

Comment

Hiding in Plain Sight: Protection from GPS Technology Requires Congressional Action, Not a Stretch of the Fourth Amendment

I. INTRODUCTION

In the fall of 2010, a college student in Santa Clara, California, found a peculiar object on the underside of his vehicle after a trip to the mechanic.¹ The student's friend posted an online picture of the strange device asking for suggestions about its source and "if it mean[t] the [Federal Bureau of Investigation] 'is after us.'"² As it turns out, the Federal Bureau of Investigation (FBI) was secretly tracking the twenty-year-old Arab-American using a Global Positioning System (GPS) affixed to the underside of his vehicle.³ The FBI located the student two days after the posting and demanded the return of their expensive device.⁴ At the same time, federal agents spoke to the student in his native language, Arabic, about the restaurants he frequented, his new job, and

1. Kim Zetter, *FBI Allegedly Caught Using GPS to Spy on Student*, CNN (Oct. 8, 2010), <http://www.cnn.com/2010/TECH/gaming.gadgets/10/08/fbi.tracks.student.wired/index.html>.

2. *Id.*

3. *Id.*

4. *Id.*

how his recent trip to the mechanic triggered their belief that the device had been removed.⁵ Ultimately, the FBI reassured the student he had nothing to worry about, and that he was, in fact, “boring.”⁶

The event, however, was anything but mundane to the American public; on the heels of several recent United States Courts of Appeals decisions, the event re-ignited the debate over the constitutionality of law enforcement’s warrantless use of GPS devices.⁷ GPS devices, which can keep a continuous log of a person’s precise location, have the capability to “provide a detailed picture of one’s life.”⁸ In the absence of a clear direction from either the Supreme Court of the United States or the United States Congress, state and federal courts are left to grapple with the issue of whether law enforcement’s surreptitious use of GPS technology to track a suspect’s location constitutes a “search,” thereby activating Fourth Amendment⁹ protections. Using their own state constitutions as a platform, the higher courts in the states of Washington, New York, and Massachusetts have deemed the warrantless use of a GPS device a search or the installation itself a seizure.¹⁰ While the federal courts have generally held GPS tracking does not invoke the protections of the Fourth Amendment, the United States Court of Appeals for the District of Columbia Circuit, in *United States v. Maynard*,¹¹ recently became the first circuit court to hold that the warrantless, prolonged use of a GPS device to track a defendant’s movements violated the defendant’s reasonable expectation of privacy.¹²

This Comment seeks to demonstrate how the underpinning of the Supreme Court’s definition of a search—whether society is willing to find an expectation of privacy reasonable—is *not* an appropriate standard for protection against “the all-seeing network of GPS satellites that hover

5. *Id.*

6. *Id.* (internal quotation marks omitted).

7. *See, e.g.*, *United States v. Maynard*, 615 F.3d 544 (D.C. Cir. 2010); *United States v. Pineda-Moreno*, 591 F.3d 1212 (9th Cir. 2010).

8. *State v. Jackson*, 76 P.3d 217, 223 (Wash. 2003).

9. U.S. CONST. amend. IV.

10. *See Commonwealth v. Connolly*, 913 N.E. 2d 356, 369 (Mass. 2009) (holding that “the police use of the defendant’s minivan to conduct GPS monitoring . . . constituted a seizure,” which required a warrant, but declining to resolve the issue of whether GPS monitoring is itself a search); *People v. Weaver*, 909 N.E.2d 1195, 1203 (N.Y. 2009) (holding that the “dragnet use of [GPS] at the sole discretion of law enforcement authorities to pry into the details of people’s daily lives is not consistent with the values at the core of [the New York] State Constitution’s prohibition against unreasonable searches”); *Jackson*, 76 P.3d at 224 (holding that the use of GPS devices on the vehicles of private citizens by law enforcement constituted a search under the Washington Constitution).

11. 615 F.3d 544 (D.C. Cir. 2010).

12. *Id.* at 563.

overhead, which never sleep, never blink, . . . and never lose attention.”¹³ Rather than await a decision from the Court, Congress is more suited to resolve the issue through comprehensive legislation that prohibits law enforcement from using a GPS device without first procuring a warrant. Part II describes the Court’s interpretation of the Fourth Amendment as it applies to evolving technology; in doing so, Part II details the Court’s transition from a trespass-based standard to a two-pronged reasonableness test, focusing on the seminal Court decisions that have shaped the debate over GPS technology today. Part III provides a brief overview of modern GPS capabilities for law enforcement and a discussion of the issues dividing the lower courts. Lastly, Part IV explains the challenges facing the Court in providing adequate protection from law enforcement’s unrestricted use of GPS technology via the Fourth Amendment and how Congress should, instead, step in to protect this vital privacy interest.

II. THE FOURTH AMENDMENT AND ELECTRONIC SURVEILLANCE

The Fourth Amendment to the United States Constitution¹⁴ protects against unreasonable searches and seizures by government agents.¹⁵ Prior to a Fourth Amendment analysis of reasonableness, the actions of law enforcement must first be recognized as either a “search” or a “seizure.”¹⁶ A search is defined as an invasion of an individual’s protected interest as measured by one’s reasonable expectation of privacy.¹⁷ Before the execution of a search, the second part of the Fourth Amendment—the “Warrant Clause”—has been interpreted to require a finding of probable cause in the presence of “a neutral and detached magistrate.”¹⁸ Aside from a limited number of exceptions, if a search is conducted without a warrant, it is considered “per se unreasonable under the Fourth Amendment.”¹⁹ For both federal and

13. *Pineda-Moreno*, 617 F.3d at 1126.

14. U.S. CONST. amend. IV.

15. *United States v. Jacobsen*, 466 U.S. 109, 113 (1984).

16. See *Horton v. Goose Creek Indep. Sch. Dist.*, 690 F.2d 470, 476 (5th Cir. 1982) (“The decision to characterize an action as a search is in essence a conclusion about whether the [F]ourth [A]mendment applies at all. If an activity is not a search or seizure (assuming the activity does not violate some other constitutional or statutory provision), then the government enjoys a virtual *carte blanche* to do as it pleases.”).

17. See Thomas K. Clancy, *What Is a “Search” Within the Meaning of the Fourth Amendment?*, 70 ALB. L. REV. 1, 2 (2006).

18. *Johnson v. United States*, 333 U.S. 10, 14 (1948).

19. *United States v. Maynard*, 615 F.3d 544, 566 (D.C. Cir. 2010) (quoting *Katz v. United States*, 389 U.S. 347, 357 (1967)) (internal quotation marks omitted).

state courts, the exclusionary rule mandates the suppression of illegally seized evidence in violation of the Fourth Amendment.²⁰

A. *From Physical Invasion to Reasonable Expectation of Privacy*

The test for whether police action demands the protection of the Fourth Amendment was originally entrenched in the law of trespass. For instance, in *Olmstead v. United States*,²¹ the Supreme Court considered the Fourth Amendment's application to wire-tapping by the government.²² Justice Taft noted that the Fourth Amendment's express use of the language "houses, persons, papers, and effects" presumptively limited searches to those specific "material things."²³ Not only was wire-tapping not a "thing" to be seized, but the Court concluded that there was no physical intrusion by the police into the defendant's home; rather, "[t]he evidence was secured by the use of the sense of hearing and that only."²⁴ Prophetically, Justice Brandeis, in dissent, forewarned that "[t]he progress of science in furnishing the government with means of espionage is not likely to stop with wiretapping" and urged the Court to view the Fourth Amendment not in "what has been, *but of what may be.*"²⁵ The result of the Court's decision in *Olmstead* was to narrow the protections afforded under the Fourth Amendment to physical invasions of a "constitutionally protected area."²⁶

In 1967 the Court, in *Katz v. United States*,²⁷ radically altered the expanse of the Fourth Amendment by declaring that "the Fourth Amendment protects people, not places."²⁸ In *Katz* the Government sought to introduce evidence of telephone conversations obtained when the FBI attached an electronic listening and recording device outside of a public telephone booth.²⁹ The Court noted that even though the telephone booth was public, one has a right to assume that the words spoken in an enclosed booth would be free from intrusion from "the

20. *Mapp v. Ohio*, 367 U.S. 643, 655 (1961); *see also Weeks v. United States*, 232 U.S. 383, 398 (1914).

21. 277 U.S. 438 (1928), *overruled by Katz v. United States*, 389 U.S. 347 (1967), and *Berger v. New York*, 388 U.S. 41 (1967).

22. *Id.* at 455.

23. *Id.* at 464-65.

24. *Id.* at 464.

25. *Id.* at 474 (Brandeis, J., dissenting) (emphasis added).

26. *See Katz*, 389 U.S. at 350, 352-53 (internal quotation marks omitted).

27. 389 U.S. 347 (1967).

28. *Id.* at 351.

29. *Id.* at 348.

uninvited ear.”³⁰ In order to extend Fourth Amendment protections to oral conversations obtained “without any technical trespass,” the Court overruled *Olmstead* to the extent that *Olmstead* relegated Fourth Amendment rights to physical intrusions or the seizure of tangible items.³¹ Thus, the Court held that by recording the petitioner’s calls, the FBI violated the privacy “upon which [the petitioner] justifiably relied.”³²

The modern, “bright-line” rule for discerning whether a search has occurred, however, is derived from Justice Harlan’s concurrence in *Katz*.³³ Justice Harlan synthesized the majority’s decision into a two-pronged formula, requiring both an objective and subjective component.³⁴ First, Justice Harlan explained “that a person [must] have exhibited an actual (subjective) expectation of privacy.”³⁵ From the majority opinion, this subjective intent encompasses “what [one] seeks to preserve as private.”³⁶ Second, notwithstanding a person’s attempt to conceal their actions, protection under the Fourth Amendment is only guaranteed when “the expectation [is] one that society is prepared to recognize as ‘reasonable.’”³⁷

In one of the first cases to apply the *Katz* test, *United States v. Caceres*,³⁸ the Court considered the issue of whether an IRS agent’s secret use of a recording device while questioning a defendant was permissible under the Fourth Amendment.³⁹ The Court concluded that the recording was essentially the equivalent of the agent’s contemporaneous written notes during the interview.⁴⁰ Regardless, this information had already been conveyed to the agent in person.⁴¹ Therefore, the

30. *Id.* at 351-52 (“[W]hat he seeks to preserve as private, even in an area accessible to the public, may be constitutionally protected. . . . He did not shed his right to [privacy] simply because he made his calls from a place where he might be seen.”).

31. *Id.* at 353 (internal quotation marks omitted).

32. *Id.*

33. See Jonathan Simon, *Katz at Forty: A Sociological Jurisprudence Whose Time Has Come*, 41 U.C. DAVIS L. REV. 935, 953 (2008) (noting that the *Katz* formula is “well-loved by treatise writers and criminal procedure professors”).

