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CAN BIG BROTHER WATCH YOU? THE IMPLICATIONS OF THE DEPARTMENT OF HOMELAND SECURITY'S PROPOSED NATIONAL APPLICATIONS OFFICE FOR FOURTH AMENDMENT PROTECTIONS

MELISSA DEAL*

THE DEPARTMENT of Homeland Security plans on launching a National Applications Office and assigning it the task of disseminating spy satellite data to federal and local law enforcement agencies.¹ The distribution of this information to law enforcement agencies raises Fourth Amendment privacy concerns that the Department of Homeland Security will have to address.² Part I of this paper discusses the Department of Homeland Security's proposals for the National Applications Office and several of the constitutional problems that it poses. Part II details the history of Fourth Amendment protections as they apply to law enforcement surveillance without trespass. Part III gives an exposition of four pertinent Supreme Court cases and a recent circuit court case. Part IV analyzes the current case law regarding the Fourth Amendment privacy protections and how it will impact the use of spy satellite reconnaissance in the hands of law enforcement officials.

I. THE NATIONAL APPLICATIONS OFFICE

For years, the federal government has allowed civilians limited use of spy satellite data through the Civil Applications Commit-

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Such uses have been limited to environmental and scientific purposes such as monitoring volcanic activity, environmental and geographic change, and hurricanes and floods.\textsuperscript{4} After 9/11, a study group was formed in order to research a possible expansion of the Civil Applications Committee in a push for better communication between the military, the intelligence community, and the police.\textsuperscript{5} As a result of these studies, the Department of Homeland Security has decided to launch a new branch called the National Applications Office.\textsuperscript{6} This office will expand the use of classified satellite reconnaissance for homeland security and law enforcement purposes. The Department of Homeland Security claims authority for this new branch under Executive Order 12333\textsuperscript{7} and the Privacy Act of 1974.\textsuperscript{8}

The Department of Homeland Security claims that there will be no civil liberty infringements because the National Applications Office will be subject to "oversight by the DHS Inspector General, Chief Privacy Officer, and the Officer for Civil Rights and Civil Liberties."\textsuperscript{9} Despite these assurances, the formation of the National Applications Office raises questions about potential violations of the Fourth Amendment protections against unlawful searches and seizures.

Although the Court has allowed warrantless searches by law enforcement aircraft,\textsuperscript{10} this program allows local law enforcement officials to gain access to information that would otherwise require a probable cause showing under the Fourth Amendment.

The development of the National Applications Office brings to the forefront an important conflict between civil liberties and national security.


\textsuperscript{5} Id.

\textsuperscript{6} Id.


\textsuperscript{9} Press Release, U.S. Dep't of Homeland Sec., \textit{supra} note 3.

A. Three Proposed Domains of the National Applications Office

The plan for the National Applications Office includes three working domains: the civil applications domain, the homeland security domain, and the law enforcement domain. The civil applications domain will likely track the duties of the Civil Applications Committee, which is currently in place. The homeland security domain will direct the use of satellite imagery when dealing with threats to national security such as terrorism and natural or man-made disasters. It is the third domain—the law enforcement domain—that raises the most privacy concerns. It is this domain that will cooperate with local and state law enforcement and allow these civilian agencies access to satellite reconnaissance.

B. Potential Uses and Misuses

One of the purposes of the National Applications Office is to expand the civilian use of spy network data beyond environmental and scientific applications. The Department of Homeland Security hopes to develop the use of satellite data in the areas of border control, natural disaster response, and local and federal law enforcement.

Spy satellite capabilities are much greater than current civilian satellite capabilities. Intelligence community capabilities include being able to view "real-time, high-resolution images and data." The National Applications Office would make available to law enforcement officials the technological capability to "see through cloud cover, forest canopies and even concrete" as well as the ability to track human movement. Such satellite data can be used to detect methamphetamine labs and marijuana cultivation. It is even capable of detecting trampled vegetation.

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12 Id.
15 Id.
14 Id.
16 Id.
17 Id.
18 Id.
indicating illegal border crossings and can locate tunnels used for trafficking people and drugs.\textsuperscript{20}

C. Claimed Oversight

The Office of Homeland Security claims that the National Applications Office will have proper oversight to ensure that the dissemination of spy satellite information is legal and does not encroach on civil liberties.\textsuperscript{21} The Department of Homeland Security Inspector General, Chief Privacy Officer, and the Officer for Civil Rights and Civil Liberties will have oversight duties since the office is part of the DHS.\textsuperscript{22} These offices intend to implement procedural safeguards to ensure that requests for satellite data do not infringe upon "privacy and civil liberties."\textsuperscript{23} One example of such procedural safeguards includes requiring a Proper Use Memorandum ("PUM") be completed prior to the dissemination of spy satellite information.\textsuperscript{24} The PUM demands that the requesting agency disclose its reasons for needing the information, its intended use, who will receive the information, where it plans on storing the information, and a "certification by an appropriate official of the lawfulness and validity of the request."\textsuperscript{25} Once the National Applications Office processes the requests, it will send the requests to the National Geospatial-Intelligence Agency, who will order the "military satellites operators to gather the data specified in the requests."\textsuperscript{26}

While these oversights seem comforting at first glance, the Department of Homeland Security has overstepped its boundaries on at least four previous occasions.\textsuperscript{27} Furthermore, as this article discusses, the proper legal standards for the use of this type of intelligence are unclear, which makes the oversight illusory. The absence of a written legal structure for the National Applications Office has led politicians to demand a delay of the office's launch.\textsuperscript{28} The extensive capabilities of spy satellites are

\begin{itemize}
  \item \textsuperscript{20} Id.
  \item \textsuperscript{21} Turning Spy Satellites on the Homeland: The Privacy and Civil Liberties Implications of the National Applications Office Before the H. Comm. on Homeland Security, 110th Cong. 5–8 (2007) [hereinafter Hearings] (statement of Daniel W. Sutherland, Officer for Civil Rights and Civil Liberties, U.S. Dep't of Homeland Sec.).
  \item \textsuperscript{22} Press Release, U.S. Dep't of Homeland Sec., supra note 3.
  \item \textsuperscript{23} See id.
  \item \textsuperscript{24} Hearings, supra note 21, at 6–7.
  \item \textsuperscript{25} Id. at 7.
  \item \textsuperscript{26} Rendleman, supra note 19, at 5.
  \item \textsuperscript{27} Jones, supra note 1.
  \item \textsuperscript{28} See id.
\end{itemize}
classified and, as a result, not fully known by the public. In fact, conflicting reports about the ability of these satellites make it difficult to assess the legal boundaries that need to be erected around them.

II. HISTORY OF FOURTH AMENDMENT

The Fourth Amendment protects U.S. citizens from unreasonable searches by government actors by providing that:

[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.]

The threshold issue is whether or not a search has taken place. When there is a "search" within the meaning of the Fourth Amendment, there is "a presumption that a warrant is required." A warrant must be supported by probable cause, which generally means that the search is likely to turn up incriminating evidence.

