ARTICLES

COURTS RE-EXAMINE THE APPLICATION OF *GOLDFINGER*-ERA ELECTRONIC TRACKING CASES TO LAW ENFORCEMENT USE OF GPS TRACKING DEVICES.

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ABSTRACT

GPS tracking devices have become inexpensive, small, and can easily be attached to a vehicle quickly. Law enforcement is increasingly using these devices to track the exact location of a suspect's vehicle over a long period of time. In most instances, relying on Supreme Court cases from the early 1980's, law enforcement has not sought a warrant before using these devices. This paper examines how courts have attempted to apply Supreme Court precedents based on "primitive" tracking devices to modern GPS tracking devices. These precedents established that the use of electronic tracking devices on vehicles did not constitute a search – and, accordingly, did not implicate the Fourth Amendment – because people do not have a reasonable privacy interest in the movement of their vehicles when traveling on a public roadway. Until recently, federal courts have, on the basis on these decisions, almost universally upheld the use of GPS tracking devices. In contrast, state courts have been more reluctant to follow these Supreme Court precedents. A recent decision by the D.C. Circuit Court should cause future courts to re-examine the application of the prior Supreme Court precedents. In this decision, the federal court recognized that people have a reasonable expectation of privacy in the totality of their movements over the course of a period of time. The paper concludes that the approach taken by the D.C. Circuit is most consistent with the Supreme Court's Fourth Amendment jurisprudence, because sustained and long-term surveillance of a targeted individual unrelated to any particular criminal action violates a reasonable expectation of privacy.

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Q: You'll be using this Aston Martin DB with modifications. Now, pay attention, please.... Here's a nice little transmitting device, called a homer. You prime it by pressing that back like this. You see? The smaller model is now standard field issue, to be fitted into the heel of your shoe. Its larger brother is magnetic. Right. It'll be concealed in the car you're trailing while you keep out of sight. Reception on the dashboard here. Audiovisual range a hundred and fifty miles.

Bond: Ingenious, and useful too. Allow a man to stop off for a quick one en route.

Q: It has not been perfected out of years of patient research entirely for that purpose...[1]

INTRODUCTION

In *Goldfinger*, Q Branch supplies James Bond with two homing devices.[2] These devices have a range of about 150 miles and allow Bond to follow Auric Goldfinger's car from England to Switzerland.[3] After attaching the magnetic device to Goldfinger's Rolls Royce, Bond could follow its movements in his specially modified Aston Martin DB5 by accessing the display hidden behind the speaker vent.[4]

The *Goldfinger* Bond would certainly be impressed by the advanced tracking technology available to law enforcement today. Modern devices are inexpensive, as small as the palm of a hand, can easily be attached to vehicles, and have a long battery life.[5] Not only can law enforcement officials record where a vehicle has been, but they can also access a vehicle's precise location in real-time through the Internet on maps and satellite images.[6] The devices also can set up "virtual fences" and notify an

1. GOLDFINGER (Eon Productions 1964).

2. *See* James Bond Multimedia, Goldfinger Gadgets, http://www.jamesbondmm.co.uk/gadgets/goldfinger-gadgets (last visited Aug. 22, 2010); Universal Exports, Goldfinger Gadgets, http://www.universalexports.net/Movies/goldfinger-gadgets.shtml (last visited Aug. 22, 2010).

3. *See* Goldfinger Gadgets, *supra* note 2.

4. *See id.*

5. *See, e.g.*, Kate Bolduan, *Is GPS a high-tech crime-fighting tool or Big Brother?*, CNN.COM, Aug. 18, 2008, http://www.cnn.com/2008/CRIME/08/18/gps.tracking/index.html ("The technology is easy to use and the devices are hard to detect. All police have to do is attach a GPS receiver to a suspect's car and they easily go along for the ride online, tracking the individual's exact location in real time from their computer.").

6. *See id.*

officer automatically when a vehicle enters or leaves a specified location.[7] A recent article in a law enforcement magazine noted, "GPS technology is at the core of many of the hottest emerging law enforcement technologies."[8]

There is no doubt modern GPS tracking devices are useful to law enforcement. These devices permit law enforcement to follow vehicles in real-time and store data on time, position, and speed for later analysis.[9] Such information has helped to solve serious crimes.[10] In 2008, for example, the Los Angeles Times described how the Los Angeles County

7. *Cf.* Jenna Kincade, *GPS Tracking Devices for Children*, GPS Tracking Resource, http://www.gpstrackingresource.com/gps-tracking-devices-for-children (last visited Mar. 3, 2010) (GPS technology allows parents to "set parameters and have a 'virtual' fence. If the child goes outside those preset parameters an alarm is sent to the parent device immediately letting [the parent] know where [the] child is."). Some examples of commercially available device include: the PT-200, sold by Rocky Mountain Tracking, Inc., provides real-time tracking for a purchase price of $600 . Rocky Mountain Tracking, Inc., PT-200, http://www.rmtracking.com/gpsproducts/pt-200.php (last visited Aug. 22, 2010). The device is only 3.31" x 1.75" x 1", and the company claims that the device "retains its accuracy, even inside containers and buildings that would normally affect whether or not the GPS data were reliable. Rain and heavy weather also have little effect on the accuracy of the GPS data." *Id.* Additionally, Trackingtheworld, Inc., sells "a completely self-contained real-time tracking system, ideal for covert applications," which logs data including location, time, and speed for up to twenty days, and allows police officer to view real-time data on any desktop or laptop PC. Tracking the World, Inc., WT Pro, http://www.trackingtheworld.com/wtpro.htm (last visited Aug. 22, 2010). Finally, Brickhouse Security's Livewire FastTrac Covert GPS device permits alert notifications via text message or e-mail, while allowing law enforcement officers to "access the device's GPS Location from anywhere in the world and watch its movement in real-time. [Police] can even zoom in on the map for the exact street location and speed, accurate up to 8 inches and 1/4 mph." Brickhouse Security, Livewire FastTrac Covert GPS 120-day kit, http://www.brickhousesecurity.com/realtime-gpstracking-device.html (last visited Aug. 22, 2010).

