

AERONET - Maritime Aerosol Network
Modified 6/14/2012

GPS Instructions

GPS Setup

The GPS clock should be set in the UTC (or GMT). All of the parameters were previously configured in the GPS prior to deployment.

In the event that the GPS parameters need to be updated, the operator should perform the following steps:

1. Set the clock in the GPS GPSMAP 60CSx
 - a. Turn the GPS ON and push Menu twice.
 - b. In the Main Menu, go to Setup and push ENTER
 - c. Scroll to Time and push ENTER
 - d. Using arrows and ENTER button change the following parameters:
 - i. Time Format to “24Hour”
 - ii. Time zone to “London”
 - iii. UTC offset to “0h00min”
 - iv. Daylight Savings Time should be turned “No”
2. In order to set up the interface with the Microtops
 - a. Turn the GPS ON and push Menu twice.
 - b. In the Main Menu, go to Setup and push ENTER
 - c. Scroll to Interface and push ENTER.
 - d. In the Interface menu when GARMIN is highlighted orange, push ENTER and scroll to NMEA IN/NMEA Out and push ENTER again. The Baud rate should be set to 4800.
 - e. Click Menu twice to return to the Main Menu.
3. Connect GPS to Microtops using a special cable. Turn the GPS and Microtops ON.
4. After the GPS finds coordinates the Microtops should beep twice.
5. The operator should aim the Microtops at the Sun and push SCAN to start taking measurements.

Microtops Measurement Protocol

The Microtops parameters are set according to SIMBIOS recommendations:

- Each scan consists of 20 quick scans and only the highest signal is stored in the memory from these 20 quick scans.

A sequence of at least five (5) measurement scans should be collected to represent one measurement series. The scans should be completed one after another. Each scan takes 12 seconds, and five (5) scans will take one (1) minute plus some additional time for a GPS to acquire the coordinates and time.

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Uploading Data to the Computer

Windows 7

1. Go to <http://www.ayera.com/teraterm/download.cfm> and download TeraTerm Pro software.
2. Unzip the file and open the directory ttp313
3. Run ttermpro.exe
4. Under the Setup menu choose Terminal... and change Terminal settings to 250 by 100. Click OK.
5. Under the Setup menu choose Serial port and set the Serial port to COM1 (or COM2, COM3, etc.) and set Baud rate to 4800. Click OK.
6. Under the Setup menu choose Save Setup and overwrite teraterm.ini
7. Connect the Microtops to the PC and turn the Microtops ON.
8. Push ENTER and you will see the command menu.
9. In the TeraTerm menu, select File and choose Log, choose a directory and file name, click Open.
10. Push P (for Printer) on a keyboard. The data will be saved in the text file in the directory you have chosen.

Windows XP

1. Connect the Microtops to the PC and turn the Microtops ON.
2. Windows XP -> go Start -> All Programs -> Accessories -> Communications -> Hyperterminal
3. Enter a name for the Hyperterminal Session called "Microtops" and if necessary select the COM port.
4. In port settings, set the Bits per second field to 4800 and press OK.
5. When you get a Hyperterminal screen, please push ENTER and you will see the command menu.
6. In the Hyperterminal menu, select Transfer and choose Capture text..., choose a directory and file name, click OK, and then push P (for Printer). The data will be saved in the text file in the directory you have chosen.