

Environmental Protection Agency Overflights and Fourth Amendment Searches

Routine overflights of industrial plants by the Environmental Protection Agency (EPA), conducted at lawful altitudes and employing commercially available visual aids, do not constitute searches under the Fourth Amendment.

Considering the comprehensive nature of the federal environmental regulatory scheme, corporate businesses may have no legitimate expectation of privacy against EPA observations for the purpose of detecting emissions into the air or discharges into water.

September 23, 1980

MEMORANDUM OPINION FOR THE DEPUTY ATTORNEY GENERAL

This responds to your request for our views on the question whether the Environmental Protection Agency's (EPA's) routine overflights of possible sources of pollution constitute searches under the Fourth Amendment. This question is addressed in a draft memorandum prepared by the EPA and submitted to the Land and Natural Resources Division of the Department of Justice. The EPA memorandum states that routine overflights of possible sources of unlawful pollution are an important part of its overall enforcement program. Aerial observations are used to detect discharges into water, emissions into the air (especially at night), and hazardous waste disposal sites among other things. Flights are typically made at altitudes meeting FAA regulations, and observations are made with equipment that includes infrared cameras (to detect heat differentials caused by underground discharges into water) and an instrument called the "Enviro-Pod," which is essentially equivalent to a high-quality single lens reflex 35mm camera with good lenses. Such cameras, as well as the thermal infrared scanner, are commercially available.

The EPA memorandum concludes that the overflights do not constitute searches as long as they occur at lawful and reasonable altitudes and use equipment no more sophisticated than commercially available equipment and as long as the observed facility has not taken measures

to shield itself from overhead observation.¹ For the reasons that follow, our analysis agrees that the EPA memorandum is substantially correct.

I.

The governing standard for whether an observation constitutes a search under the Fourth Amendment was established in *Katz v. United States*, 389 U.S. 347 (1967), in which the Supreme Court rejected the requirement that a physical intrusion occur before a search could be found and held that attaching an electronic listening device to the outside of a public telephone booth constituted a search.

What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection. . . . But what he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected.

Id. at 351-52. A governmental observation of an individual constitutes a search whenever it "violate[s] the privacy upon which he justifiably relie[s]." *Id.* at 353. As explained by Justice Harlan, this rule contains "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.'" *Id.* at 361 (Harlan, J., concurring).

In *United States v. Chadwick*, 433 U.S. 1 (1977), the Supreme Court characterized the Fourth Amendment as protecting people "from unreasonable government intrusions into their legitimate expectations of privacy." *Id.* at 7. In *Rakas v. Illinois*, 439 U.S. 128 (1978), the Court read *Katz* as holding that

capacity to claim the protection of the Fourth Amendment depends not upon a property right in the invaded place but upon whether the person who claims the protection of the Amendment has a legitimate expectation of privacy in the invaded place.

Id. at 143. The Court explained in a footnote that

a "legitimate" expectation of privacy by definition means more than a subjective expectation of not being discovered. . . . Legitimation of expectations of privacy by law must have a source outside of the Fourth Amendment, either by reference to concepts of real or personal prop-

¹ A memorandum from the Drug Enforcement Administration (DEA) concurs in these conclusions. The DEA memorandum actually goes farther than the EPA in its conclusions, cursorily arguing that even attempts to shield objects or activity from aerial view would not create a reasonable expectation of privacy that would make aerial observation of those objects or activities that were in fact unconcealed a search for Fourth Amendment purposes.

erty law or to understandings that are recognized and permitted by society.

Id. at 143-44 n.12. Because flights at lawful altitudes do not invade a landowner's property (see *United States v. Causby*, 328 U.S. 256 (1946); 49 U.S.C. § 1508 (1976)), the inquiry regarding EPA overflights is whether societal understandings recognize a legitimate expectation of privacy against aerial viewing of a commercial facility for the purpose of detecting unlawful pollution.

II.

As both the EPA memorandum, and the DEA memorandum mentioned in note 2 *supra*, point out, there are no federal cases on the question of whether an aerial observation can constitute a search for Fourth Amendment purposes. Two Supreme Court decisions, however, are especially relevant to the EPA overflight search question.

