technology — to keep track of athletes and spectators, because the potential for terrorist attacks at international events and large gatherings tends to be greater.⁴⁵ Makers of face-recognition software have reported increased interest in and demand for their technology from airports, law enforcement agencies, and motor vehicle departments following the September 11 terrorist attacks.⁴⁶

The effectiveness of video surveillance technology is the very reason why the threats it poses to personal privacy are uncomfortably high;

38. Bob Kapstatter, *Snooper Bowl; Tampa Cops Recorded Every Fan's Face*, DAILY NEWS, Feb. 2, 2001, at 1.

39. Peter Slevin, *Police Video Cameras Taped Football Fans: Super Bowl Surveillance Stirs Debate*, WASH. POST, Feb. 1, 2001, at A01.

40. Lisa Greene, *Face Scans Match Few Suspects*, ST. PETERSBURG TIMES, Feb. 16, 2001, at 1A (stating that Tampa police were pleased and might consider buying the technology someday); see also Dana Canedy, *Tampa Scans the Faces in Its Crowds for Criminals*, N.Y. TIMES, July 4, 2001, at A1 (stating that the number of matches exceeded the expectations of police).

41. Geoff Dutton et al., *Eye on Ybor*, TAMPA TRIB., June 30, 2001, at 1.

42. Tom Kirchofer, *High-Tech Snooping Spotlights Safety vs. Privacy Rift*, BOSTON HERALD, July 29, 2001, at 001.

43. B.C. Manion, *Masked Protesters March Against Scanners*, TAMPA TRIB., July 15, 2001, at 2.

44. John J. Brogan, *Facing the Music: The Dubious Constitutionality of Facial Recognition Technology*, 25 HASTINGS COMM. & ENT. L.J. 80, 81 (2002) (stating that face-scanning technology has been introduced in seven major cities besides Tampa).

45. Jay Weiner, *Skiing, Skating, Snow and Security*, STAR TRIB., Feb. 3, 2002, at 1A.

46. William Welsh, *Facing Trouble*, 16 Wash. Tech., Feb. 4, 2002, available at http://www.washingtontechnology.com/news/16_21/state/17781-1.html (last visited Oct. 15, 2004).

powerful devices that help the police could also hurt the public. To mention but a few of the civil liberty concerns, the surveillance tapes could be used, for instance, to target or harass certain ethnic groups, collect information about people's political affiliations and activities, or blackmail the taped subjects for various reasons. However conspiratorial these theories may sound, they should not be completely ruled out given the serious violations of the past.

In 2000, for instance, after numerous complaints, New Jersey State Police and New York Police Department came under federal and internal state investigations for systematically targeting minorities and subjecting Black and Hispanic motorists to unwarranted traffic stops and mistreatment.⁴⁷ The final report confirmed the allegations of police misconduct and widespread racial prejudice, revealing among other things, that at least 8 of every 10 automobiles stopped and searched on the New Jersey Turnpike over the 1990s decade were driven by Blacks and Latinos.⁴⁸ The state released documents showing that its anti-drug policy actually encouraged troopers to use race as a factor at the cost of violating the civil rights of Black and Hispanic drivers.⁴⁹ Racial profiling is also believed to be a common practice in other states.⁵⁰ Unless properly implemented and safeguarded, new surveillance technology may further encourage racial profiling and be selectively used by police to engage in racist abuse.⁵¹

In 1973, President Nixon secretly plotted to smear and punish his political opponents. He ordered hush money to be paid to the Watergate burglars, turned the Internal Revenue Service (IRS) against his perceived "enemies," and used his influence to prevent the FBI from investigating him.⁵² Against such and other equally shocking infractions by men of

47. Michael Posner, *House Panel Orders Racial Profiling Study*, NAT'L J., Mar. 4, 2000, at 705.

48. David Kocieniewski & Robert Hanley, *Racial Profiling Was the Routine, New Jersey Finds*, N.Y. TIMES, Nov. 28, 2000, at A1.

49. Wendy Ruderman, *Profiling Was Used in War on Drugs; Papers Show Troopers Labeled Ethnic Groups*, RECORD, Nov. 28, 2000, at A01.

50. Kit R. Roane, *Are Police Going Too Far?*, U.S. NEWS & WORLD REP., Feb. 7, 2000, at 25.

51. A 1997 study conducted at the University of Hull in England found that black people were watched by camera operators between one-and-a-half and two-and-a-half times more often than expected based on the percentage they represent of the overall population. See Jane Black, *One in the Eye for Big Brother*, BUSINESSWEEK ONLINE, Aug. 15, 2002, at http://www.businessweek.com/bwdaily/dnflash/aug2002/nf20020815_7186.htm (last visited Oct. 15, 2004).

52. Adam Clymer, *Time (25 Years) and Scandal Fatigue Blur the Fall of Nixon*, N.Y. TIMES, Aug. 9, 1999, at A1.

power, it is not unreasonable to worry about an unscrupulous politician using surveillance to harass critics and adversaries, or to track their movements and blackmail them if caught on tape in compromising or politically damaging situations.

Privacy faces unprecedented threats from pairing video technology and information technology, which posed very distinct privacy issues in the past.⁵³ In the brave new world of hi-tech surveillance and electronic record-keeping, personal information gathered by activity-based surveillance could be merged with tax, financial, medical, or other private records stored in the databases of different bureaus to develop a detailed portrait of an individual's private life.⁵⁴ The surveillance tapes could be used in conjunction with other rich databases to put together extensive profiles of people that include their political ideas, activities, plans, and personal associations. Government videotaping of the public with high-definition color cameras (that zoom, tilt, and pan 360 degrees) may appear as a valid and harmless exercise of the state's police powers, justified by its legitimate interest in making America safer, but it is also one that is ripe for abuse.

The experimental usage of face-recognition technology at the Super Bowl XXXV event has provoked a backlash among privacy-rights advocates, who saw it as an overly intrusive presence in a free society.⁵⁵ The covert video policing conjured up images of George Orwell's "Oceania," the despotic state described in *1984*, whose citizens are controlled via telescreens by the omnipresent Big Brother who never blinks.⁵⁶ Florida ACLU director, Howard Simon, condemned the high-tech surveillance at the Super Bowl as a "computerized police lineup" in which the fans were unknowingly standing, and demanded that Tampa city officials hold public hearings to answer questions about the use of biometric surveillance equipment to recognize faces.⁵⁷ Professor Christine L. Borgman, privacy expert and presidential chair in information studies

53. Thomas B. Kearns, *Technology and the Right to Privacy: The Convergence of Surveillance and Information Privacy Concerns*, 7 WM. & MARY BILL RTS. J. 995 (1999).

54. *Id.* at 995-97, 1010.

55. See Scheeres, *supra* note 37.

56. Following the Super Bowl test of the new surveillance equipment, California State Senator Debra Bowen asked, "What kind of an Orwellian world would this be if every time you walked into the mall your face was scanned, digitized and shipped out to police departments all over the country to be placed side by side with the images of known terrorists and other criminals?" See Michael Gardner, *Face Recognition and Privacy at Odds: Everyday People Put in High-Tech Lineups*, SAN DIEGO UNION-TRIB., Mar. 11, 2001, at A-3.

57. Angela Moore, *ACLU Protests Super Bowl Cameras*, ST. PETERSBURG TIMES, Feb. 2, 2001, at 3B.

at the University of California in Los Angeles, worries that there may be “a considerable margin of error in determining the identity of people who get snagged” by this technology, which would exert a great toll on civil rights.⁵⁸ In fact, the Tampa Police Department, which began using the system in June 2001, acknowledges that the whole system was halted for several months due to a glitch in the operating system that ran the software, but was turned on again in January 2002 after making improvements.⁵⁹ Perhaps another computer glitch that goes undetected could result in the erroneous matching of the faces of innocent civilians with the digital images of criminals. But absent a computer failure or a software problem, the system will always fail to differentiate between identical twins. As Dr. Joseph Atick, the developer of the Face-It software lightly put it, “If their mother can’t tell them apart, the technology can’t either.”⁶⁰ Some studies have also found that the system can give false positives and false negatives because faces tend to change over time.⁶¹ A broader civil liberty concern is that, as the underlying information and communications technologies becomes less expensive and more powerful, the photographs of all Americans, not just suspects and convicts, could wind up in a large central file that enables law enforcement authorities to keep tabs on the activities

58. Robert Trigaux, *Cameras Scanned Fans for Criminals*, ST. PETERSBURG TIMES, Jan. 31, 2001, at 1A.

59. Welsh, *supra* note 46.

60. Dr. Joseph Atick, Co-Founder and President of Visionics Corp., joined a CNN.com chat room on October 1, 2001 for an open online interview with the public. See Joseph Atick, *How the Facial Recognition Security System Works*, CNN.COM, Oct. 1, 2001, at <http://www.cnn.com/2001/COMMUNITY/10/01/atick> (last visited Oct. 15, 2004) (an expectedly staunch advocate of surveillance technology, Dr. Atick asserts, “[t]he only privacy being invaded is the privacy of criminals, because they are the ones in the database.”). See Daniel F. Drummond, *Face Camera Use Draws Scrutiny; Crime Fighting vs. Privacy at Issue*, WASH. TIMES, July 13, 2001, at C1. The flawed premise of Dr. Atick’s argument is that it is only criminals who want privacy, but there are many noncriminal reasons to want privacy, particularly in a society that values social liberty. See Jan Glidewell, *A Picture Is Worth a Thousand Questions*, ST. PETERSBURG TIMES, Feb. 4, 2001, at 1.