8. Kurt Smith, *GPS Technology in Policing: Ride the Wave to Make Better Decisions*, 46 POLICE CHIEF 4 (2009), *available at* http://policechiefmagazine.org/magazine/index.cfm?category_ID=4&fuseaction=display&issue_id=42009.

9. The Electronic Communications Privacy Act contains no restrictions on the ability of law enforcement install and monitor a tracking device. *See* 18 U.S.C. § 3117 (2010). One court observed that "[t]he only limit on such devices is the Fourth Amendment." *In re* Application of the United States for an Order Authorizing Installation and Use of a Pen Register, 402 F. Supp. 2d 597, 604 (D. Md. 2005). Furthermore, law enforcement officials must obtain a court order to obtain real-time and historical location tracking information from personal cell phones. *See* Adam Koppel, Note, *Warranting a Warrant: Fourth Amendment Concerns Raised by Law Enforcement's Warrantless Use of GPS and Cellular Phone Tracking*, 64 U. MIAMI L. REV. 1061, 1081–82 & n.160 (2010) (collecting cases). The Federal Government has taken the position that it may be able to request information from cell phone based GPS device through a court order under 18 U.S.C. § 2703(d) (2010). *See In re* Application of the United States for an Order Directing a Provider of Elec. Commc'n Serv. to Disclose Records to Gov't, 620 F.3d 304, 311 (3rd Cir. 2010).

10. *See infra* notes 11–12 and accompanying text.

Sheriff's Office tracked a robbery suspect after planting a GPS unit in his car.[11] Similarly, the Washington Post reported police using GPS tracking technology to crack a string of assaults on women in northern Virginia.[12]

This paper will focus on recent significant developments in the law surrounding the warrantless use of tracking devices as technology has advanced from the primitive beeper-type device featured in *Goldfinger* to the more potent, modern GPS device. Part I will discuss the Supreme Court's treatment of the warrantless use of tracking devices. The Supreme Court has, on two occasions, considered the use of electronic tracking devices.[13] However, the Court has not considered whether law enforcement must obtain a warrant before placing a GPS device on a private vehicle. Part II will discuss focus on federal and state court applications of Supreme Court precedent. While technology has advanced, lower courts seeking guidance from the Supreme Court are forced to rely on decisions interpreting what was cutting edge in the 1960s. Federal courts have, on the basis on the Supreme Court decisions discussed in Part I, almost universally upheld the use of GPS tracking devices. In contrast, state courts have been more reluctant to follow such precedent. Part III will examine a recent decision by the D.C. Circuit Court in which the court appeared to depart from prior Supreme Court and federal decisions. Finally, Part IV will attempt to predict how future courts will examine the warrantless use of GPS tracking devices.

I. THE SUPREME COURT'S TREATMENT OF GOLDFINGER-TYPE HOMING DEVICES

United States v. Knotts and *United States v. Karo* are the two United States Supreme Court cases to have addressed Fourth Amendment implications of police use of electronic tracking devices.

11. Carol J. Williams, *Watch out for the snitch sitting on your dashboard; A GPS unit tells you where to go. It also tells investigators where you've been,* L.A. TIMES, Nov. 25, 2008, at B1.

12. *Police Turn to Secret Weapon: GPS Device*, WASH. POST, Aug. 13, 2008, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2008/08/12/AR2008081203275.html. At the time, one officer was quoted describing the technology as "a very new investigative tool." *Id.* Police in Ohio also reported using GPS tracking technology to find the perpetrators of a string of burglaries, even catching one burglary in the act. *GPS tracking of car without warrant contested,* Columbus Dispatch, Jan, 21, 2011, *available at* http://www.dispatch.com/live/content/local_news/stories/2011/01/20/gps-tracking-of-car-without-warrant-contested.html?sid=101.

13. United States v. Knotts, 460 U.S. 276 (1983); United States v. Karo, 468 U.S. 705 (1984).

A. Starting Point: The Katz Reasonable Expectation of Privacy Test

The Fourth Amendment prohibits unreasonable searches without a warrant. Accordingly, the use of GPS tracking devices implicates the Fourth Amendment only if such use constitutes a search. A search is deemed to have occurred "when an expectation of privacy that society is prepared to consider reasonable is infringed."[14]

In *Katz v. United States,* the Supreme Court held that the warrantless wiretapping of conversations in a phone booth violates the Fourth Amendment.[15] In doing so, the Court shifted from a property-based analysis of the Fourth Amendment to a privacy-based analysis.[16] The Court initiated an inquiry that examined not how, but whether, the government has violated an individual's reasonable expectation of privacy.[17] In his concurrence, Justice Harlan explained that the relevant inquiry under the Fourth Amendment has two parts: first, whether the person has "an actual (subjective) expectation of privacy," and second, whether the individual's subjective expectation of privacy is "one that society is prepared to recognize as 'reasonable.'"[18] This approach is illustrated by *Smith v. Maryland*, a case in which the Court notes the distinction between a legitimate expectation of privacy in the contents of a telephone call and the lack of an expectation of privacy in the actual phone numbers dialed.[19]

B. Knotts and Karo

In *United States v. Knotts*, the defendant and his co-conspirators were suspected of manufacturing methamphetamine.[20] Law enforcement officers contacted the chemical company where the conspirators intended to purchase chemical supplies.[21] With the consent of the chemical company, officers installed a tracking device inside a five-gallon drum of chemicals.[22]

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

15. Katz v. United States, 389 U.S. 347 (1967).

16. *See Olmstead v. United States*, 277 U.S. 438, 466 (1928) (examining whether an actual physical invasion of property had occurred). *But see* Bennett L. Gershman, *Privacy Revisited: GPS Tracking as Search and Seizure*, 30 PACE L. REV. 927, 964 (2010) ("[T]he *Katz* test may be inadequate with respect to intrusions into privacy interests that involve highly sophisticated surveillance technology.").

