



INTERNATIONAL ASSOCIATION OF CHIEFS OF POLICE

# Tracking Sex Offenders with Electronic Monitoring Technology:

*Implications and Practical Uses for Law Enforcement*



An aerial photograph of a residential neighborhood, showing houses, streets, and trees, overlaid with a semi-transparent green filter. The houses are arranged in a grid-like pattern, and the streets are clearly visible. The green overlay is uniform in color and opacity across the entire image.

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# Tracking Sex Offenders With Electronic Monitoring Technology:

## *Implications and Practical Uses for Law Enforcement*

*In partnership with the U.S. Department of Justice, Bureau of Justice Assistance (BJA), the International Association of Chiefs of Police (IACP) identifies policy and operational challenges facing law enforcement regarding sex offenders and is developing resources to assist law enforcement executives and their agencies to reduce future victimization and increase community safety.*

Over the past decade, legislation has increased the use of electronic monitoring technology as an added measure to prevent future and repeat sex offenses by convicted offenders. In 2006, 22 states passed legislation requiring or authorizing the use of Global Positioning Satellite (GPS) technology to track sex offenders.<sup>1</sup> At least six states (Colorado, Florida, Missouri, Ohio, Oklahoma, and Wisconsin) have enacted laws requiring lifetime electronic monitoring for certain sex offenders.<sup>2</sup> The federal Adam Walsh Child Protection and Safety Act (2006) includes language to support pilot programs to outfit registered sex offenders with electronic monitoring tools. The goal of this legislation is to reduce recidivism, absconding, noncompliance, and violations of conditions of supervision by promoting sex offender accountability and increasing public safety.

With electronic monitoring emerging as a common tool used to supervise sex offenders, the law enforcement community should be aware of the uses, capabilities, and disadvantages of this technology.

This document will

- define electronic monitoring technology and its uses
- discuss law enforcement involvement with electronic monitoring technology
- provide examples of electronic monitoring technology

- outline the benefits and concerns of electronic monitoring technology and
- highlight key considerations for the law enforcement community.

This document focuses specifically on GPS monitoring systems, as these are the most common type of electronic monitoring technology used for supervising sex offenders.

## IACP RESOURCES

The IACP offers the following resources related to sex offender management:

- An IACP Model Policy on registering and tracking sex offenders in the community
- An IACP Training Key on registering and tracking sex offenders in the community
- *Sex Offenders in the Community: Enforcement and Prevention Strategies for Law Enforcement*, a publication including an overview of the sex offender population, examples of prevention and enforcement strategies from agencies around the United States, and sample address verification forms
- *Managing Sex Offenders: Citizens Supporting Law Enforcement*, a publication offering examples of how law enforcement agencies are using volunteers to enhance and support their sex offender enforcement and prevention efforts
- *Framing a Law Enforcement Response: Addressing Community Concerns about Sex Offenders*, a brochure identifying questions frequently posed to law enforcement officials, with talking points provided to assist agencies in framing a response.
- *Strategically Monitoring Sex Offenders: Accessing Community Corrections Resources to Enhance Law Enforcement Capabilities*, a guide highlighting community corrections resources available to law enforcement
- A Webcast on the use of risk assessment tools (forthcoming)
- In-person and online training for law enforcement agencies and community based supervision personnel (forthcoming)

Resources available online at:

<http://www.iacp.org/profassist/ReturningOffenders.htm>

## Defining Electronic Monitoring Technology

Electronic monitoring encompasses many different types of technologies. The most accurate way to understand electronic monitoring is to view the technology as a tool, not a program. The tool allows data on offenders to be collected from a distance. This information may include knowing whether an offender is at home or work, analyzing sleep patterns to determine if an offender has been drinking or using drugs, or pinpointing the exact location of an offender at a certain time. Electronic monitoring devices have different functions and should be used with an understanding of the capabilities, purposes, and limitations of each device.

