A PRACTICAL GUIDE FOR OFFENDER TRACKING EVIDENCE PROTOCOLS
The National Law Enforcement and Corrections Technology Center’s (NLECTC) Corrections Technology Center of Excellence (CoE), a program of the National Institute of Justice (NIJ), prepared this guide in response to requests from criminal justice constituents who indicated a need for information on how to best handle the various types of offender tracking evidence that may be required in a court proceeding.

This guide was developed for agencies that operate offender tracking programs and assumes a basic understanding of the technologies used. In preparing this document, the authors consulted with several corrections and law enforcement agencies, including agencies represented on NIJ’s Community Corrections Technology Working Group and NIJ’s Offender Tracking Standard Special Technical Committee. The authors also asked seasoned prosecutors to review and comment on a draft of this document. These efforts resulted in this compilation of best practices and helpful advice from criminal justice professionals experienced with offender tracking evidence and protocols. This guide seeks to promote more effective practices related to offender tracking evidence collection, preservation and presentation.

This document serves only as a guideline for establishing evidence procedures. These best practice recommendations are not legal requirements and agencies have no legal obligation to adopt them. No negative inference should be drawn from an agency’s decision not to adopt, or not to adhere to, any or all of these guidelines.

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If your criminal justice agency uses offender tracking technology, the tracking equipment and the data you collect likely will be used in court proceedings at some point. This document may help agencies establish solid procedures that optimize the value of this evidence. It provides guidance regarding the effective management, preservation and introduction of offender tracking evidence, and also discusses recommendations for offering courtroom testimony. The guide also includes a simple checklist to help agencies ensure proper evidence management. Agencies are encouraged to develop protocols before offender tracking evidence is required in court.

Most offender tracking devices use the global positioning system (GPS) as the primary methodology to establish location. GPS is considered valid technology and has been allowed in numerous court proceedings across the country; a well-known early example is State of California v. Scott Peterson (2004). In this case the court ruled that information that came from global positioning devices placed on Peterson’s vehicles were admissible as evidence because the court determined that the generic methodology used is generally accepted and fundamentally valid.

GPS evidence has also been accepted in court in Texas (Texas Legal Standards for Scientific Evidence, Wellborn, 2010, p. 4). The use of GPS evidence in support of revocations of probation or parole is also well documented (Ruise v. State of Florida, 2010; Commonwealth of Massachusetts v. John A. Thissell, 2010).

Although this evidence may be admissible in court, challenges can, and will, be made by the defense. For example, jurors may not always easily understand GPS data, which may be interpreted for them by witnesses for the prosecution (especially with regard to factors that impact accuracy). The defense may challenge these interpretations. In other cases, the lack of physical evidence or chain-of-custody deficiencies may adversely affect the prosecution.

To manage these risks and to optimize the value of the evidence, jurisdictions should develop a strategy for dealing with offender tracking evidence before cases reach the courtroom. In collaboration with its criminal justice partners, an agency should develop specific protocols that define the types of evidence that should be collected and retained, for which types of cases and for how long. Agencies should consider a number of factors when making these determinations. As a baseline, the protocols must be in alignment with relevant state and federal laws, case law and department regulations. Agencies should also consider other factors such as whether the case alleges a violation of supervision or a new crime, the severity of the alleged crime (if applicable), the profile of the case and the importance of the evidence relative to the overall case. Additionally, agencies should consider and plan for, costs associated with processing and storing evidence.
Because the requirements of evidence management may differ between jurisdictions, the guide discusses the most common aspects of the four types of evidence that apply to offender tracking technology:

- Physical evidence.
- Electronic evidence.
- Documentary evidence.
- Oral testimony.

**Physical Evidence**

*Physical evidence* is any object that can be introduced as an exhibit. An agency should properly inventory and store all physical evidence and carefully document its movement. You should photograph all evidence with a high-resolution digital camera at the time of collection (see “Documentary Evidence,” next page). This can demonstrate that the evidence presented to the court has not been physically altered. If you lose or mishandle the physical evidence, high-resolution photographs may be an acceptable substitute.

Agencies should consider providing a written agreement to all legal parties to the case that outlines the protocols for reviewing any offender tracking evidence held by the agency. Tracking devices are expensive, and agencies often use them over and over again on different participants. In order for the device to be available for re-use as soon as possible, some agencies set a fixed time limit for examination by legal parties. An example of such an agreement is provided in Appendix B.