17. *Katz*, 389 U.S. at 350–51.

18. *Id.* at 361 (1967) (Harlan, J., concurring).

19. Smith v. Maryland, 442 U.S. 735, 743–44 (1979).

20. United States v. Knotts, 460 U.S. 276, 276 (1983).

21. *Id.* at 278.

22. *Id.*

When Knotts' co-defendant purchased the drum of chemicals, the officers were able to follow his car, "maintaining contact by using both visual surveillance and a monitor which received the signals sent from the beeper."[23]

Relying in part upon the information obtained through the use of the beeper, officers obtained a search warrant for the defendant's cabin.[24] The officers discovered a drug laboratory and chemicals necessary for the manufacture of methamphetamine.[25] Under a barrel outside the cabin, officers located the five-gallon container with the beeper.[26] The defendant was subsequently convicted of drug charges.[27]

With the assistance of the tracking device, the officers were able to follow the vehicle across state lines.[28] Although there is no description of the exact capabilities of the device some have described it as primitive, as its limitations are evident from two problems that soon developed in the surveillance.[29] First, the driver may have suspected he was being followed and "began making evasive maneuvers, [so] the pursuing agents ended their visual surveillance."[30] Second, officers lost the signal from the beeper for about one hour. The officers were able to re-establish contact with the signal with the assistance of a monitoring device located in a helicopter.[31]

The Supreme Court upheld the warrantless use of the tracking device.[32] The Court viewed the extent of the activities by the law enforcement officers as "amount[ing] principally to the following of an automobile on public streets and highways."[33] The Court's legal analysis began with the premise established by *Katz* and *Maryland v. Smith* that the Fourth Amendment is applicable only when the person subject to surveillance has a legitimate, justifiable, or reasonable expectation of privacy.[34] The Court reasoned that, for Fourth Amendment purposes, no reasonable privacy interest exists in the movement of a vehicle traveling on a public roadway because drivers voluntarily convey to the public their location and direction

23. *Id.*
24. *Id.* at 278–79.
25. *Id.* at 279.
26. *Id.*
27. *Id.* at 276.
28. *Id.* at 278.
29. David A. Sullivan, *A Bright Line in the Sky? Toward a New Fourth Amendment Search Standard for Advancing Surveillance Technology*, 44 ARIZ. L. REV. 967, 969 n.10 (2002).
30. United States v. Knotts, 460 U.S. 276, 278 (1983).
31. *Id.*
32. *Id.* at 285.
33. *Id.* at 281.
34. *Id.* at 280–81 (citing Maryland v. Smith, 442 U.S. 735 (1979)).

of travel.[35] The voluntary act of traveling on public roads is the Fourth Amendment equivalent of the voluntary act of providing phone number information to the phone company described in *Maryland v. Smith*.[36]

The key premise to the analysis of *Knotts* is that persons have no legitimate expectation of privacy in their location if they could lawfully be viewed by law enforcement.[37] The Court explained:

> Visual surveillance from public places . . . would have sufficed to reveal all of these facts to the police. The fact that the officers in this case relied not only on visual surveillance, but on the use of the beeper to signal the presence of [the] automobile to the police receiver, does not alter the situation. 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.[38]

Implicit in this premise is that law enforcement is permitted to use technology to enhance visual surveillance. The Court compared the use of the beeper to the permissible use of a searchlight to observe contraband on the deck of a ship, which it had previously held as constitutional.[39] In other cases, the Court has permitted, for example, the use of airplanes to conduct aerial surveillance.[40] A beeper, like an airplane, is just another tool for better visual surveillance.

The *Knotts* Court stopped short of explicitly approving the type of surveillance permitted by GPS devices.[41] The defendant argued that permitting the use of electronic tracking devices would inevitably lead to 24-hour surveillance of any citizen without a warrant.[42] The Court reserved that issue, saying, in response, "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."[43] Justice Stevens wrote a concurring opinion to

35. *Id.* at 281–82. The driver also voluntarily conveys his "final destination when he exit[s] from public roads onto private property." *Id.* at 282.

36. *Id.* at 283 (quoting Maryland v. Smith, 442 U.S. 735 (1979)).

37. United States v. Knotts, 460 U.S. 276, 282 (1983).

38. *Id.* The fact that visual surveillance failed in this case, and the beeper allowed the officers to obtain information they would not have obtained with electronic support, was inconsequential. *Id.* It was sufficient, in the Court's view, that the officers "*could* have observed" the vehicle at all times. *Id.* (emphasis added).

39. 460 U.S. at 283 (citing United States v. Lee, 274 U.S. 559, 563 (1927)).

40. *See, e.g.*, Dow Chemical v. United States, 476 U.S. 227 (1986) (permitting the use by law enforcement of aerial photography and surveillance).

41. 460 U.S. at 283.

42. *Id.* (citing to Brief for Respondent at 9, Knotts v. United States, 460 U.S. 276 (1982) (No. 81-1802)).

43. 460 U.S. at 283–84 (quoting Zurcher v. Stanford Daily, 436 U.S. 547, 566 (1978) (the "reality

emphasize his view that police use of technology for surveillance purposes could have a limit.[44] He said, "Although the augmentation in this case was unobjectionable, it by no means follows that the use of electronic detection techniques does not implicate especially sensitive concerns."[45]

A little over a year later, the Court again considered whether the warrantless monitoring of a beeper violated the Fourth Amendment.[46] In *United States v. Karo*, law enforcement officers placed a beeper in a container of chemicals to be used by suspected drug manufacturers.[47] The officers initially observed the defendant pick up the container and then used visual and electronic surveillance to follow him to his home.[48] The container was moved on several occasions without the knowledge of the officers, but was located using the tracking device at private residences and then at commercial storage facilities.[49] Although the officers attempted to conduct surveillance at the storage facility, the container was again moved without the knowledge of the officers.[50] Using visual and beeper surveillance, the officers were able to track a vehicle suspected of holding the container to two other private residences.[51] The officers ceased tight visual surveillance at the last location for fear of being discovered, and instead, relied on the tracking device to determine that the container remained inside the residence.[52] Relying in part on information obtained from the tracking device, the officers obtained a search warrant and discovered drugs and laboratory equipment that led to the conviction of the defendant on drug charges.[53]

As in *Knotts*, the opinion does not contain a detailed description of the capabilities of the device. The opinion does note some limitations on the device, including the fact that when the device was tracked to a commercial storage facility, the police were unable to determine the precise storage unit

hardly suggests abuse")).

