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Helicopter Observations: When do They Constitute a Search?

Introduction

The modern potential for aerial surveillance by police helicopters, in effect, decreases the zone of privacy around the home. The Fourth Amendment of the United States Constitution has been interpreted to protect citizens against unreasonable searches and seizures within this zone of privacy, whether the searches are made at ground level or from the air.¹

Suppose that during a routine patrol, a police helicopter investigates an informant's tip that marijuana is being grown in the backyard of a house in a residential area. The officers operating the helicopter, who have been trained to recognize marijuana, proceed to the location and fly over the backyard of the residence at an altitude ranging between 300 and 500 feet. The officers observe marijuana growing in a yard which is immediately adjacent to a house and completely enclosed by a wood fence approximately ten feet in height. Based upon these unenhanced, naked eye observations, police obtain a search warrant for the residence and yard. The search yields a substantial quantity of marijuana plants, and the resident of the house is arrested.

Further suppose that the defendant files a pre-trial motion to suppress the evidence gained in this search on the grounds that the observations made by the officers in the helicopter violated the Fourth Amendment of the United States Constitution.² The motion is granted and the United States Supreme Court grants certiorari on the issue. What is the likely result?

The United States Supreme Court recently concluded that backyard surveillance from a lawfully operated fixed-wing aircraft does not violate the fourth amendment.³ Is there any reason to suppose that a different outcome should result merely because the surveillance aircraft is a helicopter rather than a fixed-wing aircraft? The Court has, in fact, granted *certiorari* to answer this very question.⁴

^{1.} California v. Ciraolo, 476 U.S. 207 (1986).

^{2.} U.S. Const. amend. IV. Applied to the states through the fourteenth amendment. See also, Mapp v. Ohio, 367 U.S. 643 (1961). In California, this challenge would be made pursuant to CAL PENAL CODE § 1538.5.

^{3. 476} U.S. at 215. See infra notes 24-40 and accompanying text.

^{4.} Riley v. State, 511 So. 2d 282 (1987), cert. granted, Florida v. Riley (Feb. 22,

In Riley v. State,⁵ the defendant rented a five acre parcel of rural property. He lived in a mobile home and had a greenhouse located approximately ten to twenty feet from the mobile home. Both buildings were enclosed by a net wire fence, and a "Do Not Enter" sign was posted in front of the mobile home.⁶ The greenhouse was enclosed on two sides, and the other two sides were partially obscured by trees and shrubbery within the fenced area. Two panels were missing from the roof of the greenhouse, exposing approximately one-tenth of the roof area.⁷

An anonymous informant told the Pasco County Sheriff's Office that the defendant was growing marijuana. A deputy investigated but was unable to see the contents of the greenhouse from the road. The deputy left and obtained a helicopter.8 Flying at an altitude of approximately 400 feet the helicopter circled over the green house twice. Through openings in the roof, the deputy saw what appeared to be marijuana and obtained a search warrant to search the greenhouse.9 The Florida Supreme Court held that this aerial observation from a helicopter violated the defendant's reasonable expectation of privacy and thus constituted an illegal search¹⁰ the United States Supreme Court subsequently granted certiorari.

This Comment argues that aerial surveillance by a helicopter at an altitude of 300 to 500 feet does not offend the fourth amendment and is not unreasonable if the aircraft is: (1) being lawfully operated, and (2) not unreasonably intrusive. Further, it is argued that the only difference between surveillance by a fixed-wing aircraft at an altitude of 1,000 feet and surveillance by a helicopter at an altitude of 300 to 500 feet is the degree of physical intrusion.

In order to reach this conclusion, this Comment first discusses the current fourth amendment analyses determinative of whether an aerial observation constitutes a search. Second, it analyzes the relevant Supreme Court and lower court cases and applies them to the concepts of navigable airspace and intrusiveness. Finally, this Comment suggests that the Court adopt a test suggested by comments made by Justice White in California v. Sabo, 11 and applied

^{1988) (}No. 87-764).

^{5.} Riley v. State, 511 So. 2d 282, 283 (1987).

^{6.} *Id*.

^{7.} Id.

^{8.} *Id*.

^{9.} Id. Although photographs were taken from the helicopter during the surveillance, the photographs were not relied upon for issuance of the search warrant, and thus not at issue in the case. Id. at 283-84.

^{10.} Id. at 289.

^{11.} cert. denied 107 S. Ct. 2200 (May 18, 1987) (No. 86-1289) (White, J., dissent-

in Giancola v. State of West Virginia Department of Public Safety. 12

I. An Aerial Observation is Not Necessarily a Search

The Fourth Amendment of the United States Constitution provides "[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures." It provides protection to people, not places. This standard of modern fourth amendment analysis derives from Justice Harlan's concurring opinion in Katz v. United States, in which a person is found to have a constitutionally protected, reasonable expectation of privacy when: (1) the individual exhibits a subjective expectation of privacy in the object of the challenged search, and (2) society is willing to recognize that expectation as reasonable. The second s

"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." However, a privacy invasion inquiry does not turn upon whether the individual attempts to conceal purportedly private activity, but rather, "whether the government's intrusion infringes upon the personal and societal values protected by the fourth amendment." 18

In addition to the home, the "curtilage" is an area of an individual's property where privacy expectations are also significantly heightened. Therefore, protection is given to the curtilage because it "is essentially a protection of families and personal privacy in

ing). Justice White, in a dissent joined by the Chief Justice, noted that it was possible that helicopter surveillance could be unreasonably intrusive due to interminable hovering, the raising of clouds of dust, and unreasonably high noise levels.