To establish whether or not a search has taken place, the two requirements laid out in Katz v. United States must be met. First, the defendant must have had a "(subjective) expectation of privacy." And second, this expectation of privacy must be one that society is willing to protect. So, underlying this two-

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30 Id.
32 U.S. CONST. amend. IV.
34 United States v. Garcia, 474 F.3d 994, 996 (7th Cir. 2007).
35 Id.
37 Id.
38 Id. It is important to note that the pertinent question for the second prong of the Katz requirements is "whether the government's intrusion infringes upon the personal and societal values protected by the Fourth Amendment" as opposed to whether or not the action was "private." Oliver v. United States, 466 U.S. 170, 182-83 (1984).
prong test is anything that is "knowingly exposed" is not protected by the Fourth Amendment.\textsuperscript{39}

A. Early History of the Fourth Amendment

The principle that every man's house is his castle was established in \textit{Semayne's Case} in 1604.\textsuperscript{40} It was upon this principle that the Fourth Amendment took root.\textsuperscript{41} In fact, the first cases interpreting the Fourth Amendment used a very narrow reading of the clause, so any search conducted without a warrant was inherently unreasonable.\textsuperscript{42} The amendment lends itself to two possible interpretations—a search is unreasonable if conducted without a warrant, or a search without a warrant is constitutional only if it is reasonable. Thus, it is not surprising, in light of the fact that the amendment was passed to protect citizens from such abuses as took place in the early American colonies with respect to writs of assistance, that the Court chose the conservative interpretation most limiting to the government. This interpretation was eventually displaced by the latter reading, which permits warrantless searches if they are reasonable.\textsuperscript{43} This interpretation made its first appearance in \textit{United States v. Rabinowitz}\textsuperscript{44} and has been further elaborated upon since that time.\textsuperscript{45}

Until the early twentieth century, the Court based its Fourth Amendment decisions on a "property-based rationale."\textsuperscript{46} During this time, the Fourth Amendment was only invoked when there was a physical invasion upon another person's property.\textsuperscript{47} Under this rationale, searches similar to those discussed in this article—wiretapping, video surveillance, the use of thermal imaging devices, binoculars, telescopes, and beepers—would not be considered "searches" at all, since they do not involve a law enforcement officer's intrusion upon the property of a civilian. This "property-based rationale" was overturned by the Court in \textit{Katz v. United States}.\textsuperscript{48} In this case, the Court essentially

\textsuperscript{39} \textit{Katz}, 389 U.S. at 351.

\textsuperscript{40} \textit{Semayne's Case}, (1604) 77 Eng. Rep. 194, 194 (K.B.) ("That the house of everyone is to him as his castle.").

\textsuperscript{41} Short, supra note 31, at 464 n.6.

\textsuperscript{42} Id. at 465.

\textsuperscript{43} Id.

\textsuperscript{44} 339 U.S. 56 (1950).

\textsuperscript{45} Short, supra note 31, at 465–66.

\textsuperscript{46} Id. at 466.

\textsuperscript{47} Id.

\textsuperscript{48} Id. at 467; \textit{Katz v. United States}, 389 U.S. 347, 351 (1967).
overruled its prior decision in *Olmstead v. United States*, and instead held that the Fourth Amendment "protects people, not places." In fact, the current two-prong test comes from Justice Harlan's concurrence in the *Katz* case.

Although the court expanded the meaning of the Fourth Amendment to include intrusions on privacy, this interpretation has been subsequently narrowed. One example of such narrowing is the effect the "open fields" doctrine has on the curtilage doctrine. The curtilage doctrine protects a person's expectation of privacy within his home. But the "open fields" doctrine curtailed the curtilage doctrine by distinguishing between a home and "open areas beyond the curtilage." Areas not "immediately surrounding the home" are fair game for government intrusion. Using the "open fields" doctrine, the Court has justified warrantless searches made from helicopters and airplanes.

The *Katz* test expounded by Justice Harlan evaluates the constitutionality of a search based on an individual's "reasonable expectation of privacy." Using this test, the court has further chipped away at the protections provided by the Fourth Amend-

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49 277 U.S. 438 (1928).
50 *Katz*, 389 U.S. at 361; Short, *supra* note 31, at 467. The Court had previously held in *Olmstead v. United States* that in order to invoke the operation of Fourth Amendment protections there has to have been "an official search and seizure of his person or such a seizure of his papers or his tangible material effects or an actual physical invasion of his house." *Olmstead*, 277 U.S. at 466.
51 *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

[T]here 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. On the other hand, conversations in the open would not be protected against being overheard, for the expectation of privacy under the circumstances would be unreasonable.

*Id.*
53 *Id.*
54 *Id.* at 235–36.
55 *Id.* at 236.
ment. For example, although the Court held that a person has a reasonable expectation of privacy during telephone conversations, the Court has found that a person has no reasonable expectation of privacy in cars, in online chat-rooms, or regarding information provided to banks. One commentator pointed out that citizens' expectations of privacy are likely to be diminished as technology advances. So, the reduction in the expectation of privacy will result in more legal surveillance, such as cameras mounted on stop lights and video cameras placed in convenience stores and banks. The lower peoples' expectations of privacy are, the smaller their constitutional protections become.

While the "reasonable expectation" standard has shaped the jurisprudence surrounding privacy rights since Katz, the Court in Kyllo v. United States limited its application by holding that law enforcement officials may not employ surveillance devices not used by the general public. This is the major limit on the "reasonable expectation" standard. Without the Court's decision in Kyllo, it appeared that the advancement of technology might decrease the Fourth Amendment's application and send it into oblivion. Instead, law enforcement agencies are no longer given free reign to intrude further into the privacy of peoples' homes as technology continues to advance and peoples' expectations of privacy decrease. The question remains as to what extent the executive branch, through agencies such as the Department of Homeland Security, will honor these protections of privacy.

III. RECENT CASES INVOLVING AERIAL SURVEILLANCE AND OTHER TECHNOLOGICAL ADVANCES

Three recent decisions from the Supreme Court shed light on the analysis of what safeguards are necessary to ensure the protection of U.S. citizens from unreasonable searches and seizures by federal and local law enforcement agencies when these agencies are given access to spy satellite data collection capabilities. Two of these cases—California v. Ciraolo and Dow Chemical Co. v.

58 Id. at 230.
60 Chandler, supra note 57, at 231.
63 Short, supra note 31, at 472–73.
United States—seem to point in the opposite direction of the third, more recent case: Kyllo v. United States. First, this paper will discuss the basic details of these cases. Then it will analyze the possible arguments regarding the necessity of privacy protections with respect to executive branch agencies such as the National Applications Office.

A. MAJORITY AND PLURALITY OPINIONS

In California v. Ciraolo, the Court dealt with a case in which law enforcement officials, after receiving a tip, procured a private plane, flew over the defendant’s home, and took pictures of the defendant’s backyard in which he was growing marijuana. The cultivation of marijuana could not be observed except from an aerial view because the defendant had erected two fences (one that was six feet high and one that was ten feet high) around the premises. The Court held that the defendant’s Fourth Amendment rights were not violated by this surveillance of his curtilage, because his backyard was visible to anyone traveling at such an altitude. The Court found it important that the plane was traveling at an altitude that was within navigable airspace and that the marijuana plants could be seen from that altitude with the naked eye. Since the defendant had knowingly exposed his backyard and therefore, his backyard’s vegetation, to observation from navigable airspace, he did not have a reasonable expectation of privacy. The Court refused to address the constitutionality of the photograph itself as an exhibit, since “[i]t was the officer’s observation, not the photograph, that supported the warrant.” The Court determined that just because the area observed is within the curtilage, it is not necessarily a violation of a person’s Fourth Amendment rights for a government actor to observe this area.

