



## Collecting Waypoints with Garmin Oregon 550 or 550t Units

### Abstract

This guide outlines the steps for collecting waypoints with a Garmin Oregon 550 or 550t GPS unit as well as how to associate photos taken with the unit with waypoints.

*Steps: Acquire Satellites – Walk to desired location – Press Mark Waypoint – Save and/or Edit the Waypoint*

### Details

#### *Startup*

Before starting data collection, the user should activate the unit, confirm settings, and acquire satellites.

1. While outdoors, turn on the GPS unit and acquire satellites. This may take a few minutes. While acquiring satellites, the user can confirm the following settings under the *Setup* menus:

*System > GPS: WAAS/EGNOS*

*Position Format > Position Format: UTM UPS (or hddd.dddd°)*

*Position Format > Map Datum: WGS84*

*Map > Map Orientation: North Up*

*Display > Backlight Timeout: 1 minute*

*Display > Battery Save: On*

*Tracks > Track Log: Do Not Record*

*Routing > Guidance Method: Off Road*

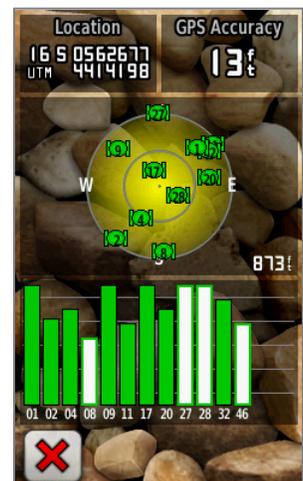
*Routing > Lock On Road: No*

2. Waypoints can be collected while navigating, but it is not recommended because it can complicate interaction with the unit, particularly on the *Map* screen. Make sure the unit is currently not navigating to any points by **pressing *Where To?*** on the *Main Menu* screens. If the unit is navigating to anything, press **Stop Navigation** on the screen that appears. If the unit is not navigating to anything, then a list of feature types for navigation appears instead and the user should **press “x”** to go back to the *Main Menu* screens.

3. Once all settings on the unit are adjusted or confirmed, the user should view the *Satellites* screen by **pressing the *Signal Strength Bar Indicator***.



4. While on the *Satellites* screen, a skyplot of satellites should be drawn and any satellites that are providing signal to the unit should be green with a corresponding green bar on the bar chart beneath. Several satellites (more than five) should be locked in by now and the screen should display coordinates and a GPS Accuracy value at the top. If the unit is still searching for satellites, wait until it successfully locks onto enough satellites to provide a location and accuracy readout before starting data collection.



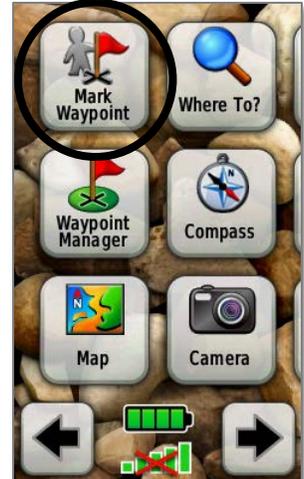
5. Once the GPS accuracy is under 15 feet, it is ready for use and the user can press “x” to exit back to the *Main Menu* screens. If you are having trouble getting accuracy down to 15 feet or less, try the following:
  - Move away from vehicles or trees, if possible.
  - Make sure the unit’s GPS mode is set to *WAAS/EGNOS*.



### Marking Waypoints

This method involves taking a single waypoint each time the user presses **Mark Waypoint** on the *Main Menu* screens. The point is not part of a track and is not averaged over time. This should be sufficient for most resource grade uses so long as the GPS unit indicates its current accuracy is 15 feet or less.

1. Press **Mark Waypoint**.



2. If you need to make no changes to the waypoint information, press **Save**, otherwise press **Save and Edit**.

**Note:** As soon as you press **Save** or **Save and Edit**, the waypoint's name and location will be saved, even if you chose **Save and Edit** but then made no actual changes to the point's information. The only way to escape from recording a point is to press the red "X" button before pressing **Save** or **Save and Edit**. If you inadvertently collected a point and it is now saved, the only way to remove it from the unit is to delete it.



