that this is an expectation that "society is prepared to recognize as reasonable."[20]

Although it cannot be done, due to later Fourth Amendment cases related specifically to aerial surveillance (which will be discussed later in the Article), it is helpful to examine video surveillance from space as if the *Katz* holding existed in a vacuum. Hypothetically, assume someone were to have a house on a busy public street in the center of Manhattan. Assume further that they were to do some activity by an open window of that home. If a government agency were to record that activity from the street outside one could argue that it would be admissible evidence because, while that person may have satisfied the first prong of the reasonable expectation of privacy test, the court would likely hold that society would not find that expectation as reasonable. Now imagine someone who lives in a house in a small acre clearing of a forest (the forest also being owned by the person), far from any public road, and with the entirety of that clearing obscured from the road. That person could reasonably expect that his or her actions within the home or clearing are private, and society would most likely find that expectation reasonable. Which would conceivably mean for any law enforcement to observe anything in the home or the clearing would require a warrant to enter and search.

When you add in the prospect of aerial surveillance, by satellite or otherwise, this hypothetical becomes considerably more difficult to analyze. May a person reasonably expect privacy when airplanes overhead could photograph or record his or her activities in the clearing? If so, would society deem that expectation reasonable? Later Supreme Court cases have held that, society does not find such expectations to be reasonable.[21] In general, if law enforcement uses aerial (by plane or helicopter) surveillance, even without a warrant, it is not a violation of a person's Fourth Amendment rights.[22] These forms of aerial surveillance are reasonably detectable by the one under surveillance, at least to some extent. Would a

---

[20] *Id*. (This test was later adopted by the Supreme Court in *Smith v. Maryland*, 442 U.S. 735, at 740.)

[21] *See generally Florida v. Riley,* 488 U.S. 445 (1989) and *California v. Ciraolo*, 476 U.S. 207 (1986) (both cases involving aerial surveillance) and *Dow Chemical v. United States*, 106 S. Ct. 1819 (1986) (Also involving aerial surveillance, although somewhat limited to a commercial context.)

[22] *Id*.

pure *Katz* analysis change when the method of surveillance on our hypothetical house in the clearing is silent and undetectable, as would be the case with satellite video? One may instinctively begin to ask questions about the frequency and altitude of the flights over the clearing. If there are any flights at all, one may question whether society would reasonably expect privacy in the clearing - perhaps certainly in the walls of the home, but less reasonable in the open of the clearing. If the method of surveillance is silent and effectively invisible, it is hard to expect any rational person (devoid of any other knowledge) to assume that someone might witness their actions in the clearing. Suppose that a satellite video service exists in a manner similar to and nearly as ubiquitous as Google Maps; will the Supreme Court then interpret society as generally being aware that satellite video surveillance is available, and therefore society *would not* hold an expectation of privacy in the clearing reasonable? As one can see, *Katz* conceivably raises more questions than answers for the future law enforcement application of space video.

Cases after *Katz,* such as *Oliver v. United States*, seemingly affirm this return to the pre-*Katz* distinction of *where* the location the "search" occurred being the defining factor in whether a constitutional search has actually occurred.[23] Although, the same case appears to reserve some constitutional respect for the privacy of one's "curtilage," that is, the land directly adjacent, or considered part of, the home.[24]

b. Aerial Surveillance in Ciraolo and Riley

The largest blows to those wanting protection from law enforcement's eventual use of satellite video may have already been dealt. The summation of the cases *California v. Ciraolo, Florida v. Riley,* and *Dow Chemical v. United States* give rise to the "Plain View Doctrine."[25] Although *Oliver* seemed to protect the curtilage

---

[23] *See Oliver v. United States,* 466 U.S. 170, at 179 (1984) (holding that "Only the curtilage, not the neighboring open fields warrants the Fourth Amendment protections that attach to the home.")

[24] *Id* at 180.