66 Id.
67 Id. at 213–14. The Court, in Ciraolo, defines curtilage as “the area to which extends the intimate activity associated with the ‘sanctity of a man’s home and the privacies of life.’” Id. (quoting Oliver v. United States, 466 U.S. 170, 180 (1984)).
68 Id. at 215.
69 Id. at 209, 215.
70 Id. at 213.
71 Id. at 212 n.1.
72 Id. at 213.
The Supreme Court decided a similar case on the same day as *Ciraolo*:* Dow Chemical Co. v. United States.* In *Dow,* the Court held that the aerial photographing of a chemical plant was not a prohibited search within the meaning of the Fourth Amendment, and therefore the government, namely the Environmental Protection Agency ("EPA"), did not encroach on Dow’s right to privacy. The Court discussed whether the area observed was within the facility’s curtilage, and if the “open fields” doctrine applied. The Court determined that the area between the buildings had elements of both curtilage and “open fields,” but also lacked important elements of each. In reaching its final holding, the Court put great emphasis on the facts that the photograph was taken with a camera that could be used by the general public in mapmaking and the EPA’s plane was flying within navigable airspace when the photographs were taken. The Court also emphasized that, although the camera could distinguish wires that were half an inch in diameter, it could not “penetrate the walls of buildings and record conversations in Dow’s plants.” In dicta the Court went on to say that “satellite technology” might raise “constitutional concerns” because of the possibility of it revealing “intimate details.” In a footnote, the majority defined “intimate detail” as being able to make out human faces or read documents. Yet again, the Court in *Dow* refused to err on the side of caution with respect to preserving the constitutional right of privacy.

The Supreme Court’s most recent case dealing with aerial surveillance of private property came in 1989. In *Florida v. Riley,* the Court held to its previous line of reasoning regarding the right to privacy in one’s own backyard: essentially, there is none. The plurality in *Riley* further defined what “reasonable expectations” are with respect to overhead surveillance. The law

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73 Id. at 215 n.3; Dow Chem. Co. v. United States, 476 U.S. 227 (1986).
74 Dow, 476 U.S. at 239.
75 Id. at 235.
76 Id. at 236.
77 Id. at 238.
78 Id. at 237.
79 Id. at 238.
80 Id.
81 Id. at 238 n.5 ("[N]or are there any identifiable human faces or secret documents captured in such a fashion as to implicate more serious privacy concerns.").
83 Id. at 445.
enforcement agents in *Riley* used a helicopter to observe the contents of the defendant's greenhouse.\(^8^4\) Again, the Court found that the greenhouse, being between ten and twenty feet behind the house, was part of defendant's "curtilage."\(^8^5\) While it is not surprising that the Court found that privacy within one's curtilage is not protected from observation, it is remarkable that the subject matter being observed not only had two walls, but also was housed underneath a roof.\(^8^6\) And, the investigating officer was only able to observe the marijuana growing within the greenhouse because two panels of the greenhouse's roof were missing.\(^8^7\) The Court, on its own volition, even pointed out that ninety percent of the roof still remained.\(^8^8\) It seems, therefore, that even the slightest aperture that allows observation from above dispenses all Fourth Amendment privacy protections with respect to materials exposed by the opening. The plurality reasoned that since the helicopter was within navigable airspace, the observations of the investigating officer were made from a "public vantage point."\(^8^9\) And the plurality opinion recognized that although the defendant expected that his "crops" were not observable, this expectation was unreasonable.\(^9^0\) Apparently, it is unreasonable to expect a roof to provide privacy from aerial observation. In fact, the court goes to great lengths to justify the aerial observance by explaining that, per Federal Aviation Administration ("FAA") regulations, helicopters can fly at an altitude as low as 500 feet.\(^9^1\) The Court even suggests that its holding might have been different if the helicopter had not been flying within navigable airspace.\(^9^2\)

The plurality opinion also lays out three other factors that it considered decisive to the invocation of Fourth Amendment protection.\(^9^3\) The questioned observation must be sufficiently rare, the observation must interfere with the normal use of the curtilage, or the observation must detect intimate details.\(^9^4\) It is important to point out that the case was a plurality opinion with

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\(^{84}\) *Id.* at 448.

\(^{85}\) *Id.* at 450.

\(^{86}\) *Id.* at 448.

\(^{87}\) *Id.*

\(^{88}\) *Id.*

\(^{89}\) *Id.* at 449-50.

\(^{90}\) *Id.* at 450.

\(^{91}\) *Id.* at 451 n.3.

\(^{92}\) *Id.* at 451-52.

\(^{93}\) *Id.* at 452.

\(^{94}\) *Id.*
Justice O'Connor concurring in the judgment.\textsuperscript{95} Justice O'Connor’s concurring opinion, while agreeing that the defendant did not have a reasonable right to privacy within his greenhouse, pointed out that the determinative factor was not that the helicopter was in airspace in which the FAA permitted it to travel, but rather the fact that the public frequently travels at such an altitude.\textsuperscript{96} Since the public generally travels at such an altitude, observation from such a height is what citizens must reasonably expect.\textsuperscript{97}

The Supreme Court changed course when it decided \textit{Kyllo v. United States} twelve years later.\textsuperscript{98} In \textit{Kyllo}, the Court found that the surveillance of a home using a thermal-imaging device was a search within the meaning of the Fourth Amendment and therefore, was an unconstitutional intrusion on the citizen’s right to privacy.\textsuperscript{99} The Court distinguishes this case from previous cases involving aerial surveillance because, in \textit{Kyllo}, the law enforcement officials were observing things inside the house rather than outside.\textsuperscript{100} The Court reiterated the “firm line” that it had previously drawn around the home.\textsuperscript{101} The Court discussed the intimate details that could be obtained by observing a home using such heat-detecting technology as applied in this case.\textsuperscript{102}

Up to this point, the Supreme Court had held that observation of a person’s home by law enforcement officials did not violate Fourth Amendment protections.\textsuperscript{103} The Court distinguished this case from prior case law by pointing out that this observation involved technology that is not available to the general public.\textsuperscript{104} Therefore, the information gained from using a

\textsuperscript{95} Id. at 446.
\textsuperscript{96} Id. at 455 ("If the public rarely, if ever, travels overhead at such altitudes, the observation cannot be said to be from a vantage point generally used by the public and Riley cannot be said to have ‘knowingly expose[d]’ his greenhouse to public view.").
\textsuperscript{97} Id.
\textsuperscript{99} Id. at 40.
\textsuperscript{100} Id. at 37–38.
\textsuperscript{101} Id. at 40 ("We have said that the Fourth Amendment draws ‘a firm line at the entrance to the house.’” (quoting \textit{Payton v. New York}, 445 U.S. 573, 590 (1980))).
\textsuperscript{102} Id. at 38.
\textsuperscript{103} Id. at 31–32.
\textsuperscript{104} Id. at 34.
thermal-imaging device is not the type of information that a passerby would be able to obtain.\textsuperscript{105}