34. See *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

35. *Id.*

36. *Id.* at 351 (majority opinion); see also *United States v. Tabor*, 635 F.2d 131, 137 (2d Cir. 1980) (describing this prong of *Katz* as requiring that the defendant “acted in such a way that it would have been reasonable for him to expect that he would not be observed.”).

37. *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

38. 440 U.S. 741 (1979).

39. *Id.* at 743.

40. *Id.* at 750-51.

41. *Id.* at 748.

Court reasoned that because the conversation between the agent and the defendant “without electronic equipment” did not violate the defendant’s reasonable expectation of privacy, neither did a “simultaneous recording” of the same event.⁴²

Similarly, in *Smith v. Maryland*,⁴³ the Court sanctioned the government’s warrantless use of a pen register,⁴⁴ “a mechanical device that records the numbers dialed on a telephone by monitoring the electric impulses.”⁴⁵ The pen register was limited to this use only; the pen register did not disclose the communication between the caller and the recipient.⁴⁶ The Court explained that the information revealed by the recording device was “merely the modern counterpart of the operator who, in an earlier day, personally completed calls for the subscriber.”⁴⁷ Because it is common knowledge that one relays the phone numbers he dials to the phone provider, the Court held, yet again, that the police’s use of the pen register was not a search.⁴⁸ These early applications of the *Katz* rule indicate that despite the goal of the Court in *Katz* to expand the breadth of protection under the Fourth Amendment, it often came with a “heavy thumb on the scale of law enforcement.”⁴⁹

B. The Supreme Court’s Application of the Katz Test to Tracking Devices

Two Supreme Court cases, *United States v. Knotts*⁵⁰ and *United States v. Karo*,⁵¹ involving electronic surveillance in the form of beepers, have set the stage for the current analysis regarding GPS surveillance.⁵² The battery operated beepers in both *Knotts* and *Karo* emitted periodic signals at a set frequency that could be tracked by police through a radio receiver as they trailed the vehicle.⁵³ The

42. *Id.* at 751.

43. 442 U.S. 735 (1979).

44. *Id.* at 745-46.

45. *Id.* at 736 n.1 (quoting *United States v. N.Y. Tel. Co.*, 434 U.S. 159, 161 n.1 (1977)) (internal quotation marks omitted).

46. *Id.* at 741.

47. *Id.* at 744.

48. *Id.* at 742.

49. Simon, *supra* note 33, at 953.

50. 460 U.S. 276 (1983).

51. 468 U.S. 705 (1984).

52. CLIFFORD S. FISHMAN & ANNE T. MCKENNA, 2 WIRETAPPING & EAVESDROPPING: SURVEILLANCE IN THE INTERNET AGE § 29:20 (3d ed. 2007) (noting that *Knotts* and *Karo* “remain the benchmark in tracking device cases”), updated version available at Westlaw WIRETAP.

53. Compare *Karo*, 468 U.S. at 707 n.1 (quoting *Knotts*, 460 U.S. at 277), with *Knotts*, 460 U.S. at 277.

beepers, which allowed police to locate a target within a two to four mile radius, served to aid police in secretly following a suspect even after losing visual contact.⁵⁴

Sixteen years after the introduction of the *Katz* formula, the Court in *Knotts* was faced with the question of whether the in-transit⁵⁵ tracking of a vehicle via a beeper violated the defendant's reasonable expectation of privacy.⁵⁶ In *Knotts* a drug manufacturing company tipped the police off that ex-employee, Tristan Armstrong, may have been stealing chemicals for the production of a controlled substance. Thereafter, agents got permission from a company where Armstrong had made similar purchases to place a beeper inside of a five gallon drum of chloroform, subsequently purchased by Armstrong. Agents kept contact with Armstrong through visual surveillance accompanied by a monitoring device that received signals sent by the beeper. Police continued to follow the beeper as the drum was transferred to Armstrong's co-conspirator, Darryl Petschen, following Petschen from Minnesota to a remote cabin in Shell Lake, Wisconsin. Once the drum came to its final resting place, police secured a warrant based on evidence attained through the combination of the beeper and their own visual surveillance; the execution of the warrant revealed a drug laboratory used to produce large quantities of amphetamines.⁵⁷

In light of the *Katz* standard, the Court noted that vehicles are traditionally subject to a "diminished expectation of privacy."⁵⁸ Determining that the use of a beeper was tantamount to the act of police following an automobile on the street, the Court held that "[a] person travelling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another."⁵⁹ The Court reasoned that when Petschen drove with the drum in tow "over the public streets he voluntarily conveyed to anyone who wanted to look" the direction he traveled, the roads he took, and his final stopping place.⁶⁰ Thus, by utilizing visual surveillance, police could have discovered these same facts; the substitution of the beeper to

54. See Reply Brief for the United States, *Karo*, 468 U.S. 705 (No. 83-850), 1984 U.S. S. Ct. Briefs LEXIS 251, at *15 n.6; FISHMAN & MCKENNA, *supra* note 52, § 29:3.

55. In-transit monitoring is defined as "[m]onitoring a tracking device from the time and place it was installed into an object or vehicle until that object or vehicle has reached its apparent, or at least its initial, destination." FISHMAN & MCKENNA, *supra* note 52, § 29:4.

56. See *Knotts*, 460 U.S. at 278-79.

57. *Id.* at 278-79.

58. *Id.* at 281.

59. *Id.*

60. *Id.* at 281-82.

monitor the presence of the vehicle made no difference in gaining information theoretically ascertainable by means not constituting a search.⁶¹

Although the Court recognized the respondent's argument that the holding had the potential to lead to "twenty-four hour surveillance" of any person without judicial review, the Court reserved this question for a future date, stating that "if such dragnet type law enforcement practices as respondent envisions should eventually occur, there will be time enough then to determine whether different constitutional principles may be applicable."⁶² Specifically, the Court emphasized the "limited use" of the beeper and the fact that nothing was received nor relied upon once the beeper indicated the drum had "ended its automotive journey" at the respondent's home.⁶³ The Court in *Knotts* likewise was not persuaded by the fact that emerging technology would vastly improve law enforcement's crime-fighting ability, stating, "We have never equated police efficiency with unconstitutionality, and we decline to do so now."⁶⁴

A year later in *Karo*, the Court reaffirmed that using a beeper to monitor a defendant on a public street was not a search.⁶⁵ The Court, however, faced with a slightly different version of the *Knotts* fact pattern, modified its ruling when applied to circumstances invoking a greater right to privacy.⁶⁶ In *Karo* an informant allowed police to place a beeper into a can of ether that police believed would later be used to manufacture illegal drugs. Police subsequently tracked the can's whereabouts as the can was transferred to several houses and eventually to a storage facility.⁶⁷ The wrinkle in *Karo* was that police used the beeper in a manner such that information was revealed about an area "that could *not* have been obtained through visual surveillance."⁶⁸ Unlike *Knotts*, in which the beeper was used merely to locate the drum within the general vicinity of the cabin in rural Wisconsin,⁶⁹ in *Karo* the monitoring alerted authorities that the beeper was inside of the suspect's house.⁷⁰

61. *See id.* at 282.

62. *Id.* at 283-84.

63. *Id.* at 284-85.

64. *Id.* at 284.

65. 468 U.S. at 712-13.

66. *Compare* 460 U.S. 276, *with Karo*, 468 U.S. 705.

67. 468 U.S. at 708-09.

68. *Id.* at 707 (emphasis added).

69. 460 U.S. at 278-79.

70. 468 U.S. at 715.

In light of the general assumption that searches inside of homes are presumptively unreasonable, the Court held the use of a beeper in this manner, while less invasive than a full-scaled search, “reveal[ed] a critical fact about the interior of the premises that the Government . . . could not have otherwise obtained without a warrant.”⁷¹ In response, the Government contended that there would be no way of knowing prior to attachment whether a beeper would transmit signals from a private property; thus, police would be forced to seek a warrant every time they used electronic surveillance.⁷² The Court rejected this argument, noting that to prevent the type of abuse in question, agents were required to secure a warrant when venturing into constitutionally protected areas like the home.⁷³ The Court provided that the warrant is “to describe the object into which the beeper is to be placed, the circumstances that led agents to wish to install the beeper, and the length of time for which beeper surveillance is requested.”⁷⁴ Thus, in effect, the Court established the particularity requirements for investigators seeking a beeper warrant.⁷⁵

In regards to electronic surveillance, two basic principles can be distilled from *Knotts* and *Karo*: (1) in-transit monitoring or monitoring within a general location is not a search, while (2) the use of a beeper to monitor a private location, such as a personal residence, would constitute a search and must be supported by a warrant.⁷⁶ Thus, as hinted in *Karo*, this distinction sometimes causes investigators to engage in “Fourth Amendment roulette.”⁷⁷ Investigators can simply procure a warrant beforehand for the use of a beeper for monitoring a suspect both inside and outside of the home. Alternatively, investigators can take a risk and not procure a warrant by only using in-transit and general monitoring concomitantly with visual surveillance, but they must avoid tracking the device into areas where there is a reasonable expectation of privacy recognized by the Court.

71. *Id.*

72. *Id.* at 718.

73. *Id.* at 717.

74. *Id.* at 718.

75. *Id.*

76. See FISHMAN & MCKENNA, *supra* note 52, § 29:19.

77. *Id.* (internal quotation marks omitted).

C. The Confirmation of a Reasonable Expectation of Privacy in the Home

Similar to the exception carved out in *United States v. Karo*,⁷⁸ prohibiting the use of beepers to discern information beyond visual surveillance, the Supreme Court most recently in *Kyllo v. United States*,⁷⁹ underscored the importance of a reasonable expectation of privacy in the home. In *Kyllo* agents used a thermal imaging device on the front and back of the defendant's home. The thermal imaging device in question detected infrared radiation and converted the radiation into images based on relative warmth.⁸⁰ The imager itself did not penetrate the home, but rather "passively measure[d] heat emitted from the exterior surfaces."⁸¹ As the agents suspected, *Kyllo* was using halide lights to grow marijuana; the imager depicted the garage and side wall of the defendant's home as relatively warm compared to the rest of the house.⁸² Justice Scalia, writing for the majority, acknowledged that this was more than naked-eye surveillance and couched the question as "how much technological enhancement of ordinary perception from such a vantage point, [like the street], is too much."⁸³ The Court reiterated a point that has been firmly established in common law: "[T]he Fourth Amendment draws 'a firm line at the entrance to the house.'"⁸⁴ Thus, the Court held that the use of sense-enhancing technology, at least that "not in general public use," constitutes a search when the technology is used to glean information regarding the interior of a home that could not otherwise be determined without intruding onto this constitutionally protected area.⁸⁵

Although the technology utilized in *Kyllo* was "relatively crude," the Court was cautious to "take [into] account . . . more sophisticated systems that are already in use or in development" and have the capability of viewing activities inside of the home with more precision.⁸⁶ Despite the Court's emphasis on the sanctity of the home, *Kyllo* should not be interpreted to support an assertion that "technologically-enhanced surveillance is, no matter what, outside Fourth Amendment constraints

78. 468 U.S. 705 (1984).