In *G.M. Leasing Corp. v. United States*, 429 U.S. 338 (1977), the Supreme Court unanimously held that corporations are protected by the Fourth Amendment. (The Court had earlier held that Fourth Amendment guarantees apply to businesses as possible subjects of regulatory searches. *Camara v. Municipal Court*, 387 U.S. 523 (1967); *See v. City of Seattle*, 387 U.S. 541 (1967).) The decision recognized that "a business, by its special nature and voluntary existence, may open itself to intrusions that would not be permissible in a purely private context." 429 U.S. at 353. The Court has yet to elaborate the contours of corporations' reduced protection.²

Because the governmental action challenged in *G.M. Leasing* was a physical entry, the Court did not address the question of what constitutes a search. Rather, it held that the intrusions, acknowledged to be searches for constitutional purposes, were not reasonable, distinguishing *United States v. Biswell*, 406 U.S. 311 (1972) (warrantless search of locked storeroom of a federally licensed gun seller, pursuant to inspection procedure authorized by Gun Control Act of 1968, held constitutional). The Court decided that where the intrusion was undertaken to enforce the tax laws against the corporation and "was not based on the nature of its business, its license, or any regulation of its activities," the corporation had Fourth Amendment rights identical to those of an individual. 429 U.S. at 354. In accordance with *Marshall v. Barlow's*, 436 U.S. 307 (1978) and *Biswell, supra*, these elements may serve to justify warrantless EPA overflights as reasonable, given the specific

²The EPA memorandum refers to *Clinton Community Hospital Corp. v. Southern Maryland Medical Center*, 374 F. Supp. 450, 456 (D. Md. 1974), in which the court asserted that corporations have no right to privacy under the Fourth Amendment. As the memorandum points out, the court relied on *United States v. Morton Salt Co.*, 338 U.S. 632 (1950); but that case was decided long before the Supreme Court first expressly rejected (in *G.M. Leasing*) the position that corporations have no Fourth Amendment privacy protection.

enforcement needs in environmental regulation, even if they are held to constitute searches.³ More important for the question whether the flights are searches, these elements may be looked to in defining the legitimate expectations of privacy of the corporation's activities. Considered in the context of the detailed environmental regulatory scheme, corporate businesses—especially those operating industrial facilities—may have no legitimate expectation of privacy against EPA observations for the purpose of detecting emissions into the air or discharges into water. It might easily be found that emissions into the air and discharges into water visible from public locales are “knowingly expose[d] to the public.” *Katz*, 389 U.S. at 351.

In *Air Pollution Variance Board v. Western Alfalfa Corp.*, 416 U.S. 861 (1974), the second Supreme Court case of special relevance to the EPA overflight search question—decided before *G.M. Leasing*—the Supreme Court unanimously held that the respondent corporation had not been the subject of a search when, in daylight, a state health department inspector entered the outdoor premises of the corporation's plant and observed the plant's smoke stacks in order to check for pollution. Having neither entered the plant or offices, nor inspected the stacks, the official “had sighted what anyone in the city who was near the plant could see in the sky—plumes of smoke.” *Id.* at 865. The Court reaffirmed the rule of *Hester v. United States*, 265 U.S. 57 (1924), that Fourth Amendment rights do not extend to “sights seen in ‘the open field.’” Because the public could enter the premises on which the inspector stood, the observation fell within the “open fields” exception to the Fourth Amendment.

This case is significant because it unanimously held there to be no search when (1) from an “open field,” which the public could routinely enter, officials observed (2) publicly visible emissions from (3) a corporation's plant (4) in order to detect pollution. If aerial observation from lawful altitudes is constitutionally equivalent to observation from the open fields—and the Court's emphasis on the observer's distance from the plant, on the fact that the public was not excluded from the observer's position, and on the analogy to taking noise readings while standing on a railroad right-of-way suggests that it is—then EPA overflights would be exempt from Fourth Amendment requirements under the open fields exception.⁴ This case presents a strong precedent, which any corporation arguing that overflights of its plants are searches would have to overcome.⁵ Nevertheless, each case must be considered

³ This memorandum does not consider the issue whether a warrantless overflight, if held to be a search, would be constitutional.