Examples of physical evidence common to offender tracking include:

1. **Tracking device.** Agencies should work with their criminal justice partners to determine when the assigned monitoring equipment should be available in court as evidence. Jurists appreciate seeing the actual equipment used to place the defendant at the scene of the crime. If someone allegedly tampered with a device, jurists may find visible tool marks and broken attachment pieces quite convincing. Also, the court may require equipment availability for independent testing (see Appendix C) and for introduction at trial. An agency should establish a policy that determines what equipment to preserve as evidence.

2. **Straps.** It is a good practice to save all damaged or tampered straps as evidence for future court proceedings. Straps can provide valuable evidence — including tool marks — that may reflect unsuccessful tamper attempts or may indicate where and how the strap was cut or removed.

3. **Attaching Components.** Attaching components consist of a combination of clips, brackets, pins and screws, and are used to secure a body-attached device to a limb of the person being tracked. In most cases, these components are designed to be tamper-evident. For example, pins and clips may be designed to break apart when the device is removed from the subject’s body. The condition of these components...
may provide valuable evidence that demonstrates the intentions of the defendant/offender.

Electronic Evidence

The data recorded and transmitted from a defendant's/offender's tracking device are considered electronic evidence. Agencies should establish protocols for recording and storing copies of the original data. The chain of custody of this evidence is very important. In most cases, the offender tracking system vendor will be the custodian of the data. The chain-of-custody methodology must address the manner in which the evidence is safeguarded. When establishing electronic evidence protocols, agencies should consider the following:

- How long will the data be available online or by request?
- Will a copy of offender tracking points be made?
- Who from the monitoring entity (either agency or vendor), will testify as the records custodian?

After careful consultation with prosecutors and in-house legal staff, agencies may find it necessary to establish a testing procedure for monitoring equipment involved in a crime. If a case goes to trial, the accuracy of a tracking device may be questioned. Establishing a simple accuracy test for monitoring devices involved in crimes will help validate the offender tracking points in question at a trial. See Appendix C for an example of a protocol for an accuracy test.

When tracking points need to be displayed for the court, the vendor often is asked to convert the data into a video format that can be played on a computer without the vendor’s software. This conversion must be done in a manner that protects the integrity of the evidence. In most cases, the vendor will provide a letter to the court describing how the video was made and attesting to the validity of the reproduction method. Such videos provide jurors (and the court) with a helpful depiction of the defendant’s/offender’s movements during key periods, which can be more effective than reviewing raw data or still images.

Documentary Evidence

Photographs and written material are considered documentary evidence (usually provided to the court as exhibits). Your agency should establish procedures that require the generation of these documents should they subsequently be needed as evidence.

You should document and retain the following information or materials:

- Who last placed the monitor on the defendant/offender?
- On what part of the body did the officer/agent install the tether or tracking device?
- Which strap fit setting did the officer/agent use?
- In what condition did the officer/agent find the tamper-evident components?
- Who investigated any tamper alerts involving that defendant’s monitor?
- On what date did the officer/agent last inspect the device prior to the crime or violation?
- Who removed the monitor following the crime or violation?
- In what condition did the officer/agent find the monitoring device on removal:
  - Did the monitor appear to have been tampered with prior to removal?
  - Was the monitor properly fitted on the defendant/offender?
  - Was it on the part of the body documented when last installed?
- Did the officer/agent record any statements made by the defendant/offender concerning the violation or crime?
- Did the officer/agent perform any post-removal function testing of the equipment?
• Did the officer/agent take time- and date-stamped photographs of tamper indicators?

Other documents, including copies of orders that establish the legal authority for tracking of the defendant/offender and copies of signed agreements, also can be helpful, especially if the documents specify that tracking data can be used in the event the participant is charged with a violation or new crime.

Maintenance records will provide evidence about the history and function of the equipment. Lack of maintenance, or failing to demonstrate that the device received proper maintenance, may cast doubt on the reliability of the tracking evidence. A device with a history of malfunctioning could prove problematic in court. Knowing the maintenance history of a tracking device before trial is critical, especially if the accuracy of the location points may be an issue. The age of the battery, whether the device has been refurbished and the number of times a device has been returned to the factory for repairs may all prove critical when evaluating the relative strength of the tracking evidence.