61. *Biometric Technology: It Knows Who You Are: Hand, Face, Signature Recognition Systems are as Simple to Use as They are to Install*, 11 CABLING INSTALLATION & MAINTENANCE 36 (2003). A study conducted by the National Institute of Standards and Technology found that photos of the same person taken 18 months apart resulted in missed matches 43% of the time. See Kara Platoni, *A Clean Scan on Facial Recognition: Is the Oakland Airport’s New Security Software the High-Tech Equivalent of Unlawful Search and Seizure?*, E. BAY EXPRESS, Nov. 7, 2001, available at <http://www.eastbayexpress.com/issues/2001-11-07/cityside2.html> (last visited Nov. 15, 2004).

of whomever they want.⁶² Apart from any potential abuse, the very idea of imposing involuntary videotaping and photographing on a democratic society is amenable to critique and challenge, not only on legal and social, but also on political grounds. It is the American people, not the government, who should be deciding on the tradeoff between their right to anonymity and their personal safety. It is well within the people's democratic right to approve or disapprove any of these protective measures if the goal is their safety.

III. FOURTH AMENDMENT IMPLICATIONS OF VIDEO CAMERA SURVEILLANCE

*Katz v. United States*⁶³ annulled the physical trespass doctrine and defined the meaning of the unreasonableness clause anew to include intangible invasions. According to *Katz*, Fourth Amendment protection only applies when a person possesses a subjective expectation of privacy that society is willing to recognize as reasonable.⁶⁴ Therefore, in order to assess the constitutionality of electronic visual surveillance of public places, we need to answer two questions, as an initial matter. The first is whether a person may have an expectation of privacy that society recognizes as reasonable in a public place, because "a subjective expectation of privacy does not, by itself, give rise to Fourth Amendment protection."⁶⁵ The second question, which is a corollary of the first, is whether recording events occurring in public space constitutes a search. If a person may have no reasonable expectation of privacy at all in a public setting, then public video surveillance falls outside the purview of the Fourth Amendment. However, if such an expectation may exist in certain situations, then some types of surveillance are controlled by the Amendment and subject to the warrant requirements.

For purposes of the Fourth Amendment, a "public place," such as a thoroughfare or a recreational park, is an area to which "access [is] not meaningfully restricted,"⁶⁶ and is "visible to the public,"⁶⁷ as well as

62. Editorial, *Super Bowl Snooping*, N.Y. TIMES, Feb. 4, 2001, at 16; David Kopel & Michael Krause, *Face the Facts: Facial Recognition Technology's Troubled Past — and Troubling Future*, REASON, Oct. 2002, 29.

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

64. *Id.* at 361 (Harlan, J., concurring).

65. *United States v. Smith*, 978 F.2d 171, 177 (5th Cir. 1992), *cert. denied*, 507 U.S. 999 (1993).

66. *Cardwell v. Lewis*, 417 U.S. 583, 593 (1974).

67. *United States v. Santana*, 427 U.S. 38, 42 (1976).

“accessible to the public.”⁶⁸ Conversely, a private place, such as a home or an office, is “a location usually not accessible to the public”⁶⁹ because “obvious efforts have been made to exclude the public.”⁷⁰ The Supreme Court has repeatedly held that people do not have reasonable expectations of privacy against government intrusion in physical characteristics,⁷¹ (legal or illegal) activities,⁷² and objects⁷³ that are exposed to the public because “the police cannot reasonably be expected to avert their eyes from evidence of criminal activity that could have been observed by any member of the public.”⁷⁴ It follows that the visual observation of a public place is not a search under the Fourth Amendment because “only an intrusion, into an area in which an individual has a reasonable expectation of privacy, with the specific intent of discovering evidence of a crime constitutes a search.”⁷⁵ Although the analogy between the human eye and the electronic eye is self-evident, it needs to be legally established by a judicial opinion.

One of the earliest cases to import the general rule that people have no reasonable expectation of privacy in public places into the area of video (as distinct from aerial) surveillance is *United States v. Taketa*.⁷⁶ The video camera in this case was hidden in the ceiling of an airport office, a private place in which the defendant possessed “a reasonable privacy expectation that he would not be videotaped by government agents. . . .”⁷⁷ Reversing Taketa’s conviction, the Ninth Circuit Court drew a distinction between the

68. *United States v. Reicherter*, 647 F.2d 397, 398-99 (1981).

69. *Immigration & Naturalization Serv. v. Delgado*, 466 U.S. 210, 217 n.5 (1984).

70. *United States v. Dunn*, 480 U.S. 294, 319 (1987) (Brennan, J., dissenting).

71. *United States v. Dionisio*, 410 U.S. 1, 14 (1973) (holding that “[n]o person can have a reasonable expectation that others will not know the sound of his voice, any more than he can reasonably expect that his face will be a mystery to the world”); *see also United States v. Mara*, 410 U.S. 19, 21 (1973) (stating that “[h]andwriting, like speech, is repeatedly shown to the public, and there is no more expectation of privacy in the physical characteristics of a person’s script than there is in the tone of his voice”).

72. *See United States v. Watson*, 423 U.S. 411, 427 (1976) (asserting that “the Fourth Amendment permits a duly authorized law enforcement officer to make a warrantless arrest in a public place even though he had adequate opportunity to procure a warrant after developing probable cause for arrest”).

73. *See Payton v. New York*, 445 U.S. 573, 587 (1979) (stating that “objects such as weapons or contraband found in a public place may be seized by the police without a warrant”); *see also Soldal v. Cook County*, 506 U.S. 56, 61 (1992).

74. *California v. Greenwood*, 486 U.S. 35, 41 (1988); *see also Illinois v. Andreas*, 463 U.S. 765, 771 (1983) (stating that “[t]he plain-view doctrine is grounded on the proposition that once police are lawfully in a position to observe an item firsthand, its owner’s privacy interest in that item is lost”).

75. *Cady v. Dombrowski*, 413 U.S. 433, 443 n.1 (1973).

76. *United States v. Taketa*, 923 F.2d 665, 668 (9th Cir. 1991).

77. *Id.* at 677-78.

“exceptional intrusiveness of video surveillance” of the defendant in a personal office, which is “a continuous search of anyone who entered the camera’s field of vision,” and the “[v]ideotaping of suspects in public places,” which does not violate the Fourth Amendment.⁷⁸ A suspect cannot constitutionally challenge the videotaping of his person in a public place simply because “the police may record what they normally may view with the naked eye.”⁷⁹

The Ninth Circuit affirmed its findings in *Taketa* two years later in *United States v. Sherman*.⁸⁰ In *Sherman*, the defendants sought to suppress a silent videotape produced by surreptitious government surveillance of a drug transaction that occurred on a mountain pass near Helena, Montana.⁸¹ While conceding that surveillance is “subject to the dictates of the Fourth Amendment,” the circuit court held that the Amendment was not violated because none of the defendants had a reasonable expectation of privacy since the “transaction took place in plain view in a public place along a highway,” and hence, “everything that was captured by the camera could just as easily have been seen by a person hiding in the trees where the camera was located.”⁸²

It should be noted that the camera used in *Sherman* was covert.⁸³ The addition of what we may call the “hidden observer” factor, however, does not create a Fourth Amendment issue because what controls is the nature of the place under observation and the reasonableness of the privacy expectations of the persons therein rather than the location of the camera or the observer. The gathering of visual information in *Sherman* entailed

78. *Id.* at 675, 677. Circuit Judge Robert R. Beezer coined the creative term “video search” to describe video surveillance in violation of a reasonable expectation of privacy. *See also* *United States v. Koyomejian*, 970 F.2d 536, 542 (9th Cir. 1992) (concluding that the court is “satisfied that these requirements comport with the demands of the Constitution, and guard against unreasonable video searches and seizures”).

79. *Taketa*, 923 F.2d at 677.

80. *United States v. Sherman*, No. 92-30067, 990 F.2d 1265 (9th Cir. 1993).

81. *Id.* at *4.

82. *Id.* at *5. “Public place” and “plain view” represent parallel legal concepts in Fourth Amendment jurisprudence in that anything on display or in a public place can be observed without a search warrant. The plain view doctrine thus justifies warrantless video surveillance of public places because “a plain view observation involves no intrusion into an area in which the defendant has a reasonable expectation of privacy. As long as no such intrusion occurs, the observation does not rise to the level of a search, and Fourth Amendment limitations are not triggered.” *Commonwealth v. Sergienko*, 399 Mass. 291, 294 (1987). The “open fields” doctrine applied in *Oliver v. United States*, can provide an equally compelling justification for public videotaping because it also allows law enforcement officers to see and seize at will any evidence in open view without a warrant. *Oliver v. United States*, 466 U.S. 170, 181 (1984).

83. *Sherman*, 990 F.2d at *2.

no impermissible intrusion into an area in which the defendants had a reasonable expectation of privacy, because the illegal transaction caught on tape took place in open space and in broad daylight.⁸⁴ There is no constitutionally significant difference between evidence obtained by a secret camera scanning a public place and a private citizen or a police officer hiding behind a bush or standing behind the tinted window of a room overlooking the same place.

In light of the holdings of *Taketa* and *Sherman*, we may conclude that if what the camera records is open to public view and can be readily seen by normal unaided vision, then the place under surveillance is public, and the video monitoring of the people and activities occurring in that place does not violate the Fourth Amendment.⁸⁵ On the other hand, if the camera records activities occurring in a location that is not visible to the public, then it is a private place, and therefore, an argument can be made that the warrantless video monitoring thereof is an illegal search under the Fourth Amendment because a search, by definition, "consists of looking for or seeking out that which is otherwise concealed from view."⁸⁶

The conclusions that there is no reasonable expectation of privacy in public places and that the electronic visual surveillance of such places does not offend the Fourth Amendment do not end the inquiry. The determination that still lies ahead, which may not be so easily made as the preceding ones, is when would government surveillance violate the Fourth Amendment or at least raise constitutional concerns. To address this question, we need to explore the nature and potential impact of modern surveillance technology on the Fourth Amendment right to privacy.

