Department of Agriculture
UPLAND DEVELOPMENT PROGRAMME
IN SOUTHERN MINDANAO (UDP)

QUICK REFERENCE MANUAL of GPS 315, Sportrak and Sportak Pro

This reference manual is culled out from the guidelines apparently being developed by the GIS specialist in the application of GIS and GPS on LUB-BDP. Only the relative functionalities that will be used during the perimeter survey were reflected in this manual. Irrelevant functionalities which you prefer to learn are found in the user manual of the GPS unit.

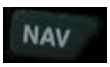
Please return this manual to the GPS unit box for reference of the next LGU.

Basic GPS unit operations and maintenance

NOTE: All the instructions, technical steps and operations in this annex are assumed that you are using Magellan GPS units having models **GPS315, Sportrak and Sportrak Pro**. If not, you can find similar functionality on the current model of GPS unit you have.

I. GPS UNIT USER INTERFACES

As the GPS unit improves its features and interface, some of its buttons has slightly been repositioned and redesigned. For the purpose of creating a general term for these buttons, this annex used a general term in relation to the buttons used by each model of GPS units. Kindly refer to the "Button Name" indicated below and the corresponding button used by your GPS unit.

Button Name	GPS 315	Sportrak	Sportrak Pro
POWER			
QUIT			
ENTER			
NAV			
MARK			

			Press 2 to 3 seconds
MENU			
GOTO			
LIGHT			Press 2 to 3 seconds
ARROW KEYS			

MARKING A WAYPOINT using GPS315/SporTrak

Step 1) Getting a Fixed Position.

NOTE: If you are getting only landmarks, be sure that your tracking is turned off (See Tracking Roads/Rivers on how to set the tracking mode of the GPS unit off)

Step 1.1) After turning your GPS unit ON, wait for a few seconds for the unit to acquire signal from the satellites. You will know the progress of the signal acquisition on the STATUS screen.

Step 1.2) Once the unit has computed a fixed position, the POSITION screen will be displayed. You have to wait for at least three minutes for the satellites to compute your final coordinate.

NOTE: In cases where there are weak satellite signals and the unit does not get a fixed position, press the ***NAV*** button of the unit until your screen is like the image in your 1.2. When it is not yet in averaging mode, do not proceed to the next step. You have to wait until the unit is in averaging mode for your location to be computed.

1.1)

1.2)

Step 2) Marking a Waypoint.

Step 2.1) When the averaging reaches three minutes, you may save your position by clicking the ***MARK*** button. This will stop the averaging but do not move from your position yet.

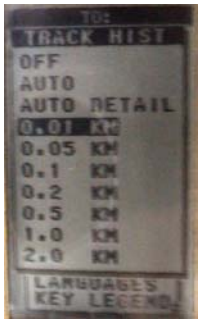
Step 2.2) Highlight the given waypoint name just like image 2.1 and change it by clicking the ***ENTER*** button (This will enable you to change the waypoint name). Enter the characters of the waypoint by pressing UP/DOWN ***ARROW KEYS***. Press LEFT/RIGHT ***ARROW KEYS*** if you want to move from

2.1)

2.2)

one character to another. If finished, press ***ENTER*** button		
Step 2.3) Press the DOWN ***ARROW KEY*** and highlight the DESCRIPTION menu. Step 2.4) Press the ***ENTER*** button. Enter a very brief description of the waypoint by pressing UP/DOWN ARROW KEYS for displaying the characters and LEFT/RIGHT ***ARROW KEYS*** for creating or replacing a character. Repeat the process until you are have entered the waypoints description. NOTE : If you are finished entering the description of the waypoint, reflect the waypoint name, coordinates (latitude and longitude) and detailed description of the waypoint on the form provided for the GPS surveyors.	2.3)	2.4)
Step 2.8) Press ***ENTER*** if finished and press the DOWN ***ARROW KEY*** to highlight the SAVE LMK menu. Step 2.9) Click the ***ENTER*** button. This time, the waypoint has been saved in the GPS unit.	2.8)	

TRACKING ROADS/RIVERS using GPS315/SporTrak

Step 1) Turning the tracking on/off		
Step 1.1) After turning your GPS unit ON, wait for a few seconds for the unit to acquire signal from the satellites. You will know the progress of the signal acquisition on the STATUS screen. Step 1.2) To know whether you can start tracking, click the NAV button until the display is similar to the image in 1.2. If it is in averaging mode, you can continue to the next step. However, if not, try to wait for a few minutes for the GPS unit to acquire satellite signals.	1.1)	1.2)
Step 1.3) If it is in the averaging mode, click the ***NAV*** button until you reach the PLOT screen (see image 1.3). Step 1.4) From the PLOT screen, click the ***MENU*** button. Select TRACK HIST. Press ***ENTER*** button	1.3)	1.4)
Step 1.5) If you want to turn on the tracking of the GPS unit, select an interval on the list. Step 1.6) If you want to turn off the tracking of the GPS unit, select OFF on the list. Press ***ENTER*** button	1.5) 	1.6)

NOTE:

1) If you will delineate a boundary or just getting the waypoint of the landmarks, turn-off the tracking of your GPS unit. If it is turned on, it will continuously get the track wherever you go.