Oral Testimony

Any words spoken by a sworn witness in an official proceeding are considered oral testimony. It is very important that witnesses are thoroughly prepared to provide oral testimony. Witnesses should completely familiarize themselves with the evidence to ensure the accuracy of their testimony. The scope of the testimony should not exceed the witnesses’ level of competency. It is totally acceptable for witnesses to indicate that they feel unqualified to answer a specific question. Witnesses should avoid using superlative or absolute terms (e.g., the best equipment, always accurate); instead, they should use reasonable language that can be supported by facts.

When facing cross examination, an inexperienced witness can easily become rattled. The witness should answer questions honestly without showing overt bias, and concede good points made by the cross examiner while defending the accuracy of the testimony when appropriate. If it appears the cross examination is creating a misleading impression, the opposing counsel will allow the witness to clarify testimony after the cross examination is completed.

Understanding the technology. Potential witnesses should be familiar with the basics of the technology used. A good attorney may confront a witness about complex issues concerning GPS satellites, GPS receivers, ground stations, cellular communications and a variety of other components that make up the tracking system. If the witness cannot demonstrate a basic understanding of the components of tracking technology, the credibility of the information provided during oral testimony may be questioned.

Witnesses should understand and acknowledge the limitations inherent in offender tracking technology. For example, a variety of factors, including urban canyons, commercial structures, nearby bodies of water and even solar weather conditions can cause inaccurate plotting of points. Any testimony that overstates the reliability of the location points in question could eventually prove detrimental to the case.

The witness should be prepared to explain how interruptions in tracking points can occur. Whether the interruption stems from shielding, jamming or low battery levels, the witness should be able to articulate the causes and effects of these situations.

The witness should be familiar with onboard and post-processing approaches to monitoring zones and schedules, and should understand, and be able to skillfully articulate about:

• The approach used by the agency’s equipment.
• The impact that the chosen approach has on the timeliness of receiving alerts.
• The benefits and potential problems inherent in this approach.
• The rate at which location points are collected.
• How frequently the collected data is uploaded to the data center.

Knowing policies and procedures. Witnesses may be most vulnerable in court when the testimony that outlines the actions taken by the officers is not consistent with the agency’s written policies and procedures. Agency staff should follow policies and procedures, and the testimony should clearly demonstrate this compliance. However, the actions that needed to be taken
may not have been clearly delineated by the agency’s policies and procedures. Administrators cannot possibly anticipate every event that may occur. Therefore, officers are sometimes required to use sound judgment when policies and procedures do not readily apply to a situation. If that is the case, the officer should be fully prepared to discuss the situation in detail and show that the steps taken were aimed at accomplishing the overall objectives of the agency.

The agency’s offender tracking response protocols in particular may draw close examination in a court hearing. These protocols outline how officers should respond when the system generates offender tracking alerts. Oftentimes, agencies prioritize alerts and reserve the most aggressive responses for those alerts considered most serious. Agency response protocols may also consider the relative risk level of the defendant/offender when considering the required response. Obviously, it is important for an agency to have such protocols in place and train their staff in their use. Sound protocols followed by monitoring staff will demonstrate to the jury that the tracking program operates in a competent manner and will add credibility to the prosecutor’s case.

**Expert Witnesses.** Most vendors provide expert witnesses to testify how the tracking hardware and software work. Certifying an “expert witness” varies between jurisdictions; therefore, agencies should develop a protocol with their local prosecutor. If an agency uses an officer to testify as an expert witness, it should create an “expert witness folder” to include documents such as pertinent training records, certifications and a list of previous offender tracking cases in which the witness has testified.