The use of technology to supervise sex offenders is not new. Previous technologies were tested in the mid-1960s on groups of parolees, released mentally ill patients, and research volunteers. These devices were large, difficult to conceal, and impractical to wear on a daily basis. However, the technology used today is greatly improved and current devices are generally smaller and may be concealed. The purposes of current devices are to allow an alternative to incarceration, to increase compliance with treatment, and to

assist offenders with reintegrating into society. Examples of electronic monitoring technologies include, but are not limited to, the following:

- Polygraphs
- Random calling and voice verification
- Remote alcohol monitoring
- Sleep pattern analysis
- Motion detection analysis
- GPS systems.

GPS systems reflect a long line of technological developments, originating from place-based technology that used radio frequency signals to confirm if an offender was present in a specific location. This first-generation technology was created to enforce house arrest orders and conditions of supervision, because it was nearly impossible to determine whether an offender was at home without conducting in-person visits. Using place-based technology, the offender wore a transmitter that sent a signal to a receiver unit connected to the offender's landline telephone. Today, a monitoring center is notified if the offender goes out of range of the telephone receiver. Although these devices improved the enforcement of house arrest orders, they lacked the ability to record the offender's whereabouts. GPS systems are able to pinpoint the actual location of the offender and track an offender's movements over time.

## The Law Enforcement Role

Traditionally, the use of electronic monitoring tools to supervise sex offenders has rested with correctional agencies. The use and maintenance of this technology within police and sheriff's departments is not common. However, we are learning of law enforcement agencies receiving funding from state legislatures to begin sex offender tracking programs using GPS technology. Some law enforcement agencies also make use of GPS systems to enforce exclusion zones and residency restrictions. The latter may occur in states with legislation requiring lifetime supervision of sex offenders using GPS technology.

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**Because of the recent trend in legislation, law enforcement agencies may potentially be required to respond to alerts for sex offenders on GPS monitoring *not* under some form of correctional supervision.**

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As the use of GPS technology to monitor sex offenders grows, law enforcement agencies can benefit

by collaborating with correctional agencies to facilitate the exchange of GPS data to investigate or solve crimes, streamline workloads, support registration tasks, or locate absconders. Passive GPS data may place a sex offender at the scene of a crime, allowing an agency to identify potential suspects or witnesses. A sex offender's alibi may be supported or discredited using GPS data. This information could assist law enforcement agencies with verifying sex offender registration information, such as residential or employment address, and locating noncompliant sex offenders and absconders. Finally, collecting this information can improve the quality of information posted on public sex offender registries.

Active GPS systems can assist law enforcement agencies in enforcing exclusion and inclusion zones. If an agency receives notification that an offender has entered an exclusionary zone, a quick response may prevent an offense. If the agency finds the sex offender near a school or playground, the officer on the scene can report this information to the offender's probation or parole officer. This swift response sends a message to offenders that their behavior is monitored.

# OFFENDER LOCATION TRACKING: HOW IT WORKS

GPS technology requires several components:

- GPS receiver/portable tracking device (PTD)
- Radio frequency transmitter with tamper-resistant strap
- Stationary charging unit
- Cellular telephone
- Computer software to review GPS data.

These components comprise the process of outfitting an offender with GPS monitoring. First, an offender is fitted with a tamper-resistant transmitter, a small, battery-operated unit worn on the ankle that emits a radio signal to a portable tracking device (PTD). The PTD is a small box, worn typically on the offender's waist, that receives transmitter radio signals and position information from 3 of 24 satellites (located 11,000 nautical miles above the Earth's surface) operated by the U.S. Department of Defense. Additionally, the PTD continuously records location information according to date and time. Location information for an offender may be updated as frequently as every 10 seconds.

The radio frequency transmitter is programmed to detect if a transmitter is beyond a predetermined distance away from the PTD. For example, if offenders leave home without the PTD on their waist, the PTD will record that the transmitter is out of range. Although transmitters are labeled as tamper-resistant, the offender may cut off or remove the transmitter. If this occurs, the PTD is programmed to receive and store notice of tampering or removal of the transmitter.