Although the Court spent a great deal of time in \textit{Kyllo} discussing the importance of protecting the Fourth Amendment privacy guarantees from erosion, it did admit that its holdings in \textit{Ciraolo} and \textit{Dow} were examples of such "erosion."\textsuperscript{106} The disturbing part of this concession is that the Court seems to wave its hand at these two cases as merely being a by-product of the inevitable fact that the right to privacy will be curtailed by ever-developing technology.\textsuperscript{107} The Court distinguished \textit{Ciraolo} and \textit{Dow} from \textit{Kyllo} on two distinct bases. \textit{Ciraolo}, it contended, was different because the portions of the home surveyed in that case were uncovered, and thus available to public view from above.\textsuperscript{108} Although the Fourth Amendment would originally have protected the privacy of this enclosed area of curtilage, advances in science—such as those made by the Wright brothers—have exposed open areas of the home to observation from above that have eliminated this portion of a person's right to privacy.\textsuperscript{109} The Court distinguished \textit{Dow} from \textit{Kyllo} based upon the fact that the area observed in \textit{Dow} was not "adjacent to a private home."\textsuperscript{110} The Court could not distinguish \textit{Dow} from \textit{Kyllo} the same way it distinguished \textit{Ciraolo} from \textit{Kyllo} presumably because the observation involved in \textit{Dow} used technology that made things viewable that were otherwise unobservable with human eyes.\textsuperscript{111} The law enforcement officials in \textit{Dow} used a special camera that magnified the image being captured.\textsuperscript{112} In summary, the government is allowed to view areas adjacent to a private home as well as areas that are not adjacent to a private home, as long as the areas adjacent to a private home are observed using technology that does not magnify the view.\textsuperscript{113}

\section*{B. Dissents from Aerial Surveillance Cases}

The dissenting opinions in the three surveillance, Supreme Court cases are important to an analysis of the current law, espe-

\textsuperscript{105} \textit{Id.} at 33–34.
\textsuperscript{106} \textit{Id.}
\textsuperscript{107} \textit{Id.}
\textsuperscript{108} \textit{Id.} at 34.
\textsuperscript{109} \textit{Id.} at 33–34.
\textsuperscript{110} \textit{Id.} at 33.
\textsuperscript{111} \textit{Id.} at 33–34.
\textsuperscript{113} \textit{Kyllo}, 533 U.S. at 33–35, 40.
cially in light of the fact that each of the cases were such close votes. In addition, the dissents shed light on gaps that the majority—and in the case of Riley, the plurality—left open to interpretation, especially when trying to determine to what extent specific technology can be used by the government.

In Dow, Justice Powell pointed out that the majority fails to apply the Katz test despite purporting to do so. He conceded that the majority properly evaluated the first prong of the Katz test in determining that Dow subjectively expected privacy within its manufacturing plant. But Justice Powell asserted that the majority opinion failed to properly consider the second prong of the Katz test. Rather than focus on whether Dow's expectation of privacy is one that society is willing to recognize, the Court spent its time discussing the manner in which the surveillance was made. The dissenting opinion disagreed with this line of reasoning. The manner in which the surveillance was made, Powell stated, has no bearing on whether or not the expectation of privacy is reasonable. And Powell further asserted that this "manner of surveillance" reasoning left privacy rights "seriously at risk" with the advancement of technology. Finally, even if it is true that the manner of observation relates to the reasonableness of the expectation of privacy, the Court misapplied the doctrine because the technology used in this case was quite sophisticated and most likely not generally used by the public.

Justice Powell also pointed out in his dissent in Dow that the doctrines of "open fields" and curtilage were inapplicable in this case because the Dow manufacturing plant was, as the majority admits, neither. He stated that when something is an "open

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115 Dow, 476 U.S. at 247 (Powell, J., dissenting in part, concurring in part).
116 Id.
117 Id.
118 Id. at 247–48.
119 Id. at 240.
120 Id. at 251.
121 Id.
122 Id. at 249–50 n.12. In fact, Justice Powell pointed out that not only are satellite images less able to pick up minute details than the camera used in this case, but also members of the public are not "likely to purchase $22,000 cameras." Id. at 251 n.13.
123 Id. at 250.
field” within the meaning of that doctrine, it is subject to ground search as well as aerial search.\(^\text{124}\) However, the manufacturing plant was not open to ground search by the EPA officials,\(^\text{125}\) so the majority’s use of an absence of physical trespass to justify its holding is inapplicable.\(^\text{126}\) This principle, according to the dissent, has been recognized by the Court since \textit{Katz}.\(^\text{127}\)

Justice Powell wrote the dissent for \textit{Ciraolo} as well.\(^\text{128}\) Powell pointed out that until the majority’s decision in \textit{Ciraolo}, the curtilage was considered part of the home for the purposes of determining the reasonableness of privacy expectations.\(^\text{129}\) Powell felt the majority essentially destroyed the purpose of the curtilage doctrine by declaring that a person does not have a reasonable expectation of privacy with respect to parts of the curtilage that are knowingly exposed to public view.\(^\text{130}\) Prior to this decision, the purpose of defining the area immediately adjacent to the home as curtilage was to recognize the fact that people have a reasonable expectation of privacy in this area as well as in their homes.\(^\text{131}\)

Powell reiterated that the manner of surveillance should not be the factor determinative of whether such a surveillance was an infringement on a privacy expectation.\(^\text{132}\) Powell’s reasoning in \textit{Ciraolo} differs from that in his dissent for \textit{Dow} primarily because the equipment used in \textit{Ciraolo} was widely available for public use.\(^\text{133}\) This precluded his argument that the use of this equipment by law enforcement officials was a search because it was not in the hands of the general public.\(^\text{134}\) Instead Powell argued that even though the public travels at the same altitude as the plane used by the investigating officer in the case, members of the public rarely do more than “glimpse” at the fields, homes, backyards, or other areas they are flying over.\(^\text{135}\) Society doesn’t expect aerial surveillance of its backyards as evidenced by the fact that people build fences around their backyards, but

\(^{124}\) \textit{Id.} at 250–51.
\(^{125}\) \textit{Id.} at 251.
\(^{126}\) \textit{Id.} at 252.
\(^{127}\) \textit{Id.}
\(^{129}\) \textit{Id.} at 219–21.
\(^{130}\) \textit{Id.} at 222–24.
\(^{131}\) \textit{Id.} at 221.
\(^{132}\) \textit{Id.} at 223.
\(^{133}\) \textit{Id.}
\(^{134}\) \textit{Id.}
\(^{135}\) \textit{Id.} at 223–24.
not roofs. Powell pointed out that after the majority’s decision in *Ciraolo*, people only have reasonable expectations of privacy when they are within their homes.

Powell’s final point in his dissent in *Ciraolo* was that the Court’s decision opened the door for “silent and unseen” invasions that are not subject to Fourth Amendment requirements. This, he pointed out, was what the Court was trying to protect the public from in *Katz*. So, the Court has disposed of more than a fragment of Fourth Amendment protections had by U.S. citizens.

Justice Brennan’s dissent in *Riley* is the most powerful of the three dissenting opinions written about the Fourth Amendment protections against aerial surveillance. Brennan started by pointing out the same thing that Powell harped on in his dissenting opinions: the fact that the Court failed to apply the *Katz* test. Brennan stated that the relevant inquiry is not whether the helicopter from which the government was observing the activity was allowed to be where it was, but rather whether the person being observed had a reasonable expectation of privacy that society is willing to protect.

