NOAA/NESDIS/STAR NPROVS

ProfileDisplay (PDISP)

Quick Start

Version 6.0

August 1, 2015

The purpose of this guide is to demonstrate the initial steps required to obtain the NOAA/NESDIS/STAR ProfileDisplay (PDISP), access data files, run the program and display data.

Also available is the ProfileDisplay User's Guide, which contains detailed information about all program functions.

STEP 1 — Download the program

If ProfileDisplay (PDISP) is not already installed or if a new version is available: download the program

- PDISP is available via anonymous FTP at:

`ftp://ftp.star.nesdis.noaa.gov/pub/smcd/opdb/nprovs/programs/ProfileDisplay.jar`

- The program can also be downloaded from the ProfileDisplay web page at:

`http://www.star.nesdis.noaa.gov/smcd/opdb/nprovs/pdisp.php`

Using one of the above links, download the program to your computer. The program can be installed in any directory/folder.

STEP 2 — Download some data files

Data files used by PDISP are available via anonymous ftp at:

NPROVS: `ftp://ftp.star.nesdis.noaa.gov/pub/smcd/opdb/nprovs/nprovs`
NPROVS+: `ftp://ftp.star.nesdis.noaa.gov/pub/smcd/opdb/nprovs/nprovs+`

The ftp directories contain the most recent 10 days of daily data produced by NPROVS.

The data files can be downloaded to any directory/folder.

STEP 3 — Start the program

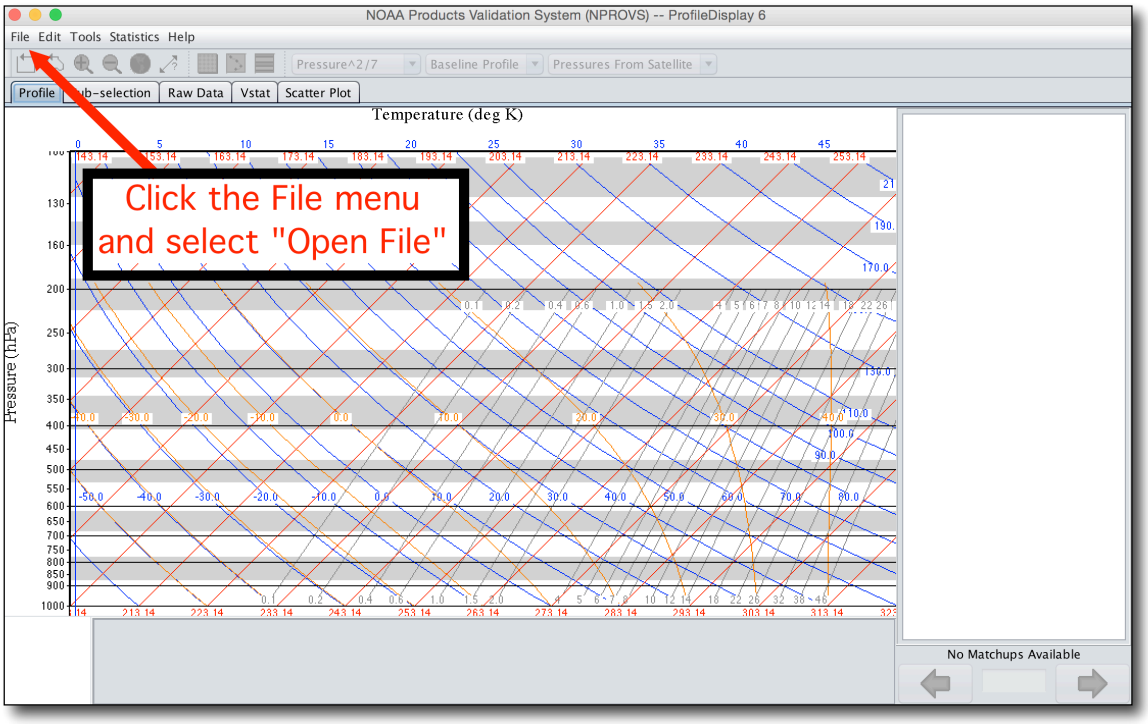
For most people, especially those running the program on Windows or Mac OS X, it will be easiest to run the program by double-clicking the icon of the ProfileDisplay.jar file that was downloaded.

