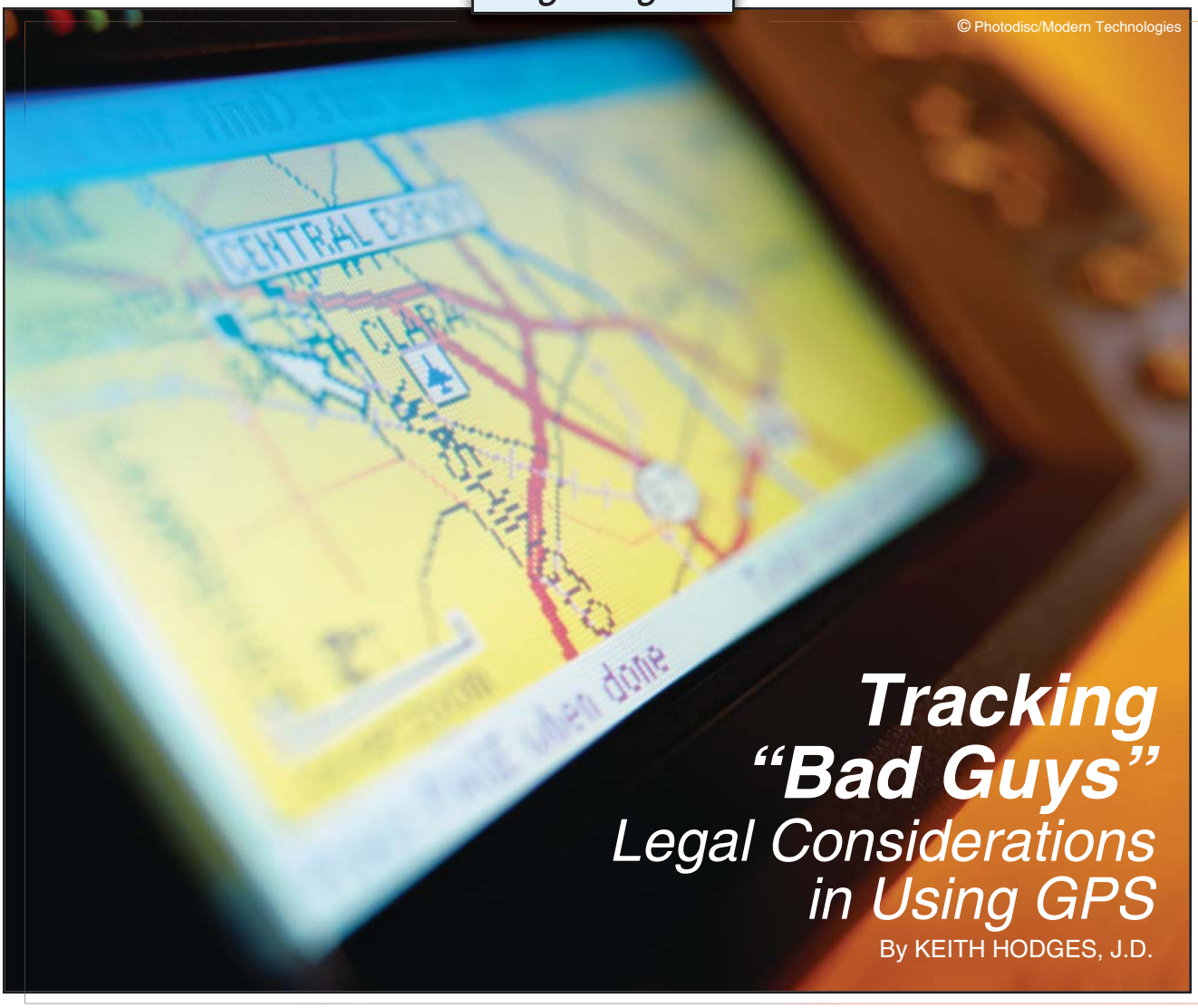


Tracking "Bad Guys"

Legal Considerations in Using GPS

By KEITH HODGES, J.D.