2) If you want to start getting the reading of the river or road, turn on the tracking of the GPS unit at the actual location where you will start traversing. Turn it off at the end of the river/road. In your form, indicate the river/roads name and its type (Provincial/municipal/sitio etc)

Step 2) Clearing the track data

NOTE: Perform this function if you have downloaded the existing tracks in your computer. Step 2.1) Click the ***NAV*** button until you reach the PLOT screen Step 2.2) Click the ***MENU*** button and highlight CLR TRACK. Press ***ENTER*** button	2.1)	2.2)
Step 2.3) Highlight the YES option and press the ***ENTER*** button	2.3)	

MARKING A WAYPOINT using SporTrak Pro

Step 1) Getting a Fixed Position.		
NOTE: If you are getting only landmarks, be sure that your tracking is turned off Step 1.1) After turning your GPS unit ON, press ***ENTER*** button three times to go to the screens of the GPS unit. Wait for a few seconds for the unit to acquire signal from the satellites. Click the ***NAV*** button to go to the STATUS screen (shown in image 1.1) Step 1.2) If the GPS unit is already acquiring signals from multiple satellites, go to the POSITION screen by clicking the ***NAV*** button several times until the screen is similar to the image in 1.2. NOTE: You have to wait until the GPS unit starts averaging your position. If the word AVERAGING or WAAS AVG. is not being displayed in the unit, do not make the mark yet.	1.1)	1.2)

Step 1.3) If the status of the GPS unit is already in averaging mode, wait until the averaging reaches 3 to 5 minutes. Step 1.4) Once the GPS units averaging reaches 3-5 minutes, click the ***MENU*** button and highlight the ***MARK*** menu as shown in image 1.4. Step 1.5) Once the MARK menu has been highlighted, click the ***ENTER*** button. The GPS unit will display the coordinate of your current location as well as the provided name of the waypoint. To rename the waypoint name, highlight the given waypoint name as shown in image 1.5 and click ***ENTER*** button	1.4)	1.5)
Step 1.6) To enter the user-defined name of the waypoint, highlight the character you want to reflect on the new name of the waypoint by moving the ARROW KEYS. Step 1.7) If you have selected the character, press the ***ENTER*** button. Notice that it will be reflected on the name of the waypoint. Step 1.8) Repeat steps 1.6 to 1.7 until you complete the characters for your waypoint name. If finished, click the OK key. NOTE: If you want to delete the character you have entered, highlight the BACK key and press ***ENTER*** button.	1.6)	1.7)

Step 1.9) Move the ARROW KEY down and highlight the CREATE MESSAGE. Step 1.10) Same procedure with renaming a waypoint. Press ***ENTER*** button and enter the message using the keyboard keys. Highlight the OK key when characters of the message have been reflected.	1.9)	1.10)
NOTE: After saving the waypoint, reflect the waypoint name, coordinate and description on the form provided to the GPS surveyor. Step 1.11) Finally, click the SAVE button to save the waypoint.	1.11)	

TRACKING ROADS/RIVERS using SporTrak Pro

<table>
<tr><th colspan="3">Step 1) Turning the tracking on/off</th></tr>
<tr>
<td>Step 1.1) After turning your GPS unit ON, wait for a few seconds for the unit to acquire signal from the satellites. You will know the progress of the signal acquisition on the STATUS screen.

Step 1.2) Click the NAV button until the GPS unit is similar to the MAP screen as shown in image 1.2.

NOTE : Before setting the track mode, be sure the icon located at the middle of the MAP screen is an arrow. If the icon is in hourglass, wait for a few minutes more. It means that the unit has not yet acquired the signal of the satellites.</td>
<td>1.1)
</td>
<td>1.2)
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<tr>
<td>Step 1.3) Once the icon in the middle of the MAP screen has turned into arrow, click the MENU button and select MAP SETUP. Press ENTER button

Step 1.4) Move your ARROW KEY down and highlight the Track Mode as shown in image 1.4.</td>
<td>1.3)
</td>
<td>1.4)
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</tr>
<tr>
<td>Step 1.5) If you want to turn on the tracking of your GPS unit, press the ENTER button and select an interval. Otherwise, select OFF in the tracking mode.

Step 1.6) Once the track mode has been set, click the QUIT button to return to the MAP screen

NOTE: (1) Since the roads/rivers to be track is a barangay-level, we recommend the interval of 0.01 km. to display the details of the road/river.</td>
<td>1.5)
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<td></td>
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(2) You can zoom in/out on the map screen by clicking the zoom in button. You can also pan the map by pressing the ARROW KEYS to your designated direction.		

NOTE:

1) If you will delineate a boundary or just getting the waypoint of the landmarks, turn-off the tracking of your GPS unit. If it is turned on, it will continuously get the track wherever you go.

2) If you want to start getting the reading of the river or road, turn on the tracking of the GPS unit at the actual location where you will start traversing. Turn it off at the end of the river/road. In your form, indicate the river/roads name and its type (Provincial/municipal/sitio etc)

Step 2) Clearing the track data

NOTE: Perform this function if you have downloaded the existing tracks in your computer. Step 2.1) Click the ***NAV*** button until you reach the MAP screen Step 2.2) Once the display is in the MAP screen, click the ***MENU*** button and highlight CLEAR TRACK and press the ***ENTER*** button. Step 2.3) Select YES and press ENTER.	2.1)	2.2)