PDISP can also be started from a command line by entering the command:

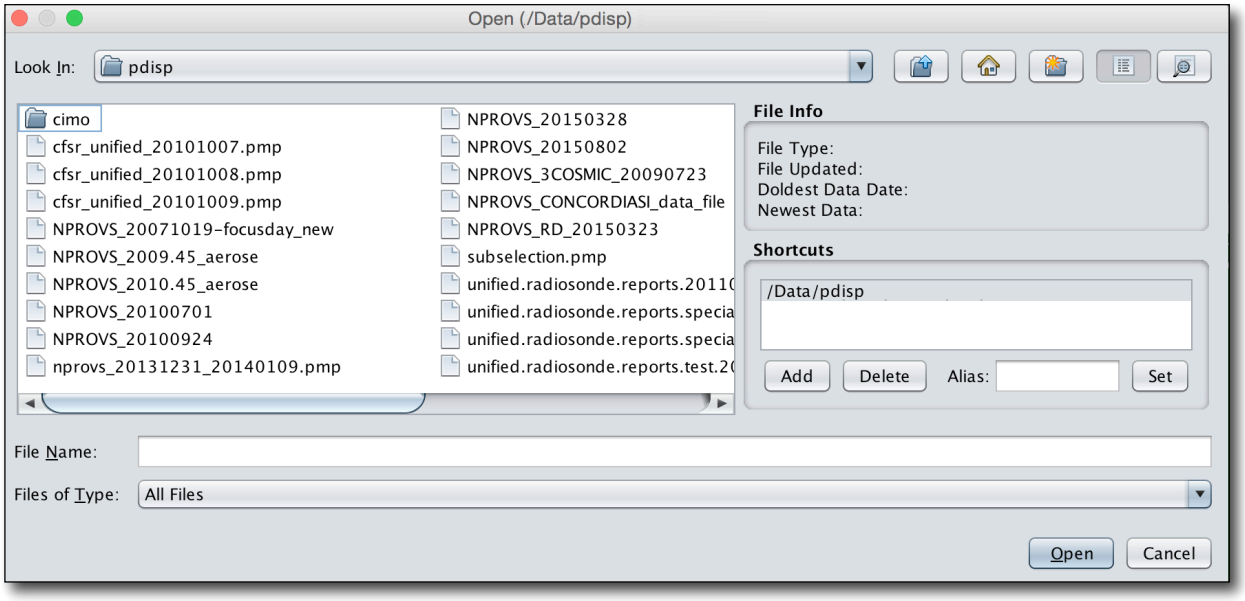
```
java –jar ProfileDisplay.jar
```

STEP 4 — Select some data to display

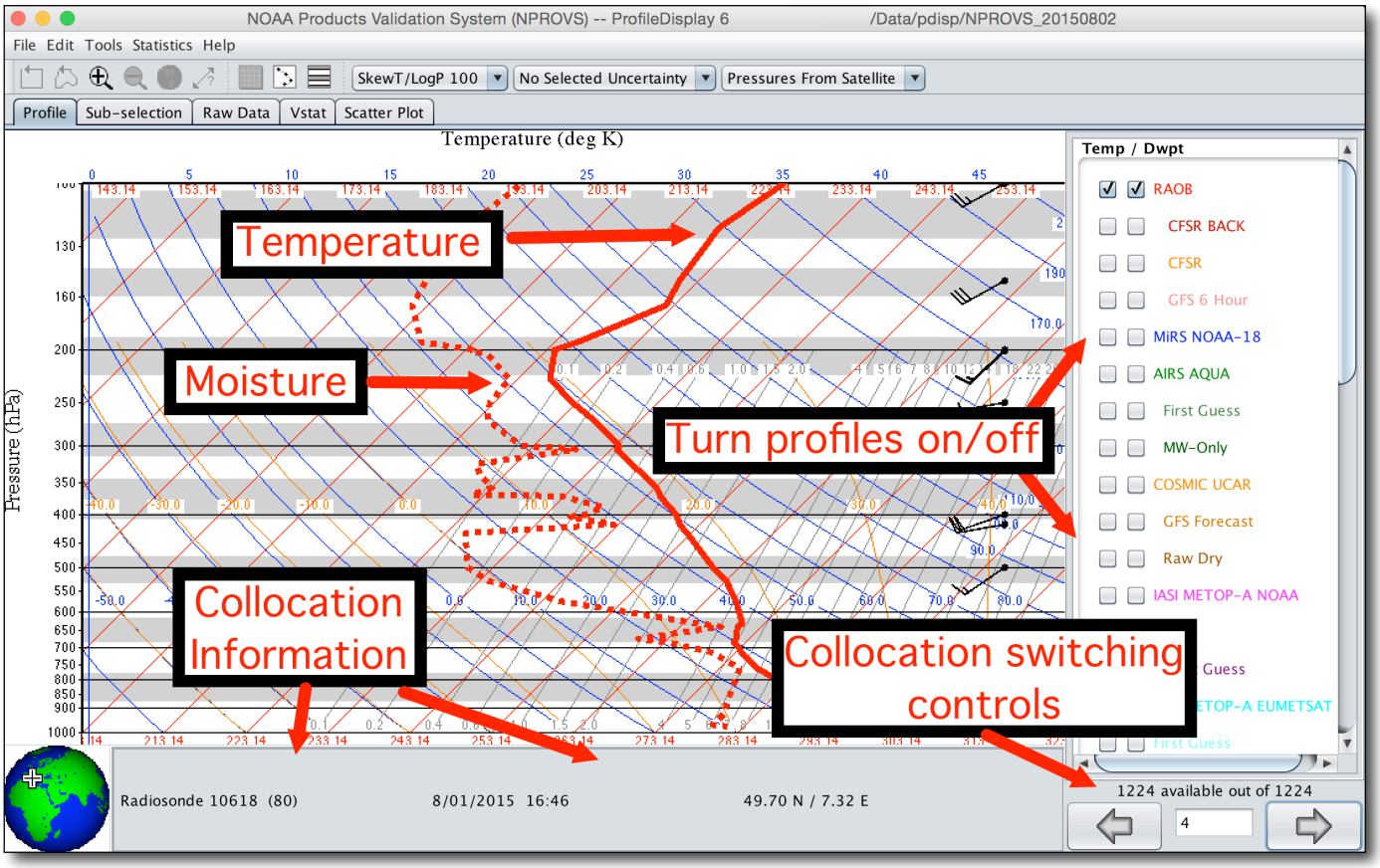
When the program opens for the first time, the window will look similar to:



