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AERIAL SURVEILLANCE AND THE
FOURTH AMENDMENT

INTRODUCTION

The fourth amendment to the United States Constitution provides that "[t]he right of the people to be secure . . . against unreasonable searches . . . shall not be violated." For some time, both federal and state courts have been confronted with the application of the fourth amendment proscription of unreasonable searches to a new police activity: the use of aircraft to observe and search property. Additionally, the use of satellites as a variation of the airborne search has recently begun and will probably face fourth amendment challenge in the near future.

1. U.S. CONST. amend. IV. In full, the amendment provides:
   The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.
   Id. See also infra note 30.

2. The first reported decision on airborne searches was in 1973: People v. Sneed, 32 Cal. App. 3d 535, 108 Cal. Rptr. 146 (1973) (the use of a helicopter to search defendant's property for marijuana held to be unreasonable); see also, Comment, Police Helicopter Surveillance, 15 Ariz. L. REV. 145 (1973) (a comment written prior to the first reported case).

   The earliest reported instances of aerial surveillance involved military observations. During the spring of 1862, Professor Thaddeus Lowe used a hot air balloon to observe Confederate positions for the Federal army during the peninsula campaign. Porter, Hanover Court House and Gaines' Mill, in BATTLE AND LEADERS OF THE CIVIL WAR II 321 (1956); see also Goss, Yorktown and Williamsburg, in BATTLE AND LEADERS, supra, at 193-94.

3. The scope of this comment is limited to the use of aircraft as searching tools. This includes observation and searching whether intentional or inadvertent, regardless of whether the search was conducted specifically or was of a more general nature. However, it is not within the scope of this comment to discuss general aerial surveillance techniques such as the observation and trailing of suspect automobiles, aircraft, or boats.

   Similarly, this comment will not discuss probable cause or other warrant requirements, but rather, will deal solely with the validity of warrantless aerial surveillance. The searches examined herein, were conducted without warrants and were absent any of the exigencies normally used to overcome fourth amendment warrant requirements. The focus of this comment is to examine under what circumstances aerial surveillance amounts to an unreasonable warrantless search.

4. "The Reagan administration's task force on drug traffickers is, for the first time in law enforcement history, using Pentagon, CIA and NASA satellites to spy on narcotics operations . . . . ." Chicago Tribune, Jan. 23, 1983, at 1, col. 5. The major fourth amendment concern raised is "that the U.S. has used civilian and military satellites to detect marijuana fields in the [United States]." Id. Constitutional disputes arising out of this activity
Constitutionally, the question is one of balancing the conflicting interests of the individual's legitimate desire for freedom from governmental intrusion against government's legitimate law enforcement needs.

THE HISTORICAL PERSPECTIVE

The fourth amendment requires a two-step approach for testing the constitutionality of police search procedures. Initially, this analysis establishes the point at which an airborne police activity is tantamount to a search; then, whether the search was reasonable under the circumstances. This two-stepped approach is as applicable to the unobtrusive aircraft as to the more traditional constable at the door. This comment examines aircraft surveillance in the context of the traditional two-step analysis and concludes with an examination of the fourth amendment's application to satellite surveillance. Initially however, this comment examines the purposes underlying the
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constitutional prohibition before proceeding to the amendment’s current application.

To Be Secure: Its Origin and Meaning

The right to be secure from unreasonable governmental intrusion is not only a basic constitutional guarantee, but also a fundamental common-law right. The fourth amendment’s prohibition of unreasonable searches did not grant a new right, but rather, secured a traditional right from the possibility of future governmental encroachment. This guarantee, while originally held to be a constant, is now viewed as flexible and adaptable to various situations. This flexibility arose, in part, as a response to the increased searching capabilities that technological advances have offered to the police.

The fourth amendment, like most other protections consti-

10. See infra text accompanying notes 12-60.
11. See infra text accompanying notes 61-83.
12. United States v. Crosby, 25 F. Cas. 701 (S.C. Cir. 1871) (No. 14,493) (right to be secure in one’s home existed at common law long before Constitution); see Pearson v. Dodd, 410 F.2d 701 (D.C. Cir.) (tort of invasion of privacy properly includes action for unreasonable search), cert. denied, 395 U.S. 947 (1969); see also Neuslein v. District of Columbia, 115 F.2d 690 (D.C. Cir. 1940) (fourth amendment was enacted against common law background of general warrants and writs of assistance); United States v. Solomon, 33 F.2d 193 (Mass. Cir. 1929) (under long standing common law precepts, officer may search and seize instrumentalities of crime incident to lawful arrest); United States v. Three Tons Coal, 28 F. Cas. 149 (D. Wis. 1875) (No. 16,515) (American colonies were protected from unreasonable searches by common law).
13. Bell v. Hood, 71 F. Supp. 813 (D. Cal. 1947); but compare with the English protection: “In certain limited circumstances an officer of police not below the rank of superintendent may give to a constable written authority to search premises for stolen goods. Under this authority a constable may enter the premises accordingly and seize any goods he believes to be stolen goods.” Halsbury’s Laws of England, II at para. 123, “Powers of search without warrant are conferred on constables by, for example, the statutes referred to below.” Id. (emphasis added). Examples then followed referring to firearms violations, drug offenses, airports, terrorism, and animal protection. See also Davey, US v. Britain: A Contrast in Police Authority, 17 Trial 48, 48-52 (Oct. 1981) (general comparison of British and American civil liberties and the greater protection provided by the United States’ Bill of Rights).
14. Both official and private wiretapping were known of prior to the twentieth century. Statutes prohibiting wiretaps (police or private) were enacted in Illinois and New York in 1895, police observance of these statutory prohibitions was casual at best. Berger v. New York, 388 U.S. 41, 46 (1967); see W. Thayer, Theodore Roosevelt 359 (1919) (referring to the wiretapping of the long distance phone lines used to keep Roosevelt informed during the Republican nominating convention); see also J. Bamford, The Puzzle Palace 6-19 (1982) (for a discussion of the regularity and ease of communications interception during the period when all communications were earthbound).
tutionally incorporated by the Bill of Rights,15 arose from both American colonial and English antecedents.16 The requirement that a warrant be issued before a search could be conducted was a relatively old practice predating the Constitution by several

15. The fourth amendment took effect in 1791, however, President Washington had actually announced Rhode Island's (the ninth and hence completing state's) ratification to Congress on June 30, 1790. F. THORPE, THE CONSTITUTIONAL HISTORY OF THE UNITED STATES, II, 261 (1901). The adoption of the Bill of Rights led to the incorporation of those included rights into the Constitution. Additionally, the fourth amendment was held applicable to the states by “incorporation” into the fourteenth amendment’s guarantee of “due process.” Mapp v. Ohio, 367 U.S. 643 (1961) (“[T]he Fourth Amendment is enforceable against the States...the right to be secure...is, therefore, constitutional in origin.” Id. at 660). See also, Wolf v. Colorado, 338 U.S. 25, 28 (1949) (while not holding the fourth amendment applicable to the states, hinting in dictum, “that were a State affirmatively to sanction such police incursion into privacy it would run counter to the guaranty of the Fourteenth Amendment.”). In apparent contradiction is Wolf’s holding: “[I]n a prosecution in a State court for a State crime the Fourteenth Amendment does not forbid the admission of evidence obtained by an unreasonable search and seizure.” Id. at 33. See also, Irvine v. California, 347 U.S. 128, 134 (1954) (stating that not until Wolf did the Supreme Court “hold the basic search-and-seizure prohibition in any way applicable to the States under the Fourteenth Amendment.”).

Prior to Mapp, Wolf, and Irvine, the fourth amendment, as with the rest of the Bill of Rights generally, was held inapplicable to state action. The fourth amendment was held to be merely a restraint “upon the United States itself.” United States v. Crosby, 25 F. Cas. 701, 704 (S.C. Cir. 1871) (No. 14,893); see, e.g., Barron v. Baltimore, 32 U.S. (7 Pet.) 243, 247 (1833). “These amendments [the Bill of Rights] contain no expression indicating an intention to apply them to the state governments. This Court cannot so apply them.” Id. at 250. See also Spies v. Illinois, 123 U.S. 131 (1887). “[T]he first ten Articles of Amendment were not intended to limit the powers of the state governments in respect to their own people, but to operate on the National Government alone. ...” Id. at 166; Smith v. Maryland, 59 U.S. (18 How.) 71, 76 (1855) (states not subject to the fourth amendment so their warrants need not be based on oath or affirmation); Fox v. Ohio, 46 U.S. (5 How.) 410 480 (1846). The amendments “are exclusively restrictions upon federal power, intended to prevent interference with the rights of the States, and of their citizens.” Id. at (434) 508. See also AMERICAN AND ENGLISH ENCYCLOPAEDIA OF LAW, XXI, 955, 956-57 n.3 (1891). “The provision [the fourth amendment] in the Federal Constitution is held not to apply to the State governments, but is a limitation upon federal powers.” Id. at 956-57 n 3. Due to the inapplicability of the Bill of Rights to state action, most state constitutions contained their own prohibitions of unreasonable searches. See infra note 29.

16. Many of the protections incorporated into the American Bill of Rights were drawn from English antecedents. See, e.g., PETITION OF RIGHT, para. 3 (Eng. 1689) (guarantee of due process); PETITION OF RIGHT, para. 3 (Eng. 1689) (habeas corpus); PETITION OF RIGHT, para. 4 (Eng. 1689) (prohibition of quartering soldiers in private houses); BILL OF RIGHTS, para. 5 (Eng. 1689) (cruel and unusual punishments and excessive fines and bails prohibited); MAGNA CARTA, § 39 (1215) (right to trial by jury); MAGNA CARTA, § 40 (1215) (right to speedy trial). See generally UNITED STATES CONSTITUTION SESQUICENTENNIAL COMMISSION, HISTORY OF THE FORMATION OF THE UNION UNDER THE CONSTITUTION 280-328 (S. Bloom dir. 1941) (for background, proposals, and discussions leading to the Bill of Rights).
centuries. However, the protection thus provided was not always significant and during the period immediately preceding the American Revolution it was recognized that warrants might be so general, or overbroad, that they might as well "be against the whole English nation." The "general warrants" in use prior to the revolutionary period required no specificity. In the seminal English case of *Entick v. Carrington*, general warrants were described as being so broad as to be incapable of justification. In *Entick*, four of the King's messengers were found guilty of trespassing onto John Entick's property even though the messengers had been acting under the authority of a search warrant. The search was conducted in an effort to suppress or seize political tracts and pamphlets published in opposition to the British crown. The court, finding the messengers guilty of trespassing, ruled that the warrant which "authorized" their search was overbroad and thereby invalid. Meanwhile, in

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17. Search warrants were cited by Lord Camden in *Entick v. Carrington*, 95 Eng. Rep. 807, 813 (C.P. 1765), as dating from a Star Chamber decree of 1636 (11 CAR., ch. 4th (1636)); however, that decree cites its authority as derived from a decree of 1586 (28 ELIZ. (1586)). D. HUTCHISON, THE FOUNDATION OF THE CONSTITUTION 295 (1975).


19. The term "general warrant" is used throughout this discussion to denote warrants issued without particularity, lacking in their description of persons, places, or things. "General warrants are those that do not name the person to be seized: practically they are *cartes blanches* for seizing anyone and everyone." L. WHIPPLE, OUR ANCIENT LIBERTIES 122 (1927).


