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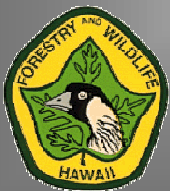


Pacific Ant Project

Survey Training module

Session 3: GPS training

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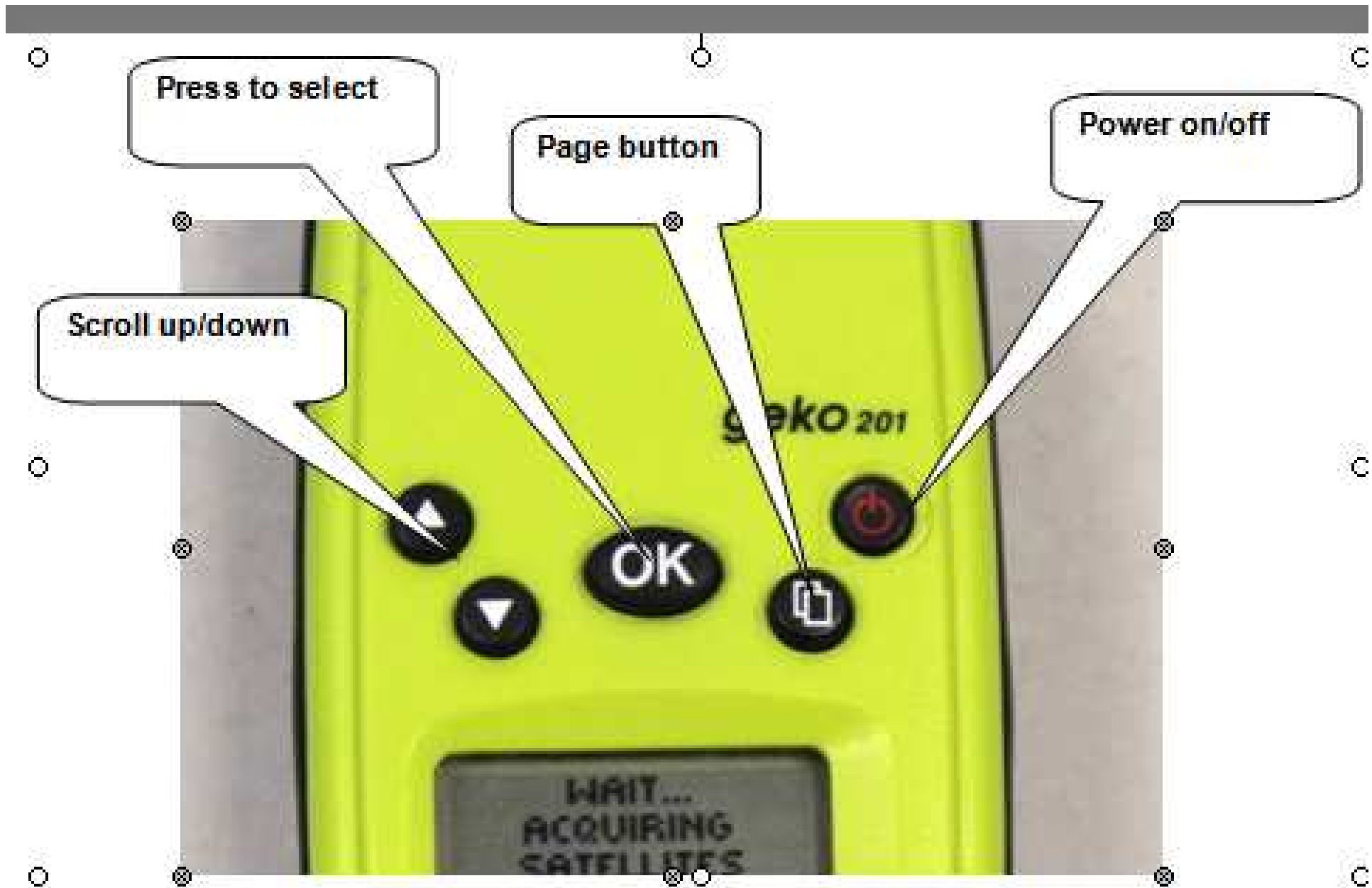


The Garmin GP 5

The picture to the right is that of a Garmin "Geko" 201 GPS unit. Its inexpensive, lightweight, water resistant and will run all day on 2 AAA batteries

Below is a Garmin "Etrex" which can be worn like a wrist watch.







There are 5 menu pages on the GPS and these are listed below along with what each page is used for.

Page 1 (welcome screen).

This is the first screen you will see when turning on the power. It shows you how good the satellite signal is, navigation accuracy and battery charge level. When you first turn on the GPS, it might take a few minutes to "warm up". During this time it tries to locate all the satellites so it can begin to navigate. When the unit is ready, the screen will change to something like the image below. Do not start using the GPS until the accuracy is 10 meters or less. Press the "page" button to go to the next page.



Page 2 (map screen)

This page shows you the path you have traveled – like leaving a trail of breadcrumbs. It also shows the waypoints that are logged in the unit. While on this page, the scroll up/down buttons will change the scale (make the map smaller or larger). The little guy on the screen represents you and where you are in relation to the trail. The map page can be very helpful if you are trying to get back the same way you came: for example a forest path or navigating through a reef. Press the "page" button to go to the next screen.



Page 3 (navigation screen).