[25] Kelly, *supra* note 8, at 754 ii.

of one's home, these three cases apparently destroy that protection.[26] In *Ciraolo*, a defendant was convicted of growing marijuana in his yard after local law enforcement received an anonymous tip, flew an airplane overhead at 1000 feet, and photographed the marijuana plants without a warrant. [27] In the majority opinion Justice Burger writes:

> That the area is within the curtilage does not itself bar all police observation … The observations by Officers Shutz and Rodriguez in this case took place within public navigable airspace … in a physically nonintrusive manner; from this point they were able to observe plants readily discernible to the naked eye as marijuana.[28]

In what many now refer to as the "naked-eye" test, *Ciraolo* has removed the curtilage of one's home from the undeniable need for law enforcement to obtain a warrant to search. In effect, *Ciraolo* deemed the "public navigable airspace" to be a location from which a person cannot expect privacy, even within his curtilage.[29] Which begs the question: is the orbit of our earth a proper extension of "public navigable airspace"? If yes, the result does not bode well for those wanting warrants in order for law enforcement to utilize video gathered from satellites. Some authors are inclined to believe that this warrantless use of satellite imagery will be the norm, because the altitude at which the flight occurs seems unimportant if the technology required to photograph in detail at that altitude is irrelevant.[30]

As an additional note, the California Court of Appeal (from which the case was granted *certiorari*) noted that the flight from which the plants were photographed was undertaken specifically for the purpose of surveilling the defendant's particular home and was distinct from a civilian flight overhead, which would have merely happened to observe the plants.[31] The Supreme Court's

---

[26] *Id* at 753. *See also*: Daniel W. Johnson, *Aerial Surveillance: A Birds-Eye View of Katz v. United States*, 22 Gonz. L. Rev. 393, at (1986)

[27] *Ciraolo*, 476 U.S. at 209.

[28] *Id*. at 213.

[29] *Id.*

[30] Kelly, *supra* note 8, at 753 (Quoting *Dow* in which the Court held that "the mere fact that vision is enhanced somewhat… does not give rise to constitutional problems).

[31] *Ciraolo,* 476 U.S. at 211.

holding renders this distinction irrelevant.[32] *Florida v. Riley* reaffirmed this holding three years later when a person growing marijuana in their greenhouse had that marijuana photographed by law enforcement in a helicopter at an altitude of 400 feet.[33]

c. Does the Technology used Matter? – Dow Chemical

Dow Chemical v. United States sheds uncertainty on the "naked-eye" test we derive from *Ciraolo* and *Riley*. In *Dow Chemical*, the EPA used an airplane to observe and perform an unconsented inspection of a Dow Chemical plant in Midland Michigan.[34] The record states that the aircraft contained a "standard floor-mounted, precision aerial mapping camera."[35] *Dow Chemical* is invaluable to the present analysis because it offers considerable discussion to the type of technology used. *Ciraolo* was clear: the surveillance of defendant's backyard was constitutional because it was done from public airspace and involved material visible by "the naked-eye."[36] This stands in stark contrast to *Dow Chemical* where the "search" was conducted with a "precision aerial mapping camera" capable of discerning objects a half inch in size.[37] This discrepancy between the two holdings is seemingly only mendable by concluding that the Court intends advanced technology to stand as the "naked-eye." Consequently, there does not seem to be a situation in which the technology used to surveil would ever matter.[38] So, it, perhaps unfortunately, follows that use of satellite video could easily become an extension of "navigable airspace" and the highly refined, expensive telescopic video cameras onboard these satellites are, inexplicably, an extension of the "naked eye."

The *Dow Chemical* opinion mentions that the Government concedes that there could be a cut-off in terms of technology (offering satellites as an example) that would be considered outside the

---

[32] *Id.* at 215.

[33] *Riley*, 488 U.S. at 446.

[34] *Dow Chemical*, 476 U.S. at 229.

[35] *Id.*

[36] *Ciraolo*, 476 U.S. at 209.