Jennifer Granholm was among the first legal commentators to contend that video surveillance of public places may, under certain circumstances, violate the Fourth Amendment. In a 1987 article, she undertook to "expand the meager constitutional artillery currently available to opponents of public surveillance."⁸⁷ Granholm begins by arguing that while a person is only entitled to virtually total privacy at home, he does not shed that privacy in its entirety at his doorstep when he leaves home, but is allowed to take with him at least a vestige thereof as he walks down the street in

84. *Id.*

85. *Id.*

86. *People v. Carlson*, 677 P.2d 310, 316 (Colo. 1984).

87. Jennifer Mulhern Granholm, *Video Surveillance on Public Streets: The Constitutionality of Invisible Citizen Searches*, 64 U. DET. L. REV. 689 (1987). While this article was written a few years before *Taketa* and *Sherman* confirmed the constitutionality of public surveillance, it still presents several well-taken arguments against the practice which are worthy of our consideration.

broad daylight.⁸⁸ A pedestrian cannot have a reasonable expectation that the public or the police will not gaze upon him, but he may reasonably expect not to be focused upon by cameras equipped with powerful zooms or sound-recorders that could zero in on a letter he may be reading, or tape the words he may be speaking.⁸⁹ This intriguing argument raises the two separate constitutional questions of whether video cameras with (1) sound-monitoring capability, and (2) telescopic capacity, would be so intrusive as to implicate the Fourth Amendment.

A. *Can the Camera Have Audio?*

The sound enhancement of such technology also presents constitutional issues. To clarify the limits of video surveillance, let us consider a hypothetical situation where a camera equipped with a sensitive microphone picks up a private conversation between two people sitting on a park bench or standing in a train station concourse. *Katz* controls the determination of whether constitutional protection applies in either situation.⁹⁰ If the expectation that a private conversation carried on in a public place will not be recorded by a government-installed and government-operated camera is both subjectively and objectively reasonable, then the Fourth Amendment protects that expectation and prohibits government from engaging in that practice.

Assuming that the first prong of the *Katz* test has been met by manifesting a subjective intent to maintain privacy, we need only consider the second.⁹¹ It is well-established that society is not prepared to recognize that our two fictional personages have reasonable expectation of privacy in their physical attributes and facial expressions, but can it be said that society would not honor their expectation of privacy in their personal conversation? Hardly so, for to assume that the expectation that their words would not be recorded by a sensitive microphone is reasonable in the eyes of society is to "merely recognize the everyday expectations of privacy that we all share."⁹² Freely engaging in private conversations in public places

88. *Id.* at 695, 696.

89. *Id.* at 694, 695.

90. *Katz v. United States*, 389 U.S. 347, 352 (1967).

91. *Id.* at 361.

92. *Minnesota v. Olson*, 495 U.S. 91, 98 (1990). Although the issue presented in *Olson* was whether an overnight guest had a reasonable expectation of privacy, its holding is relevant to the situation under consideration because the question of reasonableness was decided in light of the "everyday expectations of privacy that we all share" and the "longstanding social custom that serves functions recognized as valuable by society." *Id.*

without fear of surreptitious government surveillance is a right assumed to be inherent in living in a free society.

Moreover, a plausible argument can be made that the camera can be substituted for the eyes of a police officer, but can it be also be argued that the sensitive microphone be substituted for his ears? Even if we assume that a police officer could have been physically present at the scene and in proximity to the conversers, we cannot further assume that they would have held the same conversation in his presence. Besides, if a person occupying a telephone booth momentarily has a constitutional right to exclude “the uninvited ear,”⁹³ why should a person having a face-to-face private conversation not be entitled to rely on Fourth Amendment protection? It is the reasonableness of the assumption that no one could hear, much less record, a conversation inaudible to the public that gives rise to a constitutionally protected privacy interest.

This argument equally applies to hidden microphones. In his concurring opinion in *United States v. Bronstein*,⁹⁴ Circuit Judge Mansfield distinguished between the use of a “sensitive and schooled canine” that enhances police officers’ olfactory senses, and the use of a hidden microphone that enhances their auditory senses. Relying on *Katz*, he elaborated that “[the officers’] own senses were replaced by the more sensitive nose of the dog in the same manner that a police officer’s ears are replaced by a hidden microphone in areas where he could not otherwise hear because of the inaudibility of the sounds. The illegality of the latter practice in the absence of a search warrant or special circumstances has long been established.”⁹⁵ Therefore, we cannot but conclude that the use of sensitive or hidden microphones with visual surveillance would violate the right to privacy under *Katz* as well as the principles and values enshrined in the Fourth Amendment, whose wording unequivocally affirms personal security against such intrusions because “[f]ew threats to liberty exist which are greater than that posed by the use of eavesdropping devices.”⁹⁶

The above discussion focused on sensitive or hidden microphones, but what about normal ones that are visible to the public? It would be inappropriate to apply the above prohibitions if the recording device was no more sensitive than the human ear and was placed in a conspicuous location, because the “officer substitute” argument would be valid under these circumstances. Visible microphones with normal sound recording

93. *Katz*, 389 U.S. at 352.

94. *United States v. Bronstein*, 521 F.2d 459, 464 (2d Cir. 1975).

95. *Id.* (Mansfield, J., concurring).

96. *Berger v. New York*, 388 U.S. 41, 63 (1967).

installed in public places could be regarded as the electronic equivalent of police officers patrolling their beat. *United States v. McLeod* (1974)⁹⁷ confirms this view. On four separate occasions, a government agent stood four feet from McLeod as she used a public telephone. Without the aid of any listening devices, the agent overheard the defendant give out wagering and gambling information over the telephone in violation of federal law.⁹⁸ At trial, the circuit court overruled the defendant's motion to suppress as evidence the telephone conversations, noting that "the agent was located in a public place and overheard the conversation by McLeod without the use of any amplification device. . . ."⁹⁹ Applying the *Katz* test, the circuit court held that "conversations carried on in a tone of voice quite audible to a person standing outside . . . are conversations knowingly exposed to the public."¹⁰⁰ Audible speech made in public, therefore, falls outside the ambit of Fourth Amendment protection due to the absence of a reasonable privacy expectation therein.¹⁰¹

It should be added that, given the same circumstances, sound recording could not be successfully challenged under the Fifth Amendment either. The bar on self-incrimination is not violated when a person standing next to a microphone makes an incriminating statement that is subsequently used against him in court. Conspicuous government-installed cameras equipped with microphones, like roving patrols and roadblocks, may be considered "visible signs of the officers' authority."¹⁰² Therefore, making a self-incriminating statement near one such microphone is the constitutional equivalent of making a voluntary admission of guilt in the presence of police officers. The U.S. Supreme Court clearly stated in *Lopez v. United States*¹⁰³ that the "risk of being overheard by an

97. *United States v. McLeod*, 493 F.2d 1186 (7th Cir. 1974).

98. *Id.* at 1188.

99. *Id.*

100. *Id.* (quoting *United States v. Llanes*, 398 F.2d 880, 884 (2d Cir. 1968), *cert. denied*, 393 U.S. 1032 (1969)).

101. In his concurring opinion in *Katz*, Justice Harlan wrote,

[A] man's home is, for most purposes, a place where he expects privacy, but objects, activities, or statements that he exposes to the "plain view" of outsiders are not "protected" because no intention to keep them to himself has been exhibited. On the other hand, *conversations in the open would not be protected against being overheard*, for the expectation of privacy under the circumstances would be unreasonable.

See *Katz v. United States*, 389 U.S. 347, 361 (1967) (Harlan, J., concurring) (emphasis added).

102. *United States v. Ortiz*, 422 U.S. 891, 895 (1975).

103. 373 U.S. 427 (1963).

eavesdropper . . . is probably inherent in the conditions of human society. It is the kind of risk we necessarily assume whenever we speak.”¹⁰⁴ No person may voluntarily assume the risk that the audible statements he makes might be heard by the police, and then seek refuge in the Fifth Amendment if his statements are actually heard and introduced into evidence. *United States v. Stinson*¹⁰⁵ well illustrates that point. A police officer overheard the defendant talking on a payphone in the lobby of a federal building and making audible statements that were the basis for his warrantless arrest.¹⁰⁶ Upholding the arrest and the charges, the district court held that “[v]oluntary statements of any kind, not made in response to police interrogation are not barred by the Fifth Amendment and their admissibility is unaffected by *Miranda* and its progeny.”¹⁰⁷ The self-incrimination defense failed because, “[b]y speaking in a loud voice in a public place, Defendant exposed his communications to anyone in ear shot.”¹⁰⁸

We may now draw up our first guideline for surveillance: no highly sensitive or hidden microphones should be used with video surveillance because they have the potential of harming and violating legitimate privacy interests. Only visible microphones with normal sensitivity should be used. Because electronic surveillance is widely used but largely unregulated, some state legislatures have undertaken to enact laws that ban the recording of private conversations in public places to protect their constituents until the U.S. Supreme Court sets a uniform standard enforceable in all jurisdictions across the country. In Delaware, for instance, a state statute defines a misdemeanor invasion of privacy, among other things, as the installation of any device outside a private place for hearing, recording, amplifying or broadcasting ordinarily inaudible sounds without consent.¹⁰⁹

That the Fourth Amendment may not bar government from using cameras with regular auditory capabilities does not make it a desirable practice as a matter of public policy. But the dearth of constitutional options leaves citizens with the legal alternative of petitioning their elected representatives. Federal and state ordinances can be used in this area as a

104. *Id.* at 465.