Please refer to Appendix A for a sample checklist of evidence and information your agency may consider collecting and having readily available in the event it is needed in a court proceeding.
Offender tracking technology has become an important tool for an increasing number of criminal justice agencies. A majority of states now mandate its use with certain offenders/defendants, and hundreds of local jurisdictions also use the technology. A number of these offenders/defendants will be accused of violating supervision conditions and/or engaging in criminal behavior while being tracked. Offender tracking evidence can be extremely valuable in helping to establish innocence or guilt; however, there has been very little guidance given to criminal justice stakeholders regarding this important issue. Agencies in each jurisdiction, including corrections, courts and law enforcement, need to work together to develop strong policies that address how evidence should be handled before a case gets to court. This document has identified a number of areas that should be considered. Jurisdictions should determine how physical evidence such as the tracking device, straps and attaching components should be collected and retained. They should consider how electronic evidence, such as offender tracking points, will be preserved and who should testify in court as the records custodian. Jurisdictions should examine the various pieces of documentary evidence they collect, such as photographs and written material, in terms of their potential value should it subsequently be needed in a court proceeding. Finally, jurisdictions should prepare all potential witnesses so they may confidently provide oral testimony in court. This document offers several suggestions for consideration, but each jurisdiction will need to develop its own strategy based on values, objectives and resources. Pre-established policies and procedures will enable agencies to maximize the value of offender tracking evidence and will ultimately support the administration of justice.
Offender Supervision With Electronic Technology: A User’s Guide

Prepared by the American Probation and Parole Association (APPA) with National Institute of Justice (NIJ) funding, this 2002 document helps readers understand and appreciate the process needed to incorporate and implement electronic supervision strategies within justice system programs. It was developed for agency staff who want either to introduce electronic supervision as a new program component or to enhance the use of electronic supervision that has already been implemented. The document is divided into five sections:

- Developing or Enhancing the Use of Electronic Supervision Tools.
- Obtaining and Maintaining Needed Resources.
- Supervising Offenders With Electronic Technologies.
- Program Accountability.


Offender Supervision with Electronic Technology (second edition)

This publication updates Offender Supervision with Electronic Technology: A User’s Guide. Prepared by APPA with funding from the Bureau of Justice Assistance, this 2009 document was developed with an emphasis on GPS technology and offender tracking applications as well as the relationship between electronic supervision and evidence based practices.

Global Positioning System (GPS) Technology for Community Supervision: Lessons Learned

Prepared by Noblis through an award from NIJ, this 2007 publication documents the kinds of success and challenges that supervision agencies face when using GPS to track clients. This report is the result of interviews with seven community supervision agencies about their experiences using GPS to manage clients. The study also researched GPS and other location-based tracking technologies as well as GPS standards and evaluations of GPS programs. It is the intention of this report to provide information to practitioners and other stakeholders at every jurisdictional level that will help them to better understand the use of GPS in community supervision.

## Sample Electronic Monitoring Evidence Checklist

<table>
<thead>
<tr>
<th>Defendant/Offender Name</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Defendant/Offender ID Number</td>
<td></td>
</tr>
<tr>
<td>Defendant/Offender D.O.B.</td>
<td></td>
</tr>
<tr>
<td>Supervising Officer</td>
<td></td>
</tr>
<tr>
<td>Original Case Number</td>
<td></td>
</tr>
<tr>
<td>New Case Numbers</td>
<td></td>
</tr>
<tr>
<td>New Crime Type</td>
<td></td>
</tr>
<tr>
<td>Date and Time of New Crime</td>
<td></td>
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<tr>
<td>New Case Agency Name</td>
<td></td>
</tr>
<tr>
<td>Detective Assigned New Case</td>
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</tbody>
</table>

## Tracking Device

<table>
<thead>
<tr>
<th>Device Serial Number</th>
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</thead>
<tbody>
<tr>
<td>Tether Serial Number (If Applicable)</td>
<td></td>
</tr>
<tr>
<td>Device Model</td>
<td></td>
</tr>
<tr>
<td>System Software Version</td>
<td></td>
</tr>
<tr>
<td>Date Device Last Attached to Defendant/Offender</td>
<td></td>
</tr>
<tr>
<td>Device Attached by</td>
<td></td>
</tr>
<tr>
<td>Where Attached to Body</td>
<td></td>
</tr>
<tr>
<td>Strap Size (If Applicable)</td>
<td></td>
</tr>
<tr>
<td>Date Device Last Inspected</td>
<td></td>
</tr>
<tr>
<td>Last Inspected by</td>
<td></td>
</tr>
<tr>
<td>Date Device Removed From Defendant/Offender</td>
<td></td>
</tr>
<tr>
<td>Device Removed by</td>
<td></td>
</tr>
</tbody>
</table>
Cases where electronic monitoring tracking data is being used as evidence may require the following documentation:

- A copy of the order requiring the defendant/offender to wear an electronic monitor.
- A signed copy of the defendant’s/offender’s electronic monitoring agreement.
- Statement from the person who last attached the device to the defendant/offender.
- Statement from the person who removed the device from the defendant/offender.
- Statement from the person who last inspected the device.
- Statement from the person who inspected the device after last tamper (If applicable).
- Statement from the person who tested the device for accuracy.
- A copy of the accuracy test.
- Appropriate number of color copies of the defendant’s/offender’s tracking points at the time of the crime, including dates and times.
- Appropriate number of AVI (or similar format) files of the defendant’s/offender’s track before during and after the crime copied to DVDs.