[37] *Dow Chemical*, 476 U.S. at 238.

[38] Daniel W. Johnson, *Aerial Surveillance: A Birds-Eye View of Katz v. United States*, 22 Gonz. L. Rev. 393 (1986), at 403.

"naked-eye" and thereby require a warrant.[39] Although the Supreme Court is merely restating the government's argument, it does seem interesting that it would even mention the Government's reference. It is almost as if the Court does not wish to outright hold that all forms of enhanced vision will be considered the "naked-eye" and would like to reserve some maneuvering room for the future. The *Dow Chemical* opinion does, however, seem to take the general availability to the public of the surveillance method into consideration when determining if an unreasonable search occurred.[40] As some commenters have noted, it is almost incredulous the court would find a nearly "$22,000 aerial mapping camera" generally available to the public, as if "any Joe Sixpack with an airplane and [the camera] could readily duplicate these photos."[41] Nevertheless, such an interpretation invites the question of whether or not the same court would hold a satellite to be a similar piece of "generally available" technology. If satellite video were to exist for some time as a relatively unknown (to the general public) technology, then perhaps the same court would find its warrantless use by law enforcement an unreasonable search. But if satellite video were to become as ubiquitous as Google Maps, as this author imagines it might, then would the availability of the technology erode the protection the Fourth Amendment offers against it? So, while this Article intends to focus on law enforcement's potential use of satellite video, *Dow Chemical* seems to suggest that the general public's use of the technology involved plays a role in determining whether or not a Fourth Amendment search has occurred.

d. Using Satellite Video to Invade the Home – analogous to Kyllo?

Although satellites obviously exist outside of homes and would provide video from an overhead view, the fact that it is video rather than still imagery may allow one to deduce the contents inside of the house. Consider our earlier home in the clearing hypothetical. If law enforcement wished to surveil the owner using Google Maps, they would not be able to determine much. If something illegal was

---

[39] *Dow Chemical*, 476 U.S. at 238.

[40] *Dow Chemical*, 476 U.S. at 234.

[41] Johnson, 22 GONZ. L. REV. 393, at 403 (quoting Professor Yale Kamisar.)

conspicuously located in the clearing the moment the satellite took the still image, then perhaps law enforcement would have a case to investigate or prosecute. But even then, the still image may be old and therefore inconclusive. On the other hand, if the law enforcement had video at its disposal it could possibly record a vehicle leaving every day at 8:00 a.m. that does not return until 5:00 p.m., thereby allowing them to deduce that in between those two times, at least one person *is not* in the home. Or, suppose satellite video captures a van arriving at the home every day at a certain time and captures the driver carrying some object from the van into the home. If law enforcement uses the video to track the van as it goes to and from a known marijuana growing operation, then they can deduce with reasonable effectiveness that there is marijuana inside the home. Again, we see how satellite video is distinct from other forms of satellite surveillance and requires its own consideration.

In *Kyllo v. United States*, law enforcement suspected a man of growing marijuana within his house.[42] Knowing that high powered lamps are often used to grow marijuana indoors, the law enforcement used (without a warrant) a thermal imaging camera to see if there were unusual heat concentrations emanating from the house.[43] There were heat concentrations, and law enforcement subsequently were issued a warrant to enter the home where they found marijuana growing.[44] The defendant in the case was arrested and sought to have the evidence suppressed because the thermal scan of the home was an unreasonable search under the Fourth Amendment.[45] The syllabus from the case gives us the clearest interpretation of the holding:

> Where, as here, the Government uses a device that is not in general public use, to explore details of a private home that would previously have been unknowable without physical intrusion, the surveillance is a Fourth Amendment 'search,' and is presumptively unreasonable without a warrant.[46]

---

[42] *Kyllo v. United States*, 533 U.S. 27, at 29 (2001).
[43] *Id.*
[44] *Id.* at 30.
[45] *Id.*
[46] *Id* at 29.