44. United States v. Knotts, 460 U.S. 276, 288 (1983).

45. *Id.* at 287 (Stevens, J., concurring).

46. United States v. Karo, 468 U.S. 705 (1984).

47. *Id.* at 708–10. The drug dealers in *Karo* were using the chemical ether to remove cocaine from clothing. *Id.*

48. *Id.*

49. *Id.*

50. *Id.* at 709.

51. *Id.*

52. *Id.* at 708.

53. United States v. Karo, 468 U.S. 705, 710 (1984).

where it had been located.[54] Accordingly, as in *Knotts*, the device in *Karo* can fairly be described as "primitive" when compared to modern GPS devices.[55]

The *Karo* Court reaffirmed the core holding of *Knotts* that there is no Fourth amendment violation where the beeper provided information that could have been "observed by the naked eye."[56] However, the facts of the case were distinguished in one important manner from *Knotts*. In *Karo*, unlike in *Knotts*, the tracking device provided the officers with information that the container remained in private residences, a fact that could not have been obtained from lawful visual surveillance.[57] The question in *Karo* was thus whether "the monitoring of a beeper in a private residence, a location not open to visual surveillance, violates the Fourth Amendment rights of those who have a justifiable interest in the privacy of the residence."[58] The Court concluded that such surveillance without a warrant violates the Fourth Amendment.[59] The Court explained:

> The beeper tells the agent that a particular article is actually located at a particular time in the private residence and is in the possession of the person or persons whose residence is being watched. Even if visual surveillance has revealed that the article to which the beeper is attached has entered the house, the later monitoring not only verifies the officers' observations but also establishes that the article remains on the premises.... The monitoring of an electronic device such as a beeper is, of course, less intrusive than a full-scale search, but it does reveal a critical fact about the interior of the premises that the Government is extremely interested in knowing and that it could not have otherwise obtained without a warrant.[60]

The practical result of *Karo* is that the Court will continue to permit the warrantless use of primitive electronic tracking devices so long as the devices are not used to obtain information about the interior of private residences.[61]

54. *Id.* at 709–10.

55. Sullivan, *supra* note 29, at 969.

56. 468 U.S. at 714; *see* United States v. McIver, 186 F.3d 1119, 1126–27 (9th Cir. 1999) (in placing a tracking device, officers did not infringe on any area of vehicle owner intended to shield from public view).

57. United States v. Karo, 468 U.S. 705, 714 (1984).

58. *Id.*

59. *Id.* at 706.

60. *Id.* at 715.

61. 468 U.S. at 716. The Court was similarly protective of the interior of a residence against surveillance by electronic devices in Kyllo v. United States, 533 U.S. 27, 40 (2001) (holding that law enforcement could not use thermal imagers to obtain information about the inside of residences without a warrant).

II. JUDICIAL APPLICATIONS OF *KNOTTS* AND *KARO* TO GPS DEVICES

A. Federal Court Applications of *Knotts* and *Karo*

Prior to August 2010, based on *Knotts* and *Karo*, federal courts considering the question of GPS monitoring have universally permitted the placement and use of the devices on vehicles parked and traveling on public streets. On the appellate level, the Seventh,[62] Eighth,[63] and Ninth Circuits[64] have explicitly permitted law enforcement to use GPS tracking on vehicles without a warrant.

The District Court's approach in *United States v. Williams* is typical of the approach followed by federal courts.[65] In *Williams,* a defendant challenged the warrantless placement of GPS tracking devices on his vehicles.[66] Two GPS devices were externally attached to his car by police, including one while the defendant and other suspects were attending a

62. United States v. Garcia, 474 F.3d 994 (7th Cir. 2007). Questioning whether the *Knotts* doctrine was applicable to GPS tracking devices, the Seventh Circuit reasoned:

> There is a practical difference lurking here, however. It is the difference between, on the one hand, police trying to follow a car in their own car, and, on the other hand, using cameras (whether mounted on lampposts or in satellites) or GPS devices. In other words, it is the difference between the old technology-the technology of the internal combustion engine-and newer technologies (cameras are not new, of course, but coordinating the images recorded by thousands of such cameras is).

Id. at 997. The court ultimately held that *Knotts* permits the use of GPS tracking devices, but observed that the beeper in *Knotts* was "only a modest improvement over following a car by means of unaided human vision," while GPS tracking permitted "an extent of surveillance that in earlier times would have been prohibitively expensive." *Id.* at 998.

63. United States v. Marquez, 605 F.3d 604, 610 (8th Cir. 2010) (holding that police could place a GPS device on a truck in a parking lot, then monitor the truck traveling back and forth across state lines). The police in *Marquez* accessed the device seven times to change the battery – all while the truck was parked in a public place. *Id.* at 607. The *Marquez* court described GPS devices as "merely allow[ing] police to reduce the costs of lawful surveillance." *Id.* at 610.