105. Crim. No. 4-93-64, 1993 U.S. Dist. LEXIS 20354 (D. Minn. 1993).

106. *Id.* at *3.

107. *Id.* at *9 (citing *United States v. Wood*, 545 F.2d 1124, 1127 (8th Cir. 1976), *cert. denied*, 429 U.S. 1098 (1977)).

108. *Id.* One district court explained the legal meaning of “loud” as follows: “To be ‘loud’ the words must be sufficiently audible to be heard by others and the speaker must have intentionally pitched them to this purpose.” *Karp v. Collins*, 310 F. Supp. 627, 637 (D.N.J. 1970).

109. *See* DEL. CODE ANN. tit. 11, § 1335 (2004).

supplement to the U.S. Constitution to protect privacy. In the meantime, we can at least expect the posting of a warning sign that reads: "*IT SHOULD BE ASSUMED THAT THIS SURVEILLANCE CAMERA RECORDS AUDIO AND VIDEO.*"¹¹⁰

B. *Can the Camera Be Visually Enhanced?*

We now consider the constitutionality of using video surveillance cameras with vision enhancement capabilities. Here, the "officer substitute" argument is greatly weakened, if not completely shattered, by the fact that some of the surveillance cameras available today have zoom lenses capable of reading a cigarette package at a distance of 100 meters.¹¹¹ A camera that enables a government agent to see so far beyond his natural ability cannot be deemed a substitute for or an extension to his eyes. So what would be the constitutional status of an electronic device that empowers an officer to read a personal note or letter that a civilian may be holding in public from a considerable distance? We need not rely solely on guesswork to answer this question when a federal court has addressed a similar issue.

In *United States v. Kim*,¹¹² the FBI used an 800 millimeter telescope to observe activities in Kim's apartment and balcony from a building a quarter of a mile away from his building.¹¹³ The telescopic lens was so powerful that federal agents could read the title of the newspaper Kim was holding inside his apartment.¹¹⁴ From a building on the opposite side of Kim's building, other agents used high-powered binoculars to keep an eye on the terrace that connected the elevator of Kim's building with the entrance to his apartment.¹¹⁵ The information acquired through the continuous surveillance of the apartment was used to convince a judge to issue an order for a wiretap.¹¹⁶ The wiretap yielded incriminating evidence that was used to charge Kim, among others, with illegal gambling

110. A sign with almost the exact wording is actually displayed in classrooms in a Texas public school to advise the students that whatever they do or say will be recorded by the surveillance cameras inside tamper-proof enclosures. See S.C. Gwynne, *Is Any Place Safe?*, CNN.COM, Aug. 17, 1999, at <http://www.cnn.com/allpolitics/time/1999/08/17/safe.schools.html> (last visited Oct. 15, 2004).

111. Taylor, *supra* note 13 (100 meters equals 110 yards, which is roughly the length of one city block).

112. 415 F. Supp. 1252 (D. Haw. 1976).

113. *Id.* at 1254.

114. *Id.*

115. *Id.*

116. *Id.*

offenses.¹¹⁷ The defendants challenged the government's usage of the artificial viewing aids as a search, and an unreasonable one since no warrant had been obtained in advance.¹¹⁸ The government contended that no Fourth Amendment violation had occurred because all the areas under surveillance were in plain view and the officers conducting the surveillance had the right to be where they were.¹¹⁹ But contrary to the government's contention, the *Kim* court asserted "[t]here can be no question . . . that the protection recognized by *Katz* includes protection against unreasonable visual intrusions."¹²⁰ "Visual intrusions," stated the *Kim* court, "can interfere with an individual's right to be left alone just as powerfully as the eavesdropping at issue in *Katz*."¹²¹

Although *Kim* involves the visual search of a nonpublic area,¹²² its rationale can be extended to the use of vision-enhancing technology in public places based on the rejection of government's formulation of the "plain view" doctrine and elucidation of what it actually means. The government's position was simply that no search had taken place, because all the activities observed in the apartment were in plain view.¹²³ Drawing a distinction between naked-eye observation and technologically enhanced observation, the court explained that "[a] 'plain' view of *Kim*'s apartment was impossible; only an aided view could penetrate."¹²⁴ The agents' observations could not be justified under the plain view exception because "the 'plain' in plain view must be interpreted as permitting only an unaided plain view."¹²⁵ In reaching its conclusion, the *Kim* court distinguished¹²⁶ the precedents of *United States v. Loundmannz*,¹²⁷ in which police observed defendant's illegal bookmaking activities on the street from a

117. See *Kim*, 415 F. Supp. at 1254.

118. *Id.*

119. *Id.* The government invoked the plain view doctrine to defeat the defendant's claim to Fourth Amendment protection. Implicit in the government's argument, of course, is the assumption that the use of a telescopic instrument to monitor a private area does not constitute a visually aided search.

120. *Id.*

121. *Id.*

122. "It is inconceivable that the government can intrude so far into an individual's *home* that it can detect the material he is reading and still not be considered to have engaged in a search." *Kim*, 415 F. Supp. at 1256 (emphasis added).

123. *Id.* at 1254.

124. *Id.* at 1256.

125. *Id.*

126. See *id.* at 1254-55.

127. 472 F.2d 1376 (D.C. Cir. 1972).

high building,¹²⁸ and *United States v. Grimes*,¹²⁹ where a special investigator observed defendants loading boxes of contraband in their vehicle from a nearby field.¹³⁰ Despite the use of artificial amplification devices in the two cases, the illegal activities the police saw “would have been visible to any curious passerby.”¹³¹ By contrast, what the agents saw in *Kim* could not have been seen by anyone without the aid of intrusive sense-enhancing technology.

Kim presents a most compelling case against the employment of sophisticated visual aids in public surveillance. If “[b]y opening his curtains, an individual does not thereby open his person, house, papers and effects to telescopic scrutiny by the government,”¹³² then, by the same token, by reading a letter in public a person does not voluntarily expose himself to the high-tech surveillance devices available to today’s police forces. Additionally, proper Fourth Amendment analysis under *Katz*, as confirmed in *Kim*, is not predicated on whether a reasonable person would expect the police to view an area or to observe an activity, but rather on whether one can reasonably expect the general public to do so.¹³³ There is much in common between the *Katz* test applied in constitutional law and the reasonable-man standard applied in tort law¹³⁴ in that both look to how a prudent and rational person would exercise due care under a given set of circumstances. It cannot be argued with any validity that a person acts recklessly — and hence abandons his privacy interests — by reading a personal note in a public place. To the contrary, the natural assumption that a government agent would not attempt to read the note from a great distance with an electronic device is one of the “basic foundations of privacy, security and decency which distinguish free societies from controlled societies.”¹³⁵

128. *See id.* at 1378.

129. 426 F.2d 706 (5th Cir. 1970).

130. *See id.* at 708.

131. *Kim*, 415 F. Supp. at 1255 (quoting *James v. United States*, 418 F.2d 1150, 1151 n.1 (D.C. Cir. 1969)).

132. *Id.* at 1257. The government urged that the defendant did not exhibit a subjective expectation of privacy by not drawing his curtains, but the *Kim* court found such an interpretation to be “totally at war with Fourth Amendment values.” *Id.* at 1256.

133. *See* Stephen P. Jones, *Reasonable Expectations of Privacy: Searches, Seizures, and the Concept of Fourth Amendment Standing*, 27 U. MEM. L. REV. 907, 940, 957 (1997).

134. In tort law, a “reasonable man” is a hypothetical person who possesses and exercises “those qualities of attention, knowledge, intelligence, and judgment which society requires of its members for the protection of their own interests and the interests of others.” RESTATEMENT (SECOND) OF TORTS § 283 B cmt. b (1965).

135. *Kim*, 415 F. Supp. at 1257.

Electronic visual surveillance has become more sophisticated with the introduction of new night-vision equipment that utilizes infrared lights and viewers. This is another type of visual enhancement that needs to be considered. Infrared technology is used in making night-vision gear that allows the user to see through darkness and to observe nighttime activity.¹³⁶ Some infrared cameras have the capacity to capture an image in the dark and to convert it into a detailed, high-resolution visual image.¹³⁷ The constitutional question, again, is whether equipping a surveillance camera with infrared viewing capability would violate the Fourth Amendment because it would render observable what could be otherwise unobservable. The relevant case of *Salazar v. Golden State Warriors*¹³⁸ supports a negative answer to this question.

In *Salazar*, a private investigator used a night-vision infrared high-powered scoping, among other high-tech surveillance equipments, to videotape the plaintiff snorting cocaine in a car in a parking lot.¹³⁹ The plaintiff sued the defendant for invading his privacy by videotaping him while in his vehicle, arguing that the parking lot should be considered “a private place because it was not ‘highly traveled but rather dark and isolated.’”¹⁴⁰ To determine whether an impermissible privacy invasion took place, the district court considered two elements: “(1) intrusion into a private place, conversation, or matter, and (2) in a manner highly offensive to a reasonable person.”¹⁴¹ The plaintiff failed the first part of the test because he did not cite any authority to distinguish “a public from a private place based on the amount of traffic or light,”¹⁴² nor did the district court find traffic and light to be factors that were “determinative in characterizing a place as public or private.”¹⁴³ As for the second element, the district court found that the “intrusion was de minimis”¹⁴⁴ and “not highly offensive to a reasonable person”¹⁴⁵ because the “investigator merely videotaped the plaintiff from a distance in his car and in places

136. See Christopher Slobogin, *Technologically-Assisted Physical Surveillance: The American Bar Association's Tentative Draft Standards*, 10 HARV. J.L. & TECH. 383, 407 (1997).

