

GPS: Frequently Asked Questions

by Laura Taylor*

Laura Taylor developed this “FAQ” about GPS for victims of domestic violence who were being assisted by the Harvard Law School Gender Violence Clinic. The clinic lawyers discovered—much the same as Erez, Ibarra, and Gur did in their interviews for the study they report on in this issue—that most victims did not understand how GPS Monitoring worked in enforcing orders of protection. Agencies working with domestic violence victims want to adapt Ms. Taylor’s FAQs in their work with victims.

1. How Does GPS Work?

It seems like everyone has access to GPS now, either in their cell phones, in their car navigation devices, or on their fancy running watches. But how does it actually work? The U.S. Air Force has 24 satellites orbiting the earth, four of which are in range of any one location on the earth.¹ The offender is fitted with a GPS receiver (usually an ankle bracelet), and the satellites send a signal to the receiver. According to the National Air and Space Museum, “The distance to the GPS satellites can be determined by estimating the amount of time it takes for their signals to reach the receiver. When the receiver estimates the distance to at least four GPS satellites, it can calculate its position in three dimensions.”² This position is then transmitted to the tracking company. When the tracking company registers a violation of either the exclusion or inclusion zone, it can contact both the individual being tracked as well as the victim. This is done in real time, and the victim can quickly receive information that she is in danger so that she can seek safety.

GPS is different than the traditional radio frequency (RF) units that were originally used to track individuals who were on house arrest. A recent study by the National Institute of Justice found that “monitoring based on Global Positioning Systems (GPS) typically has

more of an effect on reducing failure to comply than radio frequency (RF) systems.”³ In either case, a tracking system that works best in a particular community and for particular victims and offenders should be used.

2. What Is an “Inclusion Zone” or “Exclusion Zone”? What Is the Difference Between a “Bilateral Program” and a “Unilateral Program”?

There are two ways in which the offender’s movements can be limited using GPS: through inclusion zones or exclusion zones. An inclusion zone is an area where the offender is allowed to go, but cannot leave—triggering an alert on the monitor if they do. For example, in the case of individuals on house arrest, their home or their job would be a part of the inclusion zone. Exclusion zones are areas where the offender cannot go without triggering an alert. In the context of tracking a domestic violence (DV) offender, this would most likely include the home, work, or school of the victim. Both can and should be employed in a way that will best protect the victim.

A unilateral tracking program is when the offender wears the monitoring device and his movements are tracked. A bilateral tracking program is when both the victim and the offender wear GPS units, allowing the movements of both to be tracked, and granting the opportunity for

the victim to receive an alert if the offender comes within a certain distance of the victim.

3. How Much Does It Cost to Purchase the GPS Units and Pay for the Programs That Track the Devices? Is Special Training Needed in Order to Be Able to Track Offenders?

Budgets are tight right now, and funding is an important issue when it comes to GPS. However, GPS tracking is not cost-prohibitive. Depending on the company selected to provide and monitor the device, it can cost as little as \$10 a day.⁴ Some states, such as Illinois and Wisconsin, have a system wherein all individuals convicted of violating a restraining order are subject to a fine, which is then used to pay for GPS tracking devices for batterers who cannot afford to pay the fee for their own tracking devices.⁵ GPS does not have to break the bank, and requiring batterers to pay for their own devices when they are able also forces them to take ownership of their situation.

Finally, the cost is significantly less than putting an offender in jail. One study found that keeping an offender in jail cost \$42 a day.⁶ The cost of GPS monitoring violators of restraining orders is also much less than the cost of a murder trial should the offender be able to reach his victim and kill her, as is too often the case in these situations.

Individual police units do not have to be trained to use GPS because the unit data is sent to the company providing the units.

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*Laura Taylor recently graduated from Harvard Law School. Neither the author nor the Gender Violence Clinic at Harvard Law School endorses any particular GPS product. All products mentioned in the article are mentioned purely as examples.

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These companies then alert the officers of the specific police unit involved if there is a violation of an exclusion/inclusion zone. This is included in the cost of the GPS units.