79. 533 U.S. 27 (2001).

80. *Id.* at 29-30.

81. *Id.* at 42-43; WAYNE R. LAFAVE, 1 SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 2.2(e) (4th ed. 2004 & Supp. 2010-2011).

82. *Kyllo*, 533 U.S. at 30.

83. *Id.* at 33.

84. *Id.* at 40 (quoting *Payton v. New York*, 445 U.S. 573, 590 (1980)).

85. *Id.*

86. *Id.* at 36.

when directed at activity occurring outside the home.⁸⁷ Rather, *Kyllo* directly resolved the issue presented and in doing so, reaffirmed that one, invariably, has a reasonable expectation of privacy in the home.⁸⁸

III. FROM BEEPERS TO GPS SURVEILLANCE: QUESTIONS LEFT
UNRESOLVED BY *KATZ*, *KNOTTS*, & *KARO*

The reasonable expectation test of *United States v. Katz*,⁸⁹ coupled with its application to beepers in *United States v. Knotts*⁹⁰ and *United States v. Karo*,⁹¹ has created difficult questions for the lower courts to consider when faced with whether an inherently different technological tool—GPS—affects one's reasonable expectation of privacy. GPS is defined as a "space-based radio-positioning system," consisting of at least twenty-four earth-orbiting satellites at any given time.⁹² Through the mathematical process known as trilateration, a GPS receiver on Earth determines its location based on the location and distances between four or more satellites.⁹³ By using trilateration three-dimensionally, the receiver can calculate its coordinate location and altitude; the receiver also computes its speed and direction based on the rate of change in the information received from the satellites.⁹⁴

To be used as a tracking device, GPS receivers are equipped with transmitters that allow a third party to gain information from a remote location.⁹⁵ When GPS devices are used to track defendants, the devices may be employed either passively—to monitor a person's locations after

87. LAFAVE, *supra* note 81, § 2.2(e) (conceding that the Court on prior occasions may have leaned toward characterizing technologically-enhanced surveillance outside the home as beyond the reach of the Fourth Amendment).

88. *See* 533 U.S. at 40.

89. 389 U.S. 347, 361 (1967) (Harlan, J., concurring).

90. 460 U.S. 276 (1983).

91. 468 U.S. 705 (1984).

92. *U.S. Air Force Fact Sheet: Global Positioning Systems Directorate*, L.A. AIR FORCE BASE (Jan. 7, 2011), <http://www.losangeles.af.mil/library/factsheets/factsheet.asp?id=5311>.

93. Marshall Brain & Tom Harris, *How GPS Receivers Work*, HOWSTUFFWORKS, <http://electronics.howstuffworks.com/gadgets/travel/gps.htm> (last visited Apr. 12, 2011).

94. Renée McDonald Hutchins, *Tied Up in Knotts? GPS Technology and the Fourth Amendment*, 55 UCLA L. REV. 409, 417 (2007).

95. *Id.* at 418; *see also* State v. Holden, No. 1002012520, 2010 WL 5140744, at *2 (Del. Super. Ct. Dec. 14, 2010). In *Holden* the court stated that

GPS vehicular tracking systems consist of three components: (i) a receiver on the target vehicle which calculates the vehicle's location through the use of satellites; (ii) a cellular telephone or other technology which transmits the vehicle's position; and (iii) a computer monitoring device which receives and stores location information and uses mapping software to display the vehicle's location. 2010 WL 5140744, at *2.

the fact—or actively—to track a suspect’s real-time movements.⁹⁶ Unlike the use of the beeper, GPS allows a person’s movements to “be charted and recorded over lengthy periods possibly limited only by the need to change the transmitting unit’s batteries.”⁹⁷ GPS devices also provide twenty-four hour coverage that is undeterred by severe weather conditions.⁹⁸

A simplistic interpretation of *Knotts* and *Karo* would provide the most expedient answer to the advent of GPS-enabled tracking, but such an analysis neglects consideration of the massive quantity of information GPS surveillance can obtain over time and the inferences that can be drawn about a person’s private and personal life.⁹⁹ Thus, lower courts have struggled to shape a rule that accounts for Supreme Court precedent concerning other tracking devices—like beepers—with modern GPS devices that permit the secret observation of a person’s activities over an extended period of time. Given the capabilities of GPS technology, two questions are especially pressing for the lower courts: (1) whether, by driving a vehicle with a covertly installed GPS device, one exposes such actions to the public, and (2) whether the current use of GPS technology has reached the dragnet-level of twenty-four hour surveillance left open by the Supreme Court.¹⁰⁰

A. *Public Exposure*

Generally, the Supreme Court has held that a person assumes the risk of discovery when they expose their actions to the public, thus diminishing any reasonable expectation of privacy.¹⁰¹ As Justice Stewart proclaimed in *Katz*, “What a person knowingly exposes to the public, even in his home or office, is not a subject of Fourth Amendment

96. FISHMAN & MCKENNA, *supra* note 52, § 29:35.

97. *People v. Weaver*, 909 N.E.2d 1195, 1199 (N.Y. 2009).

98. Richard B. Langley, *In Simple Terms, How Does GPS Work?*, GEODESY & GEOMATICS ENG’G UNIV. OF NEW BRUNSWICK, <http://gge.unb.ca/Resources/HowDoesGPSWork.html> (last updated Feb. 16, 2008).

99. See Hutchins, *supra* note 94, at 457 (arguing that “the appropriate constitutional treatment of GPS-enhanced surveillance is not tied up in *Knotts* because, as a factual matter, beeper and GPS technology are fundamentally different in terms of the quantity of information revealed by the science”).

100. See Arthur G. LeFrancois, *Global Positioning System Technology and the Fourth Amendment*, 6 ABA SCI. TECH. L. 18, 19 (2009).

101. See THOMAS N. MCINNIS, *THE EVOLUTION OF THE FOURTH AMENDMENT* 233 (2009); see also *United States v. Maynard*, 615 F.3d 544, 558 (D.C. Cir. 2010) (alteration in original) (quoting *Katz*, 389 U.S. at 351) (“Whether an expectation of privacy is reasonable depends in large part upon whether that expectation relates to information that has been ‘expose[d] to the public.’”).

protection.”¹⁰² Therefore, police need not turn a blind eye to criminal activity that could have been seen by any member of the public.¹⁰³ With respect to the use of GPS surveillance, two rules have developed. The majority approach provides that one traveling in a vehicle on public roads, even with a covertly installed GPS, voluntarily exposes their actions to the public domain and therefore has no reasonable expectation of privacy.¹⁰⁴ Conversely, the “aggregate” or “mosaic” approach asserts that the probability of accumulating the totality of an individual’s movements in the public without the assistance of a GPS is so small that the data collected from the GPS cannot actually be considered exposed to the public.¹⁰⁵

The majority test derives its analysis from a direct application of *Knotts* and *Karo*: law enforcement’s use of electronic surveillance, including GPS, does not trigger a reasonable expectation of privacy, at least not while traversing on public roads.¹⁰⁶ The Court in *Knotts* demoted vehicles to a lower standard of privacy due to their “function [as a form of] transportation [that] seldom serves as one’s residence or as the repository of personal effects.”¹⁰⁷ Therefore, the oft-quoted phrase in *Knotts* that “[a] person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy” provides the obvious analogy that a person traveling in a vehicle equipped with a GPS similarly “voluntarily convey[s]” that person’s whereabouts to others while traveling from point A to point B.¹⁰⁸ A recent district court case displays this application of *Knotts* to GPS surveillance:

It is difficult for the court to see how the reasoning in *Knotts* is not directly on point. When Defendant drove his car from place to place he voluntarily let it be known to anyone who wanted to follow him the fact that he was driving on certain roads at particular times and that he

102. 389 U.S. at 351.

103. See *California v. Greenwood*, 486 U.S. 35, 41 (1988) (“[T]he police cannot reasonably be expected to avert their eyes from evidence of criminal activity that could have been observed by any member of the public.”); *California v. Ciraolo*, 476 U.S. 207, 213 (1986) (“[T]he mere fact that an individual has taken measures to restrict some views of his activities [does not] preclude an officer’s observations from a public vantage point where he has a right to be and which renders the activities clearly visible.”).

104. See, e.g., *United States v. Pineda-Moreno*, 591 F.3d 1212, 1216 (9th Cir. 2010); *United States v. Garcia*, 474 F.3d 994, 996 (7th Cir. 2007) (“The Supreme Court has held that the mere tracking of a vehicle on public streets by means of a similar though less sophisticated device (a beeper) is not a search.”).

105. *Maynard*, 615 F.3d at 560.

106. *Karo*, 468 U.S. at 713; *Knotts*, 460 U.S. at 281.

107. *Knotts*, 460 U.S. at 281.

108. *Id.*

made stops along the way. Anyone who followed Defendant could have timed how long it took him to arrive at his destinations, how long he stayed there, and the nature of the places that he visited, i.e., church, casinos, strip clubs, etc.¹⁰⁹

Thus, so long as the monitoring did not enter the private residence, several courts have held that the use of a tracking device while monitoring a vehicle on a public street is not a search.¹¹⁰

The cases that follow the reasoning of *Knotts* rationalize that the police, theoretically, could have obtained the same information collected by a GPS device through visual surveillance.¹¹¹ Because visual surveillance, though a more expensive and arduous method than GPS tracking,¹¹² “would have sufficed to reveal all of these facts to the police,” it follows that the use of devices like beepers and GPS units do not violate a reasonable expectation of privacy.¹¹³ This point is illustrated in the United States Court of Appeals for the Seventh Circuit case, *United States v. Garcia*,¹¹⁴ in which agents discovered the defendant’s methamphetamine production through “a GPS . . . ‘memory tracking unit’” attached to his girlfriend’s vehicle.¹¹⁵ The pocket-sized GPS device stored the vehicle’s location history, and when police later retrieved the device they learned the defendant had frequented a large

109. *United States v. Jesus-Nunez*, No. 1:10-CR-00017-01, 2010 WL 2991229, at * 3 (M.D. Pa. July 27, 2010).

110. *See, e.g., Pineda-Moreno*, 591 F.3d at 1217; *Garcia*, 474 F.3d at 997; *Jesus-Nunez*, 2010 WL 2991229, at *4.

111. *Knotts*, 460 U.S. at 281 (“The governmental surveillance conducted by means of the beeper in this case amounted principally to the following of an automobile on public streets and highways.”); *United States v. Moran*, 349 F. Supp. 2d 425, 467 (N.D.N.Y. 2005).

In *Moran* the United States District Court for the Northern District of New York stated, The GPS device tracked the whereabouts of Moran’s vehicle on July 29 and 30, 2003, upon his return from a one-day trip to Arizona. Law enforcement personnel could have conducted a visual surveillance of the vehicle as it traveled on the public highways. Moran had no expectation of privacy in the whereabouts of his vehicle on a public roadway. Thus, there was no search or seizure and no Fourth Amendment implications in the use of the GPS device.