The ready availability and increasing affordability of global positioning system (GPS) devices allow law enforcement agencies to efficiently, accurately, and safely track the movement of vehicles.[1] The results of GPS tracking create a permanent and credible record of precisely where the tracked vehicle was and the time it was there. To use this technology, officers must have lawful access to the target vehicle to install certain instruments.

The simplest form of installation consists of a GPS receiver, antenna, power supply, and logging device that record where the vehicle has moved. Depending on the equipment, officers can remotely obtain data electronically or by physically retrieving the logging device from the vehicle. The apparatus could be in single or multiple units. Live-tracking applications will require all of these items plus a transmitter and its separate antenna.

The quality of information derived from these devices and their relative simplicity make the use of GPS technology attractive to law enforcement.

Prior to employing such technology, officers must be aware of the legal issues that arise with the installation of the technology, as well as its monitoring. This article explores these legal issues and provides an overview of a recent change to the federal search warrant statute to address tracking technology.

THE ISSUES

The federal electronic surveillance statute (Title III) does not implicate the use of GPS devices or intercepting their transmissions.[2] Title III (Title 18, Section 2510 (12)(C), U.S. Code) specifically excludes signals by mobile tracking devices, such as GPS, from federal wiretap law.[3]

Fourth Amendment considerations do apply, however, to the installation and monitoring of GPS devices. When installing the technology, Fourth Amendment consideration arise if officers need to intrude into an area where people have a reasonable expectation of privacy. With such installations, the Fourth Amendment applies and the officers will need a warrant. If not, a warrant is not required.

Not only do Fourth Amendment privacy expectations apply to the installation of GPS devices on vehicles but tracking the vehicle once the device is installed also may require a warrant. In a case involving radio frequency (RF) tracking,[4] the U.S. Supreme Court has held that the Fourth Amendment warrant requirement is not triggered if the vehicle is tracked in public places, which include all public roads and highways.[5] If the tracking will be done while the vehicle is in an area where there is a privacy expectation, however, a warrant is required.[6] As a practical matter, due to limitations on GPS technology, tracking in a nonpublic area likely is not feasible because current GPS technology, unlike RF transmitters and receivers, does not work in areas where the GPS receiver cannot obtain a satellite signal (e.g., indoors or under shelter).

However, GPS is more intrusive than RF tracking because of GPS' ability to capture greater detail. Also, unlike much RF tracking technology, GPS can be placed on a vehicle and the data retrieved many days or weeks later. Based on these differences, as well as the prevalence of GPS tracking and the uncertainty of state laws, the issue may reach the Supreme Court in the next few years. While the RF tracking analogy would appear to indicate that the Court will uphold warrantless GPS tracking in public places, it is difficult to accurately predict how the Supreme Court will rule.[7]

In short, no *federal* case requires a warrant to track in public places, assuming the installation of the device was lawful. While the Supreme Court has not yet decided the issue with regard to GPS, it did determine in 1983 that RF (beeper) tracking on public roadways does not trigger the Fourth Amendment.[8]

"The results of GPS tracking create a permanent and credible record of precisely where the tracked vehicle was and the time it was there."

Mr. Hodges is a senior instructor in the Federal Law Enforcement Training Center's Legal Division at Glynco, Georgia.

THE MODIFICATION TO RULE 41: TRACKING DEVICES

On December 1, 2006, Rule 41 of the Federal Rules of Criminal Procedure was modified to set forth procedures for federal agents to obtain, process, and return warrants to install and use tracking devices. In general, the rule allows for a magistrate judge to issue a warrant authorizing the installation of a tracking device and requires a return be made, informing the issuing magistrate judge of details of the installation, and notice to be provided to the target of the order.[9] It appears that Section 3117 will become irrelevant except for the definition of a tracking device.[10]

- Rule 41(b)(4) Authority to Issue the Warrant: A magistrate judge in the district where the device will be installed may issue a warrant to install a tracking device. The issuing magistrate judge may authorize tracking in the district where the device will be installed, as well as any other district in which it may travel.
- Rule 41(e)(2)(B) Contents of the Warrant: The warrant must contain the identity of the person or property to be tracked and that of the magistrate judge to whom the return on the warrant will be made. It also must denote a reasonable period of time that the device may be used, not to exceed 45 days. Other extensions for not more than 45 days may be granted for good cause shown.[11] The warrant must include a command that the device be installed within 10 days or less from the time the warrant is issued and during the daytime unless the magistrate, for good cause shown, authorizes another time, along with a command that there will be a return on the warrant.