There are three types of GPS technology used to monitor sex offenders:

- **Active GPS monitoring:** Active systems allow the PTD to transmit offender location information to a monitoring center in near-real time. Therefore, active GPS systems require a cellular telephone to communicate location information and determine whether a transmitter is out of range or whether someone has tampered with it.
- **Passive GPS monitoring:** Location and time data are stored in the PTD, and this information is downloaded when the PTD is charged each day. The charger is connected to a landline telephone to transfer information to the monitoring center.
- **Hybrid systems:** Hybrids, the newest type of GPS system, combine both passive and active monitoring capabilities, and differ from active units because they are programmed to report data at much longer time intervals, such as every few hours or two or three times each day. If the transmitter is out of range or someone has tampered with it, hybrid systems react just like active systems, by reporting data in near-real time using cellular telephone communications.

Law enforcement officers working with other criminal justice agencies to monitor and track sex offenders should understand the type of GPS system used in their jurisdiction. Officers should ask questions such as:

- Do GPS units report data using active, passive, or hybrid systems? (See Figure 1)
- Is the GPS unit one or two pieces?
- How are GPS data received and analyzed (i.e., through a vendor or a third party or internally)?
- What are the expectations for officers to respond to alerts?
- Do sex offenders have special conditions of supervision?

## Benefits of GPS Monitoring

The following section outlines four key benefits of using GPS systems to monitor sex offenders:

- **Flexibility**
- **Reintegration**
- **Control**
- **Investigation**

### FLEXIBILITY

GPS monitoring seeks to reduce jail and prison overcrowding by offering a less expensive approach than incarceration. This approach allows

FIGURE 1

	ADVANTAGES	DISADVANTAGES
Active GPS Systems	<ul style="list-style-type: none"> <li>• Seek to alleviate prison overcrowding</li> <li>• Immediate response capability</li> <li>• Data reporting in near-real time</li> </ul>	<ul style="list-style-type: none"> <li>• High daily cost</li> <li>• Reliance on wireless data service coverage</li> <li>• Labor intensive</li> <li>• Require immediate agency response</li> <li>• Greater agency liability</li> <li>• Tracking device size and weight</li> </ul>
Passive GPS Systems	<ul style="list-style-type: none"> <li>• Small, lightweight device</li> <li>• Can be independent of wireless data services</li> <li>• Lower daily cost</li> <li>• Less labor intensive</li> </ul>	<ul style="list-style-type: none"> <li>• “After-the-fact” tracking data</li> <li>• No immediate notification of zone violations</li> </ul>

justice professionals and policy makers to adapt to and overcome institutional costs and space limitations, and closely monitor sex offenders in the community. Moreover, GPS devices can be programmed with specific inclusion or exclusion zones.

GPS monitoring tools not only exclude geographic areas for sex offenders, but they also define acceptable areas. Inclusion zones are programmed to identify specific places within which the offender must be located at certain times of day, including treatment sessions, probation visits, or employment. This flexibility allows agencies to tailor supervision strategies to the offender's risk level and offense patterns instead of applying the same restrictions to all sex offenders.

GPS systems serve a variety of other functions:

- Assisting with court processes, violation hearings, case management planning, and investigating failure-to-register cases
- Serving as a containment tool to enhance other methods of supervision
- Monitoring offenders' daily activities
- Analyzing data location points to identify specific patterns of movement and frequently visited

locations, which may warrant further investigation.

## REINTEGRATION

Successful reentry plays a fundamental role in preventing sex offenders from committing future offenses. Sex offenders commit crimes that cause serious trauma for victims, families, and communities, making reintegration a difficult process. GPS monitoring can assist with sex offenders' reentry by promoting compliance with conditions of supervision and treatment.