64. United States v. Pineda-Moreno, 591 F.3d 1212, 1216 (9th Cir. 2010) (observing that "the only information the agents obtained by the tracking devices was a log of the locations where [the defendant's] car traveled, information the agents could have obtained from following the car."). *But see* United States v. Pineda-Moreno, 617 F.3d 1120, 1124, 1126 (9th Cir. 2010) (Kozinski, J., dissenting from denial of rehearing *en banc*) (noting that GPS devices have "little in common with the primitive devices in *Knotts*," and arguing that "[t]here is something creepy and un-American about such clandestine and underhanded behavior").

65. United States v. Williams, 650 F. Supp. 2d 633 (W.D. Ky. 2009).

66. *Id.* at 652. The police sought and obtained a warrant to attach a GPS device to the electrical system of one of the co-defendants. *Id.* at 645. The defendant, a "career criminal" was able to defeat traditional visual surveillance through "evasive driving tactics." *Id.* at 644. When the defendant was arrested for driving with a suspended license, the police decided to tow the car to police headquarters to attach tracking device to the electrical system of the automobile. *Id.* at 643. *Cf.* Commonwealth v. Connolly, 913 N.E.2d 356 (Mass. 2009) (holding that where a GPS device required the use of the defendant's vehicle's electrical system, the actions of the police constituted a seizure).

football game.[67] The court rejected this challenge.[68] The court reasoned that the officers were "merely use[ing] a radio transmitter to maintain surveillance of a vehicle traveling on public streets and highways."[69] Relying on *Knotts*, the court held that the defendant "simply has no protected expectation that the exterior of his automobile, while located on a public area, will constitutionally be protected from even the most minor, momentary incidental contact."[70] The court explained that when the device was installed, the defendant's vehicle "could be seen and approached by any passing stranger."[71] Other federal courts have applied *Knotts* in the same manner, permitting the warrantless use of GPS devices.[72]

B. State Court Applications of Knotts and Karo

In contrast to the federal cases described above, a number of state courts have declined to follow *Knotts* in regards to GPS devices.[73] Rather than directly address the Supreme Court's Fourth Amendment analysis, these state courts have relied upon state constitutional provisions that provide protections against warrantless searches.[74] The Washington Supreme Court, for example, has held that the Washington Constitution prohibits the installation of a GPS tracking device on a vehicle without a warrant.[75] In its ruling, the court accepted the premise underlying *Knotts* that no search occurs when officers can lawfully observe the suspect, even with the use of binoculars and flashlights.[76] However, the Washington Supreme Court was unwilling to extend this doctrine to GPS devices:

67. *Williams*, 650 F. Supp. 2d at 649.

68. *Id.* at 663.

69. *Id.* at 667.

70. *Id.* at 669.

71. *Id.* at 668.

72. *See* United States v. Coulombe, No. 1:06-CR-343, 2007 WL 4192005, at *4 (N.D.N.Y. Nov. 26, 2007) ("There is no Fourth [A]mendment violation when the installation of a tracking device on a vehicle's undercarriage does not damage the vehicle or invade its interior."); United States v. Moran, 349 F. Supp. 2d 425, 467 (N.D.N.Y. 2005) (tracking GPS device on public roads is permissible because officers could have conducted surveillance by following vehicle).

73. *See* Sarah Rahter, *Privacy Implications of GPS Tracking Technology*, 4 J. L. & POL'Y INFO. SOC'Y 755, 763–66 (2008) (discussing cases regarding the government's collection of GPS data). *But see* State v. Sveum, 769 N.W.2d 53, 59–60 (Wisc. App. 2009) (permitting GPS search but noting that "[w]e are more than a little troubled by the conclusion that no Fourth amendment search or seizure occurs when police use a GPS or similar device").

74. *Id.*

75. State v. Jackson, 76 P.3d 217 (Wash. 2003).

76. *Id.* at 223.

> [W]hen a GPS device is attached to a vehicle, law enforcement officers do not in fact follow the vehicle. Thus, unlike binoculars or a flashlight, the GPS device does not merely augment the officers' senses, but rather provides a technological substitute for traditional visual tracking.... We perceive a difference between the kind of uninterrupted 24 hour surveillance possible through use of a GPS device, which does not depend upon whether an officer could in fact have maintained visual contact over the tracking period, and an officer's use of binoculars or a flashlight to augment his or her senses.[77]

In reaching its conclusion, the court expressed concern that the use of GPS devices is "particularly intrusive"[78] and makes it possible for the government "to acquire an enormous amount of personal information about the citizen."[79]

A similar conclusion was reached recently by the New York Court of Appeals in *People v. Weaver*.[80] The *Weaver* court distinguished the technology used in *Knotts* on the grounds that "GPS is a vastly different and exponentially more sophisticated technology that is easily and cheaply deployed and has virtually unlimited and remarkably precise tracking capability."[81] The New York court concluded that GPS permits the police to obtain information beyond what visual surveillance can obtain.[82] The court explained:

> It is, of course, true, that the expectation of privacy has been deemed diminished in a car upon a public thoroughfare. But it is one thing to suppose that the diminished expectation affords a police officer certain well-circumscribed options for which a warrant is not required and quite another to suppose that when we drive or ride in a vehicle our expectations of privacy are so utterly diminished that we effectively consent to the unsupervised disclosure to law enforcement authorities of all that GPS technology can and will reveal.[83]

The *Weaver* court concluded that the nature of the surveillance permitted by GPS devices, unlike the type of surveillance presented by the tracking device in *Knotts,* infringed on both a subjective and an objective expectation of privacy.[84] Accordingly, the use of such devices constituted a search without a warrant and thus prohibited by the New York Constitution.[85]

77. *Id.* at 223.
78. *Id.* at 222 (quoting State v. Young, 867 P.2d 593 (Wash. 1994)).
79. State v. Jackson, 76 P.3d 217, 224 (Wash. 2003).
80. People v. Weaver, 909 N.E.2d 1195, 1203 (N.Y. 2009).
81. *Id.* at 1199.
82. *Id.* at 1200.
83. *Id.*
84. *Id.* at 1200–01.
85. *Id.* at 1201.

