



Standard Guide for Level I GPS Wilderness Navigator (GPS-IW) Endorsement¹

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1. Scope

1.1 This guide establishes the minimum knowledge, skills, and abilities required to navigate in the wilderness using a GPS receiver.

1.1.1 The information in this guide is for navigation on land, off-road, wherever GPS signals can be received.

1.1.2 This guide does not define the minimum knowledge, skills, and abilities necessary for navigating by GPS on roads, in urban areas, on the water, or in the air.

1.2 A person who meets the requirements in this guide is only prepared to navigate with a GPS receiver. Further training in wilderness travel and survival is required for users to operate in a wilderness environment.

1.3 This guide does not imply that a GPS receiver is an alternative to navigating with map and compass. Use of map and compass is strongly recommended as a backup for GPS navigation.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Terminology

2.1 Definitions of Terms Specific to This Standard:

2.1.1 *authority having jurisdiction (AHJ), n*—(1) the team, organization, agency, or other entity using this guide; (2) the team, organization, agency, or other entity to which a person being trained, tested, or evaluated belongs, if the instructor, evaluator, or tester is not a member of the same organization.

2.1.2 *GPS receiver, n*—a radio receiver that uses satellite signals to fix its location on or above the earth's surface.

2.1.3 *map datum, n*—the set of values used to define a particular geodetic model.

2.1.4 *route, n*—a series of waypoints which define a virtual path from one location to one or more other locations.

2.1.5 *track, n*—a three-dimensional trail defined by locations collected by a GPS receiver at specific intervals of time.

2.1.6 *waypoint, n*—an intermediate point on a route or line of travel.

3. Significance and Use

3.1 This guide establishes the minimum knowledge, skills, and abilities required to navigate in the wilderness using a GPS receiver. A person trained to this guide is an endorsed Level I GPS Wilderness Navigator (GPS-IW Endorsed).

3.1.1 Every person who is identified as an endorsed Level I GPS Wilderness Navigator shall have met the requirements of this guide.

3.2 This guide is only the first level of training for GPS Wilderness Navigators, and only establishes the minimum knowledge, skills, and abilities required for a person to navigate with a GPS receiver in a wilderness environment. No other advanced skills are included or implied.

3.3 In addition to meeting the requirements of this guide, an endorsed Level I GPS Wilderness Navigator shall also be adequately trained to travel and work in a wilderness environment.

3.4 Depending on the regulations or policies of the AHJ, additional knowledge, skills, or abilities may be required before a person who meets the requirements in this guide may navigate in a wilderness environment.

3.4.1 Nothing in this guide precludes an AHJ from adding additional requirements for its own members.

3.5 This guide by itself is not a complete training document. It only specifies the knowledge, skills, and abilities required of an endorsed Level I GPS Wilderness Navigator. This guide may, however, be used in the development of, or as part of, a complete training document or program.

3.6 Though this guide establishes only minimum training, it does not imply that an endorsed Level I GPS Wilderness Navigator is a “trainee,” “probationary,” or other similar term member of an organization. The AHJ is responsible for determining the requirements and qualifications for member or employee ratings.

3.7 This guide can be used to evaluate a document to determine if its content meets the necessary topics for training a Level I GPS Wilderness Navigator. Likewise, the guide can

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be used to evaluate an existing training program to see if it meets the requirements of this guide.

3.8 The information in the following sections are not presented in any particular order and do not represent a training sequence.

3.9 Except where a physical skill or ability must be shown, the AHJ is responsible for determining the best way to evaluate a person's knowledge, skill, and ability. This may be by written exam, oral exam, demonstration, or some combination of the three.

4. Level I GPS Functional Knowledge

4.1 An endorsed Level I GPS navigator shall demonstrate an understanding of the following:

4.1.1 The function of a GPS receiver.

4.1.2 How a GPS receiver determines a location.

4.1.3 Limitations to navigation with a GPS receiver, including sources of signal errors.

4.1.4 The advantages and disadvantages of navigating by GPS receiver versus navigating by map and compass.

4.1.5 How the navigator's activities can be documented by a GPS receiver.

5. Level I GPS Navigation Skills and Abilities

5.1 An endorsed Level I GPS navigator shall demonstrate the ability to do the following:

5.1.1 Turn GPS receiver on and off;

5.1.2 Change GPS receiver batteries;

5.1.3 Set map datum;

5.1.4 Set units for distance;

5.1.5 Set units for coordinate readout;

5.1.6 Install maps on a GPS receiver.

5.2 An endorsed Level I GPS navigator shall demonstrate the ability to work with waypoints by performing the following:

5.2.1 Record a waypoint by:

5.2.1.1 Marking current position;

5.2.1.2 Entering position coordinates;

5.2.1.3 Selecting location on GPS receiver's map;

5.2.1.4 Projecting bearing and distance from a location.

5.2.2 Edit a waypoint;

5.2.3 Average a waypoint;

5.2.4 Locate a particular waypoint stored in a GPS receiver.

5.3 An endorsed Level I GPS navigator shall demonstrate the ability to work with tracks by performing the following:

5.3.1 Clear a receiver's track log;

5.3.2 Set up a track on a GPS receiver;

5.3.3 Record a track;

5.3.4 Edit a track;

5.3.5 Save a track, with clear identification for future reference;

5.3.6 Locate a particular track stored in a GPS receiver.

5.4 An endorsed Level I GPS navigator shall demonstrate the ability to work with routes by performing the following:

5.4.1 Create a route;

5.4.2 Edit a route;

5.4.3 Set proximity alarm along a route for a feature, location, waypoint, etc.;

5.4.4 Navigate using a route;

5.4.5 Locate a particular route stored in a GPS receiver.

5.5 An endorsed Level I GPS navigator shall demonstrate the ability to navigate with a GPS receiver by performing the following:

5.5.1 Determine bearing and distance to a location;

5.5.2 Utilize "Go To" function to return to a location;

5.5.3 Obtain location information from a GPS receiver and correlate it to a topographic map.

6. Keywords

6.1 GPS; navigation

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