^{12. 830} F.2d 547, 550-51 (4th Cir. 1987). This case was decided on December 10, 1987. The United States Court of Appeals noted that when determining whether aerial surveillance is unreasonably intrusive, certain factors are relevant. Those factors are: (a) the total number of instances of surveillance, (b) the frequency of surveillance, (c) the length of each surveillance, (d) the altitude of the aircraft, (e) the number of aircraft, (f) the degree of disruption of legitimate activities on the ground, (g) and whether any flight regulations were violated by the surveillance. *Id*.

^{13.} U.S. CONST. amend. IV.

^{14.} Katz v. United States, 389 U.S. 347 (1967).

^{15.} Id. at 360.

^{16.} Id. Unless the government invades a reasonable expectation of privacy, there is no search for fourth amendment purposes.

^{17.} *Id*.

^{18.} California v. Ciraolo, 476 U.S. at 212 (quoting Oliver v. United States, 466 U.S. 170, 181-83 (1984)).

^{19.} At common law the curtilage is that area "to which extends the intimate activity associated with the sanctity of a man's home and the privacies of life." See Oliver, 466 U.S. at 180 (quoting Boyd v. United States, 116 U.S. 616, 630 (1886)).

an area intimately linked to the home, both physically and psychologically."20

Although the backyard area immediately adjacent to a home and surrounded by fences has been deemed to fall within the area of heightened expectations of privacy,²¹ police are not barred from viewing activities within the area of the curtilage. "Nor does the mere fact that an individual has taken measures to restrict some views of his activities preclude an officer's observations from a public vantage point where he has a right to be and which renders the activities clearly visible."²² There is no search, for fourth amendment purposes, unless the government observations violate a constitutionally protected reasonable expectation of privacy. This requires "assessing the nature of a particular practice and the likely extent of its impact on the individual's sense of security balanced against the utility of the conduct as a technique of law enforcement."²³

In California v. Ciraolo,²⁴ the Supreme Court addressed the issue of aerial observation by police, of a fenced-in residential backyard without a search warrant, from a fixed-wing aircraft at an altitude of 1,000 feet and found that it did not violate the fourth amendment, even though this area was within the curtilage of the home.²⁵

In Ciraolo, police had received an anonymous telephone tip that marijuana was being grown in the subject's backyard. Police were unable to observe the contents of the yard from the ground level because a six-foot outer fence and a ten-foot inner fence completely enclosed the yard.²⁶ Later that day, police officers who were experts in recognizing marijuana flew over the house and yard in a plane at an altitude of 1,000 feet.²⁷ Police obtained a search warrant based upon the aerial observations, confiscated the marijuana and arrested the defendant.

The trial court denied the defendant's motion to suppress the evidence obtained as a result of the aerial observations. A Califor-

^{20.} Ciraolo, 476 U.S. at 213.

^{21.} See Oliver, 466 U.S. at 180 (quoting Boyd v. United States, 116 U.S. 616, 630 (1886)).

^{22.} Ciraolo, 476 U.S. at 213 (quoting United States v. Knotts, 460 U.S. 276, 282 (1983)).

^{23.} United States v. White, 401 U.S. 745 (1971) (Harlan, J., dissenting).

^{24. 476} U.S. 207 (1986). This was a 5-4 decision. Chief Justice Burger delivered the opinion of the Court, in which Justices White, Rehnquist, Stevens, and O'Connor joined. Justice Powell filed a dissenting opinion in which Justices Brennan, Marshall, and Blackmun joined.

^{25.} Id. at 215.

^{26.} Id. at 209.

^{27.} Id.

nia court of appeal reversed, reasoning that the existence of fences around the yard constituted "objective criteria from which we may conclude he manifested a reasonable expectation of privacy by any standard."²⁸ The court found it significant that the flight was not a routine patrol, but conducted specifically for the purpose of observing the particular yard, and held that the focused observation was "a direct and unauthorized intrusion into the sanctity of the home."²⁹

The United States Supreme Court analyzed the issue by applying the two-part *Katz* inquiry.³⁰ First, the Court agreed that the individual had manifested his own subjective expectation of privacy by erecting the fences,³¹ and that the yard was part of the curtilage of the home.³² The Court noted that the curtilage is that area to which extends the "intimate activity associated with the sanctity of a man's home and the privacies of life."³³ Thus, the only remaining issue was whether "naked-eye observation of the curtilage by police from an aircraft lawfully operating at an altitude of 1,000 feet violated an expectation of privacy that is reasonable."³⁴

The Court stated that although an individual has taken measures to conceal some views of his activities, this does not preclude observations by an officer from a public vantage point at which he has a right to be.³⁵ The Court found that the observations were made from within public navigable airspace,³⁶ in a physically nonintrusive manner.³⁷ In doing so, the Court noted that "[w]hat

^{28.} People v. Ciraolo, 161 Cal. App. 3d 1081, 1089, 208 Cal. Rptr. 93, 97 (1984).