21. John Entick was involved in the publication of two anti-government papers, *The Monitor* and *The British Freeholder*. Although the warrant specified Entick by name, his papers and books were searched and seized at the messengers' discretion, therefore, the warrant was found to have been invalid because of its generality. *Id.* at 818. *See also* *Wilkes v. Wood*, 95 Eng. Rep. 608 (C.P. 1763). In *Wilkes*, a general warrant was issued to search and seize anyone involved in the publication of *The North Briton*, No. 45. Wilkes and forty-eight others were arrested under the authority of the warrant. The warrant was held invalid due to its generality, in a successful action against the King's messengers for trespass. *Compare* W. LAFAVE, supra note 5, at § 2.1(a) (examining the American colonial opposition to general warrants); J. SHATTUCK, supra note 18, at 3-4 (quoting to the remarks of James Otis, Jr., in opposition to general warrants and writs of assistance in his unsuccessful defense of sixty-three Boston merchants in *Lechmere's Case*).


23. These pieces were considered to have been "crown libels;" libels against the crown. W. LAFAVE, supra note 5, at § 1.1(a).

America, opposition to general warrants focused on the use of "writs of assistance" in duty collections.  

Writs of assistance enabled customs officers to conduct broad searches for contraband or smuggled goods with little or no justification. Additionally, general warrants were used in colonial America; the warrants were issued as blanks under a magistrate's authority, the specifics were then filled in at the time of use. Colonial opposition to general warrants and writs of assistance is often cited as one of the primary causes of the American Revolution. This opposition was reflected by constitutional prohibitions of unreasonable searches enacted by seven states prior to the adoption of the fourth amendment.

25. [The writ of assistance] appears to me the worst instrument of arbitrary power, the most destructive of English liberty and the fundamental principles of law that ever was found in an English lawbook... the writ... being general, is illegal. It is a power that places the liberty of every man in the hands of every petty officer. J. Shattuck, supra note 18, at 4, quoting, C. Adams, The Life and Works of John Adams, II, 471 (1856), quoting, James Otis, Jr., closing from Lechmere's Case.

26. A person with this writ, in the daytime, may enter all houses, shops, and so on at will, and command all to assist him... Now one of the most essential branches of English liberty is the freedom of one's house. A man's house is his castle, and whilst he is quiet he is as well guarded as a prince in his castle. J. Shattuck supra note 18, at 4, quoting, C. Adams, supra note 25, at 471, quoting, James Otis, Jr., in Lechmere's Case. The grant of authority for the issuance of writs of assistance was:

[It shall be lawful... for any person... authorized by writ of assistance under the seal of his Majesty's Court of Exchequer... to enter... any house, shop, cellar, warehouse, or room, or other place;... there to seize, and from thence to bring any kind of goods or merchandise whatsoever, prohibited or uncustomed, and to put and secure same in his Majesty's storehouse...]

13 & 14 Car. II, ch. 11th (1673-74). Writs of assistance were derived largely from medieval duty and fealty owed by knights to the king, hence, their assistance being drawn by writ of the king. This traditional demand of aid and service is closely related to the posse comitatus power, for a contemporary irony, see infra notes 182-85 and accompanying text.

27. Historically, the rule [the fourth amendment] grew out of the American colonists' distaste for the practices of the English troops stationed in the colonies. These troops were aided by the "Writs of Assistance," general warrants which were signed in blank... and authorized a search of anyone whose name the soldiers wrote on the warrant. L. Whipple, supra note 19, at 49, see also, C. Beard & M. Beard, The Rise of American Civilization 219-20 (1930).


29. Declaration of Rights, § 17 (Del. 1776); Declaration of Rights, art. XXIII (Md. 1776); Declaration of Rights, art. XIV (Mass. 1780); Bill of Rights, art. XIX (N.H. 1783); Declaration of Rights, § 8 (Pa. 1776); Declaration of Rights, art. XI (Vt. 1777); Declaration of Rights, art. I
The fourth amendment, as ratified, was phrased in two independent clauses. The first clause guarantees each person's right to be secure from unreasonable searches, while the second clause established, conceptually, the necessary criteria for the issuance of warrants. The relationship, if any, between these two clauses has troubled the courts throughout this cen-


Additionally, the constitutional ratifying conventions of six states requested that an amendment prohibiting unreasonable searches be enacted (Maryland, Massachusetts, New York, North Carolina, Pennsylvania, and Virginia). B. Schwartz, supra note 28, at 665, 681, 733-34, 765, 913, & 968.

30. The fourth amendment is construed as first barring unreasonable searches and, secondly, as providing the basic guidelines for the sufficiency of a warrant. See infra notes 31 & 32.

When James Madison introduced what would eventually become the fourth amendment into the House of Representatives, the phrasing was integrated into a single prohibition:

The rights of the people to be secured in their persons, their houses, their papers, and their other property, from all unreasonable searches and seizures, shall not be violated by warrants issued without probable cause, supported by Oath or affirmation, or not particularly describing the places to be searched, or the persons or things to be seized.

1 Annals of Cong. 434-35 (J. Gales, ed. 1789) (emphasis added to indicate the original singularity of phrasing).

The amendment as passed by the House of Representatives bore more semblance to the eventual fourth amendment as enacted, however, it still maintained the integrated structure:

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable seizures and searches, shall not be violated by warrants issuing without probable cause, supported by Oath or affirmation, and not particularly describing the place to be searched and the persons or things to be seized.

Id. at 754. The final wording of the fourth amendment was eventually arrived at by a congressional conference committee. Compare supra note 1.

31. The first part of the fourth amendment bars only unreasonable searches, implying that there can be reasonable searches. However, warrantless searches are generally suspect as likely to be unreasonable. The major exceptions are in situations where the search was conducted incident to a lawful arrest, a search in response to recognizably exigent circumstances, and searches conducted in the interests of national security. These exceptions are complexly mired in fourth amendment case law, however, they need not necessarily concern this discussion of aerial surveillance except, tangentially perhaps, the national security exception. Rather, the concern of this comment will focus on whether aerial surveillance should, on its own, qualify for a fourth amendment exception or be exempt under the "plain view," "open view," or "open fields" exceptions.

32. The second part of the fourth amendment, the warrant requirements, is not of a concern in this discussion of aerial surveillance except as to the underlying presumption that some airborne searches may be violative of the fourth amendment in the absence of a warrant.
This discussion, however, is limited in scope to the first clause and attempts to identify the point at which police conduct amounts to a search and then the point at which a police search becomes unreasonable.

The application of the fourth amendment originally paralleled English property protections. Freedom from unreasonable searches bears a natural and easily recognized relationship to traditional property and trespass law and, to some extent, property concepts are still applied. However, this property oriented protection did not run uniformly throughout an individual's land. Rather, the individual's interest, his right to be secure from governmental intrusions was held to be greatest

33. Courts have stated that warrantless searches are intrinsically unreasonable and that the state must prove that the search is within a recognized exception to the warrant requirement. However, as the sheer quantity of fourth amendment cases increases, courts are increasingly wont to apply warrant exceptions routinely and automatically. See, e.g., United States v. Hall, 346 F.2d 697 (2nd Cir.) (arrest without a warrant even though there was an opportunity to obtain one), cert. denied, 382 U.S. 947 (1966).

34. See, e.g., Entick v. Carrington, 95 Eng. Rep. 807, 817 (C.P. 1765) ("[O]ur law holds the property of every man so sacred, that no man can set his foot upon his neighbor's close without his leave"); Elsee v. Smith, 1 Dow & Ry. 97 (K.B. 1822) (the sanctity of property requires, minimally, probable cause before a warrant is issued); Wyatt v. White, 157 Eng. Rep. 1226 (L.J. Ex. 1860) (property interests may not be invaded by false warrants, there must be a showing of probable cause).

35. The concept of searching is intrinsically tied to a person's property interest. In the absence of a right in the property to be searched, a person may not be able to exert a claim for the protection of that property. Jones v. United States, 362 U.S. 257 (1960), overruled, United States v. Saloucci, 448 U.S. 83 (1980). But see, Parman v. United States, 399 F.2d 559 (D.C. Cir. 1968) (subtleties of property law need not determine the outcome of a fourth amendment analysis), cert. denied, 393 U.S. 858; Maxwell v. Stephens, 346 F.2d 325 (8th Cir.) (property and trespass law are not necessarily determinative in fourth amendment analysis), cert. denied, 382 U.S. 944 (1965).

36. Property concepts still have a logical application under the Katz reasonable expectation of privacy test; an individual may reasonably have a higher expectation of privacy within his dwelling than when out in his yard. See, e.g., United States v. Allen, 633 F.2d 1282 (9th Cir. 1980) (aerial surveillance was not unreasonable when the searching aircraft did not fly over the defendant's property lines), cert. denied, 454 U.S. 833 (1981); State v. Davis, 51 Or. App. 827, 627 P.2d 492 (1981) (reversal of trial court's exclusion of evidence; trial court had excluded evidence derived from aerial surveillance that had intruded into the defendant's airspace at 600 feet); People v. Sneed, 32 Cal. App. 3d 535, 108 Cal. Rptr. 146 (1973) (aerial surveillance held unreasonable when conducted at an altitude of 25 feet; it was found offensive to both property and privacy interests).

37. The poorest man may, in his cottage, bid defiance to all the force of the Crown. It may be frail; its roof may shake; the wind may blow through it; the storm may enter; the rain may enter; but the King of England may not enter; all his force dares not cross the threshold of the ruined tenement.

within his dwelling. The individual's privacy interest was held to diminish in direct relation to the distance of the area searched from the dwelling.

This property determinative view of the fourth amendment recognized at least three distinct types of "land" to be protected: the dwelling, the curtilage, and the outlying property. The

also Dorman v. United States, 435 F.2d 385 (D.C. Cir. 1970) (freedom from intrusion is the interest protected by the fourth amendment); United States v. Croft, 429 F.2d 884 (10th Cir. 1970) (right of privacy and freedom from governmental intrusion are the rights protected by the fourth amendment); United States v. Missler, 414 F.2d 1293 (4th Cir. 1969) (fourth amendment protects people from governmental intrusions), cert. denied, 397 U.S. 913 (1970).

38. Vale v. Louisiana, 399 U.S. 30 (1970) (the sanctity of the dwelling is guaranteed by the fourth amendment and can only be violated in reaction to certain specific exigencies). See, e.g., Dorman v. United States, 435 F.2d 385 (D.C. Cir. 1970) (nonforceable, unconsented, warrantless entry not violative of fourth amendment when in furtherance of objective of arresting probable armed felon); see also infra note 50.

39. McDowell v. United States, 383 F.2d 599 (8th Cir. 1967) (proximity of the area to be searched to the dwelling is a factor to be considered in fourth amendment analysis); Rosencranz v. United States, 356 F.2d 310 (1st Cir. 1966) (immediacy of dwelling to area searched should be considered); Care v. United States, 231 F.2d 25 (10th Cir.) (protection afforded area determined by the area's proximity or annexation to the dwelling), cert. denied, 351 U.S. 932 (1956). See W. LAFAVE, supra note 5, at § 2.3.


[N]o power can lawfully break into a man's house and study to search for evidence against him; this would be worse than the Spanish Inquisition; for ransacking a man's secret drawers and boxes to come at evidence against him, is like racking his body to come at his secret thoughts.

Id. at 812.

41. United States v. Molkenbur, 430 F.2d 563 (8th Cir.) (fourth amendment protection extends throughout the curtilage), cert. denied, 400 U.S. 952 (1970); United States ex rel. Boyance v. Myers, 398 F.2d 896 (3rd Cir. 1968) (curtilage is a protected area); Fullbright v. United States, 392 F.2d 432 (10th Cir.) (protection of "houses" extends to the curtilage), cert. denied, 393 U.S. 830 (1968); McDowell v. United States, 383 F.2d 599 (8th Cir. 1967) (curtilage is a protected area); Rosencranz v. United States, 356 F.2d 310 (1st Cir. 1966) ("house" includes curtilage); Care v. United States, 231 F.2d 22 (10th Cir.) (protection of "houses" extends throughout curtilage), cert. denied, 351 U.S. 932 (1956).