349 F. Supp. 2d at 467 (citation omitted).

112. *United States v. Sparks*, 750 F. Supp. 2d 384, 393 (D. Mass. 2010) (footnote omitted) (“Warrantless visual surveillance or ‘tailing’ of Sparks unquestionably would have been permissible and would have revealed to the FBI all of the same details the GPS device provided, only at a much higher cost, and possibly at a higher risk to law enforcement officers.”).

113. *See Knotts*, 460 U.S. at 282.

114. 474 F.3d 994 (7th Cir. 2007).

115. *Id.* at 995.

plot of land where materials used to produce methamphetamine were discovered.¹¹⁶

Judge Posner, writing for the Seventh Circuit, reasoned that tracking through a GPS device was no different from such non-search tactics, like following a car, observing the car's route via camera, or using satellite imaging such as Google Earth.¹¹⁷ While acknowledging that the Fourth Amendment¹¹⁸ must "keep pace with the march of science," Judge Posner distinguished the Supreme Court's decision in *Kyllo*, in which the Court held that the use of a thermal imager violated a reasonable expectation of privacy, because *Kyllo* was inapposite to the facts before him.¹¹⁹ Judge Posner opined that the technology in *Kyllo* was used as a substitute for a form of police investigation—physical entry into the home—that is unequivocally a search.¹²⁰ According to Judge Posner, the use of GPS technology to track a defendant's location over time, however, is a "substitute . . . for an activity, namely following a car on a public street, that is unequivocally *not* a search within the meaning of the amendment."¹²¹ Thus, although police cannot "sidestep the warrant requirement" with advanced technology that intrudes into a constitutionally protected area like the home, using technology to replace a police method where no warrant is required does not elevate such police activity to a search.¹²²

Moreover, the Court has consistently held that the Fourth Amendment does not preclude law enforcement's use of modern technological advances that serve to augment the senses.¹²³ Thus, the Court has validated the use of flashlights, binoculars, field glasses, and cameras with telescopic lenses in the detection of a crime, so long as law enforcement is using these tools from a lawful vantage point.¹²⁴ Moreover, high-tech items like "radios, street cameras, radar, helicopters, computers, . . . and microscopes" are staples of law enforcement utilized everyday in furtherance of their policing duties.¹²⁵ Similarly, the Court has classified beepers as sense-augmenting because their use

116. *Id.*

117. *Id.* at 997.

118. U.S. CONST. amend. IV.

119. *Garcia*, 474 F.3d at 997.

120. *Id.*

121. *Id.*

122. *Sparks*, 750 F. Supp. 2d at 393-94.

123. *See Knotts*, 460 U.S. at 282 ("Nothing in the Fourth Amendment prohibited the police from augmenting the sensory faculties bestowed upon them at birth with such enhancement as science and technology afforded them in this case.").

124. Clancy, *supra* note 17, at 23-24; *see also* LAFAYE, *supra* note 81, at 477.

125. *Sparks*, 750 F. Supp. 2d at 394.

necessitates the close proximity of law enforcement and aids in maintaining visual surveillance of a target on public roads.¹²⁶

The United States Court of Appeals for the Ninth Circuit in *United States v. Pineda-Moreno*¹²⁷ rested its holding on the same premise. In *Pineda-Moreno*, Drug Enforcement Administration (DEA) agents monitored Pineda-Moreno over a four-month period using various mobile-tracking devices attached to his Jeep Cherokee after he was seen at Home Depot purchasing fertilizer typically used to grow marijuana. When the device alerted agents to a suspected marijuana site, they were able to tie the evidence together to indict Pineda-Moreno of conspiracy to manufacture marijuana.¹²⁸ Quoting *Knotts*, the Ninth Circuit held “[i]nsofar as [Pineda-Moreno’s] complaint appears to be simply that scientific devices such as the [tracking devices] enabled the police to be more effective in detecting crime, it simply has no constitutional foundation.”¹²⁹ Thus, the public exposure test has generally meant that conduct taking place in public, even if requiring advanced police technology to amplify police senses in detecting such an act, is fair game for police discovery.¹³⁰

In contrast, the minority approach defines public exposure, not in theory, but as “the actual likelihood[] of discovery by a stranger.”¹³¹ The D.C. Circuit in *United States v. Maynard*¹³² was the first court to clearly articulate this standard and its application to GPS surveillance. In *Maynard* the police used a GPS device to track defendant Antoine Jones for twenty-eight consecutive days (a warrant was secured but not executed within the ten day limit) while pursuing an alleged drug conspiracy.¹³³ To avoid the harsh results of *Knotts*, the D.C. Circuit formulated a standard based on several Supreme Court cases in which the Court, although finding the activity at issue to be exposed to the

126. *Knotts*, 460 U.S. at 282.

127. 591 F.3d 1212 (9th Cir. 2010).

128. *Id.* at 1213-14.

129. *Id.* at 1216 (second and third alteration in original) (quoting *Knotts*, 460 U.S. at 284); see also *Garcia*, 474 F.3d at 998 (“Of course the [Fourth] [A]mendment cannot sensibly be read to mean that police shall be no more efficient in the twenty-first century than they were in the eighteenth.”).

130. See *Knotts*, 460 U.S. at 281-82.

131. *Maynard*, 615 F.3d at 560.

132. 615 F.3d 544 (D.C. Cir. 2010).

133. See *id.* at 559-60. The probability-based standard has been hinted at by several state supreme courts. See, e.g., *Weaver*, 909 N.E.2d at 1199 (“The potential for a similar capture of information or ‘seeing’ by law enforcement would require, at a minimum, millions of additional police officers and cameras on every street lamp.”); *State v. Jackson*, 76 P.3d 217, 224 (Wash. 2003).

public, implicated that exposure hinged on the odds of detection by members of the general public.¹³⁴

One of the Supreme Court cases highlighted by the D.C. Circuit in *Maynard* is *California v. Ciraolo*,¹³⁵ in which police officers, acting on a tip that the defendant was growing marijuana, flew over the defendant's backyard at 1000 feet and took aerial photographs of the marijuana fields (officers resorted to this method as a result of a ten-foot fence precluding entry into the backyard).¹³⁶ The Court posited that the observations made by police did not constitute a search because they were made in "public navigable airspace" where "[a]ny member of the public flying in this airspace who glanced down could have" viewed what the officers observed.¹³⁷ This analysis alone would seem to support the Court's approach that what is lawfully attainable on a public street is not a search. It is what the Court said next, however, that gave context to the decision; the Court reasoned that "[i]n an age where private and commercial flight in the public airways is *routine*," it is unreasonable to expect privacy from naked eye observations of police flying above.¹³⁸ Thus, the crux of the decision, at least according to the D.C. Circuit, is the commonality of such flights having full access to view the ground below, which reduces one's reasonable expectation of privacy.¹³⁹

The Supreme Court similarly suggested this probability-based test in *Florida v. Riley*,¹⁴⁰ in which the Court held that police use of a helicopter at a height of 400 feet to view a defendant's greenhouse did not constitute a search.¹⁴¹ Like in *Ciraolo*, the plurality decision rested "in large measure, on the *frequency* of nonpolice helicopter flights at an altitude of 400 feet."¹⁴² In addition, Justice O'Connor conjectured that "[i]f the public rarely, if ever, travels" at such an altitude, then the use

134. See, e.g., *Maynard*, 615 F.3d at 559-60.

135. 476 U.S. 207 (1986).

136. *Id.* at 209-10.

137. *Id.* at 213-14.

138. *Id.* at 215 (emphasis added).

139. See *Maynard*, 615 F.3d at 559. The court in *Maynard* quoted Justice O'Connor's concurring opinion in *Florida v. Riley*, 488 U.S. 445, 453 (1989) (O'Connor, J., concurring), in which she explained the holding in *Ciraolo*, stating that

Ciraolo's expectation of privacy was unreasonable not because the airplane was operating where it had a "right to be," but because public air travel at 1,000 feet is a sufficiently routine part of modern life that it is unreasonable for persons on the ground to expect that their curtilage will not be observed from the air at that altitude.

Maynard, 615 F.3d at 559 (quoting *Riley*, 488 U.S. at 453 (O'Connor, J., concurring)).

140. 488 U.S. 445 (1989).

141. *Id.* at 448, 450.

142. *Id.* at 467 (Blackmun, J., dissenting) (emphasis added).

of the helicopter by police at such a vantage point would not be knowingly exposed to the public sphere.¹⁴³ Even more recently, the Court in *Kyllo* acknowledged a potential caveat to the rule that the use of a thermal imaging device into the home constitutes a search when the technology in question is already in “general public use.”¹⁴⁴

Based on these cases, the D.C. Circuit in *Maynard* deduced that when the actual or mathematical likelihood that a stranger would discover an individual’s action is high (such that the individual can reasonably expect another to view it) then an observation by law enforcement is not a search.¹⁴⁵ Inversely, when the likelihood is low, then a search has occurred.¹⁴⁶ The court in *Maynard* conceded that a theoretical observer could have watched an individual like Jones while he drove his vehicle at any given time.¹⁴⁷ The court reasoned, however, that “the whole of a person’s movements over the course of a month [revealed through prolonged use of a GPS device] is not actually exposed to the public because the likelihood a stranger would observe all those movements is not just remote, it is essentially nil.”¹⁴⁸ Thus, unlike *Ciraolo* or *Riley*, in which a casual observer could (and had the opportunity to) view the totality of the defendant’s illegal activities, one would not expect even a stealthy observer to attain a detailed log of an individual’s private routine as attained through GPS surveillance.¹⁴⁹

The court in *Maynard* additionally raised, *sua sponte*, the question of whether the extended use of GPS surveillance to track defendants means their actions are constructively exposed to the public.¹⁵⁰ The court acknowledged the plausible argument that each individual trip that the defendant made was in public view but asserted that “the whole,” or the collection of one’s repeated activities and interests ascertained through the use of GPS, “may be more revealing than the parts.”¹⁵¹ The court relied heavily on the Supreme Court’s decision in *United States Department of Justice v. Reporters Committee for Freedom of the Press*,¹⁵² which arose under an interpretation of the Freedom of

143. *Id.* at 455 (O’Connor, J., concurring).

144. *Kyllo*, 533 U.S. at 40.

145. *See Maynard*, 615 F.3d at 559-60.

146. *See id.*

147. *Id.* at 560 (“It is one thing for a passerby to observe or even to follow someone during a single journey as he goes to the market or returns home from work.”).

148. *Id.*

149. *Id.*

150. *Id.* at 560-61.

151. *Id.* at 561.

152. 489 U.S. 749 (1989).

