



## Compliance Component

### DEFINITION

DEFINITION	
<i>Name</i>	Global Positioning Systems (GPS) – Recreational Grade Receivers
<i>Description</i>	<p>The Recreational Grade GPS receivers are the least expensive and the simplest to use because they have less functionality (and less associated software and hardware) than the other grades. As the name implies, these GPS receivers are intended primarily for recreational purposes. Within the state, recreational grade GPS receivers have been used for a few specific navigation and surveillance purposes because they can quickly collect the x-y coordinates of point features, and can be used to pre-plan routes and navigate to specific locations using 'waypoints'. They are not, however, recommended for most field data collection or mapping activities. It should be noted that some of the more expensive recreational grade receivers also come with a radio receiver for real-time differential correction of data.</p> <p>This guidance document is one of three such documents to help agencies and their staff evaluate the type of GPS receiver to use to collect feature location data. It presents several major issues and characteristics to consider when comparing and ultimately selecting an appropriate GPS receiver.</p>
<i>Rationale</i>	<p>A program intending to collect the locations of real-world features must choose a receiver capable of capturing data that adequately support its business needs. The program's resources (i.e. staff, hardware, software) must also be sufficient to support the use and maintenance of the selected data collection receiver. Therefore, choosing the right data collection receiver for a specific project requires serious consideration of the following:</p> <ul style="list-style-type: none"> <li>• Anticipated uses of the feature location and attribute data to be collected</li> <li>• Program data accuracy requirements for the data to be collected</li> <li>• Available program resources to support data collection and processing activities</li> <li>• Type, number, and other characteristics of features to be located</li> <li>• Characteristics (e.g. rural vs. urban, remote vs. nearby) of the data collection site</li> <li>• Need to identify and use existing feature location or attribute data</li> <li>• Need to identify and use existing data collection procedures or standards</li> <li>• Type of feature attribute data to be collected</li> <li>• How the features to be located will be represented (e.g. points, lines, or areas)</li> </ul>
<i>Benefits</i>	<p>GPS data are used for many different resource / asset inventory, management, and tracking purposes. The benefits of using GPS receivers to collect feature locations and attributes in the field include:</p> <ul style="list-style-type: none"> <li>• Capture more accurate field data for mapping and analysis</li> <li>• Collection of vertical data</li> <li>• Locate features not identifiable on maps, photographs, or other 'base' sources</li> <li>• Increase the efficiency of field data collection</li> <li>• Navigate to a site or feature of interest</li> </ul>

ASSOCIATED ARCHITECTURE LEVELS	
<i>Specify the Domain Name</i>	Information
<i>Specify the Discipline Name</i>	Geospatial Information Technology
<i>Specify the Technology Area Name</i>	Global Positioning System (GPS)
<i>Specify the Product Component Name</i>	
COMPLIANCE COMPONENT TYPE	
<i>Document the Compliance Component Type</i>	Guideline
<i>Component Sub-type</i>	
COMPLIANCE DETAIL	
<i>State the Guideline, Standard or Legislation</i>	<p><b>Recreational Grade GPS</b></p> <p><b>Primary Uses</b> –Navigation; hunting; fishing; camping; backpacking; hiking</p> <p><b>Horizontal Data Accuracy</b> – 10 to 20 meters (no correction) to 5 meters (with real-time correction feature only)</p> <p><b>Vertical Data Accuracy</b> –Not used to collect highly accurate vertical data</p> <p><b>Differential Correction Options</b> – No post-processing capabilities, some receivers have real-time</p> <p><b>Type of Features Collected</b> – Points only</p> <p><b>Option to Load Custom Data Dictionary with Feature Attributes</b> – Unavailable at this time</p> <p><b>Option to Load Coordinate Systems, Projections, Datums / Spheroids</b> – Some receivers</p> <p><b>Option for Navigation Using Waypoints</b> – all receivers</p> <p><b>Time required to ‘Lock on’ to Satellites before Collecting Data</b> – 5 to 10 minutes</p> <p><b>Number of Data Points Collected / Stored before Download Required</b> – Less than 1,000 points</p> <p><b>Training Requirements</b> – Minimal</p> <p><b>Cost</b> - \$200 to \$500 depending on unit selected.</p>
<i>Document Source Reference #</i>	<p>Much of this documentation was extracted from the Wisconsin Department of Natural Resources white paper entitled: <b>Comparing Global Positioning System (GPS) Tools: <i>Selecting the right tool for the job!</i></b></p> <p>It is available at :  <a href="http://www.dnr.state.wi.us/org/at/et/geo/location/gps_info.html">http://www.dnr.state.wi.us/org/at/et/geo/location/gps_info.html</a></p>

Compliance Sources			
<i>Name</i>	Missouri Department of Natural Resources, Geological Survey and Resource Assessment Division, Land Survey Program	<i>Website</i>	<a href="http://www.dnr.mo.gov/">http://www.dnr.mo.gov/</a>
<i>Contact Information</i>	State Land Surveyor		
<i>Name</i>		<i>Website</i>	
<i>Contact Information</i>			
KEYWORDS			
<i>List Keywords</i>	GPS, Global Positioning System, recreational, accuracy, feature collection, points, positions		
COMPONENT CLASSIFICATION			
<i>Provide the Classification</i>	<input type="checkbox"/> <i>Emerging</i>	<input checked="" type="checkbox"/> <i>Current</i>	<input type="checkbox"/> <i>Twilight</i> <input type="checkbox"/> <i>Sunset</i>
<i>Sunset Date</i>			
COMPONENT SUB-CLASSIFICATION			
<b>Sub-Classification</b>	<b>Date</b>	<b>Additional Sub-Classification Information</b>	
<input type="checkbox"/> <i>Technology Watch</i>			
<input type="checkbox"/> <i>Variance</i>			
<input type="checkbox"/> <i>Conditional Use</i>			
Rationale for Component Classification			
<i>Document the Rationale for Component Classification</i>			
Migration Strategy			
<i>Document the Migration Strategy</i>			
Impact Position Statement			
<i>Document the Position Statement on Impact</i>			
CURRENT STATUS			
<i>Provide the Current Status</i>	<input type="checkbox"/> <i>In Development</i>	<input type="checkbox"/> <i>Under Review</i>	<input checked="" type="checkbox"/> <i>Approved</i> <input type="checkbox"/> <i>Rejected</i>
AUDIT TRAIL			
<i>Creation Date</i>	11/11/04	<i>Date Approved / Rejected</i>	2/8/05
<i>Reason for Rejection</i>			
<i>Last Date Reviewed</i>		<i>Last Date Updated</i>	
<i>Reason for Update</i>			