42. The property lying beyond the curtilage has been afforded little or no protection. United States v. Capps, 435 F.2d 637 (9th Cir. 1970) (no protection beyond the curtilage, even for areas adjacent to the curtilage); United States v. Hollon, 420 F.2d 302 (5th Cir. 1969) (no warrant required to search areas beyond the curtilage); McDowell v. United States, 383 F.2d 599 (8th Cir. 1967) (area one-quarter mile from the curtilage was not protected); United States v. Sorce, 325 F.2d 84 (7th Cir. 1963) (mere physical break of a property boundary does not automatically make a search unreasonable), cert. denied, 376 U.S. 931 (1964); Monnette v. United States, 299 F.2d 847 (5th Cir. 1962) (fourth amendment does not extend to the property grounds); United States v. LaBerge, 267 F. Supp. 686 (D. Md. 1967) (fourth amendment does not protect property outside of the curtilage).
dwelling was limited to "habitable structures." 43 The curtilage, a medieval concept, originally encompassed the castle or keep. It is now generally defined as the area of buildings and yards immediately surrounding the dwelling. 44 The remaining property falls into a final, least protected area; this area beyond the curtilage is often called the "open fields." The use of the term open fields is unfortunate because the phrase has grown to have a special fourth amendment significance.

The lessened security provided to open fields was first enunciated in Hester v. United States. 45 In Hester, the Supreme Court held that it was not unreasonable for the police to have searched the fields around the defendant's dwelling without a warrant. 46 The open fields exception to the fourth amendment

43. The fourth amendment specifically includes "houses."
Indeed, one's dwelling has generally been viewed as the area most resolutely protected by the Fourth Amendment. 'At the very core,' the Court cautioned in Silverman v. United States [365 U.S. 505 (1961)], 'stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion.' This constitutional protection of houses has been extended to other residential premises as well, including apartments, hotel and motel rooms, and rooms in rooming houses.

W. LaFave, supra note 5, § 2.3 at 290-91 (citations omitted). Dwellings are of no real concern to this comment since they are virtually immune to airborne surveillance techniques. For further discussion of what constitutes a "house" under the fourth amendment, see W. LaFave, supra note 5, at § 2.3.

44. The sanctity of the curtilage arose from the medieval enclosure of property. The curtilage is often defined as the area enclosed by the "curtain walls" but excluding the manor hall/dwelling. In that situation, the sanctity of the curtilage was physically manifested by the integrity of the castle walls. J. & F. Gies, Life in a Medieval Castle 25, 27 (1974). The curtilage's sanctity survived the practical demise of castles and is now generally considered as including the yards and buildings surrounding or identified with a dwelling. "[I]t is bizarre that the curious concept of curtilage, originally taken to refer to the land and buildings within the baron's stone walls, should ever have been deemed to be of controlling significance as to the constitutional limits upon the powers of the police." W. LaFave, supra note 5, § 2.3 at 314.

For a contemporary application of the curtilage concept, after-Katz, see, e.g., United States v. Molkenbur, 430 F.2d 563 (8th Cir.) (protection of the curtilage is similar to that of the dwelling), cert. denied, 400 U.S. 952 (1970); United States ex rel. Boyance v. Myers, 398 F.2d 896 (2d Cir. 1968) (curtilage includes the grounds and buildings immediately surrounding the dwelling). See also Kishel v. State, 287 So.2d 414 (Fla. App. 1974) (buildings in close proximity to the dwelling protected as curtilage); McGee v. State, 133 Ga. App. 184, 210 S.E.2d 355 (1974) (proximity of outlying farm buildings to dwelling accords them fourth amendment protection). But see People v. Weisenberger, 183 Colo. 353, 516 P.2d 1128 (1973) (protection within the curtilage was reliant upon reasonable expectation of privacy); State v. Vicars, 207 Neb. 325, 299 N.W.2d 421 (1980) (curtilage's protection depends upon Katz analysis).

45. 265 U.S. 57 (1924).
46. Hester involved a prohibition era search for bootleg liquor. Federal agents were observing the defendant who was outside on his father's property. Id. at 58. The defendant became alarmed and hid, dropped, or threw
is still valid and the fourth amendment provides little or no protection for individuals, activities, or objects in such an area.\footnote{47} It is of obvious importance, therefore, to define what is meant by open fields. To some courts, all areas outside of the curtilage are open fields.\footnote{48} Other courts, however, have taken a more logical approach in determining what constitutes open fields. Their analysis is based on the subjective actions of the property owner: if a property owner fences or posts his property, it should not still legitimately be considered open fields and thus, is no longer open to at will police incursions.\footnote{49}

Additionally, open fields must be distinguished from “open view” and “plain view.” Within the confines of this discussion, each will be individually defined and used regardless of their definition, or misdefinition, by various courts. Open fields, as stated previously, includes the property outside the curtilage.

two jugs into one of his father’s nearby fields. \textit{Id.} The field was subsequently searched without a warrant and the jugs were found; they contained “moonshine.” \textit{Id.} The Supreme Court then carved out a special exception to fourth amendment protection, stating that “the special protection accorded . . . to the people in their ‘persons, houses, papers and effects,’ is not extended to the open fields.” \textit{Id.} at 59. In this \textit{Katz}’ reasonable expectation of privacy era, the Supreme Court has noted \textit{Hester}’s continued vitality on several occasions. \textit{See, e.g.,} Air Pollution Variance Bd. v. Western Alfalfa Corp., 416 U.S. 861 (1974) (citing \textit{Hester} with apparent approval); Cady v. Dombrowski, 413 U.S. 433 (1973) (continuing vitality of \textit{Hester}). \textit{But see}, United States v. Knotts, 103 S. Ct. 1081, 1088 (1983) (Blackmun, J., concurring) (four justice concurrence refused to find \textit{Hester} applicable.

\footnote{47} In one post-\textit{Katz} case, systematic excavations in a search for a body was held valid since the digging occurred about four hundred and fifty feet from the dwelling. Conrad v. State, 63 Wis. 2d 616, 218 N.W.2d 252 (1974). The \textit{Conrad} court, assuming an overly restrictive furth amendment approach, reasoned that \textit{Katz} “reinforced the position of Justice Holmes in \textit{Hester} that a place is not 
\textit{per se} protected against an unreasonable search . . . . An open field remains beyond the ambit of the Fourth Amendment . . . .” \textit{Id.} at 623, 218 N.W.2d at 258.

\footnote{48} \textit{See e.g.,} United States v. Baldwin, 691 F.2d 718 (5th Cir. 1982) (traditional curtilage includes “residence and its appurtenances”); Patler v. Slayton, 503 F.2d 472 (4th Cir. 1974); United States v. Brown, 473 F.2d 952 (5th Cir. 1973) (chicken coop on abandoned farm within open fields); United States v. Swann, 377 F. Supp. 1305 (D. Md. 1974) (pond several hundred yards from barn was outside curtilage); \textit{see also}, United States v. Knotts, 103 S. Ct. 1081 (1983) (citing \textit{Hester} as authority in tracking device case); \textit{but see}, United States v. Knotts, 103 S. Ct. at 1088 (Blackmun, J., concurring) (four justices, while specifically concurring in the result of \textit{Knotts}, declined to apply the open fields of \textit{Hester}).

\footnote{49} People v. Terrell, 53 Misc.2d 32, 277 N.Y.S.2d 926 (1967), \textit{aff’d}, 30 A.D.2d 644, 291 N.Y.S.2d 1002 (1968) (distinction drawn between fenced or posted lands and open lands); \textit{see also} United States v. Sterling, 244 F. Supp. 534 (W.D. Pa. 1965), \textit{aff’d}, 369 F.2d 799 (3rd Cir. 1966) (fourth amendment unoffended by reasonable but ignorant trespass onto unfenced, unmarked land); Edwards v. United States, 206 F.2d 855 (10th Cir. 1953) (open lands are unprotected by the fourth amendment); \textit{but see}, United States v. Hassell, 336 F.2d 684 (6th Cir. 1964) (knowing trespass not necessarily offensive to the fourth amendment), \textit{cert. denied}, 380 U.S. 965 (1965).
and, further, it should be limited to that property "open" to public or police intrusions. "Plain view" denotes that view provided police incident to a lawful entry or arrest.50 "Open view" is any view of property absent police entry onto the property.51 Thus, the plain view incident to a lawful entry or arrest is of little importance to a discussion of aerial surveillance. It is the purpose of aerial surveillance to provide police with an advantageous view point in the absence of any entry onto property.

Because the reasonableness of a search often depends upon the position of the searching officer, it becomes necessary to establish many subjective property features: whether the property was open to licensees or invitees;52 whether the property was accessible to neighbors;53 whether the property was viewable from another's private land or from a public right-of-way;54 whether people were visible or audible from outside the property;55 whether there was a physical trespass;56 or, where the po-

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50. What the 'plain view' cases have in common is that the police officer in each of them had a prior justification for an intrusion in the course of which he came inadvertently across a piece of evidence incriminating the accused. The doctrine serves to supplement the prior justification—whether it be a warrant for another object, hot pursuit, search incident to lawful arrest, or some other legitimate reason for being present unconnected with a search directed against the accused—and permits the warrantless seizure. Of course, the extension of the original justification is legitimate only where it is immediately apparent to the police that they have evidence before them; the 'plain view' doctrine may not be used to extend a general exploratory search from one object to another until something incriminating at last emerges. Coolidge v. New Hampshire, 403 U.S. 443, 466 (1971), overruled, Washington v. Chrisman, 455 U.S. 1 (1982).

51. "Open view" is essentially that which is readily observable. Since "what a person knowingly exposes to the public . . . is not a subject of Fourth Amendment protection." Katz v. United States, 389 U.S. 347, 351 (1967).

52. Patterson v. People, 168 Colo. 417, 451 P.2d 445 (1969) (fact that invitee was an undercover police officer did not invalidate his 'plain view' search); State v. Magnano, 97 Conn. 543, 117 A. 550 (1922) (observations made while responding to fire alarm were not unreasonable).

53. United States v. Grimes, 426 F.2d 706 (5th Cir. 1970) (no fourth amendment violation when police observed suspect property from neighbor's property with the neighbor's consent).

54. Polk v. United States, 314 F.2d 837 (9th Cir.) (observations into dwelling from a public access walkway were held not violative of the fourth amendment), cert. denied, 375 U.S. 844 (1963); State v. Dixon, 391 So.2d 836 (La. 1980) (police have the same right to travel and observe from public walkways as the general public).

55. United States v. Jackson, 588 F.2d 1046 (5th Cir.) (non-electronic eavesdropping from adjacent room did not violate the fourth amendment), cert. denied, 442 U.S. 941 (1979); United States v. Martin, 509 F.2d 1211 (9th Cir.) (non-trespassory eavesdropping held reasonable), cert. denied, 421 U.S. 957 (1975); Gil v. Beto, 440 F.2d 666 (5th Cir. 1971) (observation through motel window of defendant using drugs did not offend fourth amendment); United States v. Grimes, 426 F.2d 706 (5th Cir. 1970) (binocular observations from neighboring property were not offensive to the fourth amendment);
lice were located.\footnote{57}

Most of the concepts of the property determinative approach are still, to some extent, applicable.\footnote{58} But the United States Supreme Court, in \textit{Katz v. United States},\footnote{55} rejected the


56. This concept was the predecessor to the \textit{Katz}' reasonable expectation of privacy test. \textit{See}, \textit{e.g.}, \textit{Goldman v. United States}, 316 U.S. 129 (1942), \textit{overruled}, \textit{Katz v. United States}, 389 U.S. 347 (1967). \textit{Goldman} held that absent a physical trespass, no search was unreasonable. \textit{Id.} at 135. In this post-\textit{Katz} era, however, it can no longer be suggested that

in every conceivable instance in which surveillance by the natural senses is conducted without entering, . . . it may be concluded that no Fourth Amendment search has occurred. [Contemporary analysis]. . . merely says that the lack of trespass is a "highly relevant consideration," not that it is controlling, and certainly there are circumstances in which it must be concluded that the occupant's justified expectation of privacy was breached notwithstanding the absence of a trespass.