This will bring up a file selection dialog that should be familiar. Use it to navigate to the location where the data files are stored. Then select a file.



Once a file is selected, the program will open the file and then display the first collocation in the file:



Temperature profiles appear as solid lines. Moisture (dewpoint temperature) profiles appear as dashed lines.

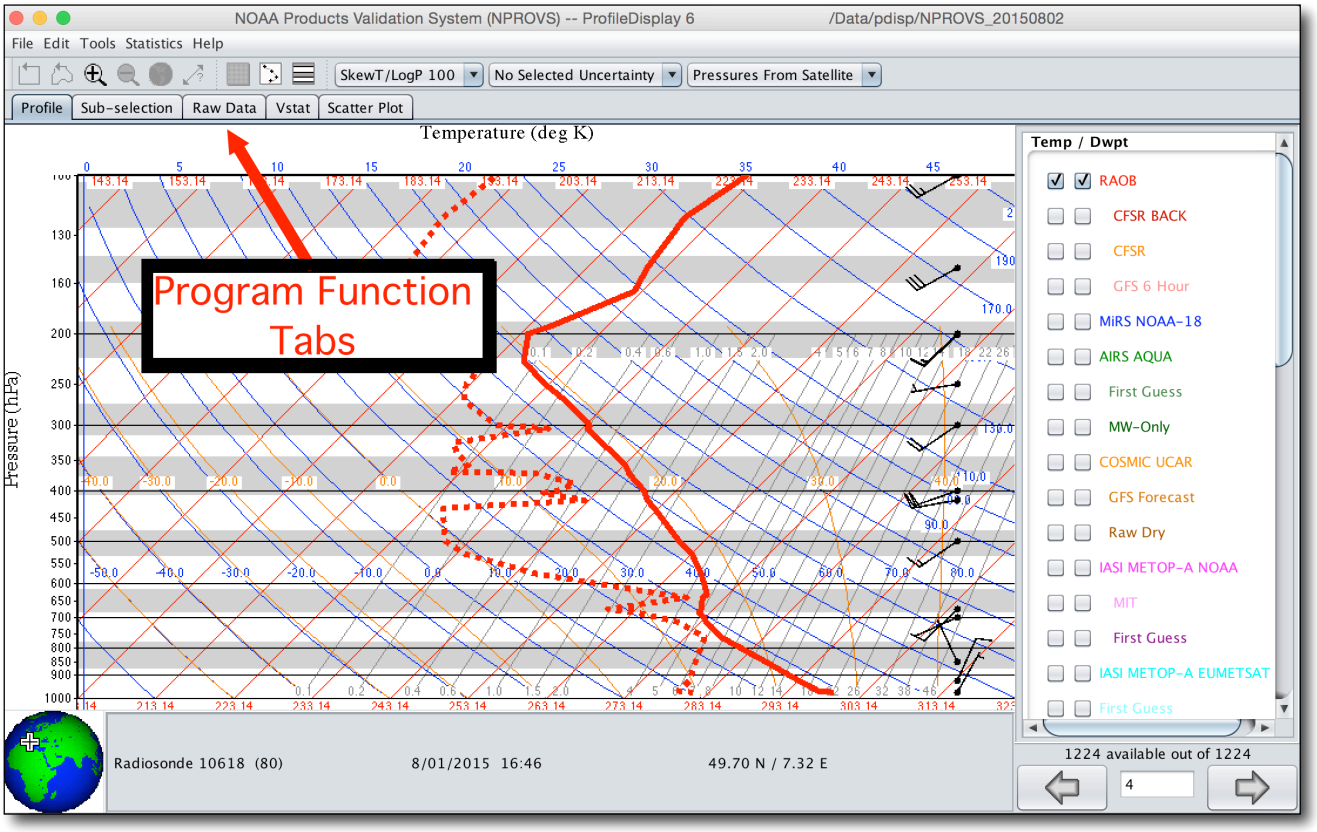
Initially, only the baseline system is turned on. Other profiles can be toggled on and off by selecting the appropriate checkbox on the right side of the window.