⁴ Lower court precedent suggests that the use of viewing equipment that is not of extreme technological sophistication would not change this conclusion. See discussion *infra*.

⁵ It is worth noting that the United States, as amicus curiae in the case, submitted a brief that presented exactly the arguments that the decision advances. It is also worth noting that on remand, the Colorado courts held that due process did not require notice prior to inspection but did require notice

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on all its facts to determine whether in the particular circumstances, a legitimate expectation of privacy has been invaded.⁶

III.

Because whether a legitimate expectation of privacy has been invaded depends on the full set of circumstances, it is useful to describe the several state court aerial observation decisions before attempting to catalogue the relevant factors for answering the Fourth Amendment question. Generalization is especially difficult with these cases.

In *People v. Sneed*, 32 Cal. App. 3d 535, 108 Cal. Rptr. 146 (Ct. App. 1973), a police helicopter hovered at 20–25 feet over defendant's corral near the back of his house on his ranch. Several marijuana plants growing in the corral were spotted; though they were hidden from public view, they may have been visible from the neighbor's farm. The court found there to be a search, saying that in considering the totality of circumstances, it must look to the location of the premises (urban or isolated), the natural or artificial barriers to public observation, the location of public walkways or roads, and the type of governmental authority. Relying on the rule of *Harris v. United States*, 390 U.S. 234, 236 (1968), that a non-search observation requires the officials lawfully to be at their vantage point, the court noted that the helicopter altitude was unlawful and that there was no evidence of regular flights (by police, by cropdusters, by mosquito-abatement officials, for example) over defendant's ranch. Defendant's privacy had therefore been invaded.

In *Dean v. Superior Court*, 35 Cal. App. 3d 112, 10 Cal. Rptr. 585 (Ct. App. 1973), defendant had cultivated marijuana on a $\frac{3}{4}$ -acre plot protected from public view by the surrounding hills and forest. Using binoculars, police flew as low as 300 feet over the plot. The court found that no search had occurred. It reasoned that altitude is a minor factor in determining legitimate expectations of privacy; instead, one must look to "mankind's common habits in the use of domestic and business property." 35 Cal. App. 3d at 117. Here, any expectation of privacy was "not consistent with the common habits of mankind in the use of agricultural and woodland areas." *Id.* at 118.

In *People v. Superior Court*, 37 Cal. App. 3d 836, 112 Cal. Rptr. 764 (Ct. App. 1974), police, while conducting a routine air patrol at approximately 500 feet above ground, and first using the naked eye, then

very soon afterward, at least when the inspections were to be used in a hearing before the Air Pollution Variance Board. *Air Pollution Variance Board v. Western Alfalfa Corp.*, 553 P.2d 811 (Colo. S. Ct. 1976).

⁶ Though the *Air Pollution Variance Board* opinion does not cite *Katz*, the issues presented in the two cases were the same, namely, an observation constituted a search for Fourth Amendment purposes. Because the Court has read this question as an inquiry into legitimate expectations of privacy, the open fields doctrine should be understood as holding that there are no legitimate expectations of privacy against viewing from an open field, or indeed, from anywhere the observer has a right to be.

20-power gyrostabilized binoculars, spotted large, "conspicuous and readily identifiable" automobile parts in the backyard of a residence. 37 Cal. App. 3d at 839. In these circumstances, no search had occurred.

In *Plunkett v. City of Lakewood*, 2 Civ. 49610 (unreported decision filed 15 November 1977, Cal. Ct. App., 2d Dist.) cert. denied, 436 U.S. 945 (1978), city officials' helicopter overflight of plaintiff's property, and taking of photographs from that vantage point, was held not to constitute a search. The available reports of the facts reveal no further details.