^{29.} Id. at 1089-90, 208 Cal. Rptr. at 97-98.

^{30.} Katz v. United States, 389 U.S. 347, 360 (1967).

^{31.} Ciralo, 476 U.S. 207, 211. The Court noted that as to normal sidewalk traffic, the individual had taken normal precautions to maintain his privacy, but the fence would not prevent observations by a private citizen, "or a policeman perched in the top of a truck or a two-level bus." Id. The Court expressed reservations as to "whether he had a subjective expectation of privacy from all observation of his backyard, or whether instead he manifested herely a hope that no one would observe his unlawful gardening pursuits." Id. at 211-12.

^{32.} Id.

^{33.} *Id.* (quoting *Oliver*, 466 U.S. at 180). In *Oliver*, the Court noted that the curtilage was considered part of the house itself for purposes of the fourth amendment. *Id.* The curtilage, like the home, is an area where privacy expectations are significantly heightened.

^{34.} Ciraolo, 476 U.S. at 212 (emphasis added). Although photographs were taken, they were not at issue here as it was the officers' observations that supported the warrant, not the photographs. Id.

^{35.} Id. at 213.

^{36.} *Id.* Navigable airspace is defined as that airspace above the minimum altitudes of flight which are promulgated by the Civil Aeronautics Board. *See* 49 U.S.C. § 1301 (29), and 14 C.F.R. § 91.79(b) and (c) (1986). *See infra* note 43.

Helicopters may be lawfully operated at less than 500 feet if the operation does not present a hazard to persons or property on the surface. (C.F.R. § 91.79(d) (1986)).

^{37.} Ciraolo, 476 U.S. at 213.

a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection,"³⁸ and rejected the California Court of Appeal's analysis. The Supreme Court said that it was irrelevant that the observations from the aircraft were directed at identifying marijuana plants in the backyard, and held that the expectation that the yard was protected from such observation was unreasonable and *not* one that society was prepared to honor.³⁹ For purposes of the fourth amendment, the Court held that these observations did not constitute a search even though the area observed was within the curtilage of the home.

The Court reasoned that any person flying in that airspace could have looked down and observed the same things the officers did and that "in an age where private and commercial flight in the public airways is routine, it is unreasonable for respondent to expect that his marijuana plants were constitutionally protected from being observed with the naked eye from an altitude of 1,000 feet." Fundamental to this decision was the belief that a police officer has as much of a right to lawfully traverse the airways as he does to lawfully drive on a public street.

II. LAWFUL FLIGHT AND NAVIGABLE AIRSPACE AS APPLIED TO HELICOPTERS

It has been argued that the definitions of "lawful flight" and "navigable airspace" are synonymous.⁴¹ The Supreme Court has referred to navigable airspace as that airspace that is "above the minimum safe altitudes of flight prescribed by the Civil Aeronautics Authority."⁴² The minimum safe altitudes for flight are defined in the Code of Federal Regulations,⁴³ in which section 91.79

^{38.} Id. (quoting Katz v. United 389 U.S. 347 at 351 (1986)).

^{39.} Ciraolo, 476 U.S. at 213-214.

^{40.} Id. In a companion case argued on the same day as Ciraolo (Dec. 10, 1985) and decided on the same day (May 19, 1986) the Court held that the use of an aerial mapping camera to photograph an industrial manufacturing complex from navigable airspace also requires no search warrant under the fourth amendment. Dow Chem. Co. v. United States, 476 U.S. 227 (1986).

^{41.} Petitioner's Brief at 11, People v. Sabo, 185 Cal. App. 3d 845 (1986), cert. denied, S. Ct. 2200 (1987) (No. 86-1289).

^{42.} United States v. Causby, 328 U.S. 256, 263 (1946).

^{43. 49} U.S.C. § 1301 (29) (1982) provides that: Navigable airspace means airspace above the minimum altitudes of flight prescribed by regulations issued under this chapter, and shall include airspace needed to insure safety in take-off and landing of aircraft."

14 C.F.R. § 91.79 provides that:

Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

⁽a) Anywhere. An altitude allowing if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

provides that the minimum altitude for a fixed-wing aircraft over a congested area of a city, town or settlement, or over any open air assembly of persons, is 1,000 feet. The regulations also govern the operation of helicopters, and ultra-light aircraft.⁴⁴ Paragraph (d) of section 91.79 provides that: "[H]elicopters may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section if the operation is conducted without hazard to persons or property on the surface.⁴⁵ Recently, two California courts of appeal have, with contrary results, addressed the issue of whether a helicopter is within navigable airspace.

In People v. Sabo, 46 law enforcement officers made observations from a helicopter at an altitude of approximately 400 feet. 47 The Fourth District Court of Appeal noted that as to helicopters, the definition of public navigable airspace is not a function of altitude, and that while helicopters may be operated below the minimum altitudes applicable to fixed-wing aircraft, "it does not follow that such operation is conducted within navigable airspace." The court further stated that "the plain meaning of the statutes defining navigable airspace as that airspace above specified altitudes compels the conclusion helicopters operated below the minimum are not in navigable airspace." 48

⁽b) Over congested areas. Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

⁽c) Over other than congested areas. An altitude of 500 feet above the surface except over open water or sparsely populated areas. In that case, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

⁽d) Helicopters. Helicopters may be operated at less than the minimums prescribed in paragraph (b) or (c) of this section if the operation is conducted without hazard to persons or property on the surface. In addition, each person operating a helicopter shall comply with routes or altitudes specifically for helicopters by the administrator.