Information about the collocation is displayed at the bottom of the window.

In the lower right corner are controls that are used to switch between collocations. Either click the left/right arrow buttons or enter a specific number in the text field to change to a different collocation. The left and right arrow keys on the keyboard can also be used to switch between collocations.

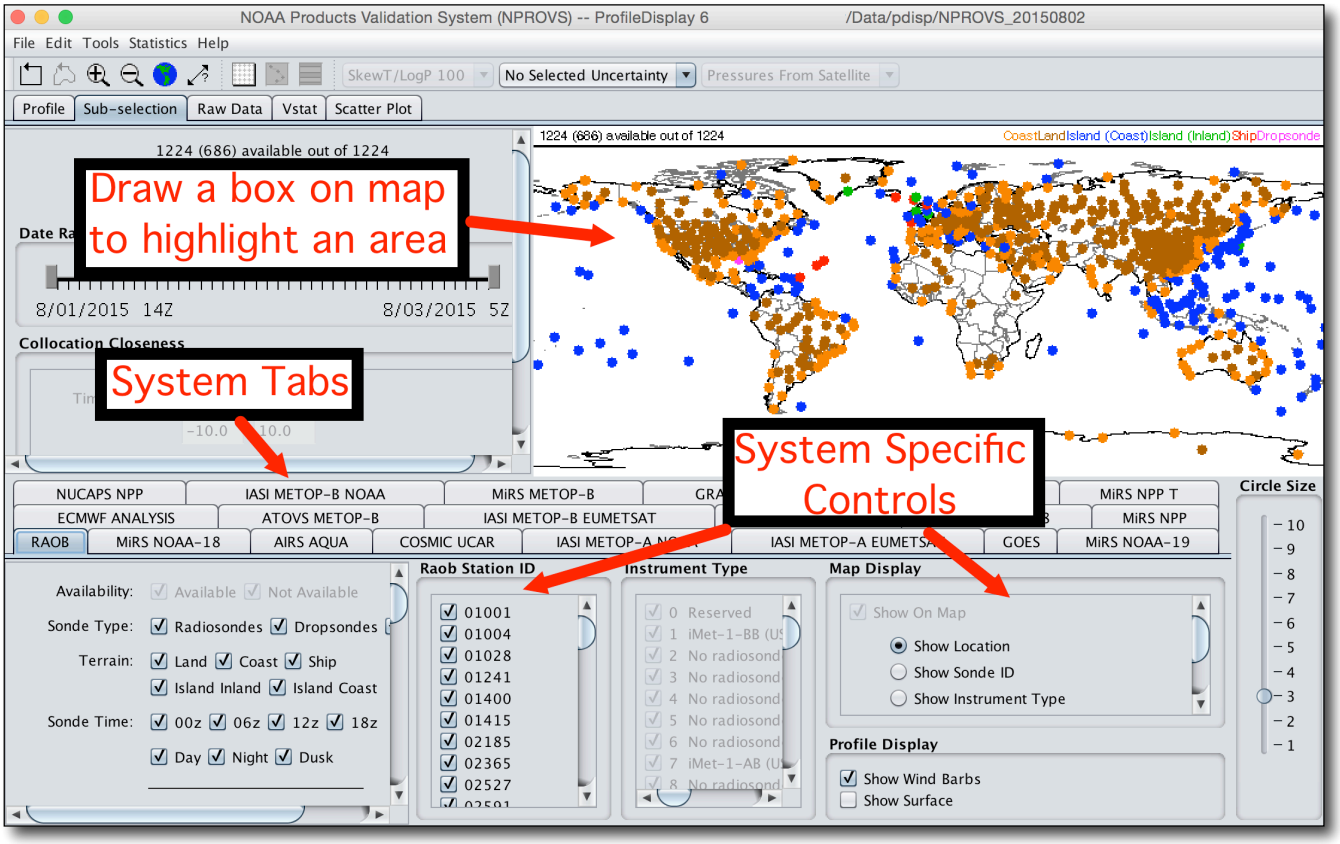
Other Often Used Features

While the main profile graph window is the primary function of ProfileDisplay, other functions are available. To switch between the functions, click on the appropriate tab near the top of the window:



Sub-selection

The Sub-selection tab shows a large number of controls that can be used to apply filtering to the selection of collocations in order to create a subset of collocations to view and from which to generate statistics.