> ***"The quality of information derived from these devices and their relative simplicity make the use of GPS technology attractive to law enforcement."***

- Rule 41(f)(2) Return on Warrant: Within 10 days after use of the device has ended, the officer executing the warrant must make the return to the magistrate judge specified in the warrant. The return must contain the exact dates and times of both installing the device and the period in which it was used. The return must be served on the person who was tracked or whose property was tracked within 10 days after use of the device has ended.[12]
- Rule 41(f)(3) Delays in the Return: Upon request of the government, the magistrate judge may delay providing the notice required by the return.

THE CASE

A federal grand jury indicted Joe Smith for assorted and serious firearms and drug trafficking offenses. His trial will begin in a few months, and he currently is held without bail. Several government witnesses subpoenaed to testify have reported to federal agents that they believe they are being harassed and threatened because of their role in the upcoming trial. Unknown individuals have vandalized the witnesses' property. These incidents have occurred at random occasions and locations, including the witnesses' homes and places of employment, the residences of friends and relatives during the witnesses' visits, and the witnesses' cars parked in public places. In several instances, weapons have been fired at homes where the witnesses live or were visiting. Authorities have tried to conduct surveillance, but all efforts have proved unsuccessful. Resources

do not exist to offer 24-hour protection to all of the witnesses or to maintain surveillance of all possible perpetrators and locations.

From what agents have discovered so far, it appears someone is engaged in witness tampering in violation of Title 18, Section 1512 of the U.S. Code, as well as other offenses. These activities, if they continue, could jeopardize the Smith trial.

The agents have developed four of Smith's close associates—Abbott, Brown, Chastain, and DeLorean—as likely suspects. The evidence collected to date does not amount to probable cause to believe that these individuals have committed offenses. The agents decide to leverage the tracking capabilities of GPS to compare the timing and location of specific future events with the movement of the suspects' vehicles.

Abbott lives in a suburban development and usually parks his automobile on the street. Brown resides in a gated community and parks his car in his driveway. Chastain regularly keeps his vehicle in the garage at his home. Technicians advise that they can accomplish the GPS installations for Abbott, Brown, and Chastain without intruding into the automobiles. But, with DeLorean, who owns a sports car, technicians advise that they cannot install a GPS device on the exterior of the vehicle without it being discovered. They will need to get into the car to conceal the equipment.

The agents now have the equipment and other resources to use GPS tracking devices. But, what legal authority must they acquire to install and use them?

> ***Under federal evidence law, only the original of a writing may be admitted unless certain exceptions apply.***

Tracking Abbott

Abbott lives in a residential neighborhood and parks his automobile on the street, a public place where the agents can freely approach his car. Federal law clearly shows that although Abbott has an expectation of privacy in the interior of his vehicle, he does not have it for the car's exterior.[13] The law allows the agents, without a warrant, to access Abbott's automobile to install a tracking device on its exterior.[14] If the agents need to get *into* his car to install the equipment or to tie into the vehicle's wiring, however, then they will need a warrant because this constitutes an intrusion into an area where Abbott has an expectation of privacy.

Tracking Brown

Brown's situation is a little different because he lives in a gated community and parks his car in his driveway. However, these two factors will not likely alter the Fourth Amendment analysis, as with vehicles parked on public streets, given no expectation of privacy exists for those in parking lots[15] or on streets in gated communities.[16] Because Brown has no expectation of privacy for the exterior of his car parked in a gated community, nothing prevents the agents from entering the area to locate the vehicle.