III. THE D.C. CIRCUIT'S REJECTION OF THE APPLICATION OF *KNOTTS* AND *KARO* TO GPS DEVICES

In August 2010, the D.C. Circuit Court of Appeals, in *United States v. Maynard*, became the first federal court to hold that the use of a GPS tracking device without a warrant violated the Fourth Amendment.[86] In *Maynard*, the defendant was under investigation for suspected drug offenses.[87] As part of the investigation, officers installed a GPS device on his vehicle and tracked his movements for four weeks.[88]

The D.C. Circuit Court declined to apply *Knotts* to GPS tracking devices.[89] Instead, the court interpreted *Knotts* narrowly. The *Maynard* court reasoned that in *Knotts*, the Supreme Court "explicitly distinguished between the limited information discovered by use of the beeper – movements during a discrete journey – and more comprehensive or sustained monitoring of the sort at issue in this case."[90] The court then limited *Knotts* to holding that a person had no reasonable expectation of privacy where police use a tracking device to augment visual surveillance over a discrete and limited period of time.[91]

The *Maynard* court then concluded that people have a reasonable expectation of privacy in the totality of their movements over the course of a period of time.[92] The court distinguished the core holdings of *Knotts* and *Karo* – that people have has no expectation of privacy in movements that are exposed to the public – on the grounds that "the whole of one's movements over the course of a month is not *actually* exposed to the public because the likelihood anyone will observe all those movements is effectively nil."[93] The court explained:

> 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. It is another thing entirely for that stranger to pick up the scent again the next day and the

86. United States v. Maynard, 615 F.3d 544, 568 (D.C. Cir. 2010).

87. *Id.* at 549.

88. *Id.* at 555.

89. *Id.* at 554.

90. *Id.* at 556 (citing *Knotts*, 460 U.S. at 283, 284–85).

91. 615 F.3d 544, 557 (D.C. Cir. 2010) (citing *inter alia* United States v. Butts, 729 F.2d 1514, 1518 n.4 (1984)); *see* People v. Weaver, 909 N.E.2d 1195 (N.Y. 2009). The *Maynard* court distinguished previous Circuit Court opinions, on the grounds that none of those decisions explicitly addressed the issue of long-term surveillance, in part because of concessions made by defendants on this issue. *See supra* notes 51–53.

92. 615 F.3d 544, 563 (D.C. Cir. 2010).

93. *Id.* at 558.

> day after that, week in and week out, dogging his prey until he has identified all the places, people, amusements, and chores that make up that person's hitherto private routine.[94]

According to the *Maynard* court, the difference between discrete and long-term surveillance is significant, because "the whole of one's movements... reveals more – sometimes a great deal more – than does the sum of its parts."[95] The court said,

> Prolonged surveillance 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. These types of information can each reveal more about a person than does any individual trip viewed in isolation. Repeated visits to a church, a gym, a bar, or a bookie tell a story not told by any single visit, as does one's not visiting any of these places over the course of a month. The sequence of a person's movements can reveal still more; a single trip to a gynecologist's office tells little about a woman, but that trip followed a few weeks later by a visit to a baby supply store tells a different story. A person who knows all of another's travels can deduce whether he is a weekly church goer, a heavy drinker, a regular at the gym, an unfaithful husband, an outpatient receiving medical treatment, an associate of particular individuals or political groups—and not just one such fact about a person, but all such facts.[96]

Despite *Knotts*, the *Maynard* court concluded that the expectation of privacy against extended and comprehensive surveillance is legitimate under the *Katz* test.[97] This privacy interest is legitimate because, the court reasoned, while there is no expectation of privacy in individual movements in public, prolonged surveillance can reveal additional information not

94. *Id.* at 560.

95. *Id.* at 558.

96. *Id.* at 562. Julian Sanchez, a research fellow at the Cato Institute, provided an illustrative hypothetical:

> Alice and Bob are having a romantic affair that, for whatever reason, they prefer to keep secret. One evening before a planned date, Bob stops by the corner pharmacy and—in full view of a shop full of strangers—buys some condoms. He then drives to a restaurant where, again in full view of the other patrons, they have dinner together. They later drive in separate cars back to Alice's house, where the neighbors (if they care to take note) can observe from the presence of the car in the driveway that Alice has an evening guest for several hours. It being a weeknight, Bob then returns home, again by public roads. . . . In ordinary life, we often reasonably suppose the privacy or secrecy of certain facts—that Bob and Alice are having an affair—that could in principle be inferred from the combination of other facts that are (severally) clearly public, because it would be highly unusual for all of them to be observed by the *same* public.

Julian Sanchez, *GPS Tracking and a 'Mosaic Theory' of Government Searches,* Cato @ Liberty, Aug. 11, 2010, http://www.cato-at-liberty.org/gps-tracking-and-a-mosaic-theory-of-government-searches (last visited Aug. 22, 2010).

97. United States v. Maynard, 615 F.3d 544, 555 (D.C. Cir. 2010).

available to the public.[98] In this view, "the intrusion such monitoring makes into the subject's private affairs stands in stark contrast to the relatively brief intrusion at issue in *Knotts*."[99]

A federal district court followed the *Maynard* analysis in reviewing an application by the Federal Government for a court order pursuant to 18 U.S.C. § 2703(c)-(d) directing a cell phone company to provide location information for all calls made by a cell phone.[100] In denying the request, the court noted a "changing legal landscape" and relied heavily on the analysis on *Maynard*.[101] Finding that the *Maynard* court had "persuasively" distinguished *Knotts*,[102] the district court followed the conclusion that "prolonged surveillance reveals information that differs in kind, not just in degree, from the results of any short-term surveillance."[103]

IV. THE FUTURE OF WARRANTLESS GPS TRACKING

Knotts and *Karo* were correct decisions for the primitive tracking devices of the *Goldfinger* era. Reasonable expectations of privacy at that time were governed by the technological limitations of the devices available to law enforcement.[104] In particular, the devices could only be used to supplement and aid traditional visual surveillance, as they were unable to record data on a vehicles movement without human intervention.[105] In this respect, the devices were really only useful to aid investigations into particular suspicions of criminal conduct.