137. Kent Greenfield, *Cameras in Teddy Bears: Electronic Visual Surveillance and the Fourth Amendment*, 58 U. CHI. L. REV. 1045, 1048 (1991).

138. No. C-99-4825 CRB, 2000 U.S. Dist. LEXIS 2366 (N.D. Cal. 2000).

139. *Id.* at *2.

140. *Id.* at *6.

141. *Id.* at *4.

142. *Id.* at *6.

143. *Salazar*, 2000 U.S. Dist. LEXIS 2366, at *6.

144. *Id.* at *11.

145. *Id.*

where plaintiff was in public view.”¹⁴⁶ The intrusiveness of videotaping was further abated by “the absence of audio capabilities.”¹⁴⁷ Analyzing each of the determining factors, the court concluded that the “plaintiff’s privacy rights were not violated.”¹⁴⁸

This brings us to our second restriction on sense-aided public surveillance. Based on *Salazar*, the isolation or darkness of a public place does not make it private, or give rise to reasonable privacy expectations that warrant Fourth Amendment protection.¹⁴⁹ Therefore, as long as infrared rays are not used to penetrate an opaque wall or ceiling to look inside a house, they could be used by government to keep dim streets safe at night.¹⁵⁰ Infrared sight could be most valuable where crime deterrence and detection is most needed, that is, in less traveled and poorly lit areas where criminal activity typically takes place.

On the other hand, high-powered telescopic lenses should not be used. A CCTV camera with a powerful image magnifier would not be constitutionally permitted because it would reveal details that would not normally be seen by the human eye from ten or fifteen feet away, such as a close-up view of what a person may be reading or writing. A remote camera could be equipped with a zoom without offending the Fourth Amendment if it magnifies to the scale of the naked-eye, so that the video image resembles what would be normally seen by a person passing by or standing several feet away. Government may, and indeed should, use some electronic optical devices to protect the public from crime, but if this end is achieved at the price of raising security concerns of a different nature, then the threat to personal security has merely been replaced rather than removed. The common argument that police should be allowed to use any privacy-invading technology available to the public to level the playing field is not a meritorious one, because “the fact that Peeping Toms abound does not license the government to follow suit.”¹⁵¹ This argument also fails

146. *Id.*

147. *Id.* at *9.

148. *Salazar*, 2000 U.S. Dist. LEXIS 2366, at *13.

149. *See id.* at *6.

150. In 2001, the U.S. Supreme Court specifically outlawed the warrantless use of wall-penetrating surveillance technology that enables government to observe and collect information on activities taking place inside a house. *Kyllo v. United States*, 533 U.S. 27, 34 (2001) (“We think that obtaining by sense-enhancing technology any information regarding the interior of the home that could not otherwise have been obtained without physical ‘intrusion into a constitutionally protected area,’ constitutes a search. . .”).

151. *United States v. Kim*, 415 F. Supp. 1252, 1256 (D. Haw. 1976).

because, as a legal scholar simply put it, “the Constitution often bars government from doing what private citizens may do.”¹⁵²

C. Can Pictures be Compared to Files of Wanted Felons?

The last aspect of public surveillance to consider under the Fourth Amendment is the recent utilization of face-recognition technology discussed briefly earlier. As already mentioned, face-recognition systems are an amalgam of surveillance and computer technologies, which make comparisons between the identities of persons caught on tape against a database of stored images. The system translates the characteristics of the human face snapped by a surveillance camera into a set of numbers, called an *eigenface*, which is automatically matched up in real time against the unique algorithms assigned to the facial structures of each criminal mug shot on a digital watch-list.¹⁵³ Face-recognition systems are designed to generate a percentage score of how close an identification is.¹⁵⁴ The system is also adjustable; it can be calibrated tightly to flag very close matches or loosely to flag slightly close matches.¹⁵⁵ When a person is identified by the system, a police officer is immediately dispatched to the scene to confirm the identification.¹⁵⁶

Although makers of face-recognition systems tout their precision and reliability, they have proved otherwise when put to the test.¹⁵⁷ Pilot testing

152. Akhil Reed Amar & Vikram David Amar, “I Always Feel Like Somebody’s Watching Me”: A Fourth Amendment Analysis of the FBI’s New Surveillance Policy, WRIT, Jun. 14, 2002, available at <http://writ.news.findlaw.com/amar/20020614.html> (last visited Oct. 20, 2004).

153. Thomas C. Greene, *Feds Use Biometrics Against Super Bowl Fans*, REGISTER, Feb. 7, 2001, available at http://www.theregister.co.uk/2001/02/07/feds_use_biometrics_against_super (last visited Oct. 20, 2004).

154. Christopher S. Milligan, Note, *Facial Recognition Technology, Video Surveillance, and Privacy*, 9 S. CAL. INTERDISC. L.J. 295, 304 (1999).

155. Hiawatha Bray, “Face Testing” at Logan is Found Lacking, BOSTON GLOBE, July 17, 2002, at B1.

156. The National Park Service began using a face-recognition system to protect the Statue of liberty and its many visitors in May 2002. See Corey Kilgannon, *Cameras to Seek Faces of Terror in Visitors to the Statue of Liberty*, N.Y. TIMES, May 25, 2002, at B1. In the event of a positive match, the procedure is as follows: a U.S. Park Police officer is notified and the visitor is detained. *Id.* The detainee is questioned further if the officer decides that the detainee’s face matches the database image. *Id.*

157. A study found that, under optimal conditions, the best identification rate was 85% on a database of 800 persons, 83% on a database of 1,600, and 73% on a database of 37,437. See Fred Reed, *Biometrics Improving, But Still Falls Short*, WASH. TIMES, Apr. 17, 2003, at C10. An earlier study by the Department of Defense found that the system made a correct match two out of three times if the test subject allowed the camera to get a good picture. See Marc Caputo, *Face-Off: What’s Best Way to Spot Airport Terrorists? Face Scanning Has Potential But Could Be Flawed*,

of one such system for ninety days at Boston Airport in 2002 returned less than positive results and cast serious doubts on its reliability.¹⁵⁸ The system either failed to signal when it should, or gave a great surplus of signals.¹⁵⁹ When set tightly, the system allowed many people who should have been identified to get by, and when set loosely, it produced false positives and identified a large number of pictures from the database as possible matches for one person.¹⁶⁰ In a more recent test at Logan Airport, the system failed 38% of the time to match the identities of employees who volunteered for the pilot program.¹⁶¹ It was also found that the system could be thrown off by simple disguises such as glasses and facial hair, and that lighting, background, and camera angles can interfere with matching.¹⁶²

With a failure rate exceeding one third of all matches, face-recognition technology is still in its infancy. Yet the government has already begun utilizing it to restrict access to authorized personnel in airports and to identify criminal and terror suspects,¹⁶³ which raises a number of Fourth Amendment issues that have not been tested in court. The first legal question stems from the fact that face-recognition systems are not nearly as reliable as human agents for recognizing suspects. A suspect identified by the system cannot be “mirandized” and handcuffed promptly as if he had been identified by an undercover officer, but must be stopped and questioned first to ensure that the computer match is correct. The investigative stop of a flagged suspect to verify his true identity is an act of seizure controlled by the Fourth Amendment.¹⁶⁴ To make sure that these

PALM BEACH POST, Feb. 18, 2002, at 1A. If uncooperative, the subject was recognized only one out of three times. *Id.*

158. Bray, *supra* note 155.

159. *Id.*

160. *Id.*

161. Shelley Murphy & Hiawatha Bray, *Face Recognition Fails at Logan; Eye Scan Rejected*, BOSTON GLOBE, Sept. 3, 2003, at A1.

162. See James F. Sweeney, *The All-Seeing Eye: Growing Number of Surveillance Cameras Sparks Big Brother Privacy Debate*, PLAIN DEALER (Cleveland), Jan. 6, 2002, at L1.

163. See Martha McKay, *Drive for Security Boosts Biometrics: High-Tech Identification Wave Builds*, RECORD (Bergen County, NJ), Feb. 4, 2003, at 005; Dean E. Murphy, *As Security Cameras Sprout, Someone's Always Watching*, N.Y. TIMES, Sept. 29, 2002, at A1.

164. See *Terry v. Ohio*, 392 U.S. 1, 16 (1968) (“It must be recognized that whenever a police officer accosts an individual and restrains his freedom to walk away, he has ‘seized’ that person.”). The fact that the encounter with the police may not culminate in an arrest is irrelevant because “the Fourth Amendment governs ‘seizures’ of the person which do not eventuate in a trip to the station house and prosecution for crime. . . .” *Id.*; see also *State v. Cripps*, 533 N.W.2d 388, 391 (1995) (“We have generally held that a reasonable person would not believe that he or she has been seized when an officer merely approaches that person in a public place and begins to ask questions.”).

“intrusions are not the random or arbitrary acts of government agents,”¹⁶⁵ but “authorized by law”¹⁶⁶ and “limited in objective and scope,”¹⁶⁷ the courts will have to decide what degree of authentication is sufficient to support the reasonable suspicion required to seize a person for brief questioning.¹⁶⁸ The same determination will have to be made with respect to probable cause if an arrest is made.¹⁶⁹

The still unsettled constitutional question is whether the use of a face-recognition device per se constitutes a search. Is the taking of one’s facial biometric measurements without one’s consent a search within the meaning of the Fourth Amendment? At least one commentator has argued that facial scans should rise to the level of a search.¹⁷⁰ The determination of whether government action constitutes a search rests upon three considerations: the scope of the intrusion, the nature of the personal information revealed, and the reasonableness of one’s expectation of privacy.¹⁷¹ We have already indicated that, under the *Katz* test, a person may not harbor a reasonable privacy expectation with regard to what he knowingly exposes to the public, such as his facial features, which are

165. *Skinner v. Ry. Labor Executives Ass’n*, 489 U.S. 602, 622 (1989).