4. Are the GPS Units Practical? Are They Too Bulky?

In the past, electronic monitoring systems often required the ankle cuff/bracelet as well as another receiver, which could be carried either around the waist or in a shoulder bag. The units would often have to charge for several hours a day or risk running out of batteries when the offender was out in public. Since those early days of electronic monitoring, the technology has greatly improved. There are now one-piece units available where the receiver is completely contained in an ankle bracelet, and no additional receiver is needed. Some products (such as iSECUREtrac's BluTag Active GPS) can be fully charged in 30 minutes.⁷ While having any device is going to be "inconvenient" for the offender, the products available today are much more discrete and more functional than those studied in the early 1990s.

5. Do the GPS Units Work? What About "Dead Spots"?

We have all had the experience of losing cellular phone reception while we drive through tunnels or walk inside a building for a meeting. While the technology is constantly improving, issues with reception can still arise. The purpose behind these GPS units is victim-centered, in that the GPS tracking of offenders is in place to protect victims from further harm. As such, it is most important for the units to work in the exclusion/inclusion area surrounding the victim.

One report on GPS tracking states that when a unit enters a dead zone, "[t]his means that offenders will momentarily not be tracked in near real time. If this occurs, the GPS tracking unit continues to store information about the offender's location. Although the information can be retrieved, it cannot be reported until the portable

tracking device is out of the problem area."⁸ Further, the report suggests, "Users should test the equipment in their locality to know where the dead spots are."⁹ From a victim-centered approach, it is important to test the exclusion zones to ensure that the GPS unit works in those areas before putting a tracking device on the offender and assuming that the system will work to properly alert the victim in case of a violation.

6. Can the Device Be Removed? What Happens if the Individual Removes the Device?

GPS ankle bracelets/cuffs have been designed to make it difficult for offenders to remove them. The cuffs generally include steel bands within the plastic covering that require more than simple bolt cutters to remove. GPS tracking is not perfect, but it does stand as another

barrier between the offender and the potential victim.

7. Does This Protect Women Outside of the Exclusion Zones?

Often, the order of protection only includes the victim's home, place of employment, school (or children's school), or other significant places in her life. In addition, the offender is restrained from coming within a certain distance of the victim. However, as the victim moves about her daily life, it is likely that she will move outside of the exclusion zones. For example, the victim will not receive a warning from the GPS tracking that the offender is sitting in the car next to hers at a stoplight. While using an inclusion zone instead of an exclusion zone can prevent some of these issues, it does not solve every problem, as the victim might have need to enter an inclusion zone from time to time.

GPS cannot stop individuals from violating exclusion zones, or from approaching a victim outside an exclusion zone, which is one reason why it is so important to have high-risk teams working together to help ensure the safety of the victim. There is also the option of having bilateral GPS tracking, where the victim also wears a GPS monitoring device and is tracked at the same time as the offender, making it possible for her to receive a warning that the offender has violated the restraint zone and to give her time to protect herself. While this is not something that should be forced on the victim, offering this sort of system to a victim who deeply fears for her life could provide her some comfort. As has been previously stated, GPS is not the answer in all cases—and certain violent offenders should not be let out of jail early on GPS tracking if those working to protect the victim, including the criminal justice

system, strongly suspect that the offender will cause her harm.

8. What if My State Does Not Have GPS Legislation? Does GPS Work Effectively in States Without GPS Legislation?

Specific legislative mandate is not necessary for the implementation of a successful program for electronically monitoring domestic violence offenders. As Chief John Guard of the Pitt County Sheriff's Office (PCSO) in North Carolina says, judges in every state have the authority to restrict the movements of a domestic violence offender as a condition of pre-trial release, and thus it is possible for law enforcement agencies to begin GPS programs on their own initiative.¹⁰ That is what the PCSO did in 2005. In 2004, 81 homicides attributed to domestic violence

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occurred in North Carolina, among which 26% were committed while the offender was on pre-trial release in connection with a domestic violence incident. In Pitt County alone, there were 299 victims of domestic violence in 2004, and 19% of all domestic violence cases resulted in multiple calls. Such findings prompted the PCSO to apply for the Governor's Crime Commission grant, which allowed the office to lease 25 GPS units for use in tracking domestic violence suspects who had been released on bond prior to trial. The system of leasing rather than buying the devices has allowed the office to maintain flexibility on the number of devices employed at a given time, and also to use the most up-to-date devices. In an assessment conducted in 2008, 36 months after the program's implementation, the PCSO

above, GPS tracking can only do so much. Some GPS units, such as SecureAlert's ReliAlert XC, contain sirens that sound once the offender enters an exclusion zone.¹¹ However, there is no guarantee that an offender who truly wants to harm the victim would be deterred by a siren, or by the officers dispatched when the offender enters the exclusion zone. This is why it is important for GPS monitoring to occur as a part of a wider effort to provide protection for the victim and rehabilitation for the offender.