The fact that Brown keeps his automobile parked in his driveway makes warrantless installation a closer call. Federal cases support the position that no expectation of privacy occurs in the usual residential driveway,[17] but this determination always will depend on the driveway's length, what measures the homeowner has taken to restrict the driveway from public view and access, and other considerations that officers should discuss with an assistant U.S. attorney before attempting a warrantless installation. Obtaining a warrant or waiting for the vehicle to move

to a public place might represent a better option.

Tracking Chastain

Chastain presents a greater challenge. He parks his car in his garage, an area within his curtilage where he has an expectation of privacy. While the agents do not need a warrant to install a device on the exterior of his vehicle, they must intrude into an area where Chastain has an expectation of privacy to access it in the garage. Unless the agents can locate his automobile in a public place to install an external device, they will need a warrant.

Tracking DeLorean

Where DeLorean parks his car is of no importance; the agents will need a warrant because they must get *into* the automobile to install the device. Intrusions into the passenger compartment, trunk, or under the hood of a vehicle to access its wiring or power sources or to install a device or antenna are interior installations. Officers should be conservative and consider an external installation as one that involves the installation of *all* components of the tracking device and any transmitters, including power sources and antennas, on the exterior of the vehicle. Conversely, if it is necessary to get into the car to install *any* of the components, a warrant is required.

THE INVESTIGATION

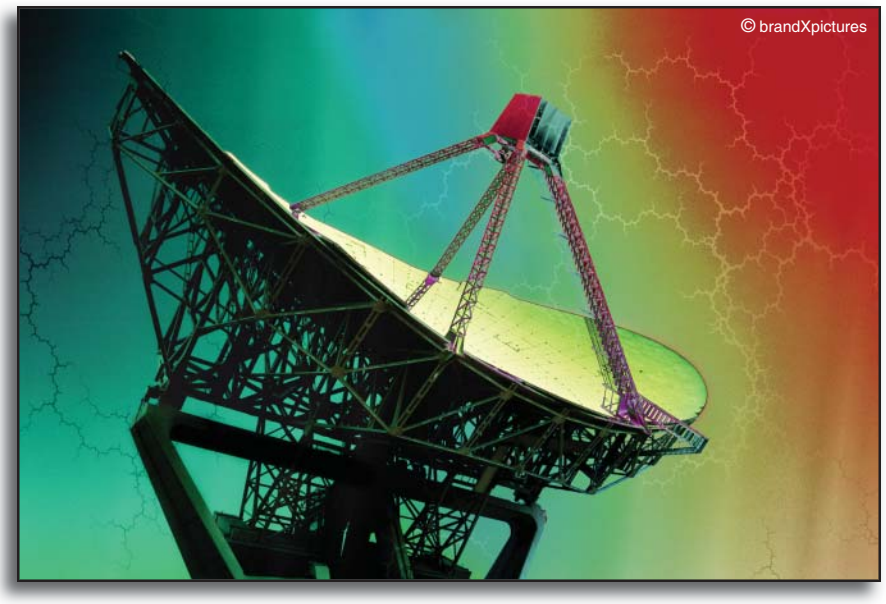
Because the agents investigating the four suspects will attempt to track the vehicles only as they move on public roads and highways, a warrant is not required to do the tracking. The agents decide to install a tracking device on the exterior of Abbott's car, usually parked on a dimly lit street in a residential neighborhood. In Abbott's case, no expectation of privacy exists, so a warrant is not required.

For Brown, the agents choose not to install a tracking device on his vehicle while it sits in the driveway in the gated community, which is well lighted and patrolled by private security. Instead, they will install a device on the exterior of Brown's automobile when it is parked at a restaurant where he works at night. No warrant is required.

The agents determine that it is not feasible, even with a warrant, to get into Chastain's garage to access his car and install a device. They decide to install the equipment on the exterior of Chastain's automobile when he leaves it unattended in the parking garage of his girlfriend's apartment building. A warrant is not required.