The second problem that Justice Brennan has with the plurality opinion is its questionable application of the following language from the *Katz* opinion: “[w]hat a person knowingly exposes to the public . . . is not a subject of Fourth Amendment protection.” Rather than focusing on whether or not the public is actually able to view the subject in question, the plurality is misguided when it focuses on whether it is possible for the public to view the subject in question. Brennan suggested that

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136 *Id.*
137 *Id.* at 225 n.10 (“It would appear that, after today, families can expect to be free of official surveillance only when they retreat behind the walls of their homes.”).
138 *Id.* at 225–26.
139 *Id.* at 226.
140 *Id.*
142 *Id.* at 456–57 (“The plurality undertakes no inquiry into whether low-level helicopter surveillance by the police of activities in an enclosed backyard is consistent with the ‘aims of a free and open society.’”).
143 *Id.* at 456.
144 *Id.* at 457 (quoting *Katz* v. United States, 389 U.S. 347, 351 (1967)).
145 *Id.* (“Under the plurality’s exceedingly grudging Fourth Amendment theory, the expectation of privacy is defeated if a single member of the public could conceivably position herself to see into the area in question without doing anything illegal.”).
the Court should focus more on the reality of the expectation of privacy, rather than the "theoretical possibility" of exposure.\(^{146}\)

The dissent shared Justice O'Connor's view that the plurality was incorrect in focusing on whether the law enforcement helicopter was traveling in airspace where it was allowed to be under FAA regulations\(^{147}\) because the Fourth Amendment is wholly unrelated to FAA regulations\(^{148}\). Whether the Fourth Amendment has been violated has never hinged upon whether the government actor broke the law in conducting the "search."\(^{149}\)

Justice Brennan suggests that the test to determine if the observation was a "search" should be whether the observation was so "commonplace" as to render the defendant without an expectation of privacy.\(^{150}\) In making this determination, Brennan would focus on the ability of the public to make the observation and the frequency with which the public makes such observations.\(^{151}\) In this way, Brennan would change the focus from whether the defendant had exposed himself to "possible" observation, to whether the defendant had exposed himself to "reasonable" observation.\(^{152}\) This focus, Brennan believed, would properly redirect the Court to the purpose behind the Fourth Amendment.\(^{153}\)

Since the "intimate details" theory has been such a prevalent part of the jurisprudence regarding the Fourth Amendment and law enforcement surveillance, Justice Brennan addressed it in his dissent.\(^{154}\) He argued that it does not matter what the police saw the defendant doing, or what the police might have seen him doing when they observed him.\(^{155}\) Brennan explains that whether or not a "search" within the meaning of the Fourth Amendment has been conducted "does not turn on whether the

\(^{146}\) Id.

\(^{147}\) Id. at 464–65.

\(^{148}\) Id. at 458–59.

\(^{149}\) Id. Justice Brennan points out that the Court has "consistently refused to equate police violation of the law with infringement of the Fourth Amendment." Id. at 459.

\(^{150}\) Id. at 460.

\(^{151}\) Id.

\(^{152}\) Id.

\(^{153}\) Id. at 462 ("The basic purpose of this Amendment, as recognized in countless decisions of this Court, is to safeguard the privacy and security of individuals against arbitrary invasions by governmental officials." (quoting Camara v. Mun. Court, 387 U.S. 523, 528 (1967))).

\(^{154}\) See id. at 463.

\(^{155}\) Id. at 463–64.
activity disclosed by a search is illegal or innocuous," but rather depends upon the details of the inspection itself. The plurality, he concluded, misdirects its attention.

C. GPS Tracking

A recent case decided by the Seventh Circuit sheds light on the issue of advancing technology used by law enforcement and its impact on privacy rights. In this case, the police placed a Global Positioning System ("GPS") tracking device on the defendant's truck in order to trace its movement. The tracking device eventually led the police to a methamphetamine lab operated by the defendant. The defendant moved to suppress the evidence obtained as a result of the use of the GPS tracking device arguing it constituted a search and seizure under the Fourth Amendment. The court denied his motion, and the defendant was convicted of manufacturing methamphetamine and other crimes related thereto. On appeal, the Seventh Circuit found that the use of the GPS device was neither a search nor a seizure under the Fourth Amendment. The court rejected the argument that the use of the device was a seizure by pointing out that the device did not interfere with the operation of the car.

More pertinent is the court's reasoning in determining that the GPS tracking device does not constitute a search. The court pointed out that the GPS tracking device used in this case was available to the general public and cost only "a couple of hundred dollars." The court compared the use of the GPS

156 Id. at 463.
157 Id. at 464 ("The question is not whether you or I must draw the blinds before we commit a crime. It is whether you and I must discipline ourselves to draw the blinds every time we enter a room, under pain of surveillance if we do not.").
158 Id.
159 United States v. Garcia, 474 F.3d 994, 995 (7th Cir. 2007).
160 Id.
161 Id.
162 Id. at 996.
163 Id.
164 Id. at 997–98.
165 Id. at 996 ("The device ... did not draw power from the car's engine or battery, did not take up room that might otherwise have been occupied by passengers or packages, did not even alter the car's appearance, and in short did not 'seize' the car in any intelligible sense of the word.").
166 Id. at 996–98.
167 Id. at 995.
device to the use of a beeper, which the Supreme Court held in *United States v. Knotts*,\(^{168}\) was not a search under the Fourth Amendment.\(^{169}\) In *Knotts*, the beeper was attached to a car for the same reason as the GPS tracking device: to trace the trail of the car without actually having to physically follow it.\(^{170}\) The court even likened the GPS tracking device to observation of a car via satellite imaging.\(^{171}\) This, it contended, would not be a search just as tracking the car using "cameras mounted on lamp-posts" would not be a search.\(^{172}\) The court found that the only important distinction between the beeper tracking device and the GPS tracking device was that one constituted old technology and one constituted new technology.\(^{173}\) In effect, the GPS tracking device is the exact same as following the defendant’s truck in a car, it just saves the police force time and money.\(^{174}\)

The court makes an important distinction between the use of technology to substitute for an activity that is a search under the Fourth Amendment and the use of technology to substitute for an activity that is not a search.\(^{175}\) The opinion pointed out that *Kyllo* was a case involving a technological substitute for an activity that constituted a search; whereas, the use of a tracking device was a substitute for “following a car on a public street.”\(^{176}\) The court elaborated that the efficiency of the police can be enhanced in this way without a subsequent loss of privacy rights.\(^{177}\)

Finally, the court declined to address the defendant’s “mass surveillance” argument.\(^{178}\) The defendant argued that GPS tracking devices should constitute a search because the police could not install a GPS tracking device in all cars.\(^{179}\) But the

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\(^{169}\) *Garcia*, 474 F.3d at 996–97.

\(^{170}\) *Id.*

\(^{171}\) *Id.* at 997.

\(^{172}\) *Id.*

\(^{173}\) *Id.*

\(^{174}\) *See id.* at 998.

\(^{175}\) *Id.* at 997–98.

\(^{176}\) *Id.* at 997.

\(^{177}\) *Id.* at 998. The court comes to its conclusion, despite recognizing earlier in the opinion that the advancement of technology used in the area of law enforcement “impose[s] a heavier responsibility on this Court in its supervision of the fairness of procedures in the federal court system.” *Id.* (quoting *Lopez v. United States*, 373 U.S. 427, 441 (1963) (Warren, J., concurring)).