In *State v. Stachler*, 570 P.2d 1323 (Haw. S. Ct. 1977), no search was found where police flew over defendant's woods-surrounded marijuana during routine helicopter surveillance and using binoculars from about 300 feet, spotted the marijuana growing in the open field. The court relied on the open field exception approved in *Air Pollution Variance Board*, noting that the police were flying at a lawful and reasonable altitude. The court observed, however, that a violation of legitimate expectations of privacy might be found if the overflight were unreasonably or unlawfully low, or if surveillance were intensive or amounted to harassment, or if "highly sophisticated viewing devices" were employed. *Id.* at 1328. Here, occasional overflights by cropdusters, commercial planes, and helicopters made any expectation of privacy in the open field unreasonable.

In *State v. Brighter*, 589 P.2d 527 (Haw. S. Ct. 1979), helicopter observation from 200–250 feet resulting in the spotting of a stolen automobile van was held not to constitute a search. The court said: "No reasonable expectation of privacy can be asserted with respect to an object or activity which is open and visible to the public when the presence of members of the public may reasonably be anticipated." *Id.* at 530.

In *Burkholder v. Superior Court*, 96 Cal. App. 3d 421, 158 Cal. Rptr. 86 (Ct. App. 1979), police, flying in a plane at 1500–2000 feet and using 7 × 50mm binoculars and a camera with a 135mm telephoto lens, discovered a marijuana patch fairly well-hidden in the woods. Relying on the *Dean* agricultural-use test, and distinguishing *Sneed* on the ground that that case involved a "purposeful and intensive (helicopter) overflight at an unreasonable and unlawful altitude (20 feet) during a random search for contraband" (96 Cal. App. 3d at 426), the court held that no search had occurred. The optical aids were permissible, said the court, because the patch could be seen without the aids, albeit in less detail.

Finally, in *People v. Lashmett*, 389 N.E.2d 888 (Ill. App. Ct. 1979), police, acting on a tip, flew at 2400 feet over defendant's farm and spotted allegedly stolen large farm equipment. In this first Illinois overflight case, the court found that no search had occurred.

IV.

The cases suggest that in determining whether a legitimate expectation of privacy has been invaded by aerial observation, a court would look to several factors: the altitude of the observer, the type of location viewed, the nature of the objects or activities observed, the extent to which the area observed was concealed, the equipment used for observation, and the frequency of flights over the observed area. In no case is a finding as to any one of these elements conclusive, although an extension of the open fields exception to the public airways would render altitude a conclusive test.

Altitude. Only the *Sneed* case, in which the helicopter hovered directly over the observed property at 20–25 feet and caused a very noisy disturbance, held an aerial observation to be a search. The other cases reached the opposite conclusion; in all of them, the flights were at lawful and reasonable altitudes ranging from 200–2400 feet. EPA overflights occur at lawful altitudes, but altitude is not determinative of the reasonableness of privacy expectations. *Dean; Stachler.*

In our view, because of the difficulty of protecting against aerial observation, it is unlikely that a court would adopt the general rule that observations from public airspace, like those from a public road, fall within the open field exception. Without such a blanket exception, the other elements noted by courts will continue to inform decisions about the legitimacy of privacy expectations.

Type of Location. The relevance of the type of location viewed was explained by a federal court in a case involving FBI agents peering through a gap in boards covering a garage window facing a public alley. In *United States v. Vilhotti*, 323 F. Supp. 425 (S.D.N.Y. 1971), the court said:

[A]n agent is permitted the same license to intrude as a reasonably respectful citizen would take. Therefore, the nature of the premises inspected—e.g., whether residential, commercial, inhabited, or abandoned—is decisive; it determines the extent of social inhibition on natural curiosity and, inversely, the degree of care required to insure privacy.

Id. at 431. Although “decisive” is in our opinion too strong a characterization, the nature of the premises is critical to the legitimacy of privacy expectations. A residence or its backyard (*Sneed*) is socially understood to give greater protection against outside intrusion than is a farm or business (*Dean; Lashmett*). Looking into a building is far more likely to be held a search than is observing objects or activities on the outside. See *United States v. Kim*, 415 F. Supp. 1252 (D. Haw. 1976) (telescope looking into apartment a search; observing balcony may not be search). As indicated by the Supreme Court in *G.M. Leasing*, busi-

nesses receive less protection from the Fourth Amendment than do private residences. An industrial facility whose exterior is viewed from overhead by the EPA can claim little legitimate expectation of privacy consistent with "mankind's common habits in the use of . . . business property." *Dean*, 35 Cal. App. 3d at 117.