Even if the agents can approach the exterior of DeLorean's car without invading an area where he has an expectation of privacy, they still will have to obtain a warrant because they must get inside the vehicle to install the device. This need motivates the agents to collect more information on DeLorean. As they check police reports about some of the incidents, a pattern emerges. A car like his was reported circling two of the victims' houses when the events occurred. DeLorean

also got a speeding ticket that put him near the time and place of a third incident. Further, DeLorean told a fellow employee, "I can tell you that none of these witnesses have the guts to testify against my friend; I am making sure of that." The same person told the agents that DeLorean is scheduled to fly to "somewhere in the Caribbean" for a short vacation and that he usually drives his automobile to the airport when he flies. Based on this information, the agents obtain a warrant from the magistrate judge to install the device in DeLorean's car when he leaves it at the airport parking garage. They also ask the magistrate to allow them to move the vehicle to a more secure or better-lit location if that becomes necessary.



THE OUTCOME

Technicians install the four GPS devices according to plan. In the case of Chastain and DeLorean, the analysis of the data captured shows that on several occasions, Chastain and DeLorean were in the exact location and within a small window of time when acts of witness tampering occurred (vandalism of cars, rocks thrown through windows, and shots fired at a witness' house). This evidence, along with other information developed by the agents, leads to the indictment of Chastain and DeLorean for witness tampering and other offenses.

Under federal evidence law, only the original of a writing may be admitted unless certain exceptions apply. This constitutes the crux of the best evidence rule.[18] What officers see on a computer screen or the display of a GPS device is a writing. Testimony about what an officer saw on the screen or display—without having the writing available in court—should not withstand a best evidence objection. What is needed is either a photograph of the screen or display or a "screen print" to satisfy the requirement for an original.[19] Either of the two following options would work the best: 1) download the GPS data and create a printout or 2) display the data in court.

To prepare for court, it is not sufficient for the agents to testify that they read the data and the information revealed the location of the suspects' vehicles at certain times and places. Rather, the agents must present the printouts of the data and probably have a computer with the appropriate software to show the judge and jury the results of the tracking operation. Of course, first, they must lay a foundation with testimony about how GPS works, the details of the installation of the devices, and the analysis of the data.

United States v. Bennett can demonstrate the consequences of not following these principles.[20] Federal officers boarded a drug-laden vessel. To determine whether it had traveled "from any place outside the United States" in violation of importation laws, the

officers examined the "back-track" feature on a GPS device found onboard. The officers did not download the data nor seize the device. The trial court permitted the boarding officers to testify that the GPS display indicated that the vessel had traveled from Mexican waters into those of the United States. On appeal, however, the importation conviction was reversed because the officers' testimonies violated the best evidence rule.

CONCLUSION

It is important to recognize that the new Federal Rule of Criminal Procedure 41 does *not* change the law regarding *when* a warrant is required to install or track. It only sets forth the procedure to request and issue a warrant *if* one is required.

When employing global positioning system devices, officers should use warrants whenever possible for four main reasons. First, warrants are more likely to fulfill the Fourth Amendment's reasonableness requirement. Next, local, county, and state officers may not know whether a state court will read the state constitution to require a warrant even if the Fourth Amendment and federal case law would not. In addition, warrants give officers flexibility in the event that the initial plan to make a warrantless installation is thwarted. For example, when attempting to execute a warrantless installation, officers might discover that the vehicle has moved into an area where there is a privacy expectation or that only an internal installation is feasible. Having a warrant in hand will allow the installation to go forward. Finally, officers may need a warrant if they have to change, maintain, reinstall, or retrieve the device in an area where a reasonable expectation of privacy exists, as when the vehicle is garaged in such a location after the device is installed. ✦

> ***...first, they must lay a foundation with testimony about how GPS works, the details of the installation of the devices, and the analysis of the data.***

Endnotes

[1] For an overview of GPS, access *http://en.wikipedia.org/wiki/GPS*. For applicability to law enforcement, see John S. Ganz, "It's Already Public: Why Federal Officers Should Not Need Warrants to Use GPS Tracking Devices," *The Journal of Criminal Law and Criminology* 95 (Summer 2005).

[2] 18 U.S.C. Section 2510.