Information Act,¹⁵³ not the Fourth Amendment.¹⁵⁴ In *Reporters Committee*, the Court refused to grant a request for rap sheets disclosing criminal records of certain individuals, even though technically the “individual events in those summaries [were] matters of public record”; the Court reasoned that a person’s privacy interest in the rap sheet as a whole is a distinct interest with a greater need for privacy than the “scattered disclosure of the bits of information contained in a rap sheet.”¹⁵⁵ Thus, in *Maynard* the D.C. Circuit concluded that GPS surveillance on public streets over an extensive period “is not constructively exposed to the public because, like a rap sheet,” GPS surveillance gives insight into a person’s “habits and patterns,” in which a higher degree of privacy is expected.¹⁵⁶

Through this crafty “mosaic” formulation, the court in *Maynard* capitalized on the fear that if GPS-enabled tracking is not a search, then all individuals will be at risk of government invasion into their day-to-day routines.¹⁵⁷ Unlike short-term surveillance, prolonged GPS surveillance allows law enforcement to perceive intimate details about an individual’s personal life such as “whether he is a weekly church goer, a heavy drinker, a regular at the gym, an unfaithful husband, [or] an associate of particular individuals or political groups.”¹⁵⁸ The court in *Maynard* asserted that this information is much more telling about a person’s private affairs than a single trip viewed in isolation.¹⁵⁹ Notwithstanding the fact that each drive is technically exposed to the public domain, reasonable people do not expect when getting into their cars that the government will track with precision and accuracy their locations, their routes, and how long they remain at each location.¹⁶⁰

B. *Mass Surveillance v. Prolonged Surveillance*

One of the most controversial passages cited by both proponents and opponents of the expansion of Fourth Amendment protection to GPS technology is Justice Rehnquist’s acknowledgement in *Knotts* that, should technological advances arise to the level of a “twenty-four hour surveillance,” the Supreme Court would re-consider “whether different

153. Pub. L. No. 89-554, 80 Stat. 383 (1966) (codified as amended at 5 U.S.C. § 552 (2006 & Supp. 2008)).

154. *Maynard*, 615 F.3d at 561; see also *Reporters Committee*, 489 U.S. at 751.

155. 489 U.S. at 753, 764.

156. *Maynard*, 615 F.3d at 561-62.

157. See Hutchins, *supra* note 94, at 459; see also *Jackson*, 76 P.3d at 223.

158. *Maynard*, 615 F.3d at 562.

159. *Id.*

160. *Id.* at 563.

constitutional principles may be applicable.”¹⁶¹ In *Knotts* the Court was addressing the respondent’s prediction that future technology could foreseeably lead to any citizen being monitored for a significant period of time “without judicial knowledge or supervision.”¹⁶² It may be dictum, but this statement has provided an opening for revisiting the Fourth Amendment with respect to GPS technology. The question becomes as follows: Does GPS technology make twenty-four hour surveillance a reality?

Two schools of thought exist as to the twenty-four hour surveillance inquiry. The first group postulates that the Court’s response in *Knotts* is aimed at the prolonged use of the technological device, even if simply tracking a single individual.¹⁶³ Alternatively, the second group argues that the Court sought to address the widespread surveillance of multiple people, not a single defendant.¹⁶⁴ Both the Seventh Circuit in *Garcia* and the Ninth Circuit in *Pineda-Moreno* agree with the latter view—that this “wholesale surveillance” has not yet been achieved in cases involving law enforcement’s use of GPS to track a sole defendant engaged in the commission of a crime.¹⁶⁵ Neither court, however, foreclosed this possibility in the future if the technology was used to encompass a large number of unassuming persons.¹⁶⁶ Judge Posner,

161. 460 U.S. at 283-84 (internal quotation marks omitted).

162. *Id.* at 283. In the respondent’s brief, attorney Mark W. Peterson apparently argued that without a warrant, law enforcement could use a beeper on anyone without their knowledge without evidence to substantiate such a search. Brief of Respondent, *Knotts*, 460 U.S. 276 (No. 81-1802), 1982 U.S. S. Ct. Briefs LEXIS 124, at *17-18. Peterson stated,

Without the limitations imposed by the warrant requirement itself, and the terms of any warrant which is issued, any person or residence could be monitored at any time and for any length of time. . . . [I]t would enable authorities to determine a citizen’s location at any time without knowing whether his travels are for legitimate or illegitimate purposes A beeper thus would turn a person into a broadcaster of his own affairs and travels, without his knowledge or consent, for as long as the government may wish to use him where no warrant places a limit on surveillance.

Id.

163. *Maynard*, 615 F.3d at 556; see also *Weaver*, 909 N.E.2d at 1199.

164. See *Garcia*, 474 F.3d at 997-98; Tarik N. Jallad, *Old Answers to New Questions: GPS Surveillance and the Unwarranted Need for Warrants*, 11 N.C. J.L. & TECH. 351, 371-73 (2010) (arguing that “there is no evidence that any of this ‘abuse’ has occurred, as each case has involved surveillance of ‘an individual suspect, not dragnet-type or mass surveillance’”).

165. Compare *Pineda-Moreno*, 591 F.3d at 1216-17, with *Garcia*, 474 F.3d at 998.

166. Compare *Pineda-Moreno*, 591 F.3d at 1217 n.2, with *Garcia*, 474 F.3d at 998 (“Should government someday decide to institute programs of mass surveillance of vehicular movements, it will be time enough to decide whether the Fourth Amendment

writing for the Seventh Circuit in *Garcia*, acquiesced that GPS technology has the potential to create wholesale surveillance if police use tactics such as placing GPS devices on vehicles at random or by requiring through legislation that all new vehicles come equipped with a GPS device for the purpose of police detection.¹⁶⁷ Judge Posner reasoned, however, that the Fourth Amendment cannot be read to limit advancements in police efficiency, and it is prudent when confronted with a tradeoff between security and privacy to err on the side of security.¹⁶⁸ The Seventh Circuit, however, stopped short of saying that just because installing GPS devices in all vehicles “would merely be an efficient alternative to hiring another 10 million police officers to tail every vehicle” such a wide-spread use of technology would not constitute a search.¹⁶⁹

The courts that hold that law enforcement’s targeted use of GPS devices does not arise to “dragnet” levels rationalize that in most cases the use of a GPS to track an individual defendant “hardly suggests abuse.”¹⁷⁰ Although a holding in favor of the warrantless placement of a GPS device on a defendant’s vehicle obviates the need for probable cause or even a reasonable suspicion to track an individual defendant, some courts feel compelled to demonstrate its existence regardless.¹⁷¹ Judge Posner noted that the police of Polk County, Wisconsin, only utilized GPS technology “when they have a suspect in their sights,” and that in *Garcia* the police had sufficient evidence to support their suspicion that the defendant was manufacturing methamphetamine.¹⁷² Presenting evidence of probable cause seems to undermine Judge Posner’s position because the police could have easily obtained a warrant.

On the other hand, some courts have construed the idea of twenty-four hour surveillance to refer to a protracted surveillance of a single individual.¹⁷³ The Supreme Court in *Knotts* suggested such an interpretation by emphasizing the fact that the Government in that case made only minimal use of the beeper and neither received nor relied

should be interpreted to treat such surveillance as a search.”).

167. *Garcia*, 474 F.3d at 998.

168. *Id.*

169. *Id.*

170. *Knotts*, 460 U.S. at 283 (internal quotation marks omitted).

171. See *Seventh Circuit Holds that GPs Tracking Is Not a Search*, 120 HARV. L. REV. 2230, 2237 (2007) (noting that “[a]lthough [the police in *Garcia*] had gathered ample evidence to justify their suspicion before installing the GPS device, current doctrine does not require the state to be so scrupulous”).

172. *Garcia*, 474 F.3d at 998.

173. See *Maynard*, 615 F.3d at 558.

upon signals from the beeper after the drum “had ended its automotive journey.”¹⁷⁴ The D.C. Circuit in *Maynard* asserted that the distinction between the information gathered from a “discrete journey” in *Knotts* and the “more comprehensive or sustained [GPS] monitoring” evidenced in *Maynard* prompted a different standard, one which the Supreme Court chose to purposefully resolve at a later time.¹⁷⁵ Such an analysis adds flexibility to the typically rigid application of *Knotts*, because under the reasoning of the D.C. Circuit, a person is only precluded from asserting a reasonable expectation of privacy in his movements “from one place to another” and not in the “world without end.”¹⁷⁶

Likewise, some courts have emphasized the implausibility of the police “successfully maintain[ing] uninterrupted 24-hour surveillance” for days or weeks on end without the assistance of a GPS.¹⁷⁷ In *People v. Weaver*,¹⁷⁸ the Court of Appeals of New York pointed out that in *Knotts* officers were engaged in actively tailing the vehicle and simply used the beeper to maintain visual contact with the suspect.¹⁷⁹ The court distinguished “the single trip” in *Knotts* with the extended use of a GPS unit for sixty-five days in *Weaver*, which allowed the investigators to save the tracking history of the defendant’s van and eventually link him to a recent burglary based on his location and the speed of the car at the time of the crime.¹⁸⁰ The court concluded that a GPS device does not simply facilitate the police in conducting visual surveillance but allows an unlimited accumulation of information over an extended period of time.¹⁸¹ Capturing the same information by police would “require, at a minimum, millions of additional police officers and cameras on every street lamp.”¹⁸²

Similarly, Judge Kozinski, in his dissent to the Ninth Circuit’s denial of a re-hearing en banc in *United States v. Pineda-Moreno*,¹⁸³ conjectured that the coupling of GPS satellites and cell phone towers has arisen to the level of “dragnet-type law enforcement practices.”¹⁸⁴ He passionately argued that “the all-seeing network of GPS satellites”

174. 460 U.S. at 284-85.

175. 615 F.3d at 556.

176. *Id.* at 557.

177. *Jackson*, 76 P.3d at 223.

178. 909 N.E.2d 1195 (2009).

179. *Id.* at 1199.

180. *Id.* at 1196, 1199.

181. *Id.* at 1199.

182. *Id.*

183. 617 F.3d 1120 (9th Cir. 2010).

184. *Id.* at 1126 (quoting *Knotts*, 460 U.S. at 283-84) (internal quotation marks omitted).

combined with the “dense network of cell towers that honeycomb the inhabited United States . . . can provide law enforcement with a swift, efficient, silent, invisible and *cheap* way of tracking the movements of virtually anyone and everyone they choose.”¹⁸⁵ In doing so, Judge Kozinski addressed the need for expediency in resolving whether GPS surveillance constitutes a search as its capabilities are becoming more relevant across several domains, including cell phones,¹⁸⁶ 90% of which are equipped with built-in GPS technology accurate to within fifty feet.¹⁸⁷

IV. AMELIORATING FOURTH AMENDMENT CONSTRAINTS IN ADAPTING TO GPS TECHNOLOGY THROUGH LEGISLATION

This Author believes that Congress should step in to create a workable standard with regard to GPS technology, firmly establishing that the use of GPS surveillance must be predicated on a warrant. Based on the current Supreme Court precedent of *United States v. Knotts*¹⁸⁸ and *United States v. Karo*,¹⁸⁹ even the determination of whether to attain a “beeper warrant” in light of possible monitoring inside of a home can be problematic;¹⁹⁰ adding the prohibition against GPS devices through the courts, rather than a straight-forward rule through the legislature, may create even more uncertainty.