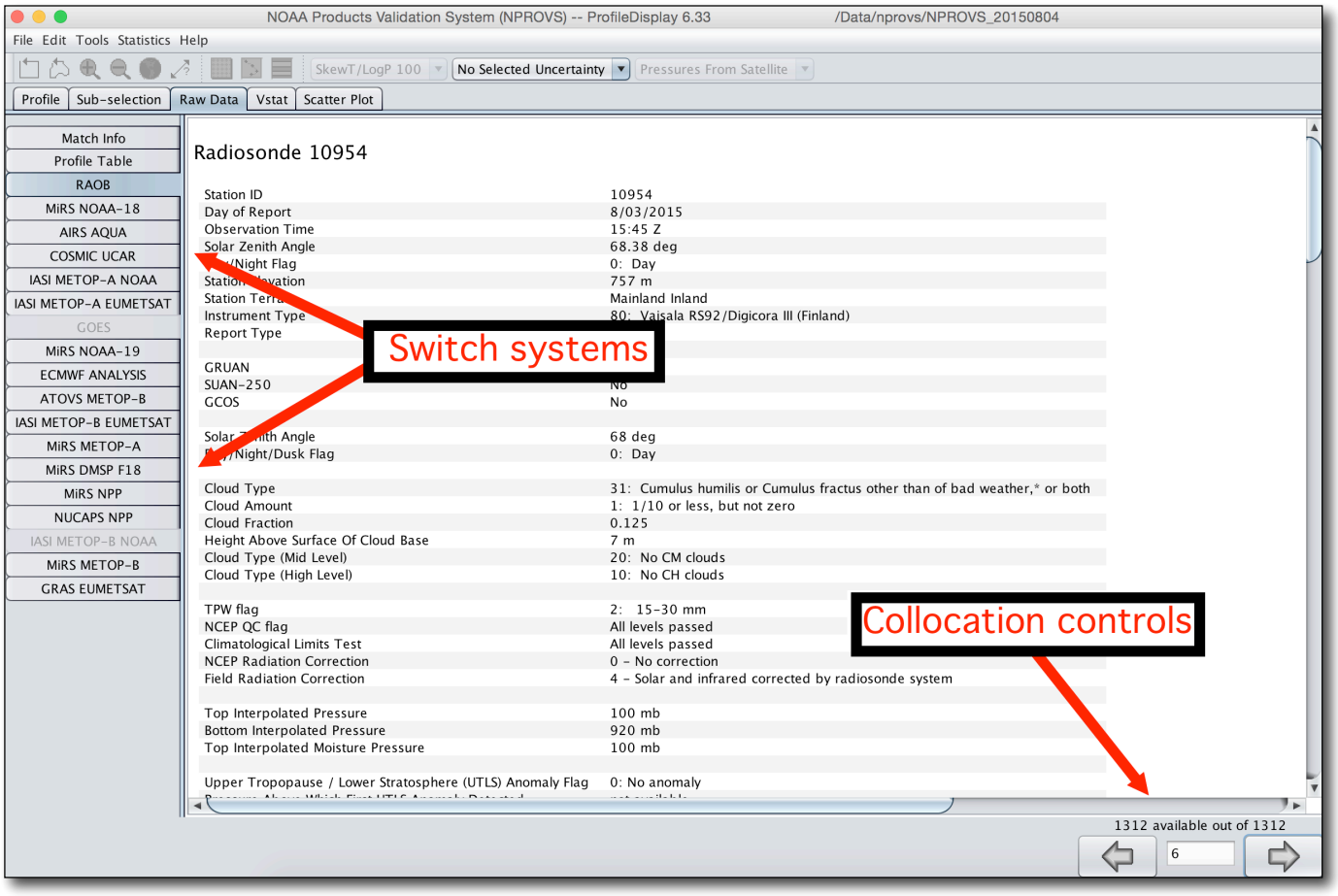
As the controls are changed, the number of available collocations will change.

The system tabs are used to switch between every available system. The data filtering controls are unique for each type of system.

The map shows the geographic distribution of all available collocations. It can also be used to filter the data by drawing a box around an area. Collocations outside of the box will be filtered out.

Raw Data

The Raw Data tab shows raw data values from every system.