^{44.} Ultra light vehicles are very small, extremely light fixed-wing aircraft. Ultra lights may carry as many as two persons, but normally are large enough for only one. These vehicles have a normal operating range of sixty to seventy miles with top speed capabilities ranging from twenty-four knots to fifty-five knots (26 m.p.h. - 63 m.p.h.). The standard 2-cycle engine is very quiet, producing a noise similar to a whine, and the propeller is virtually silent, producing almost no wind turbulence. At an altitude of 300 to 500 feet, the noise produced by an ultra light would sound like an off-road motorcycle to people on the ground. The noise increases with lower altitude and decreased speed. Ultra lights are extremely maneuverable, although they do not possess the hovering ability of helicopters. Telephone interview with John Balintine, President of the United States Ultra Light Foundation, Mt. Airy, Maryland (March 11, 1988).

¹⁴ C.F.R. § 103.15 provides that "no persons may operate an ultra light vehicle over any congested area of a city, town or settlement, or over any open air assemble of persons."

^{45.} See supra note 43.

^{46. 185} Cal. App. 3d 845 (1986).

^{47.} Id. at 847.

^{48.} Id. at 852-53.

However, in People v. Romo,49 the First District Court of Appeal took a contrary view. In Romo, a police officer flew over a house in a helicopter. He conducted this overflight at an altitude of no less than 500 feet. In determining whether the observation constituted a search, the court stated that it found the reasoning in Sabo questionable, and the Fourth District's reading of Ciraolo unduly limiting. 60 "Although the Ciraolo court did state that the plane was in navigable airspace, we do not read the opinion to mean that the case only applies to helicopters if they are flying at an altitude of 1,000 feet. Rather the court appeared to emphasize this fact to make the point that the plane had a right to be where it was in observing the plants."51 The court noted that the Sabo court's "conclusion that because helicopters do not have minimum altitude limitations, they are not flying in navigable space when operating lawfully, is puzzling." The court argued that "[i]n fact certain minimum altitudes do exist for helicopters."52

It is also noteworthy that although helicopters and ultra light aircraft operations are governed by federal regulations,53 the Federal Aviation Administration grants exemptions for aircraft used in public service, such as police vehicles.⁵⁴

^{49.} No. A037010 (Feb. 11, 1988) (available on Westlaw, 243 Cal. Rptr. 801).

 ^{50.} Id.
 51. Id.

^{52.} Id. The court was referring to 14 C.F.R. § 135.203, which provides that "[e]xcept when necessary for takeoff and landing, no person may operate under VFR (visual flight regulations) . . . (b) a helicopter over a congested area at an altitude less than 300 feet above the surface. See also the dissenting opinion of Elkington, J., in People v. Roberts, 195 Cal. App. 3d 479, 483-86 (1987). In Roberts, police circled over a house trailer and the greenhouse at an altitude of approximately 300 feet. The officers circled the property for three or four minutes. The greenhouse was covered with an opaque plastic material and was connected to the house trailer by a fiberglass-covered breezeway. The officers observed marijuana in the greenhouse by hovering so that they could see through an opening at one end of the greenhouse which was covered by a four foot sheet of plywood. The court found that the greenhouse was within the curtilage, and thus the observation violated article 1, section 13 of the California Constitution. Id. at 482.

It is important to note that this decision was based upon pre Proposition 8 law. Proposition 8 became effective June 8, 1982 and provides that relevant evidence though unlawfully obtained under the California Constitution may be excluded only if exclusion is required by the United States Constitution. See in re Lance W., 37 Cal. 3d 873, 890, 896, 694 P.2d 744, 210 Cal. Rptr. 631 (1985). Thus Roberts, was not governed by Ciraolo. The court in Roberts, did however, note in dicta that the decision in Sabo, provided alternative grounds for finding the helicopter observation unreasonable. Roberts, 195 Cal. App. 3d at 845-46.

^{53.} See supra notes 43 and 44.

^{54.} The Federal Aviation Administration may grant an exemption from federal aviation regulations for aircraft, including ultra light vehicles, which are used in public service. These exemptions are frequently granted to law enforcement agencies. Telephone interview with Vincent Brophy, Investigator with the Federal Aviation Administration, Van Nuys, California office (March 11, 1988).

Ultra lights, although having similar maneuverability capabilities, are presently not as practical for use as police aerial surveillance craft. This is because in addition to not being able to hover, the ultra lights are more susceptible to wind turbulence during low altitude

The reasoning in *Romo* is the better view because the language used by the Supreme Court in *Ciraolo* logically leads to the conclusion that if a helicopter is operating lawfully, it is operating within navigable airspace for the purposes of a fourth amendment analysis.⁵⁵ However, a finding that the helicopter was: (a) lawfully operated, or (b) operated within "navigable airspace" is not dispositive of the issue of what constitutes an invalid fourth amendment search. The analysis must next determine whether the surveillance was unreasonably intrusive.