Currently, federal legislation provides minimal guidance for the use of electronic tracking devices, including beepers and GPS devices. The “Tracking Device Statute”¹⁹¹ defines a “tracking device” as “an electronic or mechanical device which permits the tracking of the movement of a person or object.”¹⁹² The statute is broadly worded, encompassing beepers, GPS devices, and even cell phones.¹⁹³ The statute, however,

185. *Id.*

186. *Id.*

187. Kevin McLaughlin, Note, *The Fourth Amendment and Cell Phone Location Tracking: Where are We?*, 29 HASTINGS COMM. & ENT. L.J. 421, 427 (2007).

188. 460 U.S. 276 (1983).

189. 468 U.S. 705 (1984).

190. See U.S. DEP’T OF JUSTICE, ELECTRONIC SURVEILLANCE MANUAL: PROCEDURES AND CASE LAW FORMS 48 (2005), available at <http://www.justice.gov/criminal/foia/docs/elec-sur-manual.pdf>. The United States Department of Justice’s Electronic Surveillance Manual suggests that a search warrant, although not required, should be secured in the case of “bumper beepers” . . . [s]ince it often cannot be determined in advance whether a package containing a beeper will be taken inside a place where a person has a valid expectation of privacy.” *Id.*

191. 18 U.S.C. § 3117(b) (2006).

192. *Id.* (internal quotation marks omitted).

193. FISHMAN & MCKENNA, *supra* note 52, § 29:3.

has no practical value in answering the questions posed by GPS surveillance but simply allows a federal court to authorize a warrant providing for the extra-jurisdictional use of the device.¹⁹⁴ Thus, a judge is permitted to grant the use, though not installation, of a tracking device outside his jurisdiction, but the statute neither requires a warrant for such use nor specifies the appropriate standard of proof.¹⁹⁵

Furthermore, the Federal Rules of Criminal Procedure¹⁹⁶ was amended in 2006 to address the procedures for the installation and use of tracking devices via Rule 41.¹⁹⁷ In the comments to the rule, the Advisory Committee cautioned that Rule 41 does not “hold that such warrants may issue *only* on a showing of probable cause.”¹⁹⁸ Rather, Rule 41 merely provides that if probable cause is demonstrated, then “the magistrate judge must issue the warrant.”¹⁹⁹ Thus, Rule 41 does not limit the issuance of a warrant to a showing of probable cause; a magistrate judge could approve a warrant for a tracking device based on the lesser standard of reasonable suspicion, requiring merely a showing of clear and articulable facts.²⁰⁰ If a magistrate judge issues a warrant for a tracking device, Rule 41 states that the warrant must include a description of the person or thing to be tracked and designate a reasonable length of time the device is to be used.²⁰¹ Rule 41 further provides that the warrant must be executed within ten days, and that the warrant lasts up to forty-five days.²⁰² The main issue with Rule 41, however, is that it does not require law enforcement to secure a warrant as a condition precedent to using a tracking device like GPS surveillance.

While Congress has left the substantive issues of when a warrant is required as well as the proper standard of proof to the courts, this

194. 18 U.S.C. § 3117(a) (2006) (“If a court is empowered to issue a warrant or other order for the installation of a mobile tracking device, such order may authorize the use of that device within the jurisdiction of the court, and outside that jurisdiction if the device is installed in that jurisdiction.”).

195. *United States v. Gbemisola*, 225 F.3d 753, 757-58 (D.C. Cir. 2000) (citations omitted) (noting that while the Tracking Device Statute “provides a basis for *authorizing* the use of a mobile tracking device[,] section 3117 does not *prohibit* the use of a tracking device in the absence of conformity with the section. Nor does it bar the use of evidence acquired without a section 3117 order”).

196. FED. R. CRIM. P.

197. *See* FED. R. CRIM. P. 41(e)(2)(C).

198. FED. R. CRIM. P. 41 2006 advisory committee’s note (emphasis added).

199. *Id.*

200. *See* Sarah Rahter, Note, *Privacy Implications of GPS Tracking Technology*, 4 J.L. & POL’Y FOR INFO. SOC’Y 755, 758-59 (2008).

201. FED. R. CRIM. P. 41 (e)(2)(C).

202. *Id.*

Author opines that the appropriate solution to protect this important privacy right should not be in limbo until a future determination by the Supreme Court. Certainly, the divergence in interpretation warrants Court review. Three important considerations should be noted, however, in relying on the Court to grant certiorari to this issue, let alone rule in favor of construing the Fourth Amendment²⁰³ as protecting citizens from the secret use of GPS surveillance. First, the government-favored reasonable expectation of privacy rule first enunciated in *United States v. Katz*²⁰⁴ lends too much reliance on arbitrary decision-making by the Court. Second, the Court has recently expressed hesitation in ruling on society's reasonable expectation of privacy with respect to emerging technology that could impede a decision on the matter. Third, the Court would be forced to construct a narrow holding to prevent extrapolation to police activities that were traditionally thought to be non-searches. Given the Fourth Amendment's deficiencies in coping with GPS technology, this Author asserts that a Congressional undertaking is required to protect this individual privacy interest.

A. *The Erosion of the Katz Rule*

The first reason that decisions concerning GPS-enabled technology should be allocated to Congress is the underlying paradigm for what constitutes a search—the two-pronged *Katz* rule—which has been critiqued by scholars and Supreme Court Justices alike. Most of the criticism is geared toward the second prong, which considers whether the privacy interest is “one that society is prepared to recognize as ‘reasonable.’”²⁰⁵ The Justices have not only disagreed about the circumstances under which a person has a reasonable expectation of privacy but also the efficacy of the test itself, calling it “circular . . . and unpredictable.”²⁰⁶ It has been noted that by defining a search in terms of actions that violate one's “reasonable expectation of privacy,” the Court has held that several investigative acts, including looking through someone's garbage, trespassing on non-curtilage areas, flying airplanes and helicopters over

203. U.S. CONST. amend. IV.

204. 389 U.S. 347 (1967).

205. *Id.* at 361. The Court has implicated that less weight is placed on an individual's subjective expectation of privacy than society's recognition of the expectation because of the difficulty of application of the subjective test and the significance of examining the consequences of privacy rights on society. *See Hudson v. Palmer*, 468 U.S. 517, 525 n.7 (1984).

206. *Kyllo v. United States*, 533 U.S. 27, 34 (2001).

a person's yard, or going undercover, do not warrant Fourth Amendment protection.²⁰⁷

Fourth Amendment scholar Orin Kerr posits that the reasonable expectation of privacy test is simply “a legal fiction that masks a normative inquiry into whether a particular law enforcement technique should be regulated by the Fourth Amendment.”²⁰⁸ Thus, Kerr surmises, if the Court subjectively believes that a particular method *should* be regulated, the police action is cast as a violation of a defendant's reasonable expectation of privacy.²⁰⁹ Kerr also contends that with the variety of facts presented in Fourth Amendment cases, it is too difficult for the Court to accurately distinguish which police acts are sufficiently troublesome and which are not.²¹⁰

Although the Court has seemingly applied the *Katz* test, Justice Scalia has expressed a similar sentiment towards the *Katz* rule. In *Minnesota v. Carter*,²¹¹ Justice Scalia, in a concurring opinion, argued that the text of the Fourth Amendment does not support the *Katz* test:

When [this] self-indulgent test is employed . . . to determine whether a “search or seizure” within the meaning of the Constitution has *occurred* (as opposed to whether that “search or seizure” is an “unreasonable” one), it has no plausible foundation in the text of the Fourth Amendment. . . . [The Fourth Amendment] enumerate[s] (“persons, houses, papers, and effects”) the objects of privacy protection to which the *Constitution* would extend, leaving further expansion to the good judgment, not of this Court, but of the people through their representatives in the legislature.²¹²

Justice Scalia's description of the *Katz* two-part test as self-indulgent belies his later use of the test in *Kyllo*, in which the test was invoked to hold that there was a reasonable expectation of privacy to be free from thermal energy technology to detect heat emitting from the home.²¹³ Nevertheless, his statement demonstrates that too much emphasis is

207. Christopher Slobogin & Joseph E. Schumacher, *Reasonable Expectations of Privacy and Autonomy in Fourth Amendment Cases: An Empirical Look at “Understandings Recognized and Permitted by Society,”* 42 DUKE L.J. 727, 729 (1993) (internal quotation marks omitted).

208. Orin S. Kerr, *Applying the Fourth Amendment to the Internet: A General Approach*, 62 STAN. L. REV. 1005, 1037 (2010).

209. *Id.* at 1037-38.

210. Orin Kerr, *Four Models of Fourth Amendment Protection*, 60 STAN. L. REV. 503, 506 (2007).

211. 525 U.S. 83 (1998).

212. *Id.* at 97-98 (Scalia, J., concurring).

213. *Kyllo*, 533 U.S. at 40.

placed on the Justices' arbitrary decision-making regarding what society believes is reasonable.

The public, or at least the public media, has a clear opinion on the issue.²¹⁴ Accordingly, *United States v. Maynard*²¹⁵ has shed light on this nation-wide societal understanding of a right to be free from the unfettered use of GPS surveillance, noting that several states have made it unlawful for persons other than the police to use electronic surveillance to track someone without their knowledge.²¹⁶ As Judge Kozinski declared, "There is something creepy and un-American about such clandestine and underhanded behavior," as when investigators go onto a person's driveway and under their car to implant "a device that will track the vehicle's every movement and transmit that information to total strangers."²¹⁷ Unfortunately, the Supreme Court is not always aligned with society's true expectations of privacy.²¹⁸ Congress, however, has the ability to proceed proactively in response to public opinion by creating rules *ex ante* or "generalized rules for the future," rather than a Fourth Amendment decision tailored only to a specific set of facts.²¹⁹ Thus, it would be prudent to lobby Congress for a change in the law, rather than await an uncertain, possibly more restrictive, resolution from the Court.

B. The Supreme Court's Cautious Approach to New Technology

The Supreme Court may also be less inclined to rule on the use of GPS technology because of the Court's hesitancy in recent years to lay down broad rules with respect to emerging technology.²²⁰ In *Kyllo* the rapid expanse of police technology was used to justify the Court's decision that thermal imaging technology, although not penetrating inside of the house, "would leave the homeowner at the mercy of advancing technolo-

214. See, e.g., Adam Cohen, *The Government Can Use GPS to Track Your Moves*, TIME (Aug. 25, 2010), <http://www.time.com/time/nation/article/0,8599,2013150,00.html> (calling it "bizarre" and "scary" that "[g]overnment agents can sneak onto your property in the middle of the night, put a GPS device on the bottom of your car and keep track of everywhere you go").