Nature of Objects or Activities Observed. Although the nature of the premises is an important measure of the extent of social inhibition on public curiosity, the kind of objects or activities being observed also determines in part the legitimacy of privacy expectations. In particular, if the objects or activities are large or conspicuous, any expectation of privacy with respect to those objects or activities is less reasonable. *People v. Superior Court; Lashmett*. Because material discharged into water or emitted into the air is publicly visible, an expectation of privacy with respect to these discharges and emissions would be of doubtful legitimacy.

Concealment. The extent to which the observed area is concealed, either by natural barriers such as hills, woods, grass, or crops or by artificial barriers such as a fence, is an important factor in determining the reasonableness of any expectations of privacy. Under the *Katz* principle that observation of what a person knowingly exposes to the public does not constitute a search, leaving objects or activities visible to public walkways (*Sneed*) or to public roads (*Stachler*) or to any place where "the presence of members of the public may reasonably be anticipated" (*Brighter*, 589 P.2d at 530) evidences an absence of reasonable expectations of privacy. Conversely, efforts to conceal make expectations of privacy more reasonable. See *State v. Kender*, 588 P.2d 447 (S. Ct. Haw. 1979) (small marijuana plants hidden among tall grass in yard surrounded by fence; observation from top of fence using telescope constitutes search).

What remains unclear is whether expectations of privacy are reasonable when efforts to conceal extend only to landbound observers, not to overflights. The list of considerations advanced by the *Sneed* court is directed far more at concealment from landbound observers; moreover, the *Dean* court said that the horizontal extension of an activity is a better measure of its privacy protection than is the altitude of the overhead plane. None of the cases involve efforts to conceal from overhead observation. The EPA memorandum and the DEA memorandum regard concealment from land observation as insufficient to create a reasonable expectation of privacy against overhead inspection. LaFave, by contrast, argues that such concealment should be sufficient. 1 LaFave, *Search and Seizure* § 2.3, at 328-30 (1978). The holdings of the cases summarized above, however, lead us to the conclusion that the significance of efforts to conceal from landbound observers depends on the nature of the premises, the type of objects or activities observed, and the other factors discussed here. We conclude that an industrial

facility should have little expectation of privacy from overhead observation of the exterior of its plant or of the land surrounding it, even if a fence surrounds the facility to keep intruders out. By contrast, surrounding the backyard of a residence with a fence should be sufficient to raise legitimate expectations of privacy against prying overhead observation (*i.e.*, from low altitudes). This judgment rests, as the cases direct, on the general social understanding about the nature of the objects or activities that can reasonably be expected to be shielded when located on particular kinds of premises. Concealment must therefore be considered only one of the factors relevant to determining the legitimacy of expectations of privacy.

Observation Equipment. The use of some visual aids does not automatically transform into a search what would otherwise not be a search. For example, binoculars were approved in *Burkholder, Dean, People v. Superior Court*, and *Stachler*. Moreover, use of a camera does not transform a non-search into a search. *See, e.g., Plunkett, Burkholder, United States v. McMillon*, 350 F. Supp. 593 (D.D.C. 1972). *Burkholder* even approved the use of a telephoto lens on the camera. In addition, *Stachler* warned that a search might be held to have occurred if technologically sophisticated equipment were used. It is our conclusion that no reasonable expectations of privacy are defeated by the use of commercially available visual aids that do no more than provide greater detail than the naked eye can make out on unconcealed objects or activities.⁷