166. *Id.*

167. *Id.*

168. Determining what constitutes reasonable suspicion when using an adjustable computer identification system is a necessary precondition to ensure the seizure that follows a positive identification is legitimate. A random investigatory stop lacking reasonable suspicion is an illegal seizure under the Fourth Amendment. *See United States v. Brignoni-Ponce*, 422 U.S. 873, 883 (1975) (“[A] requirement of reasonable suspicion for stops allows the Government adequate means of guarding the public interest . . . we conclude that it is not ‘reasonable’ under the Fourth Amendment to make such stops on a random basis.”). All evidence flowing from an illegal seizure “must be suppressed as tainted fruit.” *See Florida v. Bostick*, 501 U.S. 429, 433-34 (1991).

169. An arrest, within the meaning of the Fourth Amendment, can be made without the use of handcuffs; a *Terry* stop escalates into an arrest if the detention lasts longer than is reasonably necessary for police to investigate the suspicions against the seized individual. *See, e.g., United States v. Edwards*, 53 F.3d 616, 619-20 (3d Cir. 1995); *United States v. Quinn*, 815 F.2d 153, 157-58 (1st Cir. 1987); *United States v. Danielson*, 728 F.2d 1143, 1146-47 (8th Cir. 1984). If probable cause is lacking at the precise point when “police action which detains a suspect ceases to be a nonarrest seizure and becomes an arrest,” the arrest is illegal, and the products thereof are inadmissible. *United States v. Strickler*, 490 F.2d 378, 380 (9th Cir. 1974).

170. *See John J. Brogan, Facing the Music: The Dubious Constitutionality of Facial Recognition Technology*, 25 HASTINGS COMM. & ENT. L.J. 65, 82 (2002) (arguing that facial scanning ought to be treated as a search for two reasons: first, “the scans enable access to so much more information than would be available to the public view,” and second, “facial scans operate much like a consensual encounter between civilians and law enforcement officials” in a stop-and-identify situation, where civilians do not have the ability to “refuse the encounter.”).

171. *See Skinner*, 489 U.S. at 616.

hardly “a mystery to the world.”¹⁷² The counterargument, however, is that *visible* does not necessarily mean *recognizable*, especially in a crowded place like a sports arena, where tens of thousands of people are closely gathered. Moreover, while most people expect to be observed by others in public, they do not expect to be subjected to a “computerized police lineup” in the words of Florida’s ACLU director,¹⁷³ where a sophisticated electronic device silently gathers their physiological data for biometric identification.¹⁷⁴ This argument is redolent of Justice Powell’s dissent in *California v. Ciraolo*,¹⁷⁵ in which he objected to the majority’s theory that commercial flights and focused police overflights posed equal risks to privacy, contending that the most that passengers aboard the former may obtain is a “fleeting, anonymous, and nondiscriminating glimpse of the landscape and buildings over which they pass.”¹⁷⁶ Therefore, the key determination that would have to be made in a facial-identification case is whether a person in public may reasonably expect to be free from the surveillance of a high-tech camera capable of picking him out of a crowd by scanning and analyzing his face digitally. The basic assumption upon which the above argument rests is that a person attending a football game or strolling in a park may only be randomly observed, but not specifically sought out. Obviously, this is not always the case. To the contrary, law enforcement agents tend to be on the alert when a felon is on the loose, especially when he is thought to be dangerous. Sometimes they even post the pictures of wanted felons on the Internet and in government buildings frequented by the public, such as the U.S. Post Office or the Department of Motor Vehicles, in an attempt to alert and engage private citizens in the ongoing manhunts. The expectation that people will not suspiciously stare at one’s face is thus unrealistic and does not by itself warrant Fourth Amendment protection.

The sophistication of a face-recognizing video camera does not create a constitutional issue either. From a Fourth Amendment perspective, the high-tech camera is no different from a police detective standing around a street corner or a stadium entrance with a couple of mug shots in his hand. Since the computer system does not retain any record of snapshots that have no match,¹⁷⁷ it could be argued that face-recognition technology infringes upon one’s right to privacy no more than a detective secretly

172. *United States v. Dionisio*, 410 U.S. 1, 14 (1973).

173. Moore, *supra* note 57.

174. Milligan, *supra* note 154, at 319-20.

175. 476 U.S. 207 (1986).

176. *Id.* at 223 (Powell, J., dissenting).

177. Drummond, *supra* note 60.

observing passersby, and accordingly, must escape Fourth Amendment oversight. Moreover, facial identification systems are less intrusive than video surveillance systems, which are used in over sixty urban centers in the United States,¹⁷⁸ because the former keep the images for a few seconds, the duration of the database search, whereas the latter capture and retain the images of the suspect and innocent alike for several days.¹⁷⁹ Being less offensive to individual privacy, face-matching cameras are less susceptible to constitutional attack than conventional surveillance cameras.

Despite the lower degree of intrusion imposed by face-recognition systems, the American people seem to have reacted less favorably to them than to other visual surveillance techniques used in the past.¹⁸⁰ This is arguably because government has not undertaken to educate the public about this new technology or to answer even the most basic questions that trouble many people before introducing it. As this promising technology improves, there is little doubt it will come to popular use to broaden the surveillance capabilities of government and enhance overall law enforcement efficiency. The following are some of the questions that one commentator suggested the government ought to fully answer to dispel public fears before using the system on a broad scale:

1. Are the captured images retained by the police or discarded?
2. What databases are the captured images checked against – known felons, fugitives, sex offenders, police suspects, terror suspects . . . etc.?
3. What reports, if any, has the government reviewed to evaluate the effectiveness of this surveillance system?
4. What action is contemplated if the surveillance system produces a “hit”? That is, would the suspects be placed under surveillance and followed, or would they be stopped and questioned, or would they be arrested on the spot — and if arrested, on what basis?¹⁸¹

If people received satisfactory answers to these questions, they might be more receptive to the use of the system, which, if properly used, would make the streets safer without impinging on personal privacy as much as continuous video surveillance.

178. Milligan, *supra* note 154, at 301.

179. *See infra* note 238.

180. In mid-July 2001, a small crowd staged a protest against the newly installed face-recognition security systems in Tampa, Florida; the demonstrators wore Lone Ranger masks and made obscene gestures at the police cameras. *See* Marlon Manuel, *In-Your-Face Surveillance Sparks Protest in Tampa*, ATLANTA J.-CONST., July 13, 2001, at 6A; AP News, *Surveillance Cameras Incite Protest*, N.Y. TIMES, July 16, 2001, at A11.

181. Dority, *supra* note 4. The original questions focus specifically on the Super Bowl XXXV incident of January 2001, but I have rephrased them more broadly to capture the main concerns about face-recognition surveillance in general.

D. Can Cameras Reach into People's Curtilage or Other Private Places?

Having discussed various aspects of public surveillance, we now turn to government surveillance of nonpublic areas. The U.S. Supreme Court upheld the constitutionality of aerial surveillance of the curtilage in *California v. Ciraolo*,¹⁸² and confirmed its holding later in *Florida v. Riley*.¹⁸³ Since then, the police have been using aerial surveillance as a legal investigative tool in circumvention of the warrant process, based on two premises. First that there is no reasonable expectation of privacy against naked-eye observations made from public navigable airspace.¹⁸⁴ Second that surveillance of a visible area conducted from a lawful vantage point does not amount to a search, even if that area is traditionally protected by Fourth Amendment.¹⁸⁵ This raises a question of utmost significance as to whether government may use a video surveillance camera to monitor a private but observable area, such as a residential curtilage, pursuant to the same premises.

The case that unequivocally answered this question in the negative is *United States v. Cuevas-Sanchez*.¹⁸⁶ The government suspected that Cuevas-Sanchez was a drug trafficker who used his home as a drop house for illegal drugs.¹⁸⁷ An order authorizing the video surveillance of the exterior of Cuevas' home was applied for and obtained.¹⁸⁸ The warrant application included a detailed description of the house, the reasons behind the government's suspicions, and a statement that "conventional law enforcement techniques" had failed.¹⁸⁹ The video camera, which was placed on a power pole overlooking Cuevas' fenced backyard, enabled the police to observe the removal of drugs from the false gas tanks of vehicles in the defendant's yard.¹⁹⁰ On another occasion, camera monitors saw the defendant loading his car with garbage bags that were believed to contain

182. 476 U.S. 207 (1986); *see id.* at 213-14.

183. 488 U.S. 445 (1989); *see id.* at 449.

184. "Any member of the public flying in this airspace who glanced down could have seen everything that these officers observed." *Ciraolo*, 476 U.S. at 213-14.

185. *Id.* at 213 ("That the area is within the curtilage does not itself bar all police observation. The Fourth Amendment protection of the home has never been extended to require law enforcement officers to shield their eyes when passing by a home on public thoroughfares.").

186. 821 F.2d 248 (5th Cir. 1987).

187. *Id.* at 249.

188. *Id.* at 249-50.

189. *Id.* at 249.