\textit{W. LAFAVE, supra note 5}, at \S 2.3(c), 303.

57. "[I]t certainly is not a search for an officer to see or hear what is occurring inside a dwelling while he is in an area adjacent to that dwelling's curtilage which is open to the public." \textit{W. LAFAVE, supra note 5}, at \S 2.3(c), 302.

\[\text{[W]hen police surveillance takes place at a position which cannot be called a "public vantage point," . . . when the police—though not trespassing upon the defendant's curtilage—resort to [the] extraordinary step of positioning themselves where neither neighbors nor the general public would ordinarily be expected to be, the observations or overhearing of what is occurring within a dwelling constitutes a Fourth Amendment search. This is really what \textit{Katz} is all about.} \]
\textit{Id.} at 303-04.


application of property law as the sole determinative factor in fourth amendment cases. In so doing, the Court succeeded in creating a vague new fourth amendment test: the reasonable expectation of privacy.60

The Reasonable Expectation of Privacy

In Katz, the Supreme Court discarded the doctrinaire implementation of trespass law as the determinative factor in fourth amendment analysis.61 The Court replaced the trespassory rule with the vaguely defined reasonable expectation of privacy test. The reasonable expectation of privacy test actually arose from Justice Harlan's concurrence in Katz,62 in which he proposed a two-part test. First, that a person must exhibit a subjective expectation of privacy, and second, that the expectation must be one that society recognizes as reasonable.63

The theory that a person must subjectively manifest his expectation of privacy has met with disapproval from some commentators and eventually even from Justice Harlan.64 Courts,

60. Conceptually, the reasonable expectation of privacy is generally attributed to Justice Harlan's concurrence. Id. at 347, 361 (Harlan, J., concurring). The phrase reasonable expectation of privacy, however, was not actually used by the Supreme Court until Terry v. Ohio, 392 U.S. 1 (1968); see infra notes 62 & 63.

61. Katz concerned electronic eavesdropping by the FBI. The defendant was “transmitting wagering information by telephone from Los Angeles to Miami and Boston.” Katz v. United States, 389 U.S. 347, 348 (1967). The defendant, Katz, had used a public telephone booth and the government argued that the booth was not a constitutionally protected area. The Court stated that “the Fourth Amendment protects people not places.” Id. at 351. What a person “seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.” Id. at 351-52 (emphasis added). “Once this much is acknowledged, and once it is recognized that the Fourth Amendment protects people . . . against unreasonable searches . . . , it becomes clear that the reach of that Amendment cannot turn upon the presence or absence of a physical intrusion. . . .” Id. at 353.

62. The reasonable expectation of privacy standard arose from Justice Harlan's concurring opinion. Id. at 360 (Harlan, J., concurring). See supra note 60.

63. Katz v. United States, 389 U.S. 347, 360 (1967) (Harlan, J., concurring). Justice Harlan analyzed the majority's opinion:

My understanding of the rule that has emerged from prior decisions is that there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as 'reasonable.' . . . Thus 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.

Id.

64. An actual, subjective expectation of privacy obviously has no place in a statement of what Katz held or in a theory of what the fourth amendment protects. It can neither add to, nor can its absence detract
however, still regularly apply the subjective test in their search for a systematic approach to fourth amendment analysis\(^6\) and the logic and reasonableness of that approach may be easily perceived. A reasonable expectation of privacy is intrinsically tied to the owner's treatment of his property;\(^6\) a person who takes actual steps to close off his property from the public eye, should reasonably be able to rely on the public to respect his obviously manifested desire for privacy. Thus it is logically sound to hold that an individual may reasonably expect a higher level of pri-

from, an individual's claim to fourth amendment protection. If it could, the government could diminish each person's subjective expectation of privacy merely by announcing . . . that we were all . . . being placed under comprehensive electronic surveillance.


However, despite the above opposition, the application of the subjective test is at least superficially reasonable. If an individual exhibits no outward manifestation of a reasonable expectation of privacy can he actually have any reasonable expectation of privacy? If an individual does not fence, post, or otherwise enclose his property, the open fields of *Hester* are obviously applicable, however, if that same property owner closes off his property, courts should not apply the *Hester* open fields approach.

65. The *Katz* subjective test is not an absolute that must be obeyed, rather, it provides a point of reference. The concern is whether the defendant had an actual and reasonable expectation of privacy. The Supreme Court has recently stated:

Situations can be imagined, of course, in which *Katz*’ two-pronged inquiry would provide an inadequate index of Fourth Amendment protection. For example, if the Government were suddenly to announce on nationwide television that all homes henceforth would be subject to warrantless entry, individuals thereafter might not in fact entertain any actual expectation of privacy regarding their homes, papers, and effects. Similarly, if a refugee from a totalitarian country, unaware of this Nation's traditions, erroneously assumed that police were continuously monitoring his telephone conversations, a subjective expectation of privacy regarding the contents of his calls might be lacking as well. In such circumstances, when an individual's subjective expectations had been "conditioned by influences alien to well-recognized Fourth Amendment freedoms, those subjective expectations could play no meaningful role in ascertaining what the scope of Fourth Amendment protection was. In determining whether a "legitimate expectation of privacy" existed in such cases, a normative inquiry would be proper [to establish whether a subjective expectation should exist].


66. This approach may be readily seen in post-*Katz* open fields cases. *See, e.g.*, United States v. Freie, 545 F.2d 1217 (9th Cir.), cert. denied, 430 U.S. 966 (1976); United States v. Pruitt, 464 F.2d 494 (9th Cir. 1972); People v. McClaugherty, 193 Colo. 360, 566 P.2d 361 (1977); State v. Byers, 359 So.2d 84 (La. 1978); State v. Chort, 91 N.M. 584, 577 P.2d 892 (1978); *but cf.*, United States v. Baldwin, 691 F.2d 718 (5th Cir. 1982); Patler v. Slayton, 503 F.2d 472 (4th Cir. 1974); United States v. Brown, 473 F.2d 952 (5th Cir. 1973).
Privacy in a fenced yard than in an open yard.\textsuperscript{67} This subjective expectation of privacy, however, is only recognized when it is physically manifested.\textsuperscript{68} Obviously, most criminals have a subjective anticipation of, or desire for, privacy, but that anticipation or desire was not meant to provide a basis for fourth amendment protection.

The second requirement, that society recognize the expectation of privacy as reasonable, is essentially an objective test. The test identifies the level of privacy that a reasonable man would expect.\textsuperscript{69} Therefore, regardless of the subjective exhibi-

\textsuperscript{67} The distinction between fenced and open land is a \textit{Katz} distinction. If the owner has taken precautions to close his land off from the public, he has exhibited a subjective expectation of privacy. In the United States there is no police power to routinely search at will. \textit{State v. Brady}, 406 So.2d 1093 (Fla. 1981), \textit{cert. granted}, 102 S. Ct. 1706 (1983). "[T]he open fields doctrine cannot be used as carte blanche for a warrantless search simply because the location searched is not part of a dwelling or its . . . curtilage," \textit{Id.} at 1095. "We are not . . . sounding the death knell for the open fields doctrine—only for . . . [its] blind, indiscriminate application. . . ." \textit{Id.} at 1098.

\textsuperscript{68} This requirement of physical manifestation can sometimes prove difficult. For one thing, they are virtually impossible to manifest skyward. \textit{See e.g.}, \textit{United States v. DeBacker}, 493 F. Supp. 1078, 1081 (W.D. Mich. 1980) (in an aerial surveillance case: "Merely because defendant neatly planted contraband in places not observable from the road doesn't mean that all surveillance of the property thereafter is foreclosed."); \textit{United States v. Mullinex}, 508 F. Supp. 512, 514 (E.D. Ky. 1980) ("In this case the defendant could not have a reasonable expectation of privacy from aerial surveillance regardless of the remoteness of the farm or his efforts to conceal the marijuana from roadside view."); \textit{State v. Layne}, 623 S.W.2d 629 (Tenn. 1982) ("One who establishes a three-quarter-acre tract of cultivation surrounded by forests exhibits no reasonable expectation of immunity from overflight."); \textit{but see}, \textit{Dow Chem. Co. v. United States}, 536 F. Supp. 1355, 1365 (E.D. Mich. 1982) ("This Court is not prepared to conclude that . . . [one] must build a dome over . . . [his property] before . . . [he] can be said to have manifested or exhibited an expectation of privacy."); \textit{see also}, \textit{Donovan v. Dewey}, 452 U.S. 594, 599 (1981) ("[T]he Fourth Amendment protects the interest of the owner of property in being free from unreasonable intrusions . . ."). (emphasis in original); \textit{Gillette v. State}, 588 S.W.2d 361 (Tex. Crim. App. 1979) (notice in fitting room of store surveillance destroyed any subjective expectation of privacy).

\textsuperscript{69} This objective test is often measured as a balance between individual rights and society's legitimate law enforcement interests. \textit{See, e.g.}, \textit{United States v. Richards}, 638 F.2d 765, 770 (5th Cir. 1981) ("Because the fourth amendment expressly prohibits only unreasonable warrantless searches, it patently incorporates a balancing test, weighing in one measure the level of intrusion into individual privacy and in the other the public interest to be served."); \textit{United States v. Bobo}, 477 F.2d 974, 979 (4th Cir. 1973) [T]he requirements of the Fourth Amendment are not inflexible or obtusely yielded to the legitimate needs of law enforcement. . . . It is then, with an eye toward implementing the Fourth Amendment's goal of securing the sanctity of personal privacy and at the same time accommodating the legitimate ends of law enforcement, that we view the challenged [activity].