215. 615 F.3d 544 (D.C. Cir. 2010).

216. *Id.* at 564.

217. *United States v. Pineda-Moreno*, 617 F.3d 1120, 1126 (9th Cir. 2010) (Kozinski, J., dissenting).

218. See LAFAVE, *supra* note 81, § 2.1(d).

219. See Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 868 (2004).

220. See *Fourth Amendment—Reasonable Expectation of Privacy*, 124 HARV. L. REV. 179, 184 (2010) (highlighting the "courts' recent difficulty in handling the intersection of the Fourth Amendment with technology").

gy . . . that could discern all human activity in the home.”²²¹ The Court noted the dissent’s argument that the thermal imaging device used by police made only “off-the-wall” observations by assessing heat radiating from the exterior of the house; thus, such actions were exposed to the public.²²² Although the Court admitted that the technology was not particularly sophisticated, the Court held that the home has traditionally been considered a constitutionally protected area and should be guarded against “more sophisticated systems that are already in use or in development.”²²³ Thus, the Court’s desire to protect the integrity of the home was driven by a fear of future technology that could effectively allow police to view all details of the home.²²⁴

More recently, the Court, in *City of Ontario v. Quon*,²²⁵ openly expressed their qualms about the implication of deciding a case on Fourth Amendment grounds when intertwined with technology.²²⁶ In *Quon* the City of Ontario, California SWAT team issued two-way alphanumeric pagers to their employees, including SWAT member Jeff Quon. The police department investigated Quon’s over-usage of the phone to determine whether the limits on the number of characters were too low; however, the department found that most of the messages were not work-related but sexually explicit messages to his ex-wife and a female co-worker. After being disciplined, Quon sued the City of Ontario for violations of right to privacy under the Fourth Amendment.²²⁷

The Court noted that it “must proceed with care” when evaluating the reasonable expectation of privacy standard with regard to new technology.²²⁸ The Court warned that “[t]he judiciary risks error by elaborating too fully on the Fourth Amendment implications of emerging

221. *Kyllo*, 533 U.S. at 35-36.

222. *Id.*

223. *Id.* Justice Scalia noted that unlike searches of “telephone booths, automobiles, or even the curtilage,” the *Katz* test is well-defined for the interior of the home such that a “minimal expectation of privacy . . . exists,” and “[it] is acknowledged to be *reasonable*.” *Id.* at 34.

224. *See id.* at 34 (noting that the issue of the case was “what limits there are upon this power of technology to shrink the realm of guaranteed privacy,” or the interior of the home).

225. 130 S. Ct. 2619 (2010).

226. *See Fourth Amendment—Reasonable Expectation of Privacy, supra* note 220, at 179 (“[I]nstead of clarifying whether a government employee enjoys a reasonable expectation of privacy when using government-issued equipment, the Court provided no helpful guidance for similar cases in the future, declining to decide whether the Fourth Amendment provides such a reasonable expectation of privacy in technological contexts.”).

227. *Quon*, 130 S. Ct. at 2625-26.

228. *Id.* at 2629.

technology before its role in society has become clear.”²²⁹ The Court recognized that cell phone and text message communications are so widespread in the workplace that they may be construed as “necessary instruments for self-expression” as to warrant a reasonable expectation of privacy.²³⁰ The unpredictable repercussions of expanding this privacy right, however, precluded the Court from ruling on the issue.²³¹ Instead, the Court held, *arguendo*, that Quon had a reasonable expectation of privacy, but that his Fourth Amendment rights were not violated regardless because a search of a government employee is considered reasonable if done “for a noninvestigatory, work-related purpos[e].”²³²

These cases demonstrate the Court’s reluctance to make a ruling with respect to technology that would disturb the status-quo. In *Kyllo* that meant defending the home as a sanctuary from Fourth Amendment intrusion; even if the technology at issue did not possess the capabilities to portray the “intimate details of the home,” the Court contended that future technology could arise to this level.²³³ In *Quon* it meant failing to provide clear guidance under the Fourth Amendment—whether government employees have a reasonable expectation of privacy with government-issued devices—because of an uncertainty of how advancing technology would change social norms in the workplace.²³⁴ While the decision in *Kyllo* may seem to broaden the Court’s perspective on Fourth Amendment protections, the Court has declared that vehicles do not share the same kind of protection, and that one does not have a reasonable expectation of privacy while traveling in a vehicle along public roads.²³⁵ Thus, the Court’s current technology-Fourth Amendment complex may preclude a ruling on the issue altogether or could restrain the Court from veering from the traditional rule with respect to vehicles in public streets because of the apprehension of foreclosing other police devices to track defendants, at least in the public domain.

C. *The Ramifications of a Judicial Ruling*

To definitively rule on the issue of GPS surveillance, the Supreme Court would need to take measures to narrowly craft its rule to prevent certain unintended consequences. A prerequisite warrant requirement

229. *Id.*

230. *Id.* at 2630.

231. *Id.*

232. *Id.* at 2630-31 (alteration in original) (internal quotation marks omitted).

233. *See generally* 533 U.S. 27.

234. *See generally* 130 S.Ct. 2619.

235. *Knotts*, 460 U.S. at 281.

for all uses of GPS monitoring based on the current Court precedent could raise more questions than it answers. First, if the Court, like the D.C. Circuit in *Maynard*, bases its holding on the fact that prolonged GPS surveillance can yield a plethora of information about a person's routine, then a defendant could potentially assert a Fourth Amendment violation in other circumstances in which police have used ordinary means, such as visual surveillance, to collect equivalent information. In fact, the D.C. Circuit in *Maynard* anticipated this inquiry but chose to "reserve the lawfulness of prolonged visual surveillance as it was not a necessary determination in the decision before the Court."²³⁶ Second, the Supreme Court would have to establish whether the warrant requirement is triggered in every instance in which law enforcement utilizes GPS monitoring or if it is permissible to use this technology without a warrant under limited circumstances, such as when the police use the GPS device for a relatively brief period of time or when the device is used in conjunction with traditional police surveillance.

The first problem with a Supreme Court decision classifying GPS-monitoring as a search is if police officers actually did conduct a prolonged search without the assistance of technology, does this naked-eye surveillance similarly require a warrant?²³⁷ In other words, if police engage in traditional police methods to track the defendant for long periods of time without a warrant, do they risk a violation of one's Fourth Amendment rights? Although the D.C. Circuit in *Maynard* declined to answer this question, the court recognized that by predicating its decision on the extended use of GPS technology, the court risked "a contrary holding [that] might at first blush seem to implicate a different but intuitively permissible practice."²³⁸ The D.C. Circuit held that requiring a warrant for prolonged GPS surveillance is justified because its use "reveals types of information not revealed by short-term surveillance, such as what a person does repeatedly, what he does not do, and what he does ensemble."²³⁹ Despite a sound reasoning for that particular set of facts, however, the rationale can be extended to situations when law enforcement conducts long periods of visual surveillance in the absence of a warrant.

In fact, the Supreme Court acknowledged in *Knotts* that the "scientific enhancement"—the beeper—"raise[d] no constitutional issues which visual

236. See *Maynard*, 615 F.3d at 566.

237. *Id.* ("This case does not require us to, and therefore we do not, decide whether a hypothetical instance of prolonged visual surveillance would be a search subject to the warrant requirement of the Fourth Amendment.")

238. *Id.*

239. *Id.* at 562.

surveillance would not *also* raise.”²⁴⁰ Thus, this seems to indicate that if traditional police surveillance or searches were on par with technological advances, then those actions would also raise constitutional concerns. For instance, consider a case in which a law enforcement officer vigilantly follows a defendant day and night to his home and place of work and leisure for a month, meticulously recording his time and location. It is possible that the defendant could argue this intensive form of surveillance, unaided by technology, violated his reasonable expectation of privacy—to be free from the police collecting a detailed “pattern or mosaic” of the defendant’s life.²⁴¹ A slippery slope could arise as this approach “would prohibit not only GPS-augmented surveillance, but any other police surveillance of sufficient length to support consolidation of data” demonstrating a pattern of a person’s life.²⁴² Thus, the actions of investigators that would have never been considered a search previously—the visual surveillance of a person’s conduct voluntarily exposed to the public—could potentially come under the umbrella of Fourth Amendment protection.²⁴³

The Court also faces a difficult task in defining the extent to which GPS surveillance constitutes a search. As stated, the D.C. Circuit in *Maynard* limited its holding to the prolonged use of GPS surveillance that was used to show a pattern of drug trafficking.²⁴⁴ In fact, in *Maynard* the evidence obtained through the use of a GPS-enabled tracking device was essential to the Government’s case; the Government proved the case by circumstantial evidence, linking Jones’s cell phone calls made to co-conspirators to his presence at places of known drug activity acquired through the GPS readings collected over a month’s span.²⁴⁵ Therefore, “[p]resumably, had the GPS device been used for

240. 460 U.S. at 285 (emphasis added) (noting that based on the facts in *Knotts*, “there [was] no indication that the beeper was used . . . in any way that would not have been visible to the naked eye from outside the cabin”).

241. See *United States v. Jones*, 625 F.3d 766, 769 (D.C. Cir. 2010) (Sentelle, J., dissenting).

242. *Id.*

243. But see *Kyllo*, 533 U.S. at 35 n.2 (“The fact that equivalent information could sometimes be obtained by other means does not make lawful the use of means that violate the Fourth Amendment.”).

244. *Maynard*, 615 F.3d at 558. In *Maynard* the court stated,

“The [Supreme] Court actually reserved the issue of prolonged surveillance. . . .

Here the police used the GPS device not to track Jones’s ‘movements from one place to another’ but rather to track Jones’s movements 24 hours a day for 28 days as he moved among scores of places, thereby discovering the totality and pattern of his movements from place to place.”

Id. (citation omitted) (quoting *Knotts*, 460 U.S. at 281).

245. *Id.* at 567-68.

an hour or perhaps a day, or whatever period the panel believed was consistent with a normal surveillance, the evidence obtained could have been admitted without [a] Fourth Amendment problem.”²⁴⁶ Thus, it is unclear whether the *Maynard* decision would have changed the outcome of the other circuit court cases or how it will affect different factual situations in the future.²⁴⁷ For example, consider the fact patterns of two recent district court cases.

In the first case, *United States v. Jesus-Nunez*,²⁴⁸ law enforcement attached a GPS to the underside of the defendant’s vehicle, using the device to track him for nearly eleven months. The device recorded the time, date, and precise location of 4,307 registered stops, only a few of which were relevant to the drug trafficking investigation.²⁴⁹ In comparison, in *United States v. Sparks*,²⁵⁰ the FBI attached a GPS device to the underside of the vehicle after suspecting Sparks had committed three prior armed robberies within the past three months. Eleven days after the FBI attached the GPS device, the suspect committed another burglary. Agents were lying in wait and witnessed the suspects as they switched into the getaway car equipped with the GPS unit. In pursuit of the suspects, agents maintained visual surveillance, depending on the GPS device only when they lost visual contact with the vehicle during the high-speed chase.²⁵¹

The first case, *Jesus-Nunez*, resembles *Maynard* in that the search was prolonged and invasive in an attempt to connect the defendant to a drug conspiracy.²⁵² In contrast, in *Sparks*, although the GPS was used for more than a single day, “[t]he relevant uses of the GPS device were to locate the vehicle on a public street . . . and to reestablish visual surveillance on Interstate 95.”²⁵³ The Middle District of Pennsylvania in *Sparks* aptly held that the rationale of *Maynard* is “readily distinguishable” in this situation as the defendant’s right to be free from the collection of private information about his routine and way of life were

246. *Jones*, 625 F.3d at 769.