3. If you chose to edit the Waypoint, press the button for the information you'd like to change, such as **Change Name**.





4. **Press** the letters or numbers to edit the Waypoint's information. When editing text for a given attribute, the letter or number pressed will overwrite the character shown at the position currently highlighted by the onscreen cursor.
5. **Press** the **confirm** check mark to save the changes, or press the red "x" button to exit an attribute editing screen without changes.



6. When finished making changes, **press** the "x" button to return to the *Main Menu* screens.



#### Associating Photos with Waypoints

This section details the easiest way to tag a photo to a waypoint. All photos taken with the unit while satellites are locked will be geo-tagged, but the CCE approved tools to utilize this feature are limited. This method focuses on the basic process of taking a photo with modifying a waypoint. The drawback is that waypoints will have different names than the photos. See the full guide of this topic for screenshots and alternatives.

1. Follow the steps from the *Startup* section above.
2. Go to the position in the field where you will take a waypoint.
3. **Press** the **Camera** button and then take a picture.
4. Exit the camera screen after taking the picture.
5. While standing at the same spot, **press Mark Waypoint**.
6. **Press Save and Edit**.
7. **Press Change Photo**.
8. From the photo gallery **press** the thumbnail for the photo to associate with the waypoint (choose the photo you just took prior to marking the waypoint).
9. The full size photo will be displayed onscreen. **Press Use**.
10. You'll be returned to the waypoint editing menus. Continue to edit anything else about the waypoint as needed, such as **Change Name**.
11. When finished making changes, **press** the "x" button to return to the *Main Menu* screens.
12. A waypoint has now been taken and associated with a photo.



### *Editing Waypoint Attributes During Waypoint Collection*

Users can change a variety of attributes about a waypoint while collecting it by repeating steps #3 through #5 above, as needed. Following is a list of options about a point a user can change and what those options allow.

- Change Name:** Allows the user to edit the name of the current waypoint. If the user is visiting only one field site, the default names are fine, though the user should note the range of point numbers associated with that site in their field notebook (e.g. "Smith Farm = Points 001 to 025"). If the user is visiting multiple sites, it is recommended the user edit the names to reflect the site in some fashion, such as by replacing the first 0 with a letter. The user should also take note of any such naming convention in their field notebook. For example, all points recorded at the Smith farm may be named A01 through A25 while all points recorded at the Doe farm may be named B01 through B25 or B26 through B50.
- Change Photo:** This allows the user to select a photo from the existing library of photos on the unit to associate with the waypoint currently being edited.
- Change Comment:** This allows the user to enter a comment up to 50 characters long in the comment field to be saved with the point. We may use this field on the unit for a variety of purposes, but specific uses will be outlined in other guides. For general use, it's probably easier to note lengthy comments for a point in a field notebook and type them into a data table in back at the office when running DNRGPS, ArcGIS, or BaseCamp.
- Change Location:** Allows for manual editing of coordinates. The user should not change the location of the point.
- Change Elevation:** Allows for manual editing of elevation. This is unlikely to be changed without a better source of information.
- Change Depth:** Allows for manual editing of depth. Not applicable.
- Reposition Here:** Allows the user to change the position of the point to the current location of the GPS unit. This should only be done if there is some reason for low confidence or a mistake regarding the original location of the point.
- Move Waypoint:** Allows the user to move the point on the Map screen. This method is not recommended and *Reposition Here* should be used instead.
- Delete Waypoint:** Allows the user to delete the waypoint.
- View Map:** Allows the user to view the waypoint on the unit's base map(s).
- Project Waypoint:** Allows the user to create a new waypoint at a compass bearing and distance from the current waypoint. This use is not advised without strong confidence in a bearing and distance data set.

### *Waypoint Averaging*

Waypoint averaging is not necessary with the Oregon 550 units. See the following blog link at the Garmin website for more details.

<http://garmin.blogs.com/softwareupdates/2009/04/waypoint-averaging.html>