Our time is different. Just as the character of James Bond has changed for the Twenty-first Century,[106] *Maynard* and *Weaver* represent a

98. *Id.* at 563–64.

99. *Id.* at 563.

100. *In re* United States Order Authorizing the Release of Historical Cell-Site Info., No. 10-MJ-0550, 2010 U.S. Dist. LEXIS 88781, at *15 (E.D.N.Y. Aug. 27, 2010); *see also supra* note 8.

101. 2010 U.S. Dist. LEXIS 88781, at *5–7. The court noted that the law in this area "remains unsettled" and that "[t]he result . . . has been an unpredictable legal regime in which an individual's right to privacy waxes and wanes based on the fortuity of the location in which an investigation is based and of each district court's system for assigning miscellaneous criminal duty to its judges." *Id.; see also supra* notes 11–12 and accompanying text.

102. 2010 U.S. Dist. LEXIS 88781, at *15.

103. *Id.*, at *17–18. Other courts have declined to follow the *Maynard* analysis. *See, e.g.*, United States v. Walker, No. 2:10-cr-32, 2011 U.S. Dist. LEXIS 13760, at *8 (W.D. Mich. Feb. 11, 2011) ("[T]he great weight of the law from other federal circuits rejects this view." (citations omitted)).

104. Tarik N. Jallad, Note, *Old Answers to New Questions: GPS Surveillance and the Unwarranted need for Warrants*, 11 N.C. J. L. & TECH. 351, 366–67 (2010).

105. *Id.* at 367.

106. *See e.g.*, David Gritten, *James Bond: why the blue-eyed Bond is a hit*, DAILY TELEGRAPH, Oct. 20, 2008, *available at* http://www.telegraph.co.uk/culture/film/3562316/James-Bond-why-the-blue-eyed-Bond-is-a-hit.html (noting that Daniel Craig as James Bond represents "an end to all that prescriptive

conception of the reasonable expectation of privacy more suited for the technology of our age. A homeland security blog noted that "[a]dvances in technology — especially, technologies put to use by law enforcement — continue to erode privacy, and the latest such advance to draw attention — and consternation — is GPS."[107] Unlike the devices at issue in *Knotts* and *Karo,* GPS devices permit law enforcement to conduct surveillance beyond a targeted investigation into a certain crime. Instead, the devices could permit law enforcement to undertake surveillance of a particular individual over an extended period of time in the hope of piecing together evidence of illegal conduct, including evidence of illegal conduct that was not even suspected prior to the surveillance.[108]

Maynard and *Weaver* do not represent a significant departure from traditional Fourth amendment jurisprudence in favor of a "mosaic theory," as some have suggested.[109] Under the mosaic theory of the Fourth

brand-name fetishism about suits, weaponry, drinks and other accoutrements deemed crucial for a fictional British spy, first imagined during the height of the Cold War in the early 1950s"); David Ansen, *Battle of the Bonds*, NEWSWEEK, Nov. 13, 2008, *available at* http://www.newsweek.com/2008/11/12/battle-of-the-bonds.html ("'Casino Royale' pumped fresh (and real) blood into the series, scraping away the barnacles of camp and gadgetry and replacing the stale air of a Hugh Hefner bachelor party with Craig's urgent, contemporary virility.").

107. HOMELAND SECURITY NEWSWIRE, DEEP JUDICIAL DISAGREEMENTS OVER INCREASED POLICE USE OF GPS SURVEILLANCE, Aug. 16, 2010, http://homelandsecuritynewswire.com/deep-judicial-disagreements-over-increased-police-use-gps-surveillance ("This is part of a more general trend, because the growing use by the police of new technologies that make surveillance easier and cheaper to conduct is raising difficult questions about the scope of constitutional privacy rights, leading to disagreements among judges.").

108. *Cf.* FED. R. CRIM. P. 41(C) (A warrant may be issued for any of the following: (1) evidence of a crime; (2) contraband, fruits of crime, or other items illegally possessed; (3) property designed for use, intended for use, or used in committing a crime; or (4) a person to be arrested or a person who is unlawfully restrained).

109. Professor Orin Kerr posted critical comments about the decision on the Volkoh Conspiracy blog:

> *Maynard* introduces a novel theory of the Fourth Amendment: That whether government conduct is a search is measured not by whether a particular individual act is a search, but rather whether an entire course of conduct, viewed collectively, amounts to a search. That is, individual acts that on their own are not searches, when committed in some particular combinations, become searches. Thus in *Maynard*, the court does not look at individual recordings of data from the GPS device and ask whether they are searches. Instead, the court looks at the entirety of surveillance over a one-month period and views it as one single "thing."

Posting of Orin Kerr to The Volokh Conspiracy, http://volokh.com/2010/08/06/d-c-circuit-introduces-mosaic-theory-of-fourth-amendment-holds-gps-monitoring-a-fourth-amendment-search/#more-35137 (Aug. 6, 2010, 14:46 EST) (last visited Aug. 12, 2010). *But see* Posting of Kip F. Wainscott to American Constitution Society Blog, http://acslaw.org/node/13444?gclid=CKvJ18mDzqMCFUf75wodBn5YuA (May 19, 2009, 11:52 EST).