[3] 18 U.S.C. Section 2510(12)(C).

[4] Prior to GPS, law enforcement had only radio frequency tracking technology, commonly called beepers or beacons, which required placing a transmitter on the target vehicle that sent a radio signal for law enforcement to follow. GPS devices, on the other hand, do not send signals but must receive them from GPS satellites. In live-tracking applications, a transmitter can be combined with the GPS receiver, thereby enabling the vehicle's location to be transmitted.

[5] *United States v. Knotts*, 460 U.S. 276 (1983) (radio frequency (beeper) tracking); *United States v. Forest*, 355 F.3d 942 (6th Cir. 2004) *cert. denied*, 543 U.S. 856 (2004) (cell-phone tracking in public place); and *United States v. Moran*, 349 F. Supp. 2d 425 (D.N.Y. 2005).

[6] *United States v. Karo*, 468 U.S. 705 (1984).

[7] As a precursor of the possible analysis yet to come, consider *United States v. Garcia*, 2007 U.S. App. LEXIS 2272 (7th Cir., 2007). Officers used GPS, without a warrant, to follow a suspect as he moved along public highways. The court held that following a car on a public street "is equivocally not a search within the meaning of the [4th] amendment." Concerning the capabilities of GPS, however, the court went on to observe, "Technological progress poses a threat to privacy by enabling an extent of surveillance that in earlier times would have been prohibitively expensive. Whether and what kind of restrictions, in the name of the Constitution, should be placed on such surveillance when used in routine criminal enforcement are momentous issues that fortunately we need not try to resolve in this case." And, the reason the court did not reach the question in the *Garcia* case was apparently because the police were not engaged in "mass surveillance" and they had "abundant grounds for suspecting the defendant."

[8] *United States v. Knotts*, 460 U.S. 276 (1983). State law may vary. *See*, California (*People v. Zichwic*, 114 Cal. Rptr. 2d 733 (Cal. Ct. App. 2001)) and Nevada (*Osburn v. State*, 44 P.3d 523 (Nev. 2002)). Some states require probable cause to install

devices and others reasonable suspicion. Federal law, however, would impose no articulable suspicion for cases in which tracking will be done only in public places, the vehicle is in a public place when the device is installed, and the installation is purely external. Some states require a warrant to track a vehicle in a public place. As of this writing, Oregon (*State v. Campbell*, 759 P.2d 1040 (Or. 1988)); Washington (*State v. Jackson*, 76 P.3d 217 (Wash. 2003)); and New York (*People v. Lacey*, 787 N.Y.S.2d 680 (N.Y. Misc. 2004)).

[9] "The amendment [to Rule 41] reflects the view that if the officers intend to install or use the device in a constitutionally protected area, they must obtain judicial approval to do so. If, on the other hand, the officers intend to install and use the device without implicating any Fourth Amendment rights, there is no need to obtain the warrant. *See, e.g., United States v. Knotts*, where the officer's actions in installing and following tracking device did not amount to a search under the 4th Amendment.... Amended Rule 41(d) includes new language on tracking devices.... The Supreme Court has acknowledged that the standard for installation of a tracking device is unresolved, and has reserved ruling on the issue until it is squarely presented by the facts of a case. The amendment to Rule 41 does not resolve this issue or hold that such warrants may issue only on a showing of probable cause. Instead, it simply provides that if probable cause is shown, the magistrate must issue the warrant. And the warrant is only needed if the device is installed (for example, in the trunk of the defendant's car) or monitored (for example, while the car is in the defendant's garage) in an area in which the person being monitored has a reasonable expectation of privacy." Judicial Conference of the United States*, Report of the Advisory Committee on Criminal Rules*, May 17, 2005, *Committee Note*, Rules App. D-34 (internal citation omitted).

[10] "As used in this section, the term 'tracking device' means an electronic or mechanical device which permits the tracking of the movement of a person or object." 18 U.S.C. § 3117(b) (2006).

[11] If the results of the tracking device thus far disclose evidence of criminal activity, that fact always should be mentioned in the request for an extension.

