

# Downloading microclimate stations

## Locations:

Soil moisture station 2 and 4 located at leaf phenology towers

Soil moisture station 1 is located just off gated road on the way to station 2.

Soil moisture station 3 is located at the top of Shope Fork Road.

One station at each terrestrial gradient site below the lower boardwalk

One station at Forest Gap J off of gated road 83D

One station at Macon Middle School.

One station at Joyce Kilmer - Midslope plot off of upper loop trail

## Materials:

PDA and cable

Dessipacks (4 for each station)

Forest service gate key

Keys for gate and enclosure at MMS (hanging on hook next to equipment cabinet)

Extra gel cell battery

Green toolbag

## Methods:

If the station is up and running properly, the only materials you should need are the PDA with cable to connect to the datalogger, and dessipacks. Connect PDA cable with Campbell attachment to serial cable that runs from datalogger to storage module. Hit 'cancel' when initially prompted on PDA screen. Pull down start menu and select programs. Select PConnectCE program to connect to datalogger. Highlight appropriate station and click connect button at the bottom of the screen. You should then be connected to the datalogger and able to view real-time data with the PDA. Check that the data values look reasonable and all sensors are functioning properly. Check that the clock on the datalogger is in sync (within 10 minutes) with the PDA clock. Remember that the dataloggers should always be set to standard time and not reflect daylight savings time.

Keep a notebook for climate stations to keep track of downloads and to note any repairs. When downloading data, write down station name, battery voltage, whether or not the data was downloaded successfully, and any error values you notice. It is important that all repairs, calibrations, etc. are captured in this notebook. Important changes to the climate stations (recalibration, new sensors installed, etc.) should be included as part of the Metadata.

After making these checks, download the data. First, create a file with the appropriate date and select download since last time option before you hit the download data button. Once the data are downloaded, check that you have received a dataset that ends on the current Julian day. Close out files on PDA screen and then disconnect PDA cable from serial cable. Make sure dessipacks were switched out with fresh ones and close datalogger enclosure.

If all stations are working properly and no other problems occur, downloading all 11 microclimate stations can be accomplished in less than one day (Joyce Kilmer station downloaded on a quarterly basis). When you return to the office, log on to desktop PC and then return PDA to its charging port. The data should automatically be transferred to the desired location (currently folder labeled 'PDA files' on PC desktop). Check that the files were transferred. Put dessipacks in drying oven for about 36 hours. Microclimate stations should be downloaded and the data processed once every month.

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