## CONTROL

When offenders are released into the community, the criminal justice system has less control over their actions than during incarceration. GPS monitoring tightly structures an offender's life and increases accountability by providing information on an offender's whereabouts at all times. GPS monitoring can enhance the amount of control in the following ways:

- Scrutinizing daily movement patterns
- Sending a message to offenders that they are being monitored continuously
- Recognizing violations early in the supervision process
- Dictating the specific places where offenders may go.

## INVESTIGATION

GPS monitoring increases the ability to investigate current and past behaviors to understand where an offender is in the relapse/offense cycle. GPS monitoring provides an additional tool to investigate offenders by tracking daily movements. For example, it may be of interest to a law enforcement agency to investigate why a sex offender stops by the same location daily on his or her way home from work. It is possible that the offender is engaging in an activity that violates conditions of supervision. Closely monitoring GPS data points may shed light on offense patterns and victim preferences. Law enforcement agencies can also use GPS data points to investigate crimes and identify potential suspects. GPS reports can also help law enforcement investigations with failure-to-register cases or exclusion/inclusion zone violations.

## Concerns of GPS for Monitoring Sex Offenders

Criminal justice agencies may benefit from using GPS monitoring for sex offenders, but before this technology is incorporated into sex offender supervision

strategies, agencies should exercise caution when addressing the following issues:

- **Limited empirical support**
- **Increased officer workload**
- **False sense of security**
- **Legal concerns.**

## LIMITED EMPIRICAL SUPPORT

Many criminal justice organizations use research and evaluation to discern which policies and practices yield the best results. The goal is to develop effective community-based sex offender supervision practices that maximize agency resources while reducing victimization and enhancing public safety. Limited research exists regarding the effectiveness of GPS monitoring for sex offenders. However, some reports on radio frequency technology and short-term studies of GPS technology provide some indication of how these practices will shape offender behavior.<sup>3</sup> Central findings from these studies include the following:

- Technology increased compliance with treatment orders
- Active GPS is the most appropriate technology for sex offenders
- Sex offenders with GPS monitoring are less likely to abscond or commit a violation or a new crime

- Electronic monitoring has a limited ability to produce long-term behavioral change in offenders.

## INCREASED OFFICER WORKLOAD

With several states requiring lifetime GPS monitoring for certain convicted sex offenders, the numbers of individuals on community supervision will increase. The result is an increased workload for law enforcement and community corrections officers. These agencies must be prepared for several related tasks:

- Monitoring GPS equipment
- Responding to alerts
- Reviewing GPS data
- Fitting offenders with GPS units
- Teaching offenders how the equipment works
- Connecting a charger in offenders' homes
- Maintaining equipment, procurement, inventory, and product replacement.

## FALSE SENSE OF SECURITY

Due to a limited public understanding of what GPS monitoring can accomplish, there is potential for a false sense of security. Because GPS monitoring is a relatively new form of technology the public may not realize that offenders can tamper with ankle devices or render them inoperable. Additionally,

there may be a time lapse between an alert notification and agency response. Effective sex offender supervision incorporates multiple tools and an overall strategy that uses justice and nonjustice agencies (such as treatment providers, polygraphers, law enforcement, community corrections, etc.) to work toward increased public safety.

## LEGAL CONCERNS

GPS monitoring of sex offenders presents a range of potential legal issues, which may or may not have significant court precedent. How will courts:

- View cases involving a failure to respond to an alert that results in a new crime?
- View cases involving a new crime committed when the radio signal is lost or during equipment malfunction?
- View the admissibility of location data points and reports from GPS vendors?
- Rule in privacy rights challenges?
- Decide on potential issues of cruel and unusual punishment?

Because the use of GPS systems is still somewhat new, jurisdictions may be challenged in court. Agencies using GPS technology should therefore be prepared to encounter these potential legal challenges.

## Key Considerations for Law Enforcement

### COLLABORATE TO MONITOR SEX OFFENDERS IN THE COMMUNITY

Fully adhering to GPS legislation requires justice agencies to work together, as these tasks cannot be accomplished by one agency alone.

Justice and nonjustice agencies involved in sex offender management should form collaborative and information-sharing partnerships to further enhance supervision.