III. HELICOPTERS ARE NOT UNREASONABLY INTRUSIVE UNLESS INTRUSIVELY OPERATED

It is relatively easy to determine that an individual has manifested a subjective expectation of privacy. The difficulty in a fourth amendment analysis occurs in determining whether society is prepared to recognize that expectation as reasonable. The question of when a helicopter surveillance becomes unreasonably intrusive has been addressed by a number of courts.

and reduced speed operations than helicopters. One police department in California presently uses an ultra light vehicle for aerial surveillance.

The Downey, California Police Department presently uses an ultra light vehicle for aerial surveillance. Downey has used the ultra light for the last three and one half years and finds it a very effective tool for observation. It is in flight for two to three hours per day, and generally flies at the same altitude as a helicopter, rarely operating below 500 feet. The ultra light has proven very effective at locating and following suspects on the ground. Telephone interview with Captain Chelstrom, Downey Police Department, Downey, California (March 11, 1988).

The Monterey Park, California Police Department has also experimented with ultra light vehicles. Monterey Park used three ultra lights during the period 1982-1984. They were used for patrol support and aerial surveillance over an area of approximately 7.7 square miles with a population of approximately 72,600. The use of these craft was discontinued due to increases in the costs of liability insurance. Telephone interview with Captain Santoro, Monterey Park, California Police Department (March 11, 1988).

The factors suggested in this Comment may also be applied to the use of ultra light vehicles as well as helicopters, when determining whether aerial observations constitute a search for fourth amendment purposes. Although the question of when police use of an ultra light vehicle will constitute a search is not yet before the Court, this Comment suggests that day may not be far off.

55. California v. Ciraolo, 476 U.S. 207, 213 (1986). In *Ciraolo*, the Court made reference to *both* navigable airspace and "an officer's observations from a public vantage point where he has a right to be " *Id.* at 213. Justice White noted that the California Court of Appeals decision in *Sabo*, that the helicopter was not in navigable airspace was "questionable, and even if this is technically correct, it remains true, that the helicopter was lawfully positioned when the deputy observed the marijuana in respondent's greenhouse. *See* California v. Sabo, 107 S. Ct. 2200 *cert. denied* (No. 86 -1289). (White, J., dissenting).

A. Federal Cases Addressing Intrusiveness

In United States v. Allen,56 the Ninth Circuit of the United States Court of Appeals noted that where there is some justification for focusing a surveillance on a particular place, "as opposed to random investigation to discover criminal activity, that factor is weighed in the balance and contributes to justification for the search."67 In this case the defendant-resident lived in an area routinely traversed by Coast Guard helicopters. Thus, the defendant's "aware[ness] of these routine flights," served to decrease their intrusiveness.

Even more recently, in Giancola v. State of West Virginia Department of Public Safety,58 the plaintiffs sought damages and injunctive relief arising from a helicopter surveillance performed to detect marijuana cultivation. The Fourth Circuit of the United States Court of Appeals noted that law enforcement officers clearly have a legitimate interest in eradicating marijuana cultivating activities, and said that the pertinent inquiry was whether "the aerial surveillance tactics utilized were unreasonably intrusive or went beyond reasonable efforts to determine if marijuana was being grown in the area."59 The court listed several factors relevant in making such a determination:

- 1. The total number of instances of surveillance.
- 2. The frequency of surveillance,
- 3. The length of each surveillance,
- 4. The altitude of the aircraft,
- 5. The number of aircraft,
- 6. The degree of disruption of legitimate activities on the ground, and
- 7. Whether any flight regulations were violated by the surveillance.60

Although the record indicated that on one occasion two helicopters flew over the plaintiff's property for ten to twenty minutes at an altitude of 100 feet, 61 the plaintiffs admitted that nothing on the ground was disturbed by the wind generated by the rotors of

^{56. 633} F.2d 1282 (1981). In Allen, the United States Court of Appeals for the Ninth Circuit held that the residents (the defendants) of a ranch along the Coos Bay, Oregon coast, could not reasonably have a subjective expectation of privacy from aerial observation by the United States Coast Guard. The court reasoned that Coast Guard helicopters routinely traversed that area for several reasons, including law enforcement, and thus, the defendants were, no doubt, "aware of these routine flights." Id. at 1290.

^{57.} Id.
58. 830 F.2d 547 (4th Cir. 1987).
59. Id. at 550. The court found that the plaintiffs had evidenced a subjective expectation of privacy.

^{60.} Id. at 550-51.

^{61.} Id. at 548.

the helicopter, and that the helicopters were not close enough to determine the number of occupants or whether they were wearing uniforms. 62 The court determined that in this case, the aerial surveillance was reasonable and did not violate the fourth amendment.63

California Cases Addressing Intrusiveness

In People v. Superior Court (Stroud),64 the Second District of the California Court of Appeal held that helicopter flights over residential backyards at an altitude of 500 feet while searching for stolen auto parts did not violate the fourth amendment.