\textit{United States v. Dunbar}, 470 F. Supp. 704, 707 (D. Conn. 1979) ("legitimate governmental interests must be considered in determining the reasonable-
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...tion of an expectation of privacy, the objective standard of what society recognizes as reasonable must also be satisfied.70

Some property distinctions, however, have survived the Katz decision. Distinctions are still drawn between dwellings, curtilage, and open fields.71 The distinctions though, are now based on the varying reasonable expectations of privacy that attach to property.72 The Supreme Court, however, has stated that individuals always possess some expectation of privacy that should be viewed as reasonable.73

The fourth amendment’s protection, as extended to dwellings, is virtually immaterial to a discussion of aerial searches.74 Of more concern is the protection afforded to the curtilage. The fourth amendment’s protection has been held to run strongly

...
throughout the curtilage, in fact, the curtilage is often considered to be a virtual extension of the dwelling.\textsuperscript{75}

Outside of the curtilage, however, the “open fields” exception is generally applied.\textsuperscript{76} This exception, as applied in \textit{Hester}, granted almost unlimited authority to search open fields.\textsuperscript{77} Unfortunately, the open fields of \textit{Hester} are often considered to include almost everything outside the curtilage.\textsuperscript{78} The Supreme Court still recognizes the \textit{Hester} open fields exception, although, courts must now temper their \textit{Hester} interpretation with a \textit{Katz} analysis.\textsuperscript{79} If a person fences and posts his property, it should no longer automatically be considered open fields. Unfortunately, many courts still apply the open fields exception to virtually all property outside of the curtilage.\textsuperscript{80}

As stated previously, the observation of objects exposed to “open view” is not considered to be a search.\textsuperscript{81} This exception to

\begin{itemize}
\item \textsuperscript{75} State v. Vicars, 207 Neb. 325, 299 N.W.2d 421 (1980) (protection of “house” extends to curtilage and domestic buildings, there is a reasonable expectation of privacy in those areas); United States v. Van Dyke, 643 F.2d 992 (4th Cir. 1981) (reversing a trial court’s admission of evidence: honey-suckle patch, even though 150’ from the house, was still within the fenced curtilage and subject to the same expectation of privacy).
\item \textsuperscript{76} See, e.g., Ford v. State, 264 Ark. 141, 569 S.W.2d 105 (entry onto fenced and posted property by breaking a locked gate, was not violative of the fourth amendment), \textit{cert. denied}, 441 U.S. 957 (1979); see also supra note 37.
\item \textsuperscript{77} See \textit{Conrad} v. State, 63 Wis. 2d 616, 218 N.W.2d 252 (1974) (police digging in defendant’s open field discovered defendant’s missing wife; held not violative of the fourth amendment. Open fields are “beyond the ambit of the Fourth Amendment’s protection.” \textit{Id.} at 628, 218 N.W.2d 258); see also \textit{Care} v. United States, 231 F.2d 22 (10th Cir. 1956) (open fields applies to “still” found in cave), \textit{cert. denied}, 351 U.S. 932 (1956); Bedell v. State, 257 Ark. 895, 521 S.W.2d 200 (1975) (police have virtually free hand in searching open fields), \textit{cert. denied}, 430 U.S. 931 (1977).
\item \textsuperscript{78} \textit{Hester} concerned police observation of activity in an open field and the subsequent warrantless search of that field. It has since been extended to virtually all areas outside of the curtilage and has often been used to “determine” where the curtilage ends; see, e.g., McDowell v. United States, 383 F.2d 599 (8th Cir. 1967) (trespassory observation of game violations acceptable, regardless of no trespassing signs); Janney v. United States, 206 F.2d 601 (4th Cir. 1953) (fencing of property immaterial to “open fields” exception); Nathanson v. State, 554 P.2d 456 (Alaska 1976) (applied to open waters); State v. Caldwell, 20 Ariz. App. 331, 512 P.2d 863 (1973) (applied where ever the public is likely to wander); Cormman v. State, 156 Ind. App. 112, 294 N.E.2d 812 (1973) (applied to quarry within wooded area); State v. Aragon, 89 N.M. 91, 547 P.2d 574 (Ct. App. 1976) (applied to can of heroin “hidden” in vacant urban lot), \textit{cert. denied}, 89 N.M. 206, 549 P.2d 294 (1976).
\item \textsuperscript{79} Katz v. United States, 389 U.S. 347, 361 (1967); see also \textit{Air Pollution Variance Bd. v. Western Alfalfa Corp.}, 416 U.S. 861, 865 (1974); \textit{Cady v. Dombovski}, 413 U.S. 433, 439 (1973).
\item \textsuperscript{80} \textit{See supra} notes 40-44.
\item \textsuperscript{81} As a general proposition, it is fair to say that when a law enforcement officer is able to detect something by utilization of one or more of his senses while lawfully present at the vantage point where those
the fourth amendment's warrant requirement poses an interesting dilemma when applied to the airborne observer. Observations within this exception are necessarily open; that is, they are of areas and objects apparently open to aerial observation. However, when an aircraft is used as an aid, to allow the police to see what they could not otherwise see, it would appear illogical to hold the property observed to have been openly viewed. The concern thereby becomes, whether any person or object out of doors can be other than in open view. This universal susceptibility of property to aerial open view should not be valid under a *Katz* expectation of privacy analysis. The fourth amendment should not require canopies or domes as the only effective subjective manifestation of privacy. Moreover, society should recognize some reasonable expectation of privacy outside of the house.

**AIRBORN SEARCHES AND THE FOURTH AMENDMENT**

The use of aircraft by police as a search tool is a relatively

senses are used, that detection does not constitute a "search" within the meaning of the Fourth Amendment.


Not every observation made by a government agent amounts to a search within the meaning of the Fourth Amendment. The police may take note of anything that is evident to any of their senses, as long as they are in a place where they have a right to be, and so long as they do not resort to extraordinary means to make the observation.

_**Id.**_ "Courts have long noted that no search is involved when an officer fortuitously views evidence from a place in which he has a lawful right to be."


"An officer lawfully in any place may, without obtaining a warrant, seize any item in plain view, if he has probable cause to believe that the item is contraband, . . ." _Id._ at rule 101.

82. "Observations of evidence in 'open' view fall outside of the scope of the Fourth Amendment, but clearly the evidence cannot really be in 'open' view if the police have to resort to extraordinary means to obtain the view." W. Ringel, *supra* note 81, at § 8.2(c). *But see* "Use by government agents of devices meant to enhance their normal sense perception does not change the extent of the intrusion sufficiently to make otherwise innocent conduct a search." _Id._ at § 8.2(b).

83. During the era of trespassory interpretation of the fourth amendment, the concern was not with how the police observed, but rather, from where the police observed. The _Katz_ decision struck at that concept, holding that it was not where the police were, but what they were doing that mattered under the fourth amendment. The device used in _Katz_ was a non-intrusive electronic eavesdropping device—there was no physical trespass. So the use of sensory enhancement devices is not immune to the fourth amendment and reasonable expectations of privacy. _See_ United States v. Kim, 415 F. Supp. 1252 (D. Hawaii 1976) (telescopic observations into apartment violated tenants reasonable expectation of privacy); _accord_, United States v. Taborda, 635 F.2d 131 (2nd Cir. 1980).
recent development. This use presents unique problems in determining what expectations of privacy are reasonable; including whether a person outdoors can have any legitimate expectation of privacy from airborne intrusions. Consistent with the gradual technological erosion of fourth amendment rights, the traditional protection accorded the curtilage has been limited by the advent of aerial surveillance. Establishing the relationship between aerial surveillance and the reasonable search will turn upon applying two basic fourth amendment concepts to aerial police activity: first, when does aerial surveillance amount to a search; and second, when should that search be held unreasonable.

When is Aerial Surveillance a Search

The courts have often stated that there can be few bright lines or well defined rules in fourth amendment interpretation; each individual fact situation demands individual considera-


85. See infra notes 87-137 and the text accompanying.

86. See infra notes 138-175 and the text accompanying. See also United States v. Ragsdale, 470 F.2d 24, 27 (5th Cir. 1972) (only unreasonable searches are barred by the fourth amendment); United States v. Love, 413 F. Supp. 1122, 1124 (S.D. Tex.), cert. denied, 429 U.S. 1025 (1976). "[N]ot all searches . . . are denounced, only those that are unreasonable." Id.
In analyzing aerial surveillance, there are numerous considerations in determining whether police activity constitutes a search within the context of the fourth amendment: whether the use of aircraft is intrinsically a manifestation of a search; whether the observations were inadvertant or systematic; whether the activity was directed as specific people or property; or, whether the observations were general in nature.

Initially, however, a general definition of what constitutes a search is necessary. Searches have been defined as "examinations by authority of law, of one's premises or person, with a view to the discovery of stolen, contraband, or illicit property, or some evidence of guilt, to be used in the prosecution of a criminal action." This definition, while lacking the refinements of the most exacting court rulings, provides a good basis for initiating this discussion.

Police use of aircraft for surveillance activities should not be viewed as inherently rising to the level of a search. There are numerous non-search activities that the government may legitimately perform with aircraft. Clearly, the aerial observation of waterways and roadways lies outside of the fourth amendment's prohibition. Therefore, the mere use of aircraft should not lead to a presumption that a police search has occurred. But if the use of aircraft by police does not automatically constitute a search, should it make any difference whether the "search" was merely the result of inadvertant observation rather than the product of systematic surveillance. There is a natural reluc-

87. United States v. Nevarez-Alcantar, 495 F.2d 678 (10th Cir.) (fourth amendment rulings must be based on the individual facts of each case), cert. denied, 419 U.S. 878 (1974).

88. AMERICAN AND ENGLISH ENCYCLOPEDIA, supra note 15, at 956.

89. See 79 C.J.S., Searches and Seizures, § 1 (1952). A search is "some exploratory investigation, or an invasion and quest, a looking for or seeking out." Id., quoted in, W. LAFAVE, supra note 5, at § 2.2. "A search implies a prying into hidden places for that which is concealed and that the object searched for has been hidden or intentionally put out of the way." Id.

"[A] search is made when federal agents enter a protected area to inspect it visually whether or not they ransack or engage in other conduct usually suggested by the word 'search.'" United States v. Ryles, 291 F. supp. 492, 494 (D. Del. 1968), aff'd, 415 F.2d 190, cert. denied, 406 U.S. 926 (1971).

The Supreme Court has not defined "search" due to a reluctance to be constrained later by any Court made definition.

90. There is no contention here that the aerial observation of vehicles on public ways or at sea presents any fourth amendment problems. Likewise, legitimate searches for the fugitive and the lost are of no concern in this discussion.

91. Inadvertance has long been tied to the fourth amendment. It probably arose out of a desire not to penalize the police for any fortunate discovery which might arise. See generally, Case-Comment, Criminal Procedure—"Inadvertance": The Increasingly Vestigial Prong of the Plain
tance to view the inadvertant discovery of criminal behavior as a search. Presumptively, if the police were where they had a right to be, where everyone had a right to be, the mere happenstance of their good fortune in observing criminal behavior in "open view" should not be deemed unreasonable. It is both logical and appealing to find no fourth amendment search when the police, during a routine, non-investigatory flight, happen to discover a field of marijuana.

In State v. Roode, Tennessee State Police, while on a routine helicopter survey of traffic patterns, observed marijuana growing on the defendant's farm. There is an obvious correlation between inadvertant aerial observations and inadvertant observations by land-bound police. The inadvertance or happenstance of the observation and its lack of intent precluded its categorization as a search. However, the obverse is not always as clear. If the police go aloft intentionally seeking evidence, contraband, or crimes, they appear to be, per se, engaging in a search. In determining whether systematic police activity rises to the level of a search, there are three basic categories within which the suspect police activity may fall: the police may have been looking at specific suspect property; the police may have...

View Doctrine, 10 Mem. St. U. L. Rev. 399 (1980). See also Thompson v. United States, 382 F.2d 390 (9th Cir. 1967) (police in room as invitees "discovered" drugs when they fell from behind painting—no search); United States v. Ball, 381 F.2d 702 (6th Cir.) (jacket which tied defendant to bank robbery had been inadvertantly thrown over his shoulders during arrest for drunkeness), cert. denied, 390 U.S. 962 (1967).

92. See supra notes 45-51, 91 and accompanying text.


94. 643 S.W.2d 651 (Tenn. 1982).