\(^{178}\) *Id.*

\(^{179}\) *Id.*
court stated it would not address that issue until after law enforcement officials actually engaged in mass surveillance.\textsuperscript{180}

IV. IMPLICATIONS OF CURRENT SUPREME COURT CASE LAW FOR THE NATIONAL APPLICATIONS OFFICE

If the National Applications Office is actually launched, Congress is likely to demand that the Office carefully safeguard the use of the information from satellite reconnaissance that it disseminates to federal and local law enforcement officials.\textsuperscript{181} The recent case law has varying implications as to what those safeguards should be. Even cases that find observations from navigable airspace constitutional limit the legality of the observations in situations that are likely to apply to satellite observations.

The first question that must be addressed is whether satellite observation by law enforcement officials is allowed, and if so, to what degree. The second question is how the National Applications Office can protect American citizens' Fourth Amendment right to privacy from being encroached upon by granting access to satellite-captured information to federal and local law enforcement agencies.

To apply the previously discussed case law to the use of spy satellite reconnaissance, it is important to consider the differences between the images produced by aerial surveillance and those produced by spy satellites. The investigating officer from the sheriff's office used his "naked eye" to view the contents of the greenhouse in \textit{Riley}.\textsuperscript{182} Similarly, in \textit{Ciraolo}, the police officer used a standard 35mm camera to take pictures of the defendant's backyard.\textsuperscript{183} In contrast, the EPA official in \textit{Dow} used a "sophisticated aerial mapping camera" to take pictures of Dow's manufacturing facilities.\textsuperscript{184} Not only did the EPA official take seventy-five photographs,\textsuperscript{185} but the photographs were also taken in "precise and rapid succession" so as to allow depth perception in the pictures.\textsuperscript{186} In comparison, spy satellite reconnaissance only had a precision of one meter in the 1960s and 1970s, but now it is generally known that spy satellite reconnaiss-

\begin{itemize}
  \item \textsuperscript{180} Id.
  \item \textsuperscript{181} \textit{U.S. Postpones Domestic Spy Satellite Program}, supra note 2, at A21.
  \item \textsuperscript{182} \textit{Florida v. Riley}, 488 U.S. 445, 448 (1989).
  \item \textsuperscript{183} \textit{California v. Ciraolo}, 476 U.S. 207, 209 (1986).
  \item \textsuperscript{185} Id.
  \item \textsuperscript{186} Id. at 243.
\end{itemize}
sance has improved "down to a few inches." Because of the precision of U.S. spy satellite imagery, it has been said that "[e]very square inch of Soviet territory was opened to American eyes."

Are satellite photos similar to photos taken from airplanes or helicopters and therefore constitutional? It is clear from three Supreme Court cases that if something can be observed from navigable airspace, it is not sufficiently private so as to invoke Fourth Amendment protections. So, what is navigable airspace and is space travel included within this definition? The Court’s emphasis in *Ciraolo* that the marijuana could be viewed with the naked eye indicates that observation from space might not fall within the reach of *Ciraolo*. Marijuana and other objects cannot be seen from space with a "naked eye." But it is possible that the Supreme Court might take a broader reading of *Ciraolo* when dealing with the question of satellite observation, especially since satellite data can be obtained by the general public from websites such as Google.

Whether or not the satellite data dispensed through the National Applications Office is subject to Fourth Amendment protection may depend on how similar the data is to the satellite data already in the hands of the public. An argument could be made that images of a civilian’s backyard obtained via satellite are not a "search" within the Fourth Amendment because that person "knowingly exposed" himself to satellite observation by conducting activity in his backyard. Since satellite data is accessible to every internet user, a person has no reasonable expectation of privacy in his backyard.

Because the court refused to discuss the constitutionality of the actual photograph in *Ciraolo*, it leaves unanswered the question of whether or not the photograph itself was constitutional. It is possible that the Court might find such a photograph unconstitutional. If this is the case, perhaps satellite data images will fall into the same category as photos taken from an airplane and therefore be considered an unconstitutional search. It is likely that the Court will eventually have to address this question, especially if the National Applications Office law enforce-

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188 Id. at 39.


ment domain starts providing its proposed services. In the case of satellite photography, the photo itself would have to support the warrant since there would be no actual observation possible.

The Court has already limited the Fourth Amendment to such a degree that it can no longer be argued that property observable from space or an aerial view is subject to a reasonable expectation of privacy. The “open fields” doctrine makes areas that are neither “fields” nor “open” outside the reach of Fourth Amendment protections.\textsuperscript{191} The Court allowed additional encroachment on privacy rights in \textit{Dow} by finding areas that lack the elements of both “open fields” and curtilage are not protected by the Fourth Amendment.\textsuperscript{192} And, the Court has restricted the curtilage doctrine so that areas immediately adjacent to a private residence escape the reach of Fourth Amendment protections.\textsuperscript{193} The \textit{Riley} case was the final straw in this line of cases. After this case, any activity observable from space was not subject to the Fourth Amendment.\textsuperscript{194} However, the Court finally drew the line at the entrance and walls of a house in \textit{Kyllo}.\textsuperscript{195} The combination of these three cases leaves the door open such that any observation capable of being made without penetrating through walls—keeping in mind that observations made through translucent roofing panels do not fall within the category of “walls”\textsuperscript{196}—are not “searches” within the meaning of the Fourth Amendment. Unless Congress creates strict guidelines to direct the use of satellite imagery, it is possible that anything exposed to satellite view would no longer be reasonably private.

Although arguments can be made based on \textit{Dow} that images procured by satellite are not “searches,” there are also arguments that can be made from this case that restrict the use of satellite data in the law enforcement arena. For example, the fact that the Court relies heavily on the wide availability of the camera used\textsuperscript{197} could be applied to make an argument that satellite imagery is created using technology not widely available to the public. The converse of the argument is that the satellite technology is generally available on the internet. Again, this ar-

\textsuperscript{191} \textit{Dow}, 476 U.S. at 231.
\textsuperscript{192} \textit{Id.} at 236–38.
\textsuperscript{193} \textit{Ciraolo}, 476 U.S. at 207.
\textsuperscript{194} \textit{Riley}, 488 U.S. at 445.
\textsuperscript{196} \textit{Riley}, 488 U.S. at 448.
\textsuperscript{197} \textit{Dow}, 476 U.S. at 234.
argument depends on the similarity between satellite data on the internet and satellite data available through the National Applications Office.

It is possible that the Court will group satellite imagery available through the National Applications Office with the aerial photos taken in *Dow* based on its relatively weak resolution capabilities. In fact, the mapping camera used in *Dow* could distinguish widths as low as half of an inch, whereas the satellite imagery may only have a resolution of six inches. So, it is plausible, although unlikely, that the courts will allow satellite imagery data to be used in place of the "aerial photography" currently available to law enforcement agencies. In fact, the use of such imagery would likely decrease the cost of gathering the same data available by using an airplane or helicopter.

What about the line that the Court tries to draw at "intimate details" in *Dow*? Since satellite imagery might only be capable of six-inch resolution, does it capture "intimate details" that would require officers to obtain warrants prior to obtaining the images? It is likely, based on the footnote in *Dow*, that satellite images will not be considered searches based upon their resolution capabilities because they do not provide law enforcement with the ability to read documents or discern faces.