In People v. Joubert, 65 a fixed wing aircraft flew at an altitude of 500 feet, circled over a nineteen-acre rural residential property fifteen to twenty-five times, and was not found in violation of the fourth amendment. A California Court of Appeal noted that people who grow marijuana in the open do so at the risk of being observed by police officers in the air. The only time that a person will be deemed to have manifested an objectively reasonable expectation of privacy from overflights is when they employ a greenhouse or otherwise cover the plants to shield them from aerial observation.66

In People v. Messervy, 67 the court held that helicopter flights over open fields at an altitude of only 150 feet while observing a person loading a car next to growing marijuana plants also failed to violate the fourth amendment.

In People v. Sabo,68 this issue of intrusiveness was further addressed. A deputy sheriff from La Mesa, California, on a routine helicopter patrol observed what he believed was marijuana growing in a greenhouse located in the backyard of a residence. The deputy was then joined by a deputy from the narcotics squad, who, as the helicopter hovered 400 to 500 feet above the greenhouse, observed and confirmed that marijuana was growing in the greenhouse. The deputy made this observation by looking through several missing roof and side panels of the greenhouse. 69 A search warrant was issued based upon the observations, the marijuana was seized, and the greenhouse owner (the defendant) arrested. The trial court granted defendant's motion to suppress the evi-

^{62.} Id.

^{63.} Id. at 551.

^{64. 37} Cal. App. 3d 836, 839, 112 Cal. Rptr. 764, 765 (1974).

^{65. 118} Cal. App. 3d 637, 173 Cal. Rptr. 428 (1981).

^{66.} Id. at 646, 173 Cal. Rptr. at 434.

^{67. 175} Cal. App. 3d 243, 248 (1985). 68. 185 Cal. App. 3d 845, 230 Cal. Rptr. 170 (1986).

^{69.} Id. at 847, 849-50, 230 Cal. Rptr. at 170-71, 172.

dence that had been gained as a result of the aerial observations. The court found that the greenhouse was within the curtilage of the house, that a reasonable expectation of privacy existed, and that the warrantless overflight was an unreasonable search in violation of the fourth amendment.⁷⁰

The California Court of Appeal for the Fourth District affirmed. The court distinguished the Ciraolo decision, stating that Ciraolo had a fenced backyard open to the sky and that the observation was made by a fixed wing aircraft flying at an altitude of 1,000 feet. The court concluded that Ciraolo did not declare a rule to govern aerial surveillance of the curtilage in all circumstances and at any altitude... because of the obvious difficulties it creates. Stating that a case-by-case analysis is required concerning helicopter observations outside of navigable airspace, the court judicially noticed the unique capabilities of the helicopter to gambol in the sky—turning, curtsying, tipping, hummingbird-like suspended in space, ascending, descending and otherwise confounding its fixed-wing brethren doomed to fly straight...

The court reasoned that allowing observation from a lawfully operated helicopter not within navigable airspace in order to validate a search warrant would sanction "interminable hovering, a persistent overfly, a treetop observation, all accompanied by the thrashing of the rotor, the clouds of dust, and earsplitting din." Without any indication that such action had taken place, the court then held that the observation of the greenhouse constituted an unreasonable invasion of the defendant's expectation of privacy in violation of the fourth amendment.

The United States Supreme Court denied certiorari in this case, with Justice White dissenting, joined by Chief Justice Rehnquist.⁷⁶ Justice White said that the appellate court decision was a highly questionable interpretation of the decision in *Ciraolo.*⁷⁷ He noted that "while it is certainly possible that helicopter surveillance could be unreasonably intrusive on account of interminable hovering, raising clouds of dust, creating unreasonable noise, and so forth, nothing in the record indicates that any such factor was

^{70.} Id. at 854, 230 Cal. Rptr. at 176. The Court of Appeal examined the issues in this case so as to conform with the requirements of Proposition 8. Id. at 853, 230 Cal. Rptr. at 175.

^{71.} Id. at 850-51, 230 Cal. Rptr. at 172-73.

^{72.} Id. at 853, 230 Cal. Rptr. at 175.

^{73.} Id.

^{74.} Id. at 854, 230 Cal. Rptr. at 175.

^{75.} Id., 230 Cal. Rptr. at 176.

^{76. 107} S. Ct. 2200 (1987).

^{77.} Id.

present in this case."78

Very recently, in *People v. Romo*, 79 an anonymous tip led police to conduct aerial surveillance of the defendant's house and vard in Ukiah, California, A helicopter flew over the house at an altitude of no less than 500 feet, and the officer saw what he believed were marijuana plants growing in a fenced-in area of the yard.80 A California Court of Appeal (1st Dist.) dismissed the Sabo court's definition of navigable airspace and addressed the question of whether the helicopter violated the defendant's privacy rights under the fourth amendment.

The court noted that the real issue was whether the defendant's subjective expectation of privacy in his backyard was a reasonable one as defined by the second prong of Katz.81 The court then noted that the Supreme Court in Ciraolo emphasized certain factors regarding this issue: (1) that the sighting was made from a vantage point in the air at which the plane had a legal right to be, and (2) that it was done in a physically nonintrusive manner.82 The court then applied the factors used by the court in Giancola⁸³ and held that the observation did not violate the defendant's fourth amendment rights.