95. Id. at 652.

[On October 10, 1979, Lt. Mike Dover of the Tennessee Highway Patrol was directed to fly a ... helicopter from Nashville to Chattanooga and to assist the Tennessee Department of Transportation in taking aerial photographs needed for a state road project. Lt. Dover flew the southern "Federal Designated Airway" ... On the return trip, Officer Dover's attention was focused to the ground by sunlight reflecting from fertilizer bags. As he passed over the site where the bags were located, he saw several acres of growing marijuana plants ... and two men working in the field.]

been looking for a specific illegal activity;\textsuperscript{97} or perhaps, the police might have just been looking.\textsuperscript{98}

Regardless of any resultant land-bound searches or arrests, the first type of aerial surveillance is the most intrusive. When the police have gone to search a person's property from the air without a warrant, they are likely acting with less than probable cause, perhaps motivated by a "tip" or some other insufficient basis for information.\textsuperscript{99} The police activity, however, is intrinsically "search" like and most courts would recognize the activity as arising to a search.\textsuperscript{100} In \textit{People v. Joubert},\textsuperscript{101} a California appellate court recognized that aerial surveillance directed specifically at the defendant's property constituted a search.\textsuperscript{102} The \textit{Joubert} search was initiated in response to rumors of marijuana cultivation on the defendant's property\textsuperscript{103} and subsequently the probable cause necessary for the issuance of a warrant for a terrestrial search was predicated upon the results of the aerial


\textsuperscript{98} See State v. Layne, 623 S.W.2d 629 (Tenn. Crim. App. 1981) (helicopter patrol seeking stripped cars, stills, marijuana, or other criminal activity did not constitute a search).

\textsuperscript{99} In most reported aerial surveillance cases the police were acting on a tip or some other basis of suspicion. Generally they went on then to search a specific area.

\textsuperscript{100} See \textit{e.g.}, Dow Chem. Co. v. United States, 536 F. Supp. 1355 (E.D. Mich. 1982) (actually the Dow Chemical court did not have to find a "search," the government admitted that they had searched, the EPA was merely contesting whether it was an unreasonable search); United States v. Mullinex, 508 F. Supp. 512 (E.D. Ky. 1980) (court's discussion was essentially limited to the reasonableness, or unreasonableness, of the search); People v. Joubert, 118 Cal. App. 3d 637, 173 Cal. Rptr. 428 (1981) (court first found search, but then ruled that it had been reasonable).


\textsuperscript{102} "Madera County Deputy Sheriff Albert Hahn, having heard rumors that marijuana was being cultivated on a particular rural parcel of land . . . , decided to conduct an aerial surveillance to confirm the rumors." \textit{Id.} at 640, 173 Cal. Rptr. at 430. The appellate court, in analyzing the surveillance, stated that "[g]ood arguments can be made that a citizen should be able to possess a few acres of mountainous land in a rural area and be protected from governmental intrusion into his activities thereon, short of the necessity to preserve human life or property. Ample authority exists for the proposition that . . . the possessor of rural lands . . . need not anticipate the presence of police officers engaged in exploratory searches." \textit{Id.} at 647-48, 173 Cal. Rptr. at 434 (emphasis added). Regardless of these statements, the court went on to hold that "whether a citizen should be deemed to have an objective right of privacy from optically aided aerial surveillance . . . on isolated rural mountain land is a question of public policy . . . and that public policy must allow for these searches." \textit{Id.} at 648, 173 Cal. Rptr. at 435.

\textsuperscript{103} \textit{Id.} at 640, 173 Cal. Rptr. at 430.
search. Although the aerial surveillance in Joubert was recognized as a search, it was found to have been reasonable and thus not invalid. Similarly, in Dow Chemical Co. v. United States, the Environmental Protection Agency (EPA) sponsored overflights and photography of a Dow Chemical plant in an attempt to discover pollution violations. A federal district court held that the EPA's surveillance activities constituted a search. Unlike the search in Joubert, the overflights in Dow Chemical were recognized as unreasonable.

A more difficult situation arises when the police were looking, not at specific property, but rather, searching for a specific offense. Thus, in People v. Lashmett, an Illinois sheriff chartered an airplane in order to conduct a county-wide search for stolen farm equipment. Upon sighting suspect equipment on the defendant's farm, a more traditional foot-borne search was conducted. An Illinois appellate court did not question...
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that the sheriff's aerial surveillance constituted a search, but the court refused to characterize the aerial surveillance as an unreasonable search primarily due to its unobtrusive character. More commonly, however, aerial surveillance is concerned with marijuana searches. Hence, in *State v. Davis*, and *Burkholder v. Superior Court for County of Santa Cruz*, general area-wide aerial surveillances were recognized as searches, but were upheld as reasonable. As in *Lashmett*, these decisions were based on the unobtrusive nature of aerial surveillance.

These situations demonstrate that technology has given contemporary police the ability to do what the fourth amendment was originally adopted to prevent. The authority to search "any house, shop, cellar, warehouse, or other place... for prohibited and uncustomed" items was the "unreasonable" grant of authority contained in the writs of assistance. The current social concern over the drug problem should not be al-

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*Id.* Additionally, there were statements from several informants, which, when coupled with the aerial surveillance and the sheriff's land born incursion, established the probable cause necessary for the issuance of a warrant. *Id.* at 430, 389 N.E.2d at 889.

113. The court did not deal with whether a search had occurred, but rather, dealt directly with the reasonableness of that search. *See infra* note 114.

114. The court drew, for analogy, upon the California case of *People v. Sneed*, 32 Cal. App. 3d 533, 108 Cal. Rptr. 146 (1973). The *Lashmett* court stated that in *Sneed*, the California "court noted that the helicopter activity was 'manifestly exploratory' in nature and that its position 20-25 feet above the ground was an 'obtrusive invasion of privacy' and probably illegal. In dictum, though, the [Sneed] court stated that [the] defendant would certainly have no reasonable expectation of privacy 'from airplanes and helicopters flying at legal and reasonable heights.' Here, ... [in Lashmett] the sheriff testified ... that the airplane was flying 2400 feet above the ground." *People v. Lashmett*, 71 Ill. App. 3d at 431-32, 389 N.E.2d at 889-90, *quoting and citing*, People v. Sneed, 32 Cal. App. 3d at 542-43, 108 Cal. Rptr. at 151.


117. In *Davis*, the police were engaged in aerial surveillance of the southern half of Josephine County, Oregon. *State v. Davis*, 51 Or. App. at 828, 627 P.2d at 493. In *Burkholder*, the airborne search involved the overflight of a rural California county, the police were looking for marijuana. Burkholder v. Superior Ct. for County of Santa Cruz, 96 Cal. App. 3d at 423-24, 158 Cal. Rptr. at 87.

118. "We conclude that... the... observations, achieved during unobtrusive overflights, violated no privacy rights...." Burkholder v. Superior Ct. for County of Santa Cruz, 96 Cal. App. 3d at 426, 158 Cal. Rptr. at 89 (emphasis added). The *Davis* court dealt primarily with reversing the trial court that had reasoned that the search was unreasonable based on altitude regulations. *State v. Davis*, 51 Or. App. at 828, 627 P.2d at 493. *See also infra* note 169 and accompanying text.

119. *See supra* notes 12-33 and the text accompanying.

120. 13 & 14 CAR. II, ch. 11th (1673-4); *see supra* note 26.
owed to justify the emergence of a conceptual writ of assistance in response to current social exigencies. This activity, unlike the legitimate terrestrial patrol, rises to the level of a general search contrary to the prohibition of general searches underlying the adoption of the fourth amendment. \(121\) Technological advances in police capabilities should not be allowed to circumvent the fourth amendment's proscription of general searches merely because those searches can now be performed unobtrusively. A balancing of private rights with public needs may be utilized, but the fourth amendment is concerned with the protection of the individual's reasonable expectation of privacy; the balance of these interests, individual versus societal, must be weighted accordingly. \(122\) American society should continue to recognize the individual's legitimate interest in not being observed; to be let alone. General searches are as reprehensible as specific searches: it should not be viewed as less offensive to spy on society generally than to spy on society individually.

The situation where the police are routinely in the sky, watching for illegality in general is analogous to land-bound police patrols. \(123\) This activity lies between the inadvertant, but fortuitous police observer and the oppresiveness of the general searcher. As such, individual factual situations must be analyzed to determine whether the observer's actions were closer to the inadvertant observer or to the general searcher.

In *State v. Stachler*, \(124\) a routine police helicopter patrol sighted marijuana growing on the defendant's property. \(125\) Because the Hawaii Supreme Court found that the helicopter surveillance was not a search, it did not address its

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\(121\) See *supra* notes 12-33 and the accompanying text.

\(122\) Davis v. Mississippi, 394 U.S. 721 (1969) (individual rights outweigh public needs); United States v. Davis, 423 F.2d 974 (5th Cir.) (government always has an interest, the fourth amendment serves to restrain government actions in pursuit of those interests), *cert. denied*, 400 U.S. 836 (1970).


\(125\) [P]olice were conducting a general surveillance via helicopter of the Captain Cook, Kona, area looking for criminal activity. In this sparsely populated and relatively remote area of the island of Hawaii, [the] defendant... leased about four acres of land on which his residence was located. Defendant's property was adjacent to a forest reserve just below a high ridge and was surrounded by abandoned coffee farms, wild guava growth and numerous macadamia nut, mango and avocado trees. His land could not be seen from the nearest public road, nor from neighboring property, and to get to the house one had to pass up an unimproved road.

*Id.* at 414, 570 P.2d at 1323.
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Among the factors considered by the court was the existence of routine police helicopter flights near the defendant's property and throughout Hawaii generally. Following this reasoning, any activity which the police perform routinely can potentially evolve into a "reasonable" activity. The fallacy of this reasoning should be obvious. Allowing police activity to continue routinely does not constitute a waiver of fourth amendment rights; in fact, a challenge to the activity, as in Stachler, belies the existence of any waiver.

In State v. Layne, the Tennessee State Police "were searching for stripped cars, moonshine stills, patches of marijuana and law violations generally." Their aerial surveillance was essentially similar to terrestrial police patrols, except that their ability to observe was greatly enhanced by being airborne. Although, this situation presents the classic example of routine aerial patrols, it is difficult to assess whether the police activity was inherently unreasonable. The fact that the police were aided by aircraft in their observational efforts need not necessarily be viewed as negative or positive.

Another major consideration in determining whether aerial activity rises to the level of a search is whether aircraft should be considered sensory enhancements. Sensory enhancements generally include any device or artifice which allows police to sensorily perceive that which they would not otherwise be able to perceive; such devices include binoculars, telescopes, parabolic microphones, and trained animals. Originally the fourth amendment analysis of enhancements was tied to trespass law:

126. Id. at 420, 570 P.2d at 1329. The court was affirming the trial court's result but by different reasoning. The trial court had found that a search had occurred, but had held that the search had been reasonable. Id. at 414, 570 P.2d at 1325. The appellate court merely found that no search had occurred; primarily due to an "open view" theory. Id. at 415-420, 570 P.2d at 1326-29.

127. [I]f it had been shown that helicopter flights were rare occurrences in the area, the objective reasonableness of defendant's expectation of privacy would be more credible. However, the lower court found that although this was a sparsely populated area there were occasional helicopter flights over the area by the National Guard and "crop dusters" and there was testimony that light aircraft, including tour, pleasure and business craft, flew over the area each day. Id. at 418, 570 P.2d at 1328.

128. For the Supreme Court's view of this waiver theory, see Smith v. Maryland, 442 U.S. 735 (1979). A relevant passage is quoted supra note 65. See also supra note 64.


130. Id. at 631 (emphasis added). Although, in fact, the police had completed their work for the day. One of the officers suspected that marijuana was being grown on the Layne farm, so the officers flew over the farm on their way home. Id.
under this analysis, if the police had the right to be where they
were, any observations made by their having used enhance-
ments was valid. With the advent of the Katz era, however,
the interest shifted from trespass law to intrusions into the
individual's reasonable expectations of privacy. One post-Katz test
suggested that police activity should be valid under the fourth
amendment only when the police have used the enhancement
device merely to see more clearly that which was already ob-
servable, or, when the police merely used the device to see
from a distance that which could have been observed more
closely except for the surreptitious motivations of the police.
Failing to fit one of these two patterns, the enhancement should
be recognized as violative of the individual's reasonable expec-
tation of privacy. Under this test, aircraft are offensive to the
fourth amendment as unreasonable enhancements because air-
craft are used in order to permit the police to observe objects
otherwise not viewable in the absence of a physical invasion of
the property.