One way to help prevent a "false sense of security" for the victim is to provide her with training about how GPS tracking works and discuss with her what it can and cannot do. When the victim is fully informed about her situation, she can make decisions on how to protect herself, both inside and outside the exclusion zone.

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found that no homicides connected to domestic violence had occurred in Pitt County during that time, and that the recidivism rate had dropped to 22%, from 36% in 2004. The program's success has attracted the notice of other sheriff's offices in North Carolina; several have asked the PCSO for assistance in applying for grants that will allow them to begin their own GPS programs.

9. Is There Anything to Stop the Offender From Walking Into the Victim's Exclusion Zone and Violating the Order? Does GPS Provide a False Sense of Security?

Repeating some of the points that were made in response to Question 7

Another way that a community-based approach can help protect the victim is by being in contact with the offender. For example, if the offender is currently undergoing therapy and begins threatening the victim again, then the high-risk team can work together to both diffuse the situation with the offender and protect the victim.

Finally, the state and the high-risk team also need to be responsive to the needs of the victim. If, for example, the victim begins to receive threats from the offender via the mail or electronic messaging, then the offender needs to be contacted, told to stop, and have his probation or bail reconsidered. The victim should also be provided with a way to record any calls or messages left on her voicemail by the offender, as those types of harassments will not be

caught by GPS. The victim usually knows the offender very well, and is in tune with any sudden changes in behavior, even if he does not violate the order. Listening to the victim and providing her with resources can help to keep her safe.

Conclusion

GPS tracking is ultimately just another tool that can be used to help keep victims of domestic violence safe from their attackers. Using this tool in addition to other resources can provide security for the victim during a very difficult time. As stated in the DOJ guide on electronic monitoring, "[i]ncluding GPS tracking for certain offenders may add an extra layer of supervision," but the guide also cautions "readers not to see these technologies as the goal, but rather as one means to achieve the goal of public safety."¹² Developing a safety plan that works for the victim and the offender in question is the most important issue, and any decisions as to whether to use GPS should be made after much research and team coordination.

Endnotes

¹Smithsonian Institution: National Air and Space Museum, "How Does GPS Work?" Available at <http://www.nasm.si.edu/gps/work.html>.

²*Id.*

³U.S. Department of Justice, Office of Justice Programs, National Institute of Justice. *In Short: Toward Criminal Justice Solutions: Electronic Monitoring Reduces Recidivism*, 2 (Sept. 2011). Available at <http://www.ncjrs.gov/pdffiles1/nij/234460.pdf>.

⁴Don Dahler, "New GPS Device To Help Warn Domestic Violence Victims About Abusers." CBS New York (Nov. 1, 2011). Available at <http://newyork.cbslocal.com/2011/11/01/new-gps-device-to-help-warn-domestic-violence-victims-about-abusers/>.

⁵Kate Elizabeth Queram, "GPS Tracking For Domestic Abuse Offenders." WisconsinReporter.com (June 2, 2011). Available at <http://www.wisconsinreporter.com>.

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⁷iSecuretrac, *GPS*. Available at <http://www.isecuretrac.com/Services.aspx?p=GPS>.

⁸U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance. *Offender Supervision With Electronic Technology: Community Corrections Resource 32 (hereinafter Offender Supervision)*. Available at http://www.appa-net.org/eweb/docs/appa/pubs/OSET_2.pdf.

⁹*Id.*

¹⁰Telephone interview with John Guard, Chief, Community Operations Division, Pitt County Sheriff’s Office (Nov. 22, 2011).

¹¹Secure Alert, *ReliAlertXC*. Available at <http://securealert.com/Technology/ReliAlertXC>.

¹²*Offender Supervision*, *supra* note 8, at 94. ■



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