C. Other Jurisdictions Holding Aerial Surveillance Was Not Intrusive

In State v. Stachler,84 a police helicopter flew over a marijuana patch fifteen feet from the owner's home at an altitude of 300 feet during aerial surveillance. The Hawaii Supreme Court held this was not a search within the fourth amendment. The court noted that the "marijuana patch was open to the view of any member of the public who happened to be flying over the defendant's property,"85 and said the height of the helicopter was not determinative, but was a factor to be considered.86

In State v. Davis,87 an Oregon case, a fixed wing aircraft which operated at an altitude of 600 to 700 feet, flew over an area of

^{79.} No. A037010 (Feb. 11, 1988)(available on Westlaw, 243 Cal. Rptr. 801).

^{80.} Id.

^{81.} *Id*.

^{82.} *Id.* 83. *Id.*

^{84. 58} Hawaii 412, 570 P.2d 1323 (1977).

^{85.} Id. at 421, 570 P.2d at 1329. The court noted that there might be a different result if the helicopter flew too low, or if there was continued aerial harassment or prolonged surveillance. Id. at 1328.

^{86.} Id. at 418, 570 P.2d at 1327-28. See also Tennessee v. Layne, 623 S.W.2d 629 (Tenn. Ct. App. 1981).

^{87. 51} Or. App. 827, 627 P.2d 492 (1981).

fifty to seventy-five homes, with a school, a medical clinic and a store within a one-mile radius. The court held that this did not violate the fourth amendment when the officers observed a marijuana patch 150 to 300 feet from two residential dwellings on property which was fenced with a locked gate and posted with "Inlo [t]respassing" signs.88

IV. SITUATIONS IN WHICH A HELICOPTER OVERFLIGHT IS UNREASONABLY INTRUSIVE

"The fourth amendment reflects the recognition of the Framers that certain enclaves should be free from arbitrary government interference."89 The fourth amendment stresses "the overriding respect for the sanctity of the home that has been embedded in our traditions since the origins of the Republic."90 In keeping with this ideal, there is no question that residential backyards are used by individuals for many activities recognized by society as private. Fenced-in yards provide privacy from street level observation of the use of swimming pools, 91 family gatherings and other intimate and highly personal activities, such as love-making or nude sunbathing. Clearly, interminable hovering, raising clouds of dust, creating unreasonable noise, 92 and the "buzzing" and "dive bombing" of homes by helicopters would constitute an unreasonable intrusion within the meaning of the fourth amendment.93

Our concepts of privacy are based upon well recognized patterns of modern life, but in modern life the "air has become a public highway."94 Private and commercial flight is a constant

^{88.} Id. at 828, 627 P.2d at 493. Here, the court noted that the use of altitude regulations established by the FAA to determine whether a search is lawful would produce a "crazy quilt" out of the fourth amendment, with the "'pattern of protection' being dictated by the type of aircraft used for surveillance." Id. at 829, 627 P.2d at 494 (quoting Smith v. Maryland, 442 U.S. 735, 745 (1979).

After Ciraolo, it seems clear that the aircraft must at least be operating lawfully and that the FAA regulations are relevant to that determination. However, the determination of whether an aerial observation is unreasonably intrusive is too important a question to be determined by a mechanistic application of flight regulations promulgated by an administrative agency.

^{89.} Oliver v. United States, 466 U.S. 170, 178 (1984). 90. Id. at 179 (quoting Payton v. New York, 445 U.S. 573, 601 (1980)).

^{91.} In fact, the dissent in Ciraolo noted that the majority opinion omitted any reference "to the fact that respondent's yard contained a swimming pool and a patio for sunbathing and other private activities." Ciraolo, 476 U.S. at 222 n.7. The trial court refused to consider evidence offered at the suppression hearing that the yard was used for domestic activities. Id.

^{92.} California v. Sabo, 107 S. Ct. 2200. (1987) (White, J., dissenting to the denial of certiorari).

^{93.} See National Organization For Reform of Marijuana Laws v. Mullen, 608 F. Supp. 945, 955-61 (N.D. Cal. 1985).

^{94.} United States v. Causby, 328 U.S. 256, 264 (1946).

presence in our society, and it is unreasonable to expect that ground-level activities in areas open to the sky will not be observed by persons traversing the skies.95

The Supreme Court has already held that the fourth amendment does not require police officers to shield their eyes when passing homes while on public thoroughfares. Similarly, police observation from a lawfully operated aircraft does not violate the fourth amendment where that observation could be made by any citizen so situated.96

"Certainly the Framers did not intend that the Fourth Amendment should shelter criminal activity wherever persons with criminal intent choose to erect barriers and post 'No Trespassing' signs."97 As Justice Harlan noted in United States v. White, 98 the question of whether an expectation is reasonable must be "answered by assessing the nature of a particular practice and the likely extent of its impact on the individual's sense of security balanced against the utility of the conduct as a technique of law enforcement."99 Thus, where police officers have reasonable suspicion to believe that criminal activity is taking place at a certain location, this is a factor to be weighed when determining whether an expectation of privacy is legitimate. 100

In Riley v. State, the Florida Supreme Court noted that "purposeful surveillance from the air simply lays open everything and everyone below—whether marijuana plants, nude sunbathers, or family members relaxing in their lawn chairs—to minute inspection."101 The court adopted the same reasoning as that of the Fourth District of the California Court of Appeal in Sabo. 102 In Riley, as in Sabo, there was nothing in the record to indicate that the helicopter was unreasonably intrusive. The Riley court held that merely by the act of "circling and descending below 'public navigable airspace'," the observations impermissibly invaded the defendant's privacy rights and constituted an illegal search in violation of the fourth amendment. 103 But many other factors may influence the perception of intrusiveness of a helicopter search.