### EXPAND TRAINING OPPORTUNITIES

Because GPS systems involve tools unfamiliar to law enforcement officials, training curricula should be expanded to cover sex offender supervision tools, including GPS monitoring. With expanded use of GPS systems resulting from state legislation, many law enforcement officers will encounter situations where they will have to respond to alerts. Training curricula should include information on responding to alerts, obtaining data, and monitoring equipment. Training may also include the various ways GPS systems can enhance police operations.

### CLARIFY GOALS AND OBJECTIVES

Community supervision agencies base sex offender supervision strategies

on the containment model which defines community safety and victim protection as goals of sex offender supervision. All parties with sex offender oversight responsibilities share similar goals. Clarifying goals and objectives will increase the likelihood that GPS systems will help to achieve those goals.

### PARTICIPATE IN SEX OFFENDER MONITORING TEAMS

Law enforcement executives may assign specific officers to sex offender monitoring teams, which function as liaisons between the police department and community corrections agencies. Participating agencies may share information about specific cases, resources, recent trends, and related legislation.

### RECOGNIZE LIMITATIONS OF GPS

Law enforcement executives should recognize the limitations of GPS technology; it is a tool that cannot be used in all situations but will assist law enforcement agencies in tailoring prevention and investigation strategies accordingly.

### COMMUNICATE ACTIVELY WITH COMMUNITY CORRECTIONS AGENCIES

The roles and expectations of the law enforcement community in GPS

**In the case of long-term and lifetime GPS monitoring conditions, and once an offender's probationary period ends or if the offender is released without post conviction supervision, law enforcement officers may share responsibility for responding to alerts and working with GPS vendors.**

monitoring are often vaguely defined. It is important for law enforcement and community corrections agencies to establish clear protocols for inter-agency involvement and information exchange. If an offender is on community supervision, the CCO will have information to share with law enforcement personnel. In jurisdictions where a community corrections agency is the primary responder to GPS alerts, law enforcement agencies may be asked to participate. Clear agreements should be established with the community corrections agency so that all supervision team members understand their roles.

## EXPAND POLICIES AND PROCEDURES

The IACP Model Policy on Registering and Tracking Sex Offenders includes procedures for establishing multi-

agency and information-sharing partnerships with community and criminal justice agencies to enhance the supervision of sex offenders in the community.<sup>4</sup> Law enforcement agencies may revise policies to include the following:

- Type of electronic monitoring used in jurisdiction
- Role of specific officers in maintaining/monitoring equipment
- How officers will participate in the sex offender supervision team
- How GPS alerts will be handled
- How GPS data will be maintained and analyzed
- Goals of law enforcement involvement in GPS monitoring.

### Notes

<sup>1</sup> National Conference of State Legislatures, *State Crime Legislation in 2006*, January 2007, <http://www.ncsl.org/programs/cj/2006crime.htm> (accessed December 19, 2007).

<sup>2</sup> John F. Tewey, *Task Force to Study Criminal Offender Monitoring by Global Positioning Systems: Final Report to the Governor and the General Assembly*, Maryland Department of Public Safety & Correctional Services, December 31, 2005, [http://www.dpssc.state.md.us/publicinfo/publications/pdfs/GPS\\_Task\\_Force\\_Final\\_Report.pdf](http://www.dpssc.state.md.us/publicinfo/publications/pdfs/GPS_Task_Force_Final_Report.pdf). (accessed February 6, 2008).

<sup>3</sup> See: Bonta, J., Wallace-Capretta, S., & Rooney, J. (2000a). Can electronic monitoring make a difference? *Crime and Delinquency*, 46, 61-75.

<sup>4</sup> International Association of Chiefs of Police, *Model Policy: Registering and Tracking Sex Offenders*, November 2007, <http://www.iacp.org/documents/pdfs/Publications/RegisteringandTrackingSexOffendersPolicy.pdf>. (accessed January 10, 2008).

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