An even narrower reading of the Fourth Amendment is provided by the Court in *Riley* because, using its "public vantage point" test, privacy rights are nonexistent as long as whatever being observed is viewed from a place available to the public. Does this include outer space? Quite possibly. Since the public has access to satellite imagery, it could be argued that a satellite is one of the public's vantage points. Or does the court limit the public's "vantage point" to airspace carved out by FAA regulations? After all, the Court specifically said that its decision might be different if the helicopter was not flying within navigable airspace. It may not be possible to answer these questions without further rulings from the Supreme Court, especially in light of the fact that the plurality and concurrence in the *Riley*

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198 Id. at 238; Rendleman, supra note 19, at 5.
200 *Dow*, 476 U.S. at 238.
201 See id. at 238 n.5; Rendleman, supra note 19, at 5.
203 Id. at 451.
case disagreed with respect to their definitions of airspace that can be classified as a “public vantage point.”

Three questions can be asked to determine whether or not surveillance is a “search” within the meaning of the Fourth Amendment: 1) Was the surveillance of a kind that is sufficiently rare? 2) Does the surveillance interfere with the normal use of the curtilage? or 3) Does the surveillance reveal intimate details? An affirmative answer to any of these questions may cause the questioned surveillance to be deemed unconstitutional in the absence of a warrant. Therefore, it is important to determine the answers to these questions regarding the type of satellite surveillance data that will be put in the hands of law enforcement officials as a result of the National Applications Office program.

Today, satellite observation has become quite common, especially since it has been used in mapping programs widely available on the internet. Perhaps the type of observation available via Measurement and Signatures Intelligence (“MASINT”), differs significantly from the kind of information currently available to civilian agencies. But if the data available via MASINT is sufficiently similar to the data already widely available, the Court may find that a search by law enforcement using this technology does not require a warrant. One difference between MASINT and current civilian satellite technology is that MASINT can see through material that other technologies cannot. This, of course, brings up questions regarding how much data will be given to law enforcement officials. For example, if local law enforcement asks for images of a person’s backyard in order to determine if illegal activity is being conducted therein, is the National Applications Office required to edit parts of the photo that contain images of objects within the home? And if the National Applications Office is charged

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204 Id.
205 Id. at 451–52 (Flying a helicopter at 400 feet is not rare, does not interfere with normal use of curtilage, and does not reveal intimate details.).
206 Block, supra note 15 (“MASINT . . . [is] a particular kind of information collected by spy satellites which would for the first time become available to civil agencies.”).
207 Id.
208 Note that the question would not be whether the National Applications Office would have to delete objects visible within the “curtilage” because there are parts of the curtilage—namely, those outside of the house—that are subject to observation by the government without requiring probable cause. See California v. Ciraolo, 476 U.S. 207, 207 (1986).
with the duty of removing the data regarding such objects, would that be sufficient to keep the satellite data from being a "search?"

So, in order to answer the second question, it might be necessary for the Court to elaborate on the meaning of "interfere." Taking a satellite picture does not physically interfere with activity, but since Katz, the Court has retreated from focusing on the physical aspect of "searches." Therefore, it is possible that satellite observation can interfere with activity inside a home in the sense that certain activities might be curtailed because of the awareness that they can be observed at all times. The answer to whether or not satellite observation interferes with activity inside the curtilage depends on exactly what the spy satellite data can observe and in what detail. Since it appears that the data compiled by MASINT can be collected through concrete, it is likely that it can see through rooftops as well. This has serious implications for what could become of the "reasonable expectation of privacy" test espoused by Katz, because it opens the door to surveillance of virtually every activity that takes place indoors or outdoors.

Finally, the result of the "intimate details" test pulled from Justice O'Connor's concurrence in Riley hinges on whether or not a resolution of six inches qualifies as "intimate detail." Since the dimensions of the images resolved were smaller than six inches in Dow and the Court still upheld the observation as constitutional, it is likely that the Court will turn its attention away from actual measurements and instead focus on what activities can actually be ascertained and whether or not these activities are "intimate." In fact, this appears to be the direction the Court took in Kyllo when it pointed out that a thermal-imaging device could be used to discern whether or not the lady of the house was taking her bath. If this is the line of reasoning that the Court applies, satellite imaging should be severely restricted if not kept entirely out of the hands of law enforcement agencies.

Justice O'Connor disagreed with the plurality opinion with respect to what test should be used to determine whether a person has a legitimate right to privacy from aerial observation. Since

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210 See Block, supra note 15.
Justice O'Connor would draw the line at where the public travels with frequency, as opposed to where air travel is permitted by the FAA, the plurality's test would be greatly undermined. In fact, at this time there really is no firm test to determine exactly what people should reasonably expect as far as observation from the skies. In the future, the Court will probably be forced to choose between the two tests since each has varying implications for the use of technological advances. It is possible that satellite observation would be rejected on both grounds because the public does not generally traverse through space nor is outer space within FAA regulations. Since it is highly unlikely that such a literal reading will be given to both of the opinions, it is useful to consider the arguments that can be made for satellite technology under each of the differing theories.

On one hand, Justice O'Connor's theory that people cannot reasonably expect privacy from airspace frequented by the public might lead one to conclude that people cannot reasonably expect freedom from satellite observation, because satellite observation is in the hands of the general public.\textsuperscript{212} In fact, O'Connor's concurrence in Riley, combined with the majority's decision in Dow, creates a strong argument for the use of spy satellite data by law enforcement officials.\textsuperscript{213} The airplane used to take pictures in Dow traveled within publicly frequented airspace, which O'Connor would suggest, removes any reasonable expectation of privacy.\textsuperscript{214} In addition, the camera used in Dow was more powerful and technologically advanced than cameras owned by the general public, just as the spy satellite data will have a higher resolution and be more technologically advanced than the satellite imagery that is currently in the hands of the public.\textsuperscript{215} On the other hand, it could be argued that under Justice O'Connor's theory, satellite imagery data is a "search" because the public generally does not have access to satellite data. This, however, is a difficult argument to make in light of the prominence of satellite imagery on the internet.\textsuperscript{216}

The Supreme Court decision in Kyllo went in a different direction than the three cases addressing aerial surveillance and the Fourth Amendment. The Court's focus on the fact that they were observing things inside the home gives some guidance to

\textsuperscript{213} See id. at 452-55.
\textsuperscript{214} See id. at 454.
\textsuperscript{215} See Block, supra note 15; Magnuson & Wagner, supra note 29.
\textsuperscript{216} Upchurch, supra note 190, at 142.
the executive branch as to the constitutional limits on law enforcement observation techniques. This clearly places a limit on the use of surveillance techniques, such as satellite data collection, that can see through concrete and roofing. In light of Kyllo, the National Applications Office should be required to restrict images given to law enforcement agents. The images should be limited to areas that are already exposed to public view. It is interesting to recall that the Court in Riley permitted photos to be taken of areas partially covered by a roof. This probably opens up the use of satellite images taken of areas not completely covered as long as they are not pictures of the home.