190. *Id.* at 250.

drugs.¹⁹¹ The police stopped defendant shortly after driving off and searched his car without a warrant to find 22 pounds of marijuana in the garbage bags.¹⁹² When the defendant's home was subsequently searched under a warrant, 58 additional pounds of drugs were discovered.¹⁹³

Cuevas appealed his drug convictions, contending, among other things, that the application for surveillance of his property conformed to neither statutory nor constitutional standards, and that the fruits of the video surveillance should be excluded.¹⁹⁴ The government's most forceful response, of which the Fifth Circuit found little to approve, was that the defendant in this case, as in *Ciraolo*, had no reasonable expectation of privacy in the activities conducted in the driveways and portions of the backyard that were observable from the street, and therefore, a warrant was not required to put the camera on top of the pole.¹⁹⁵ The circuit court rejected this seemingly valid argument on two grounds. First, the government requested an authorization to use "a potentially indiscriminate and most intrusive method of surveillance" upon oath that conventional law enforcement techniques had been tried but had failed.¹⁹⁶ Yet in asserting later that the property was visible to a casual observer, the government essentially maintained that conventional surveillance methods would have sufficed.¹⁹⁷ The "juxtaposition of such contentions trifles with the Court"¹⁹⁸ and exposes "the sophistry underlying the government's argument."¹⁹⁹

Second, the circuit court also dismissed the government's argument as an attempt to "stretch *Ciraolo*'s holding far beyond its natural reach."²⁰⁰ The defendants in *Cuevas* and *Ciraolo* satisfied the first prong of the *Katz* test by manifesting a subjective expectation of privacy and encircling their backyards with fences. As for the second prong that turns upon the expectations of society, *Ciraolo* teaches "a fly-over by a plane at 1,000 feet does not intrude upon the daily existence of most people."²⁰¹ By contrast, a video camera installed on a utility pole to monitor all of a person's backyard activities "provokes an immediate negative visceral reaction:

191. *Cuevas-Sanchez*, 821 F.2d at 250.

192. *Id.*

193. *Id.*

194. *See id.*

195. *Id.*

196. *Cuevas-Sanchez*, 821 F.2d at 250.

197. *Id.*

198. *Id.* (quoting *United States v. de Luna*, 815 F.2d 301, slip op. at 3498 (5th Cir. 1987)).

199. *Id.*

200. *Id.*

201. *Cuevas-Sanchez*, 821 F.2d at 251.

indiscriminate video surveillance raises the spectre of the Orwellian state.”²⁰² Therefore, contrary to the government’s assertions, “[i]t does not follow that *Ciraolo* authorizes any type of surveillance whatsoever just because one type of minimally-intrusive aerial observation is possible.”²⁰³ That the video surveillance was carried out from a public and a lawful vantage point does not make the government action less intrusive because “the area monitored by the camera fell within the curtilage of [Cuevas’] home, an area protected by traditional fourth amendment analysis.”²⁰⁴ The ultimate measure of constitutionality is not the location of the observer, but the reasonable expectation of the observed in the location under surveillance — the reason the circuit court plainly stated that the defendant’s “expectation to be free from this type of video surveillance *in his backyard* is one that society is willing to recognize as reasonable.”²⁰⁵

The foregoing analysis helps us establish another important guideline for electronic visual surveillance. While government needs not adhere to the Fourth Amendment warrant requirements to install cameras that monitor a public place, it must fully comply with them if the cameras are to be pointed at a nonpublic place. For that practice to comport with constitutional standards, no camera should ever be aimed at any private dwelling, or at any residential curtilage or backyard, unless specifically authorized by a judge. While the aerial exposure of the home or curtilage may allow warrantless surveillance from a plane, it does not further justify warrantless video surveillance because it poses a far more serious threat to the privacy interests in the home.

IV. FIRST AMENDMENT IMPLICATIONS OF VIDEO CAMERA SURVEILLANCE

Another challenge to video surveillance could come under the First Amendment chilling effect doctrine.²⁰⁶ Many of the legal commentators who explore the constitutional issues raised by surveillance seem to focus their analysis, for the most part, on the search and seizure implications of the Fourth Amendment. But surveillance also has profound First Amendment implications, as it may jeopardize the fundamental right to

202. *Id.*

203. *Id.*

204. *Id.*

205. *Id.* (emphasis added).

206. There is a chilling effect when “potential speakers, out of reasonable caution or even an excess of caution, may censor their own expression well beyond what the law may constitutionally demand.” *Nike v. Kasky*, 539 U.S. 654, 683 (2003).

free speech and expression. In this regard, the question that needs to be addressed is when would government surveillance be so intrusive as to justify judicial intervention to protect First Amendment freedoms of speech and expression. The answer to this question can be found in the dissenting opinion of Justice Douglas in *Laird v. Tatum*,²⁰⁷ which ripened into a holding in *Alliance to End Repression v. City of Chicago*.²⁰⁸

In 1967, the Army was called upon to assist the local authorities in controlling civil disorders, whereupon it established a covert intelligence system for surveillance and investigation of civilian political activity to obtain information on actual or potential disturbances.²⁰⁹ Naming the Secretary of Defense as the defendant, a number of civilians instituted a class action against the Army, claiming that the mere existence of the military surveillance system imposed a chilling effect on their exercise of First Amendment rights.²¹⁰

A closely divided Court held that the plaintiffs had no standing to sue, because they failed to state “a claim of specific present objective harm or a threat of specific future harm.”²¹¹ Moreover, any claimed chill is merely subjective and therefore not justiciable “absent actual present or immediately threatened injury resulting from unlawful governmental action.”²¹² But while the Court majority found that no objective chill was caused by the Army surveillance activities, the dissent found serious infringements on First Amendment rights.²¹³ Dissenting from the five-Justice majority, Justice Douglas denounced the conclusion that plaintiffs had failed to establish the requisite standing as “too transparent for serious argument.”²¹⁴ In his mind, the Army’s use of “undercover agents” and “cameras and electronic ears for surveillance” and the storage of the information collected on civilians “in one or more data banks” were sufficient grounds to sue.²¹⁵ He agreed with the court of appeals that the Army surveillance “exercises a *present inhibiting effect* on their full expression and utilization of their First Amendment rights,”²¹⁶ because lawful civilians naturally fear that “permanent reports of their activities”

207. 408 U.S. 1 (1972).

208. 627 F. Supp. 1044 (N.D. Ill. 1985).

209. See *Laird*, 408 U.S. at 3-7.

210. *Id.* at 3.

211. *Id.* at 14.

212. *Id.* at 15.

213. See *id.* at 16-38 (Douglas, J., dissenting).

214. *Laird*, 408 U.S. at 24 (Douglas, J., dissenting).

215. *Id.* at 25 (Douglas, J., dissenting).

216. *Id.* at 25 (Douglas, J., dissenting) (quoting *Tatum v. Laird*, 444 F.2d 947, 954 (D.C. Cir. 1971)).

will be maintained in the government's databanks, that their "profiles" will appear in the so-called 'Blacklist,'" and that their personal information could possibly "be released to numerous federal and state agencies upon request."²¹⁷ In sum, the "deterrent effect" on First Amendment rights posed by government oversight marks an unconstitutional intrusion."²¹⁸

*Alliance to End Repression v. City of Chicago*²¹⁹ presented a similar question as to whether "the first amendment permits local police authorities to infiltrate, observe, record, and disseminate information gathered on the lawful speech activities of private individuals and private organizations when the police have no reasonable suspicion of criminal conduct."²²⁰ The plaintiffs in this case, as in *Laird*, were all peaceably organized citizens who have exercised their First Amendment rights in the past to "end war, racism, and repression" without engaging in any violent or unlawful activity.²²¹ Filming, videotaping, photographing, and recording of the plaintiffs' activities were among the techniques used by Chicago Police Department (CPD) to collect information, which was filed in police dossiers containing extensive public and private information on each of the plaintiffs.²²² The police also set up equipment to monitor and photograph all those who attended the plaintiffs' open summer convention, but no surveillance, wiretapping, or photography was carried out by the police in their home or an otherwise private enclave that they used.²²³

Noting that this case was "unlike the typical case of police surveillance"²²⁴ and that the actions of CPD were distinguishable from the "passive observational activities upheld in *Tatum*,"²²⁵ the *Alliance* court found that the facts supported a justiciable claim of chilling effect.²²⁶ Further, it found that the surveillance operation and tactics not only created an objective chill, but also violated the First Amendment.²²⁷ The *Alliance* court's determination was based on four counts of First Amendment violations committed by the City of Chicago, of which we consider the two most relevant to our inquiry.

217. *Id.* (Douglas, J., dissenting).

218. *Id.* (Douglas, J., dissenting).

219. 627 F. Supp. 1044 (N.D. Ill. 1985).

220. *Id.* at 1046.

221. *Id.*

222. *See id.*

223. *See id.*

224. *Alliance*, 627 F. Supp. at 1055.

225. *Id.* at 1050 (quoting *Handschu v. Special Servs. Div.*, 349 F. Supp. 766, 771 (S.D.N.Y. 1972)).

226. *See id.* at 1051-54.

227. *See id.* at 1056.

The first violation was CPD's invitation of a Chicago Tribune news reporter to an Alliance convention, who subsequently published falsehoods on the organization. Assuming that the statements the police made to the reporter about Alliance were not false, the "police action" of inviting him in itself unnecessarily infringed on first amendment rights because "there is no reason why the police had to invite the reporter to the campsite at all."²²⁸ Second, and perhaps more importantly, the police accumulated a massive file on at least one plaintiff that was "troubling to the court" because it covered almost every facet of her life.²²⁹ In addition to a detailed chronology of her political activities, the file contained extensive biographical and financial information, such as her home address, birth date, weight, eye color, schooling, marriages, children, social and personal pursuits, bank statements, and personal checks.²³⁰ The depth and breadth of the information shows that the government had been "tenaciously tracking and piecing together the details of [her] life from multifarious sources."²³¹ It could be fairly assumed that "much of the extensively personal information in the file could only be obtained from nonpublic sources," but the resulting probe is "so intrusive as to amount to an invasion of privacy even if the individual pieces of the probe are from public sources."²³² The police maintenance of a file "so extensive as to create an entire portrait of her personal, family, financial, and political life, violated her first amendment rights in the absence of a reasonable suspicion of criminal conduct."²³³

As the *Laird* dissent and the *Alliance* decision make abundantly clear, video surveillance could violate the First Amendment if accompanied by other means of invasion, such as infiltration by informants or amassing extensive records and dossiers about personal lives, absent any reasonable suspicion of wrongdoing. No First Amendment problem was found with the presence of cameras or the recording of events in areas open to public view by itself. Rather, it was the simultaneous file buildup that resulted in the constitutional violation, because mere observation by the police or television cameramen would not give rise to suspicions of keeping files in data banks or checking names off a long list of blacklisted civilians on

228. *Id.* at 1056.