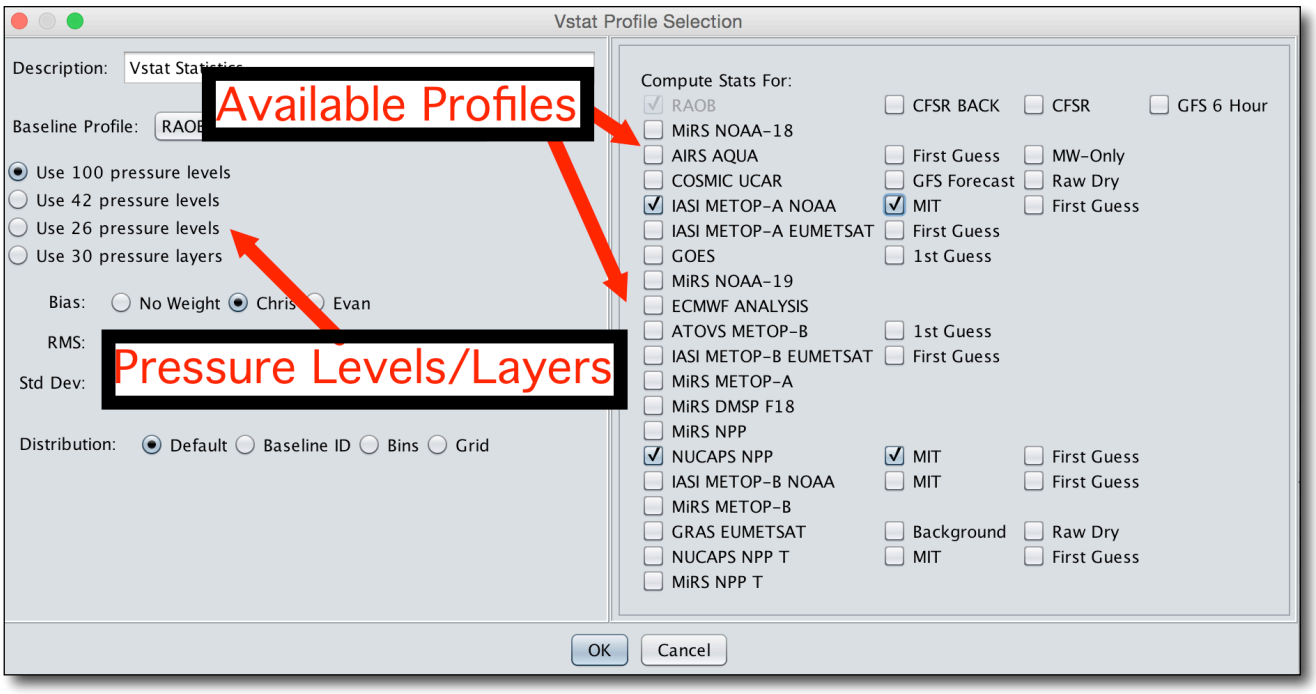


Raw data for each system can be accessed by selecting one of the tabs along the left side of the window.

The collocation switching controls in the lower right are used to switch to a different collocation. They function in the same manner as they do in the Profile tab.

Vertical Accuracy Statistics

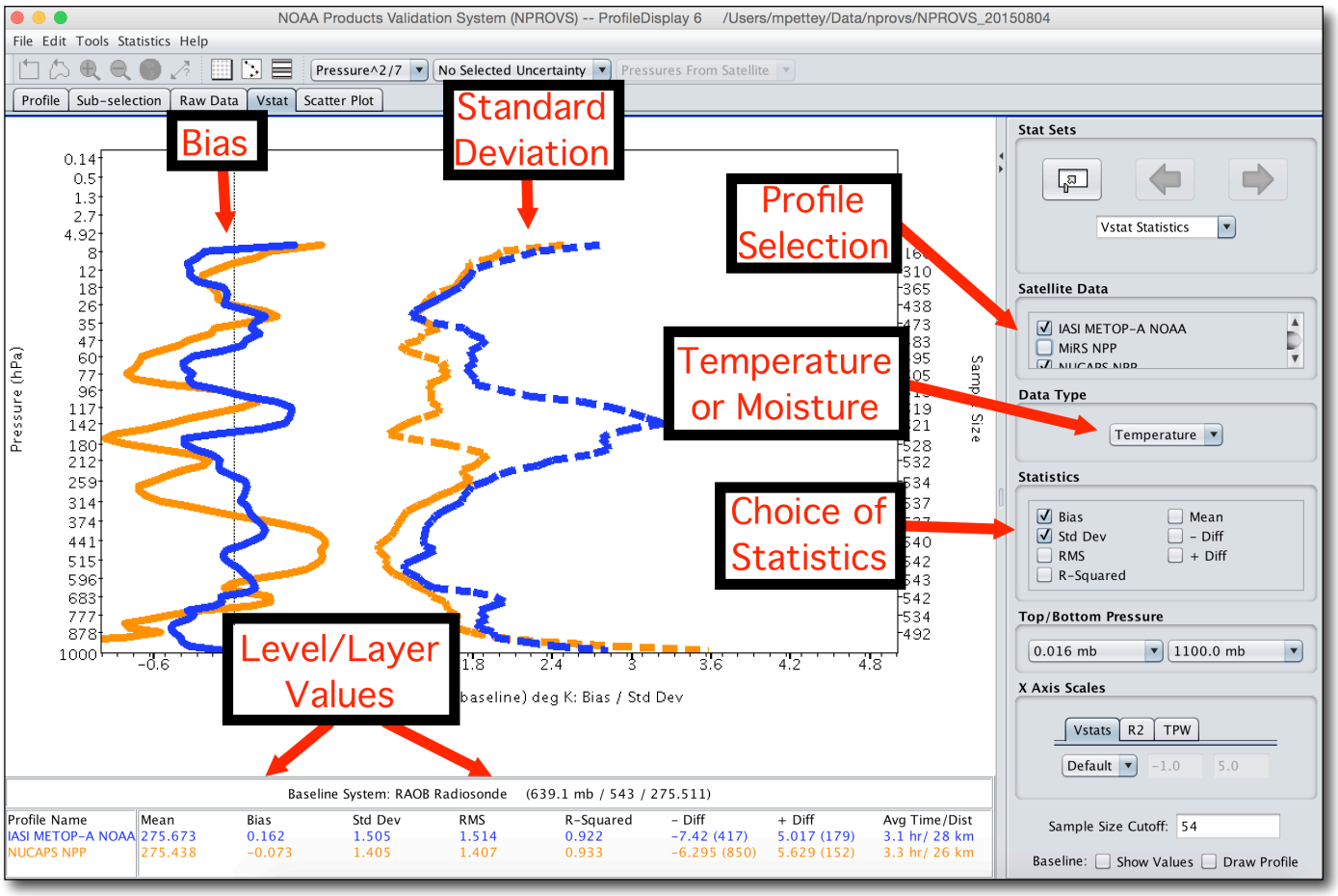
To generate vertical accuracy statistics, select the “Statistics” menu and then select “Compute Vstats”. The following dialog will appear:



Every available profile in the file is listed on the right side. Statistics will be generated for the selected profiles.

Statistics will be generated at 100, 42 or 26 pre-defined pressure levels or at 30 pressure layers based on the chosen setting on the left side.

After the statistics are generated, the statistics will appear in the “Vstat” tab



The display of each profile can be toggled on and off by clicking the corresponding checkbox.

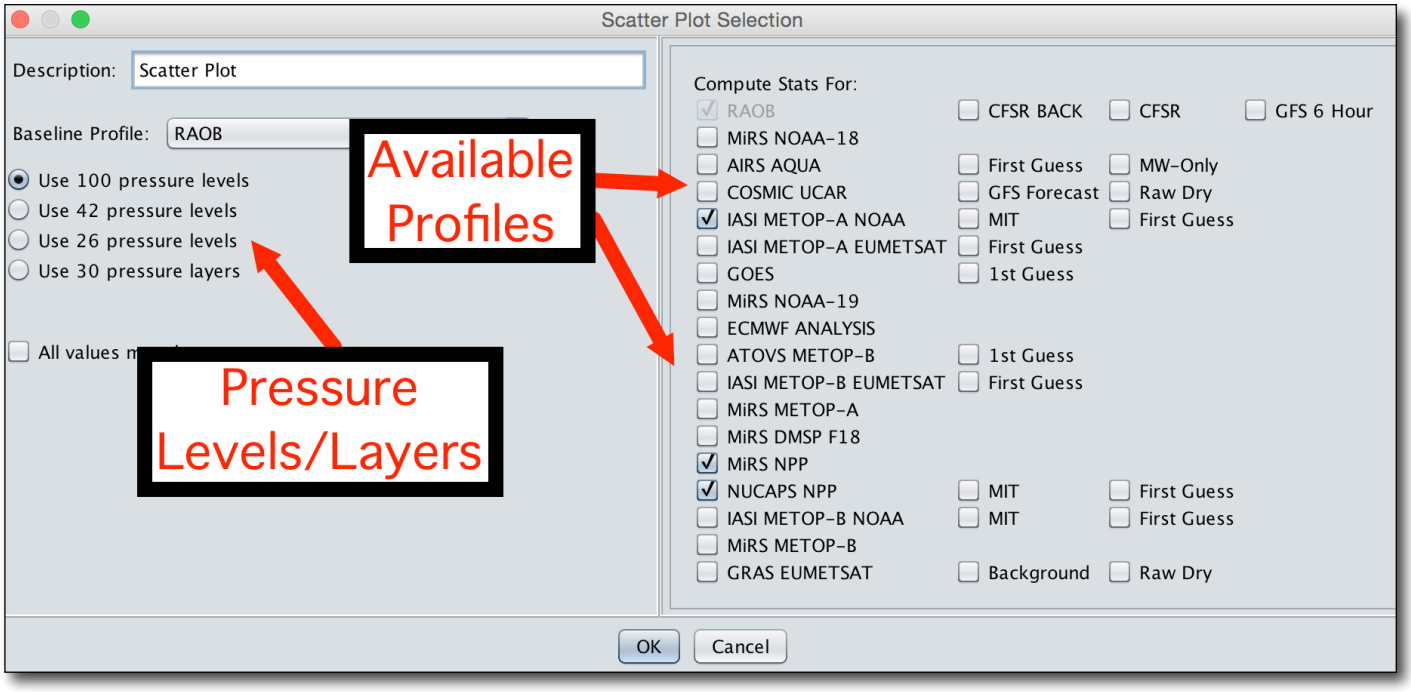
Select “Temperature” or “Water Vapor” from the Data Type list to switch between temperature and moisture statistics.