As discussed previously, some uses of aircraft by the police,
including searches for specific criminal behavior and observa-
tions of specific suspect property should be viewed as
searches. However, it is also possible for police aerial surveil-
lance not to amount to a search; inadvertant observations by the
fortunate airborn police officer should not be classified as
searches. Beyond a determination that specific police activity
crosses the fourth amendment's threshold, there must follow a
determination of whether that activity was reasonable.

The Reasonableness of Aerial Surveillance

Similar to the determination of when a search has occurred,
establishing the reasonableness of a search depends upon the

131. See e.g., Goldman v. United States, 316 U.S 129 (1942) (trespass is
the determinative factor in eavesdropping and observation cases; Goldman
was overruled in Katz).
132. W. LAFAVE, supra note 5, at 2.3.
133. Id.
134. See e.g., United States v. Allen, 633 F.2d 1281 (9th Cir. 1980) (use of
electronic and visual devices from helicopter at night), cert. denied, 454 U.S.
(use of gyro-stabilized binoculars—affording view not otherwise available);
People v. Superior Ct. for County of Los Angeles, 37 Cal. App. 3d 836, 112
Cal. Rptr. 764 (1974) (binocular view was the equivalent of viewing from an
altitude of 70').
135. See supra notes 110-18.
137. See supra notes 92-95.
individual factual situation.\textsuperscript{138} A general determination of the reasonableness of a search, however, may be made by analyzing two factors: first, what was searched; then, how was it searched.\textsuperscript{139} In establishing the reasonableness of what was searched, some guidance may be derived from Justice Harlan's \textit{Katz} concurrence: “there is a twofold requirement, first that a person have exhibited an actual (subjective) expectation of privacy and, second, that the expectation be one that society is prepared to recognize as ‘reasonable.’”\textsuperscript{140}

As noted previously, the subjective expectation of privacy must be carefully applied since the exhibition of an actual expectation of privacy skyward is virtually impossible.\textsuperscript{141} Regardless of how high an individual's walls are, there is no manifestation of a subjective expectation of privacy skyward absent the complete enclosure of the property. This approach to fourth amendment analysis appears unreasonable and a more logical approach would examine a person's earthbound exhibitions of an expectation of privacy. An individual's quest for privacy is most easily recognized by examining the terrestrial activity that the individual has directed towards that goal.\textsuperscript{142}

Any attempt at determining what expectation of privacy society will recognize as reasonable is also difficult. Generally, the facts of specific situations should not be allowed to confuse the test's application. The test is primarily objective, although some specific individual factors should be considered in determining what society deems to be reasonable. Unfortunately, many courts become needlessly entangled in complex fact situations

\begin{itemize}
\item \textsuperscript{139} This approach necessarily incorporates the reasonable expectation of privacy test. An objective reasonableness is naturally applied in relation to what is being searched—person or property; then it is a matter of how it is being searched. This is not a mechanical doctrine but, rather, it allows an objective reasonableness standard be applied to specific fact patterns.
\item \textsuperscript{140} 389 U.S. 347, 360 (1967) (Harlan, J., concurring).
\item \textsuperscript{141} See \textit{supra} notes 158-59 and the accompanying text.
\end{itemize}
while societal standards should remain primarily objective. Some subjective analysis becomes necessary, however, when an individual takes specific subjective steps physically manifesting his expectation of privacy. In those situations, the courts should not merely establish what the individual's reasonable expectation of privacy was in a field, but rather, what the individual's reasonable expectation of privacy was in a fenced and posted field. If an individual's efforts and expectations appear reasonable, they should be recognized by society as reasonable.

The reasonable expectation of privacy test as applied to aerial searches is usually limited to two physical areas: the curtilage and the outlying property. The dwelling, as stated previously, is, at least at this point in time, secure from aerial surveillance. Judicial interpretation of an individual's reasonable expectation of privacy should distinguish between the curtilage and the surrounding property, but, in aerial search cases, the two are often treated similarly. This appears to be due, in part, to each areas' similar susceptibility to aerial surveillance.

Searches of open fields have been recognized as reasonable since Hester v. United States. Open fields were excepted from fourth amendment protection under the property determinative analysis, and the Katz reasonable expectation of privacy has not generally been held to extend to them. Aircraft have been allowed to search open fields with impunity, regardless of any actions taken by the property owner to secure his property.

143. See, e.g., Burkholder v. Superior Ct. for County of Santa Cruz, 96 Cal. App. 3d 421, 158 Cal. Rptr. 86 (1979). "[A] possessor of land devoted to the cultivation of contraband can exhibit no reasonable expectation of privacy from overflight consistent with the common habits of persons engaged in agrarian pursuits." Id. at 425, 158 Cal. Rptr. at 88 (emphasis added).
144. See Dow Chem. Co. v. United States, 536 F. Supp. 1355 (E.D. Mich. 1982) (Dow had taken numerous steps to block out prying eyes; the court took those steps into consideration in ruling that the government search was unreasonable).
145. See supra note 75.
146. But see supra note 74 for an example of airborne viewing "into" a structure, a greenhouse, in State v. Rogers, — N.M. —, 673 P.2d 142 (Ct. App. 1983).
147. The curtilage concept is rarely used, apparently the general impression is that everything is an open field from the sky. But see United States v. Mullinex, 508 F. Supp. 512 (E.D. Ky. 1980). In Mullinex, the court did suppress one marijuana plant because it had been growing in the curtilage. Id. at 515.
148. 265 U.S. 57 (1924).
149. Actually a reasonable expectation of privacy can extend to open fields, but that is rarely done.
150. Most aerial searches have involved "open fields" searches; of the twenty-five reported aerial search cases (listed supra note 84), only two have found aerial searches unreasonable. See Dow Chem. Co. v. United States, 536 F. supp. 1355 (E.D. Mich. 1982) (EPA photographic survey held
Allowing open fields to be subjected to repeated searches may be justified by society's unwillingness to recognize a reasonable expectation of privacy toward activities or objects in open fields. More troublesome, though, is the situation when the open fields were, in fact, "closed"; situations where the property owner legitimately attempted to express his desire for privacy but has failed due to the pervasive surveillance capabilities of aircraft. In those situations, the property owner has attempted to close off his land from public access, he has seemingly manifested a subjective expectation of privacy.

To support the holding that the aerial search of such protected property was still reasonable, courts have followed one of two different approaches. Some courts have reasoned that the land-owner's efforts were intended only as a bar to landborn searchers and did not manifest a skyward expectation of privacy. This approach, however, leads to the conclusion that no activity or object outside can be private. As technology advances, this rationale would lead to a radical curtailment of fourth amendment protection outdoors. Alternatively, other courts have held that the property owner's expectation of privacy was not one that society should recognize as reasonable. These courts have failed to objectively consider the individual's reasonable expectation of privacy. Such a standard would not consider what expectation of privacy was reasonable within fenced and posted land, but rather, what expectation of privacy would be reasonable within a fenced and posted field of marijuana. Following this approach, courts have reasoned that society need not recognize that expectation as reasonable. A few courts, however, have found reasonable expectations of privacy unreasonable); People v. Sneed, 32 Cal. App. 3d 535, 108 Cal. Rptr. 146 (1973) (police helicopter search held unreasonable).

151. "While the constitutional privilege of protecting one's privacy covers not only the ground, but may extend also into the airspace, it is absolutely essential that the person affected exhibit a reasonable expectation (as opposed to mere subjective, personal desire) that the activity in question be so protected. The reasonable expectation to protect the airspace overlying the land, however, cannot be demonstrated by measures taken to defend the land from earthly intrusions . . . ." State v. Roode, 643 S.W.2d 651, 653 (Tenn. 1982). See also United States v. DeBacker, 493 F. Supp. 1078 (W.D. Mich. 1980) (defendant's property was fenced, posted, and virtually inaccessible to land bound searchers, but that was of little concern to the court in its discussion of the aerial searchers).

152. People v. Joubert, 118 Cal. App. 3d 637, 173 Cal. Rptr. 428 (1981) (holding that, as a matter of public policy, the court would not recognize a reasonable expectation of privacy from airborne searches even in rural areas).

153. State v. Stachler, 58 Hawaii 412, 570 P.2d 1323 (1977) (one growing crops, whether legal or illegal, has no reasonable expectation of privacy); State v. Roode, 643 S.W.2d 651 (Tenn. 1982). "There is nothing in . . . this case to indicate that farmers generally expect their cultivated fields to be
in fenced and posted land regardless of what the land contained; such expectations have been held as reasonable against both the landborn and the airborn searcher.\textsuperscript{154} Similarly, other courts, while not finding a reasonable expectation of privacy represented by a specific set of facts, have noted, at least in dicta, that such expectations of privacy from airborn searches can be reasonable.\textsuperscript{155}

Presumptively, the curtilage deserves a higher degree of protection than the outlying property. However, the curtilage has suffered similar depredations from airborn searches. The curtilage's susceptibility to airborn searches stems from its easy accessibility. The curtilage, by nature of its definition as the yards and buildings surrounding the dwelling, is virtually impossible to protect from the airborn searcher. It would be a great deal more reasonable to establish the existence of an expectation of privacy by examining the individual's efforts as they were directed toward terrestrial seclusion. Individuals should not be required to withdraw into domed enclosures as their sole protection from airborn intrusions.\textsuperscript{156} In \textit{Dow Chemical Co. v. United States},\textsuperscript{157} a federal district court recognized such an expectation as reasonable. The court held that an expectation of privacy could be manifested without completely shielding the property from the sky.\textsuperscript{158}

The EPA, in \textit{Dow Chemical}, had contracted for a photo-

\textsuperscript{154} See \textit{Dow Chem. Co. v. United States}, 536 F. Supp. 1355 (E.D. Mich. 1982) (airially observed areas of the plant were completely hidden from ground observers); \textit{People v. Sneed}, 32 Cal. App. 3d 535, 108 Cal. Rptr. 146 (1973) (area observed was fenced off from ground observers).


\textsuperscript{158} "The Fourth Amendment should not be read as to require the citizens or businesses of this nation to take unreasonable measures to protect themselves from surreptitious governmental searches. This Court is not prepared to conclude that Dow must build a dome over its entire plant before it can be said to have manifested an expectation of privacy." \textit{Id.} at 1365.
graphic survey of a Dow Chemical facility. The specific target areas of the airborne photographers were within the facility and in areas not open to terrestrial surveillance due to intervening fences and buildings; the enclosure of those areas was motivated, ostensibly, by Dow’s desire for secrecy. By using high magnification cameras, however, the EPA was able to scrutinize photographs of the uncovered interior areas of the plant for minute details. Relying largely on the highly intrusive nature of the EPA’s search and upon the extensive, though ineffectual, shielding methods employed by Dow, the court stated that actions designed as a bar to the prying eyes of the earthbound should be considered in analyzing the reasonableness of an airborne search. Applying this reasoning, the court barred the EPA from conducting any further aerial surveillance.

Similarly, in People v. Sneed, a California appellate court barred evidence which had resulted from an unreasonable helicopter search. In Sneed, a police helicopter had flown into the immediate airspace of the defendant’s backyard in order to look for growing marijuana. Sneed’s invalidation of the search relied not only on the intrusiveness of the police activity, but also upon the obtrusiveness of that conduct; the police had flown at altitudes as low as twenty-five feet. The Sneed decision is often quoted but seldom followed; its reasoning was based largely on the concept that reasonable expectations of privacy are not earthbound, but also extend skyward.