[12] Any delay in the required notification must be one authorized by statute. *See* 18 U.S.C. § 3103a (2006).

[13] *New York v. Class*, 475 U.S. 106 (1986); *Cardwell v. Lewis*, 417 U.S. 583 (1974); *United States v. Garcia*, 2007 U.S. App. LEXIS 2272 (7th Cir. 2007); *United States v. McIver*, 186 F.3d 1119 (9th Cir. 1999), *cert. denied*, 528 U.S. 1177 (2000); *United States v. Rascon-Ortiz*, 994 F.2d 749 (10th Cir. 1993); *United States v. Gonzalez-Acosta*, 989 F.2d 384 (10th Cir. 1993); *United States v. Muniz-Melchor*, 894 F.2d 1430 (5th Cir. 1990), *cert. denied*, 495 U.S. 923 (1990); and *United States v. Lyons*, 2005 U.S. Dist. LEXIS 6963 (D. Kan. 2005).

> ***When employing global positioning system devices, officers should use warrants whenever possible for four main reasons.***

[14] One federal district court judge has agreed with a magistrate judge's recommendation that reasonable suspicion is required before placing a GPS device on the exterior of a vehicle located in a public place. The author could find no other case in support of this conclusion. The chances are, however, that this issue may not receive any further appellate review because the magistrate later concluded and recommended that the federal district court judge find that there was not only reasonable suspicion but also probable cause (albeit no warrant) to install the tracking device. *United States v. Garcia*, No. 05-CR-155-C, 2006 U.S. Dist. LEXIS 4642 (W.D. Wis. February 3, 2006); *United States v. Garcia*, No. 05-CR-0155-C-01, 2006 U.S. Dist. LEXIS 6424 (W.D. Wis. February 16, 2006). *United States v. Garcia*, No. 05-CR-155-C, 2006 U.S. Dist. LEXIS 29596 (W.D. Wis. May 10, 2006).

[15] *United States v. Cruz-Pagan*, 537 F.2d 554 (1st Cir. 1976) and *Cornelius v. State*, No. A03-704, 2004 Minn. App. LEXIS 149 (Minn. Ct. App. February 10, 2004).

[16] *United States v. Harris*, No. 99-5435, 2001 U.S. App. LEXIS 3918 (6th Cir. March 7, 2001) and *Wheeler v. State*, No. 05-94-01957-CR, 1996 Tex. App. LEXIS 2546 (Tex. App. June 26, 1996).

[17] *United States v. Hatfield*, 333 F.3d 1189 (10th Cir. 2003); *United States v. Reyes*, 283 F.3d 446 (2d Cir. 2002), *cert. denied*, 537 U.S. 822 (2002); *United States v. Hammett*, 236 F.3d 1054 (9th Cir. 2001), *cert. denied*, 534 U.S. 866 (2001); *Rogers v. Vicuna*, 264 F.3d 1 (1st Cir. 2001); *United States v. Garcia,* 997 F.2d 1273 (9th Cir. 1993); *Maisano v. Welcher*, 940 F.2d 499 (9th Cir. 1991), *cert. denied sub nom. Maisano v. IRS*, 504 U.S. 916 (1992); *United States v. Smith*, 783 F.2d 648 (6th Cir. 1986); and *United States v. Ventling*, 678 F.2d 63 (8th Cir. 1982). For an exhaustive review of the law of driveways, see Vanessa Rownaghi, "Driving Into Unreasonableness: The Driveway, The Curtilage, and Reasonable Expectations of Privacy," *The American University Journal of Gender, Social Policy and Law* 11 (2003).

[18] FED. R. EVID. 1002.

[19] An original is the writing or recording itself, a negative or print of a photograph, or "if data are stored in a computer or similar device, any printout or other output readable by sight, shown to reflect the data accurately." FED. R. EVID. 1001(3).

[20] 363 F.3d 947 (9th Cir.), *cert. denied*, 543 U.S. 950 (2004).

The author thanks Senior Instructor Jenna Solari, Federal Law Enforcement Training Center, for her invaluable insight and suggestions.