> While the reasonable expectation of privacy is certainly an evolving standard, the time has come to recognize that government GPS tracking offends this expectation. Although a number of empirical studies support this proposition, it does not require scientific evidence to understand that the "Big Brother" of Orwell's 1984 retains its emotive power

Amendment, the evaluation of whether an expectation of privacy is considered to be reasonable is based not on a single act, but on the cumulative effect of a series of acts.[110] From a law enforcement perspective, individual acts and procedures that are, by themselves, lawful may be found to violate the Fourth Amendment when viewed collectively.[111]

Maynard and *Weaver*, hold that, in the GPS context, a reviewing court must examine the entirety of surveillance over a period of time to determine if a search has occurred.[112] However, this approach need not be applied to aggregations of other law enforcement techniques, such as a review of bank records. Instead, the *Katz* approach remains viable and preferable because it was based, in part, on a recognition that technological advances in surveillance techniques made possible intrusive government interference with privacy without a physical invasion.[113] In the *Katz* decision, this

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> precisely because people expect that they enjoy freedom from extensive technological tracking by the government.
>
> GPS technology presents a very powerful and exciting tool for law enforcement in this country. But, as Judge Posner himself aptly recognized in *Garcia*, "the meaning of a Fourth Amendment search must change to keep pace with the march of science."

Id.

110. An appropriate similar situation is seen in the criminal law of telephone harassment. A single telephone call is legal, but a series of telephone calls, when viewed together, may constitute telephone harassment.

111. *Cf.* PRISCILLA SMITH ET AL., WHEN MACHINES ARE WATCHING: HOW WARRANTLESS USE OF GPS SURVEILLANCE TECHNOLOGY TERMINATES THE FOURTH AMENDMENT RIGHT AGAINST UNREASONABLE SEARCH 1 (2011), *available at* http://digitalcommons.law.yale.edu/ylas/2 (arguing that a warrant is required under the Fourth Amendment because "the type and scope of information collected by prolonged automated GPS surveillance enables governments to monitor a person's political associations, their medical conditions and their amorous interests, in a way that invades their privacy and chills expression of other fundamental rights").

112. United States v. Maynard, 615 F.3d 544, 565–66 (D.C. Cir. 2010); People v. Weaver, 909 N.E.2d 1195, 1202 (N.Y. 2009). This is the approach suggested by a recent decision by a federal magistrate in New York. *In re* Application of the United States for an Order Authorizing the Release of Historical Cell-Site Info., No. 11-MC-0113, 2011 U.S. Dist. LEXIS 15457 (E.D.N.Y. Feb. 16, 2011). In that case, involving a request for historical cell phone tracking data, the Magistrate Judge noted a "shorter time period of the surveillance at issue here distinguishes the instant application from the ones that I have denied on constitutional grounds." *Id.*, at *2. He explained:

> The government does not seek location tracking records for a single mobile phone over a continuous period of 21 days; instead, it seeks records for one telephone for a three-day period and a separate six-day period weeks later, and also the records of a different telephone (albeit one allegedly used by the same investigative subject) for a twelve-day period several months later. Even if it would be just as impractical for the government to conduct physical surveillance in lieu of electronic tracking for such shorter periods, I cannot assume that the information gleaned over such shorter periods, separated by breaks of weeks or months, would necessarily be as revealing as the sustained month-long monitoring at issue in *Maynard*.

Id., at *6–7.

113. *See* Olmstead v. United States, 277 U.S. 438, 474 (1927) (Brandeis, J., dissenting) ("Subtler and

meant that the Court examined not whether the government had violated a person's property interest in a phone booth, but whether it had violated a person's legitimate expectation of privacy in the phone booth.[114] The *Katz* Court recognized that the Fourth Amendment broadly protects from government intrusion that which a person reasonably seeks to keep private.[115] The Court did not closely examine the means by which the government obtained the content of the target's conversations but, instead, focused on whether the suspect had a legitimate expectations of privacy in the conversation.[116] The general principal, thus, remains unchanged: the legitimacy of a citizen's expectation of privacy in a particular place may be affected by the nature of the intrusion that occurs.

The protections provided by the Fourth Amendment, as the Court has often recognized, change to meet new technology. The *Maynard* court's approach is consistent with the Supreme Court's Fourth Amendment decisions and most likely represents the direction future courts will take on this issue. It is important to recognize that the *Maynard* court, as well as *Weaver* and other similar state courts, were not confronted with a discrete use of a GPS device to track, for example, the proceeds of a single drug transaction or a single stolen vehicle.[117] Rather, these cases involved sustained and long-term surveillance of a targeted individual unrelated to any particular criminal action. Viewed this way, the use of GPS tracking devices for long-term surveillance is not merely an enhancement of the type of surveillance traditionally conducted by police, as no police agency could deploy the skill and resources to, *undetected*, record the type or amount of information provided by a GPS tracking device. And, perhaps more importantly for the *Katz* analysis, no reasonable person would expect to be the target of such a massive police surveillance operation. Accordingly, because the use of these devices infringes on a legitimate expectation of privacy, their use constitutes a search requiring a warrant absent the presence of another exception.[118]

more far-reaching means of invading privacy have become available to the government. Discovery and invention have made it possible for the government, by means far more effective than stretching upon the rack, to obtain disclosure in court of what is whispered in the closet.").

114. Katz v. United States, 389 U.S. 347, 353 (1967).

115. *Id.* at 361 (Harlan, J., concurring).

116. *Id.* at 362.

117. *See* United States v. Maynard, 615 F.3d 544 (D.C. Cir. 2010); People v. Weaver, 909 N.E.2d 1195, 1195 (N.Y. 2009).

118. Other traditional Fourth Amendment exceptions, such as exigent circumstances, could still justify the warrantless use of a GPS tracking device.

CONCLUSION

Courts will continue to struggle with *Knotts* and *Karo*. These cases were decided on the basis of primitive tracking devices. In contrast, modern GPS tracking devices permit law enforcement to conduct surveillance beyond a targeted investigation into a discrete crime. In evaluating the warrantless use of GPS devices, courts should be cognizant of the observation in *Maynard*, *Weaver*, and other decisions that that people have a reasonable expectation of privacy in the totality of their movements over the course of a period of time. Future courts, applying the *Katz* analysis, are likely to conclude that the use of a GPS tracking device on a vehicle constitutes a search within the meaning of the Fourth Amendment.