This screen can be used for 2 things. When you are travelling, it will show your compass bearing as well as your speed. It is also the screen you use when you are trying to find a previously stored waypoint (see the GO-TO section for more information). Press the "page" button to go to the next screen.



Page 4 (trip summary screen)

This page shows a summary of the trip being taken, including total distance traveled, maximum speed, average speed and a trip timer. Press the "page" button to go to the next screen.



Page 5 (menu screen)

This screen is used to change the GPS settings, to enter waypoints, and to choose a waypoint to find. Use the scroll up/down buttons to highlight the menu item you want, then press "OK" to enter that menu item.

There are 6 menus on this screen,

Mark – use this menu to mark a waypoint.

Waypoints – a list of all the waypoints currently stored on the GPS

Tracks – a list of track maps saved on the GPS (see page 2 (map screen))

Routes – not used for survey!

Games – definitely not used for surveys!

Setup – this is where all the GPS settings are stored. do not enter or change anything on this screen. This is best left to the supervisor because if some settings are accidentally changed, the waypoint data could become corrupted.



Common warning messages



There are three common warning messages that will occasionally pop up.

Weak GPS signal

This warning is to let you know when the GPS is having trouble getting a fix on its location. It usually happens when you are standing close to a building or under a dense canopy. Press "OK" to acknowledge that you have read the warning.



Trouble acquiring satellites

This warning message will appear when the GPS is turned on indoors, in a poor reception area, or hundreds of miles from where it was last used.

Select "yes" if you are indoors. The GPS will assume you are using the unit on a computer and will stop searching for satellites. Select "no" to keep searching for satellites.

If you select "no", a second warning screen will appear asking if you have moved a long distance since last using the unit. (see image below). It asks this question because it "remembers" the satellites it used the last time it was turned on and expects them to be there.

Selecting "yes" forces the GPS to reset its memory and look for new satellites. Choosing "no" will make the unit keep trying to find the satellites it has stored in memory.



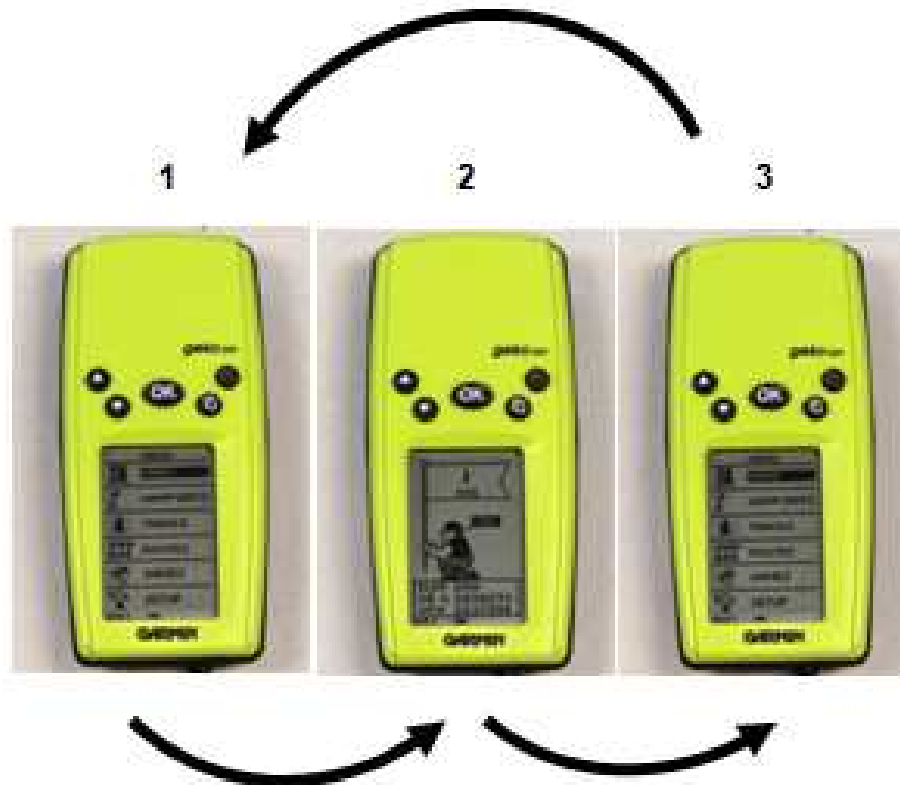
Instructions for recording a waypoint

OK folks, its as easy as 1 - 2 - 3

1 - After turning on the GPS, wait until its ready to navigate and press the "page" button until you reach the "menu" screen. Make sure the "Mark" menu line is highlighted.

2 - Press "OK" and you will see a new screen with a little guy holding a flag. The number on the flag is the waypoint number the GPS will give your new waypoint.

3 - Press "OK" again. The waypoint will be recorded and the GPS will return to the "menu" screen and you are ready to do it all over again!



Instructions for setting a new starting number for waypoints



1



2



3



4



5



6



7



8

Instructions for returning to a previously stored waypoint (GO-TO)



1



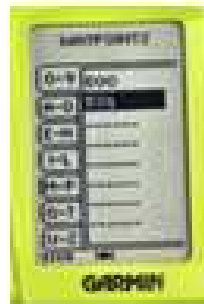
2



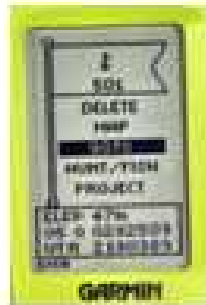
3



4



5



6



7



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