Bias and standard deviation are displayed by default. Other statistics can be shown by selecting one of the checkboxes.

As the cursor is moved over the graph, the specific statistic values are displayed at the bottom of the window.

Scatter Plot

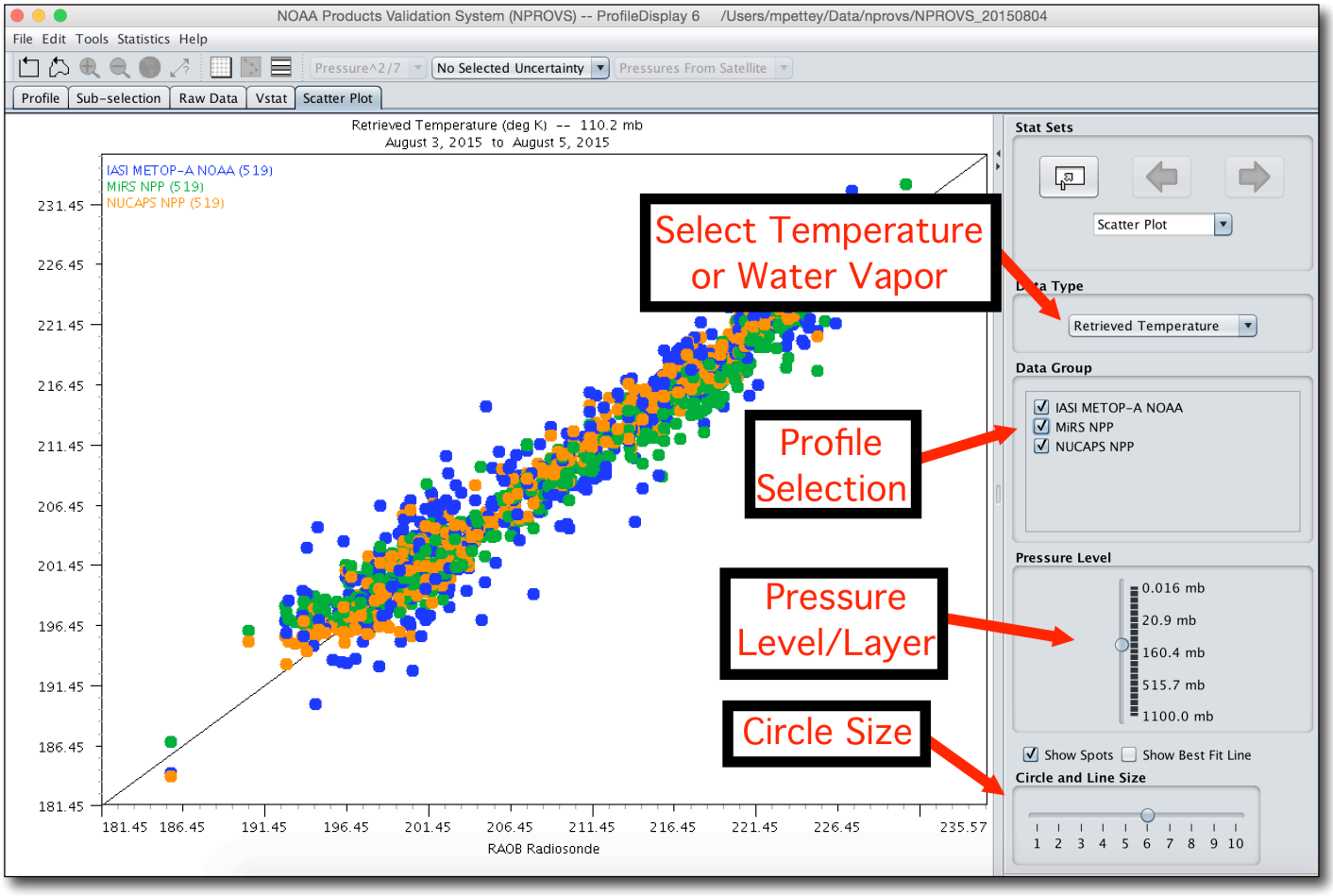
To generate a scatter plot, select the “Statistics” menu and then select “Compute Scatter Plot”. The following dialog will appear:



Every available profile in the file is listed on the right side. Statistics will be generated for the selected profiles.

Statistics will be generated at 100, 42 or 26 pre-defined pressure levels or at 30 pressure layers based on the chosen setting on the left side.

After the scatter plot values are generated, the results will appear in the “Scatter Plot” tab



The baseline system values are plotted along the X axis while the values for each profile are plotted along the Y axis.

Switch between temperature and water vapor by choosing the desired option in the Data Type list.

Values for each profile can be toggled on and off by selecting one of the checkboxes in the Data Group section.

Scatter plots at every level or layer can be shown by moving the Pressure slider up or down.

The size of each data point can be changed by adjusting the “Circle And Line Size” slider.