229. *Alliance*, 627 F. Supp. at 1053.

230. *Id.* at 1053-54.

231. *Id.* at 1054.

232. *Id.*

233. *Id.* at 1056.

government computers for future reference.²³⁴ Furthermore, it is doubtful that a chill caused by audio-video surveillance alone could trigger First Amendment protection, for a person is likely to be chilled by a sensor recording his speech no more than by a police officer vested with the authority to effect a warrantless arrest in a public place hearing the same speech.²³⁵ One cannot challenge audio-video surveillance under the First Amendment any more than one can challenge foot and vehicle patrols that have the right, indeed the obligation, to roam the streets and neighborhoods to preserve the peace and enforce the law.²³⁶ As long as the sound sensors attached to cameras are not more sensitive than normal human hearing and the tapes are recorded over or kept only as evidence of criminality, it would be hard to condemn sound recording on First Amendment grounds. The mere possibility that the government could keep the tapes for more than the statutorily defined period or use them illegitimately may not by itself justify judicial intervention because "federal judicial power is to be exercised to strike down legislation, whether state or federal, only at the instance of one who is himself immediately harmed, or immediately threatened with harm, by the challenged action."²³⁷

Three final legal guidelines could be derived from the above cases to keep surveillance from impinging upon any First Amendment rights. First, the government may not share any of the video footage or images of private citizens with news agencies or media organizations, nor post them on Internet web sites. Second, absent articulable suspicion of criminal activity, the authorities should not be allowed to merge public surveillance tapes with other pieces of data available from public or private sources to pry into a person's life. Finally, to make surveillance less intrusive and minimize the potential for abuse, videotapes should not be replayed or retained by the police in excess of a statutorily defined period unless for investigative purposes.²³⁸ If no crime is reported or no violation is

234. Quentin Burrows, *Scowl Because You're on Candid Camera: Privacy and Video Surveillance*, 31 VAL. U. L. REV. 1079, 1094 n.120, 1129 n.412 (1997).

235. See *supra* text accompanying notes 71 & 101.

236. The assumption here is that the police videotaping and photographing are allowed *only* as a precaution in the event that a protest deteriorates into vandalism or violence, but not for "intimidating people who disagree with the government" or denying them their "right to engage in anonymous political activity without being monitored by law enforcement." See David Hench, *Police Filming of Rally-Goers Draws Concern: Maine Anti-War Demonstrators and Others Want Strict State Rules on How Images Are Used and Disposed Of*, PORTLAND PRESS HERALD, Oct. 20, 2002, at 1A. There is no reason for police to store the tapes or the pictures unless arrests have been made and documentation is needed to "show the truth." *Id.*

237. *Poe v. Ullman*, 367 U.S. 497, 504 (1961).

238. In Baltimore, for instance, surveillance tapes are discarded or reused after ninety-six hours unless they are needed for evidence, and police review the tapes only if there has been a

suspected to have occurred within that time frame, the tapes ought to be erased or recorded over.

There is no doubt that the social and psychological burdens of public surveillance would be reduced to an absolute minimum if only those cameras that have been installed pursuant to a court order were manned. Though privacy-conscious, this policy would have the double disadvantage of diminishing the deterring effect of surveillance, and, more importantly, preventing the police from stopping criminal activity while still in progress. Prohibiting the police from monitoring surveillance cameras is to allow them to act only after the fact. If common sense dictates that “[o]ne need not wait to sue until he loses his job or until his reputation is defamed,”²³⁹ it also stands to reason that police should be able to prevent a crime, if at all possible, before its successful completion.

V. SUMMING UP

Over the past decade or so, public video surveillance has been used in a number of advanced countries, preeminently the United Kingdom, to enhance police efficiency and operational effectiveness. Police departments in the United States and elsewhere are crediting video surveillance with detecting and solving crimes, cleaning up unsafe neighborhoods, deterring antisocial behavior, reducing overall crime levels in monitored areas, and managing traffic congestion and incidents, which contributed greatly to urban renewal and community revitalization programs. This makes high-tech camera policing at least as, if not more, effective than traditional foot and vehicle policing in crime control and order maintenance.

But while surveillance has proven useful in many ways, it has also given rise to privacy and civil liberty concerns. There is fear that the same footage or image that could be used to aid the police in their work could also be used to harm the innocent out of racial or political hatred. Another serious concern is that the system could be used in conjunction with databases to build up photo and data files on citizens who are not criminals or wanted by the police. Public surveillance technology, therefore, must be regulated by a set of strictly enforced rules to ensure government

report of a crime in the area under surveillance. See Paul W. Valentine, *Baltimore Patrolling Some Streets by Camera*, WASH. POST, Jan. 20, 1996, at B03; *Editorial, Eye on East Ohio: Surveillance of Even Public Areas Should Have Safeguards*, PITTSBURGH POST-GAZETTE, Oct. 11, 1997, at A-12.

239. *Laird v. Tatum*, 408 U.S. 1, 26 (1972) (Douglas, J., dissenting).

compliance with the law so that citizens reap the public safety benefits of surveillance while avoiding its potential negative side effects.

Following in Britain's footsteps, the United States is increasingly turning to surveillance technology in the fight against crime and terror. Despite the rapid expansion of public video surveillance, the U.S. Supreme Court has not undertaken to determine its constitutional status. But based on precedents in which the Court has consistently held that a person has no reasonable expectation of privacy in public, it can be inferred that "traditional" camera surveillance will readily pass constitutional muster — unless additional technology is employed to augment the natural senses of sight and hearing. These artificial enhancements may violate some of the privacy rights to which a person should be entitled even in public space. For instance, when one engages in a private conversation in an inaudible tone of voice, one is justified in expecting that one's speech will not be electronically picked up by a sensitive microphone. When one reads a personal note in public, one is equally justified in not expecting government to try to read its contents by a powerful telescope. The reasonableness of these expectations to society at large is what warrants Fourth Amendment protection and justifies banning the use of hidden sensors and audio or visual equipment with high magnifying capabilities. Infrared viewing that penetrates no walls but merely helps the police see dim public areas at night falls outside this exception because darkness does not render an otherwise public place private. Although the use of visible cameras that have an audio component may be objectionable to many, it is not unconstitutional either — at least so long as the sensors do not amplify sound — because audible speech exposed to the public is unprotected. By the same token, sound recording cannot be challenged under the Fifth Amendment because audible statements voluntarily made in public by a person who is not being interrogated are not inadmissible on self-incrimination grounds.

More recently, the government has begun using cameras, along with computer technology, to identify felons and terror suspects through face-recognition technology. The high margin of error of face-recognition systems has raised public concerns because every time the machine makes a mismatch, the wrong person might get seized or arrested by the authorities. That aside, computerized face-recognition systems are arguably constitutional because they only take a picture of one's face, which is exposed to public view anyway. The act of analyzing a person's face mathematically in real time does not by itself rise to the level of a Fourth Amendment search because an undercover agent with pictures of offenders can look around and make the same positive identification without a warrant. If anything, facial identification cameras are less intrusive than

other forms of surveillance because they record neither motion nor sound, and keep scanned images for just a few seconds. The constitutional issues arise, however, when an officer accosts a person and questions or arrests him based on the information gleaned from the system. It is imperative that the federal judiciary set clear guidelines for using that new technology.

The constitutionality of warrantless aerial surveillance does not serve as a basis for warrantless video surveillance of the curtilage or any other private area. As a matter of law and common sense, a fixed camera allowing the police to continuously monitor and possibly record every activity occurring in a private place cannot be likened to the cursory look that a passenger on an airplane gets of the ground below. It follows that for video surveillance to be constitutional, authorities should not probe inside a private place or direct a camera at an area that is not visible from the ground level to a casual passerby.

A First Amendment challenge to video surveillance cannot be successfully made unless other intrusive methods are simultaneously used by government, such as the compilation and storage of private information on law-abiding citizens without any reasonable suspicion of illegal conduct, or the unauthorized sharing of that information with a third party for non-investigative purposes. The mere existence of cameras is not “chilling” in a constitutionally objectionable sense. For a chill to be objective and justiciable, the plaintiff must show evidence of a personal tangible harm or a threat of specific future harm. To avoid an unconstitutional chill of the rights to free speech and expression, tapes should not be retained longer than is provided in the law, and the video information should not be merged with other databases and sources, unless to act on an articulable suspicion of criminal wrongdoing, as already done in some municipalities.

Although public camera surveillance — at least as currently practiced — does not seem to violate any constitutional provision, there are those who may still feel uneasy about this new form of policing because what is constitutionally permissible may well be socially unacceptable. But when constitutional remedies fall short, those who zealously guard their privacy and social freedom can only petition their representatives. The inability of the judiciary to act takes the issue out of federal courts into open public policy forums and legislative hearings where citizens may decide through elected officials what best suits them. In absence of constitutional interdictions and judicial regulation, we can only set strict statutory rules and institute legislative safeguards to make sure that surveillance has a minimally intrusive impact on a free society.