The altitude of the helicopter is a weighty factor. The noise generated by the helicopter is more intrusive at lower altitudes.

^{95.} Ciraolo, 476 U.S. at 213-14.

^{96.} Id.

Oliver, 446 U.S. at 182 n.13.
 401 U.S. 745 (1971).
 Id. at 786 (Harlan, J. dissenting).

^{100.} See United States v. Allen, 633 F.2d 1282, at 1290 (1981).

^{101. 511} So.2d 282 (1987), cert. granted, (No. 87-764).102. Id. at 288.

^{103.} Id. at 289.

and the wind generated by the rotors has a greater effect on persons and property at lower altitudes.¹⁰⁴

Time of day may also be a factor. A helicopter hovering over a residence at two o'clock in the morning, at an altitude of 300 to 500 feet, shining a search light in the backyard would probably offend the sensibilities of most ordinary people. Conversely, the same circumstances taking place at two o'clock in the afternoon might well be viewed as reasonable.

Two or three helicopters circling over a residence obviously would be more offensive than one helicopter, and similarly, one helicopter circling for a lengthy period of time could be unreasonably offensive, where a helicopter quickly passing by would go almost unnoticed.

Consider also, the effect upon the sensibilities of an ordinary person sunbathing in the backyard, who looks up to find a police officer in an ultra-light aircraft, passing overhead at an altitude of only fifty to one hundred feet. The determination as to whether any of these observations constitute a search within the fourth amendment should *not* be based solely upon whether the aircraft was within "navigable airspace," regardless of how that is defined.

V. A SOLUTION: GUIDELINES FOR AERIAL SURVEILLANCE

First, the factors laid out by the *Giancola* decision should be used to determine whether an aerial observation by a helicopter or any similar aircraft constitutes a search for fourth amendment purposes. These are listed as factors one through seven:

- 1. The total number of instances of surveillance.
- 2. The timespan between each instance of surveillance (frequency),
 - 3. The length of each surveillance.
 - 4. The altitude of the aircraft during the overflight,
- 5. How many helicopters or ultra light vehicles took part in the surveillance (number of aircraft),
- 6. Whether the wind generated by the rotors (or propellers) disturbed persons or property on the ground, and
- 7. Whether any flight regulations were violated by the surveillance, ¹⁰⁵ for example, whether the aircraft was operated in a safe

^{104. &}quot;[P]rivacy interests are not coterminous with property rights. However, because property rights reflect society's explicit recognition of a person's authority to act as he wishes in certain areas, [they] should be considered in determining whether an individual's expectations of privacy are reasonable." Oliver, 466 U.S. at 189-190. (quoting Rakas v. Illinois, 439 U.S. 128, 153 (1978)) (citation omitted).

^{105.} These factors are based, in part, upon Justice White's dissent in Sabo, 107 S. Ct. at 2201. See also Giancola, 830 F.2d at 550-51.

manner.

However, there are five additional factors necessary to make the analysis complete. Thorough analysis of when an overflight surveillance constitutes an illegal search requires, in addition to the Giancola factors, factors eight through twelve listed below:

- 8. Whether the police had a reasonable suspicion that a crime was being committed at that location.
- 9. The time of day when each instance of surveillance took place,
 - 10. The noise generated by the overflight,
- 11. Whether the location of the area surveyed is near an air-
- 12. Whether that type of overflight is a common occurrence in that area.

The application of all of these factors will ensure the proper balancing between the individual's right to privacy and the legitimate needs of society and its law enforcement agencies, whose duty is to protect and serve society.

CONCLUSION

In Smith v. Maryland, 108 the Supreme Court noted that when determining whether an individual has a reasonable expectation of privacy for purposes of the fourth amendment, the question is whether the individual's expectation of privacy, when "viewed objectively, is 'justifiable' under the circumstances."107 Determinations based upon the apprehension of future abuses, and nebulous definitions of what constitutes "navigable airspace," requiring mechanistic applications of regulations promulgated for fixed-wing aircraft to the operation of helicopters, result in inconsistent decisions and confusion among law enforcement agencies.

"The liberty shielded by the Fourth Amendment . . . is freedom 'from unreasonable government intrusions into . . . legitimate expectations of privacy.' "108 The factor analysis suggested in this Comment is offered as a comprehensive solution to the problematic determination of when an aerial observation is so intrusive that it will constitute a search within the protection of the fourth amendment.

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^{106. 442} U.S. 735 (1979).

^{107.} Id. at 740 (quoting Katz v. United States, 389 U.S. at 353 (1967)).
108. Oliver, 466 U.S. at 187 (Marshall, J., dissenting) (quoting United States v. Chadwick, 433 U.S. 1, 7 (1977)).

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