159. The “EPA contracted with Abrams Aerial Survey Corporation, a private company located in Lansing, Michigan, to take aerial photographs. [EPA] . . . specifically informed Abrams as to the altitude, location, and direction from which the photographs were to be taken.” Id. at 1357.
160. Id. at 1364-65. The court recited fifteen factors which demonstrated Dow’s quest for privacy.
161. Id. at 1357, 1357 n. 2, & 1365.
162. Dow relied largely on the “intent” of the individual; what did the individual attempt to conceal; the individual being Dow Chemical Company. Id. at 1365.
163. Id. at 1375.
165. In this specific case, the court barred all of the resultant evidence as well. Id. at 545, 108 Cal. Rptr. at 153.
166. “The deputy sheriff arranged for a helicopter and caused it to be flown back and forth across the entire 20-acre ranch . . . .” Id. at 540, 108 Cal. Rptr. at 149. “The helicopter hovered as low as 20 or 25 feet . . . .” Id.
167. Id. “While appellant [Sneed] certainly had no reasonable expectation of privacy from his neighbor and his neighbor’s permittees and none from airplanes and helicopters flying at legal and reasonable heights, we have concluded that he did have a reasonable expectation of privacy to be free from . . . unreasonable governmental intrusion into the serenity and privacy of his backyard.” Id. at 543, 108 Cal. Rptr. at 151.
168. Drawing upon Sneed’s reasoning, the court in Dean v. Superior Ct. for County of Nevada stated that “expectations of privacy are not earth-
Although in *Sneed*, the altitude of the helicopter was a factor in the court's decision, it was not determinative. Several later courts, though, have placed greater significance upon altitude regulations in their determination of the reasonableness of a search.\[^{169}\] While the violation of FAA altitude regulations might be indicative of some governmental unreasonableness, it is hardly tantamount to a finding of governmental unreasonableness. Similarly, a finding of compliance with FAA regulations should not be indicative of the inherent reasonableness of a search. In *Sneed*, it should be remembered, the offending helicopter was flying at rooftop level, twenty-five feet. This method of analysis is, most likely, a vestige of trespass law still clinging to the fourth amendment.

Another major factor in determining the reasonableness of an airborne search is how that search was conducted. Essentially, there are three methods of aerial search: unaided optical searching, aided optical searching, and photographic searching. Unaided optical searching has generally been the presumed method throughout this comment. Moreover, aided optical searching has not been of much concern to most courts, because courts have presumed that if the police can have the advantage of altitude, they should also be able to "closely" examine the ground below.\[^{170}\] Similarly, to offset the disadvantages of aerial searches, the police often use gyro-stabilizers which correct for the aircraft's vibrations.\[^{171}\] These devices do, in fact, allow the police to see what they could not otherwise see. The fact that binoculars may magnify to provide a view equivalent to the view from a point where the aircraft could not possibly be is of little concern to most courts. Regarding reasonable expectations of privacy, it would seem that society should recognize as reasonable, the supposition that no one is watching through binoculars bound. The Fourth Amendment guards the privacy of human activity from aerial no less than from terrestrial invasion. \[^{** \* \*} W e \ expressly \ avow \ what \ the \ *Sneed* \ case \ implie[d]: \ Reasonable \ expectations \ of \ privacy \ may \ descend \ into \ the \ airspace \ and \ claim \ Fourth \ Amendment \ protection." \ Dean v. Superior Ct. for County of Nevada, 35 Cal. App. 3d 112, 116, 110 Cal. Rptr. 585, 588-89 (1974).


170. People v. St. Amour, 104 Cal. App. 3d 886, 163 Cal. Rptr. 187 (1980) (gyro-stabilized binoculars maintain a steady field, that is, the image in the lens remains steady).

171. *Id.* (court described the use of gyro-stabilized binoculars but paid little attention to whether their use was reasonable).
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from an airplane and that such observations, therefore, should be recognized as violative of the fourth amendment.

The application of photography to aerial searches is even more troubling. Initially, photographs were used to show what the observing police had actually seen.\textsuperscript{172} Photographic searches, however, have now reached the point where photographs are taken of suspect property, then enlargements of those photographs may be "searched" in detail.\textsuperscript{173} The technological efficiency of this method makes it the most intrusive form of aerial search.\textsuperscript{174}

As stated previously, in Dow Chemical the EPA contracted with a private aerial surveyor for a photographic survey of a Dow Chemical plant. State-of-the-art cameras were employed in the survey and the EPA was then able to inspect the resultant photographs for details resolved at less than one-half of an inch in diameter.\textsuperscript{175} Dow Chemical was the first high-tech aerial surveillance case to be reported and its holding, that the EPA's activities were unreasonable, should be viewed favorably. It is evidence that some courts recognize that aerial surveillance may be unreasonable and it may eventually prove to be a significant precedent in the rapidly approaching era of satellite surveillance.

\textit{The Emergence of the High-Tech Search}

The fourth amendment and the Supreme Court are slow to adapt to technological changes; it was not until 1967 that the Court recognized wiretapping as a search regardless of physical trespass\textsuperscript{176} and the Court has not yet heard a case dealing with aerial surveillance. Now, before the Court has even examined an airborne search case, technology has allowed the police to use satellites as a method of surveillance. The Justice Department has recently stated that it is now using satellites to photograph areas within the United States, especially areas within California.\textsuperscript{177} The photographs have a high tonal sensitivity which allows for marijuana and coca leaves to be distinguished from

\textsuperscript{172} State v. Cemper, 209 Neb. 376, 307 N.W.2d 820 (1981) (photos taken to corroborate officers observations); see also United States v. Dunn, 674 F.2d 1093 (5th Cir. 1982) (photos used to facilitate later intrusion).
\textsuperscript{174} See infra notes 176-187 (all satellite surveillance is "photographic").
\textsuperscript{176} Katz v. United States, 389 U.S. 347 (1967); see supra notes 61-83 and the text accompanying.
\textsuperscript{177} See supra note 4.
other foliage.\textsuperscript{178} It can be assumed that if the funds become available, a procedure will be developed whereby the photos will be computer “read” and then the suspect shadings will be flagged.\textsuperscript{179} In this manner, the photographs could be analyzed virtually instantly upon receipt by the police, then a warrant could be issued, and the police could be dispatched accordingly.

The concern with satellite searches is that they are obviously general searches. They use high resolution photography which is ostensibly capable of “reading license plates from orbit.”\textsuperscript{180} The intrusive nature of satellite searches expands upon the relatively inefficient methods used by the EPA in \textit{Dow Chemical}. In holding that the EPA’s search was illegal, the district court noted that any other holding would have denied the existence of any reasonable expectation of privacy outdoors.\textsuperscript{181}

The recent addition of satellites to the civilian police arsenal was made possible by changes in federal law.\textsuperscript{182} Following the Reconstruction Era, the \textit{Posse Comitatus} Act was passed.\textsuperscript{183} The Act prohibited the use of any part of the military “as a posse comitatus or otherwise to execute the laws.”\textsuperscript{184} The effect of this law was to deny the civilian police the use of the military for law enforcement except as expressly directed by the President. The Act, however, was amended in 1982 and now allows the military to aid the civilian police in response to requests by the police.\textsuperscript{185}

\textsuperscript{178} See supra note 4.
\textsuperscript{179} The process of computer flagging essentially involves sensitizing the computer to a certain tone, then each time that tone registers the computer will alert the operator. With the current level of sophistication, individual marijuana plants could be identified. See J. BAMFORD, \textit{The Puzzle Palace}, 279 (1982), Brecher & Lindsay, \textit{Keeping Everybody Honest}, \textit{Newsweek}, Jan. 31, 1983, at 20.
\textsuperscript{180} Brecher & Lindsay, supra note 179.

Expectations of privacy are not earthbound. The fourth amendment guards the privacy of human activity from aerial no less than terrestrial invasion. At a recent but relatively primitive time a[n] X-2 plane could spy on the ground from 50,000 feet. Today’s sophisticated technology permits overflights by vehicles orbiting at an altitude of several hundred miles. Tomorrow’s sophisticated technology will supply optic and photographic devices for minute observations from extended heights. Judicial implementation of the fourth amendment needs constant accommodation to the ever intensifying technology of surveillance. \textit{Id.} at 116, 110 Cal. Rptr. at 588.
\textsuperscript{182} 10 U.S.C. §§ 371-78 (1982).
\textsuperscript{183} S. MORRISON & H. COMMAGER, \textit{The Growth of the American Republic} II 19-51 (1962).
\textsuperscript{184} 18 U.S.C. 1385 (1876).
\textsuperscript{185} “The Secretary of Defense may, in accordance with other applicable law, provide . . . civilian law enforcement officials [with] any information collected during the normal course of military operations. . . .” 10 U.S.C. § 371. The Defense Department may also “make available any equipment
The Justice Department has used the 1982 amendment to gain access to military satellites and other exotic, high-tech military equipment. This broadening of the statutory authority, while not irredeemably indicative of the oppressiveness of a police-state, is certainly inconsistent with the traditional separation of the military from the police in the United States.

Regardless of the benefits that may accrue to law enforcement authorities, the general lowering of each person's individual security irreparably damages the fabric of a free society and weakens its democratic institutions. An intrusion of the magnitude of satellite surveillance is unwarranted and totally irreconcilable with the fourth amendment. With the advent of satellite surveillance, reasonable expectations of privacy outdoors may be limited to overcast days. The alarmists of this ill numbered year often analogize to George Orwell's *Nineteen-Eighty-Four* and its sinister "big brother," but in this situation, the analogy possesses an ominous relevance:

In the far distance a helicopter skimmed down between the roofs, hovered for an instant like a blue bottle, and then darted away again with a curving flight. It was the Police Patrol, snooping into people's windows.

**CONCLUSION**

Drawn from the purposes and history of the fourth amendment, the prohibition against unreasonable searches must be viewed as a bar to general warrantless searches. The concept underlying the reasonable expectation of privacy is that, absent an obvious breach, people are entitled to be left alone by government.

The right to be left alone demands that absent some provocation, government must refrain from searching people or their property. Unfortunately, the advent of the airborne search has given the police a generally unobtrusive disguise. That aerial surveillance usually rises to the level of a search should be obvious. More often, courts fail to recognize the unreasonable nature of aerial searches. They prefer to become mired in the analysis of a person's actual skyward manifestation of his expectation of privacy. The first courts dealing with aerial searches recognized that "reasonable expectations of privacy were not earthbound." In analyzing a person's subjective ex-

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186. See *Orwell* supra note 74.
187. See *Orwell* supra note 74.
pectation of privacy it must be recognized that any exhibition will normally be directed towards potential terrestrial intruders; thus, subjective reasonableness should be measured accordingly. Unfortunately, to satisfy many courts, a total enclosure of the property would be necessary; no reasonable expectation of privacy would then be recognized outside of this "super dwelling."

The most troubling aspect in this field, however, has been the recent use of satellites by the federal government. Satellites enormously magnify the intrusive capabilities of the government while remaining wholly unobtrusive. It should be remembered that the "writs of assistance" were used for apparently laudable purposes: the apprehension and prosecution of smugglers and the confiscation of smuggled goods. The fact that aerial and satellite surveillance appear to be motivated by good intentions is not sufficient to outweigh every individual's fourth amendment protections. The legitimacy of law enforcement needs do not justify the violation of the Bill of Rights. The objection to the "writs of assistance" was not that so many were intruded upon, but rather, they were found objectionable for the oppressive atmosphere created when citizens are subjected to the arbitrary and capricious intrusions of the police.

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