☐ Yes  ☐ No Photos taken of device? If yes by__________________________

☐ Yes  ☐ No Is this device being stored as evidence?

If yes where__________________________ Property Tracking Number___________________
Sample Agreement for Equipment Availability Letter

Court Services and Offender Supervision Agency
633 Indiana Ave, NW, Rm. 1373
Washington, DC 20004
Attn: _________________________
(555) 555-5555

Re: United States v. John Doe (PDID No. 99999)
2013cmd2000

Dear Mr. _____:

This is to inform you that the U.S. Attorney's Office has no objection to permitting the defense attorney and/or investigator(s) in the above captioned case, United States v. John Doe, to view the evidence. However, CSOSA will be putting this GPS device back into circulation by Feb. 21, 2013, per standard policies and procedures.

Only defense investigators who (1) present proper credentials, (2) present a copy of this letter and (3) are named with defense counsel will be able to view evidence. It is understood that defense counsel will make no claims regarding break in the chain of custody of such items resulting from this inspection. This letter will expire 30 days from the date above. After 30 days, a new letter must be requested.

Sincerely,

___________________________________________
Assistant United States Attorney

cc: _________________________

NOTICE TO DEFENSE COUNSEL: Viewing of evidence must be scheduled at least 48 hours in advance. The viewing hours are from 10 a.m. through 2 p.m. Please contact Larry Smith at Xxxx.Xxxxx@csosa.gov with the information below to schedule a viewing of the GPS device.

NOTE: CSOSA will be putting this GPS device back into circulation by Feb. 21, 2013, per standard policies and procedures.

I would like to view the above evidence on _____________ at _____________ a.m. or p.m. If the evidence is unavailable for viewing, I request that CSOSA notify me in advance by calling _____________. If I am unable to keep this appointment, I will notify CSOSA by calling (202) 999-5468. I understand that CSOSA will be putting this GPS device back into circulation by Feb. 21, 2013, per standard policies and procedures.
Offender Tracking Accuracy Test

The purpose of this procedure is to determine if an offender tracking device is locating accurately. Procedure:

1. Select a site that is outside in an open area (such as a meadow, park or a parking lot) and is away from any commercial structures that are taller than 50 feet in height.

2. The site should have a clear view of the sky beyond a 15-degree angle to the horizon.

3. Select a site that has a landmark that can be easily recognized from the satellite view of the mapping software that the vendor uses.

4. Set the activated tracking device on a table (or other stand) so it is approximately 2.5 to 3.5 feet (two-piece unit) or six inches (one-piece unit) above the ground and oriented in a manner that is consistent with how the equipment will be worn or carried by the offender.

5. Using the vendor’s tracking software, locate the offender tracking device. (Additional location points can be collected but are not necessary).

6. Photograph the offender tracking device at the accuracy test site.

7. Retrieve the location points with the vendor’s software, using the satellite/aerial view.

8. Compare the actual location of the offender tracking device at the test location to the device location in the vendor’s mapping system.

9. Document your findings, including the date and time of the test, the test location, the number of satellites in view and the accuracy rating for each location point.
Sample Statement

On (INSERT TEST TIME AND DATE HERE), (INSERT YOUR NAME HERE) conducted an accuracy test on an offender tracking device removed from (INSERT DEFENDANT/OFFENDER'S NAME HERE). The monitor serial number (INSERT SERIAL NUMBER HERE) was removed from the offender by Officer (INSERT OFFICER WHO REMOVED THE MONITOR HERE) following his/her arrest. I placed the monitor at (INSERT TEST LOCATION HERE). I located the monitor using the vendor’s software. I compared the monitor’s actual location to the location in the vendor’s mapping software. Based on the accuracy of the tracking point, the number of satellites in view at the time of the test and the location of the monitor in the mapping software, and the actual location of the monitor, I concluded that the monitor was tracking accurately.