In addition, if an observation would not constitute a search if carried out in daylight, using artificial illumination to observe in the dark would not render it a search. *See United States v. Lee*, 274 U.S. 559 (1927) (use of searchlight to observe boat at night not a search), cited in *Katz v. United States, supra* (supporting proposition that what a person knowingly exposes to the public gains no Fourth Amendment protection). If darkness does not generate a legitimate expectation of privacy against artificial illumination, it should not shield objects or activities against observation with the aid of "see-in-the-dark" equipment. *See Commonwealth v. Williams*, 396 A.2d 1286 (Pa. Super. Ct. 1978) (use of see-in-the-dark "startron" does not constitute search). Therefore, nighttime overhead observation of the unconcealed exterior of suspected sources of pollution, using infrared equipment to detect emitted heat or otherwise to observe without illumination, or using binoculars and

⁷ On facts similar to those in *United States v. Kim, supra*, a federal court recently found a search in the use of a "high-powered telescope (*i.e.*, a Monolux #4352 telescope with a 22mm viewer)" to observe the inside of an apartment. *United States v. Tabora*, 491 F. Supp. 50, 51 (E.D.N.Y.). Both cases involve an invasion of residential privacy, though some language in *Tabora* suggests that the court envisions a general rule that use of visual aids constitutes a search. In light of such cases as *United States v. Grimes*, 426 F.2d 706 (5th Cir. 1970) (binocular observation of street activity not a search), this reading of *Tabora* would be too broad.

cameras with commercially available lenses, should not constitute a search.

The use of infrared equipment to detect underground discharges—which might be considered concealed from ordinary public observation—is more questionable. Use of magnetometers, x-rays, radiographic scanners, or scintillators to perceive concealed objects constitutes a search. *See, e.g., United States v. Epperson*, 454 F.2d 769 (4th Cir. 1972) (magnetometer use is search). Nevertheless, the decisions on this aspect of search law—indeed all the federal decisions relevant to the significance of visual aids—all concern the invasion of bodily privacy (as with the magnetometer at airports) or residential privacy (*Kim; Kender*). It is therefore difficult to predict the extent of privacy protection that surrounds underground discharges.

Visual aids have generally been approved as sense-enhancement devices; when an instrument is used to detect what to the observer's senses is undetectable, a search is likely to have occurred. *See United States v. Bronstein*, 521 F.2d 459, 465 (2d Cir. 1975) (Mansfield, J., concurring). The technology used by the EPA in its searches should be evaluated in light of this standard, but it is only one factor in determining the range of legitimate privacy expectations, which are defined as well by the nature of the premises, of the objects being observed, and the like. In this context, we conclude, detection of heat differentials in unconcealed pools of water should violate no legitimate expectations of privacy. Indeed, it is likely that, faced with the issue, courts would recognize the scientific sophistication of industrial businesses and decline to draw a line between use of the human senses and use of devices able to perceive signals other than light, sound, etc., within the human range. This would represent a sensible extension of the approval of see-in-the-dark devices. As briefly described in the EPA memorandum, therefore, use of the overflight detection equipment, in observing those facilities technologically sophisticated enough to understand what signals (*e.g.*, light, heat) are being emitted for possible perception, should not constitute a search.

Frequency of Overhead Flights. Not surprisingly, the legitimacy of expectations of privacy against overhead flights depends on the frequency of such flights. *See Sneed, People v. Superior Court, Stachler, Burkholder.* Routine flyovers by commercial aircraft or by police planes or helicopters render unreasonable any expectations of privacy with respect to objects or activities left open for viewing by these potential observers. Thus, the more routine the EPA flights, and the greater the air traffic above any observed plant, the less likely is the finding of a search.

V.

Under the *Katz* test, all the circumstances of an observation must be considered before deciding whether it constitutes a search. It is our conclusion that routine EPA overflights of industrial plants, conducted at lawful altitudes and employing commercially available visual aids to detect unconcealed discharges into water or air by observing the exteriors of buildings and open lands, do not constitute searches under the Fourth Amendment. In these circumstances, the state court decisions, the few relevant federal court decisions, and especially *Air Pollution Variance Board* indicate that expectations of privacy are not reasonable. Varying any of these circumstances, as the analysis above suggests, might require a different result.

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