247. See Orin S. Kerr, *Petition for Certiorari Filed in Pineda-Moreno, The Ninth Circuit GPS Case*, THE VOLOKH CONSPIRACY (Nov. 22, 2010, 3:00 PM) (“[T]here isn’t a clear split between *Maynard* and *Pineda-Moreno*. *Maynard* says that short-term GPS monitoring is fine, and it’s only long-term monitoring (the exact length unknown) that becomes a search—and even then, it may be that no warrant is required. It’s not clear that applying *Maynard*’s approach to the facts of *Pineda-Moreno* leads to a different result.”).

248. No. 1:10-CR-00017-01, 2010 WL 2991229 (M.D. Pa. July 27, 2010).

249. *Id.* at *1, *4.

250. 750 F. Supp. 2d 384 (D. Mass. 2010).

251. *Id.* at 385-86.

252. Compare *Maynard*, 615 F.3d 544, with *Jesus-Nunez*, 2010 WL 2991229.

253. 750 F. Supp. 2d at 391.

not threatened.²⁵⁴ Instead, the court held that the case is akin to *Knotts* because the GPS was used, for the most part, to aid the FBI in doing what they are lawfully permitted to do through visual surveillance.²⁵⁵ Thus, as novel as the decision in *Maynard* appears on its face, the decision is molded around the particular facts of that case and will not affect all cases in which law enforcement use a GPS device without first obtaining a warrant.²⁵⁶ This could potentially cause confusion for investigators in determining whether to procure a warrant and after what period of time the use of a GPS without a warrant constitutes a search.

Therefore, in shaping a holding, the Supreme Court would have to delineate the proper blend of GPS surveillance and traditional police methods, like visual surveillance, in tracking a person that could be used without encroaching upon that individual's reasonable expectation of privacy. One possible method that may avert the extrapolation to long-term visual surveillance would be to prohibit wholesale GPS surveillance that fully replaced any kind of in-person police work. Thus, the use of GPS surveillance to augment law enforcement's visual surveillance in the midst of catching a burglar in a high-speed chase would not require a warrant prior to placing the GPS. In contrast, the blanket use of a GPS device over an extended period of time—like a month or a year—in an attempt to ascertain a pattern in the person's whereabouts in connection with a drug conspiracy would require a warrant based on probable cause.

If the Court does hold that the use of GPS is a search, such that it violates society's reasonable expectation of privacy triggering a warrant requirement, the Court may also need to consider the defendant's burden of proof when attempting to suppress information derived from law enforcement's wrongful use of GPS surveillance. Some scholars posit that the defendant's burden of proof as to the first prong of *Katz*, whether the defendant subjectively believed his actions would be concealed from view, relates to the length of time of the surveillance.²⁵⁷ Thus, a defendant observed for an "extremely brief period" through GPS surveillance might have to proffer evidence of an attempt to hide their behavior "to overcome the acknowledged reality that when we travel in

254. *Id.* at 395.

255. *Id.*

256. *See Maynard*, 615 F.3d at 566 (quoting *Dow Chem. Co. v. United States*, 476 U.S. 227, 238 n.5 (1986)) ("Fourth Amendment cases must be decided on the facts of each case, not by extravagant generalizations.") (internal quotation marks omitted).

257. Hutchins, *supra* note 94, at 455.

public discrete portions of our trip are visible to those we pass.”²⁵⁸ The relationship between the defendant’s burden and the length of surveillance takes into account the fact that short-term GPS surveillance of a defendant’s vehicle does not present the same kind of problems as the extended use because it fails to capture an “intimate picture of [a] subject’s life,” but simply pinpoints the defendant’s location during a short, purposeful period of monitoring.²⁵⁹ Without articulating the definition of “prolonged” or “twenty-four hour surveillance” the Court risks imposing a standard that even those who are strong privacy supporters concede does not apply to *all* uses of GPS surveillance.

D. Using Congressional Action to Resolve the Privacy Concerns of GPS Surveillance

In light of the aforementioned concerns that could potentially arise if the issue of GPS surveillance is left for judicial review, Congress should instead furnish the substantive requirements for obtaining a warrant for the use of a GPS-enabled tracking device. The Court has long acknowledged Congress’s ability, through direct legislation, to provide privacy protections beyond the Fourth Amendment.²⁶⁰ For example, after the Supreme Court held, in *Olmstead v. United States*,²⁶¹ that the Fourth Amendment did not protect against the interception of telephone conversations,²⁶² Congress responded by passing the Federal Communications Act of 1934 (FCA),²⁶³ which made wiretapping evidence inadmissible in court.²⁶⁴

After the Supreme Court decisions in *Katz v. United States*²⁶⁵ and *Berger v. New York*²⁶⁶ articulated a warrant requirement for wiretap-

258. *Id.*

259. *See Maynard*, 615 F.3d at 563.

260. *See Olmstead v. United States*, 277 U.S. 438, 465-66 (1928) (“Congress may, of course, protect the secrecy of telephone messages by making them, when intercepted, inadmissible in evidence in federal criminal trials, by direct legislation.”) *overruled by Katz*, 389 U.S. 347, and *Berger v. New York*, 388 U.S. 41 (1967); *see also* Kerr, *The Fourth Amendment, supra* note 212, at 806 (“[l]egislative privacy rules governing new technologies [are] quite often more protective than, parallel Fourth Amendment rules. Judicial deference has often invited Congressional regulation.”).

261. 277 U.S. 438 (1928).

262. *Id.* at 466, 469.

263. Pub. L. No. 416, ch. 652, 48 Stat. 1064 (codified as amended at 47 U.S.C. § 605 (2006)).

264. Kerr, *The Fourth Amendment, supra* note 219, at 846; *see also* *Nardone v. United States*, 302 U.S. 379, 384 (1937) (holding that the FCA prohibited wiretapping by law enforcement in procuring evidence).

265. 389 U.S. 347 (1967).

266. 388 U.S. 41 (1967).

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ping,²⁶⁷ Congress strengthened these principles by laying out specific requirements, beyond the Fourth Amendment, for seeking a warrant. Title III of the Omnibus Crime Control and Safe Streets Act of 1968 (OCCSSA)²⁶⁸ arose in response to debate concerning the balance between an effective method of extracting wiretapping evidence and the need to keep this policing power in check.²⁶⁹ Before the OCCSSA, state law varied greatly in the extent to which it offered protection from wiretapping; however, through Title III Congress expressed its intent to set the standard for electronic surveillance laws, whereby states could pass more stringent requirements but must meet the minimum federal protections.²⁷⁰ This created a fairly uniform standard with state wiretapping laws modeled after their federal counterparts. Pursuant to 18 U.S.C. § 2518,²⁷¹ government agents can use a wiretap only upon obtaining from a federal district court judge a so-called “super warrant” that goes above an ordinary search warrant.²⁷² For instance, these warrants require not only probable cause that a person “is committing, has committed, or is about to commit a particular offense,” but also probable cause that information from communications concerning the offense will be obtained and that “normal investigative procedures have been tried and have failed or reasonably appear to be unlikely to succeed if tried or to be too dangerous.”²⁷³

Just as Congress bolstered wiretapping protections through legislation, Congress should similarly mandate the warrant requirement for the use of GPS devices, imposing a probable cause, or at least reasonable suspicion, standard. Although the government may argue such GPS surveillance tactics are imperative in the collection of evidence, a statutorily required court order would force government officials to put forth justification for the use of the device, rather than simply engaging in a “fishing” expedition while tracking the defendant over an inordinate amount of time for any missteps. Thus, the applicable standard should also be directly related to the length of time the device is to be used; exigent circumstances may require its use to follow a defendant in the midst of an ongoing crime in which a probable cause standard would not be appropriate.

267. Compare *Katz*, 389 U.S. at 358-59, with *Berger*, 388 U.S. at 63-64.

268. Pub. L. No. 90-351, 82 Stat. 197, 212-23 (codified as amended at 18 U.S.C. §§ 2510-2520 (2006)).

269. JAMES G. CARR, *THE LAW OF ELECTRONIC SURVEILLANCE* § 2:1 (2006).

270. *Id.* § 2:39.

271. 18 U.S.C. § 2518 (2006).

272. *In re Application for Pen Register & Trap/Trace Device with Cell Site Location Authority*, 396 F. Supp. 2d 747, 751 (2005).

273. 18 U.S.C. § 2518 (3)(a), (c).

Like the federal wiretapping laws, other police tactics such as traditional visual surveillance or the use of less invasive technology, such as beepers, should be exhausted before resorting to GPS technology. Also important are time requirements for when the warrant must be executed and when the warrant expires (and if it does, whether evidence collected during the use of the GPS device in this interim must be suppressed). Rather than the Court creating sublevels of rules through case law to account for the complexities of GPS technology, legislation elicits a relatively timely and flexible response. Federal legislation also enables Congress to develop a model for state legislatures to create their own laws requiring agents of the state to abide by the warrant standard when using GPS technology.

V. CONCLUSION

This Comment argues that “[t]he right of the people to be secure . . . against unreasonable searches and seizures”²⁷⁴ is not a broad enough brush to protect citizens from law enforcement’s warrantless use of GPS technology. The disparities between the uses of GPS devices in the detection of crime, from chasing a criminal in hot pursuit to tracking a defendant’s whereabouts for days or months on end, demonstrates the difficulties in pinning down a rule that effectively balances an individual’s need for privacy and the government’s desire to curtail crime by using modern technology that allows the government to remain undetected, yet incredibly efficient. Even if the Court extends Fourth Amendment protection to the use of GPS devices, this extension would open Pandora’s box to questions regarding when a person’s actions, committed within the discerning eye of the public, are no longer free rein for police discovery. Thus, following a tradition of Congress in creating privacy protections over and above the Fourth Amendment guarantees, such as the nation’s wiretapping laws, Congress should promulgate a detailed, unequivocal standard that gives the substantive and procedural requirements for when law enforcement may use GPS technology to secretly track a defendant. The legislative approach would ensure that law enforcement has satisfied the proper requirements for securing a warrant when using a GPS device, while at the same time assuaging public fear that the government could at any time, or for any proper or improper reason, track an unsuspecting individual’s every move.

KIMBERLY C. SMITH

274. U.S. CONST. amend. IV.