The Court’s emphasis on the reasonableness of an expectation of privacy within the home indicates that it is not willing to completely dissolve privacy rights, even as technology advances by putting strong tools in the hands of law enforcement officials. The Court again relies on the fact that intimate details should not be subject to observation absent a warrant. Since the Court considers details obtained using a thermal imaging device to be “intimate” and protected by the Fourth Amendment, it is likely that the Court will not allow satellite images of the inside of homes to be taken and used without a search warrant. So, it is unlikely that law enforcement agencies will be able to shortcut obtaining a warrant to search within one’s home.

There is an argument to be made that the Court’s decision in Kyllo will not restrict the use of satellite data because the fact that the thermal imaging device was not available to the general public was determinative. Since satellite data is already available to the public and law enforcement officials—as mentioned by the Seventh Circuit in Garcia—the use of satellite data may not constitute a “search.”

The material problem with trying to launch a program such as the National Applications Office is that the law is unsettled as to how law enforcement officials will be able to use advanced technology. In fact, the Court has specifically postponed deciding this question. Therefore, there are arguments either way based upon Kyllo, and none of them are more likely than the others. Since the Court has refused to determine how far it is going to let technology erode the protections of the Fourth

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218 United States v. Garcia, 474 F.3d 994, 997 (7th Cir. 2007).
219 Kyllo, 533 U.S. at 33.
Amendment, it is impossible to use the Kyllo case to set boundaries for this new program.

It is important to note that the Court in Kyllo reitered the importance that the subject matter under observation be uncovered and available to "public" view. Unfortunately for those who value their privacy, if the Court continues to follow its theory laid out in Kyllo—that limitations on privacy are inevitable in a world of ever-advancing technology—it will probably determine that satellite surveillance is simply an unstoppable constraint on our constitutional right to privacy. In other words, if the public has access to satellite technology, then anything viewable through these means is rendered not reasonably private. For those who are worried about encroachments on their privacy, they can rest their hopes on the declared purpose of the Court not to "leave the homeowner at the mercy of advancing technology—including imaging technology that could discern all human activity in the home." The majority in Kyllo seems to be steering the Fourth Amendment reasonable search jurisprudence in a different direction than Dow, Ciraolo, and Riley. It is possible that the Court could halt the erosion of the Fourth Amendment altogether.

The Seventh Circuit case involving GPS tracking devices has dangerous implications for the constitutionality of satellite data in the hands of law enforcement officials. If other courts choose to follow the Seventh Circuits' lines of reasoning, there will be very little left of the Fourth Amendment to salvage. The majority in Garcia made its decision that the use of GPS tracking devices is constitutionally based, at least in part, on its availability to the general public and its low cost. Since satellite data is in the hands of many and the cost is almost free, perhaps this will be one easy way for the government to justify searches using satellite images.

The court even brings up the use of satellite data in describing a type of surveillance that would not constitute a search under the Fourth Amendment. It brushes aside all argument to the contrary by suggesting that satellite images are just like pic-

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220 See id. at 33–34.
221 See id. ("It would be foolish to contend that the degree of privacy secured to citizens by the Fourth Amendment has been entirely unaffected by the advance of technology.").
222 Id. at 35–36.
223 See id. at 33–34.
224 United States v. Garcia, 474 F.3d 994, 995 (7th Cir. 2007).
Perhaps the court fails to see the distinction between "cameras mounted on lampposts" and satellites orbiting the earth. It seems all too obvious. Cameras mounted in a particular place take pictures of a particular location. Satellites, however, are in constant motion and have the capability to take pictures of anything and everything.

The reason that GPS is so relevant to the discussion of making spy satellite reconnaissance available to law enforcement is because both types of information are available using satellite technology. The Seventh Circuit even points out the similarities: "[i]nstead of transmitting images, the satellite transmitted geo-physical coordinates." If courts are willing to hold that the use of GPS tracking devices does not constitute a search under the Fourth Amendment, it is very likely, because of the similarities, that they will come to the same conclusion with respect to satellite imagery. Further, the difference between GPS tracking and satellite images does not appear to cause any constitutional problems. As the court in Garcia points out "[t]he only difference is that in the imaging case nothing touches the vehicle, while in the case at hand the tracking device does." If anything, this difference between the two technologies makes it more likely that satellite imaging will not be considered a search since it causes no physical intrusion at all.

The circuit court asserted that new technology should not be deemed unconstitutional merely because it is new. The Seventh Circuit articulated a view that is quite open to allowing new technologies to be used by the government. In fact, the court applied the policy of enhancing law enforcement abilities at a low cost. This low price, however, seems to come at a cost of Fourth Amendment privacy rights. The court, however, did not declare that all new advances in technology should be blindly embraced. Instead, the court argued that the distinction be-

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225 Id. at 997.
226 Id.
227 Id.
228 See id.
229 Id.
230 Id.
231 Id.
232 Id.
233 Id. at 998 ("These 'fantastic advances' continue, and are giving the police access to surveillance techniques that are ever cheaper and ever more effective.").
234 Id. at 997–98.
tween what is constitutional and what is not should remain, and
the new technologies should be compared with old technologies
to determine whether they fall inside or outside constitutional
limits. In light of this theory, law enforcement agencies' use
of satellite imagery will be allowed as long as it is similar to the
way other technologies are already employed. This line be-
tween constitutional observation and unconstitutional searches
is such a blurry one that it is difficult to predict which side of the
line satellite images fall. It is possible that where it lands might
depend on the images themselves rather than the technology as
a whole.

The Seventh Circuit’s conclusion regarding “mass surveil-
lance” is hazardous to the protections of the Fourth Amend-
ment. If courts continue to wait to address the possibility of
mass surveillance, it may be too late. The idea of numerous GPS
tracking devices being used to track all car movement is less
likely than the idea of monitoring all activity using spy satellites.
If the government were going to use GPS tracking to conduct
“mass surveillance,” it would have to purchase all of the new
technology and install it in every vehicle. On the other hand,
spy satellite technology is probably already sufficient to conduct
mass surveillance at no additional cost and with no installation
required. This is a situation the courts will be forced to face,
and it would be safer for our privacy rights if they would address
it sooner rather than later.

V. CONCLUSION

If the Department of Homeland Security hopes to successfully
launch the National Applications Office, it must give serious at-
tention to the repercussions that the law enforcement domain
may have on Americans’ privacy rights and expectations. It is
commendable that the Department of Homeland Security ac-
knowledges that oversight is necessary, but so far its oversight
plans involve the officials who have general supervision over the
Department itself. Furthermore, the Department has yet to re-
veal the specific lengths that it will go to safeguard constitutional
rights; for example, once a law enforcement officer completes a
PUM, how will the National Applications Office evaluate the
form? What “needs” will be sufficient to obtain spy data from

235 Id.
236 See id. at 996–98.
237 Id. at 998.
the Office? Where should recipients be required to store the data obtained from the Office, and how will the Office ensure that such storage takes place? It remains to be seen whether the Department will actually develop a feasible plan for protecting constitutional rights that could be infringed more easily by law enforcement officials with access to spy satellite reconnaissance.

The major barrier to the ability of the Department of Homeland Security to construct a plan for safeguarding Fourth Amendment protections is the uncertainty as to the constitutionality of the use of satellite reconnaissance by law enforcement agencies. It will probably be necessary for the Department to implement a regulatory plan and launch the National Applications Office before the Court will clarify the scope of the Fourth Amendment with respect to satellite data. If this is the case, the Department should err on the side of caution when composing a regulatory procedure for the dissemination of spy satellite data.
Articles