South Pacific Sea Level and Climate Monitoring Project File information and Instructions

DATA FORMAT

Hourly Data are presented in Comma Separated Variable (.csv) format which is compatible with use in a spreadsheet such as MS Excel. These files can also be plotted with MS Excel. To save a file in text format, you will need to right-click on the file link to use "Save Target As ..." in the popup menu.

DATA UNITS:

Dates and times are given in Universal Time Coordinated (UTC). 00:00 is midnight, 06:00 is 6am, 12:00 is noon and 18:00 is 6pm.

Sea Level	Observed sea levels are in metres above Tide Gauge Zero (e.g. 1.205 metres)
SSBM	Height of Seaframe Sensor Bench Mark above Tide Gauge Zero. Geoscience Australia has Survey Information for the benchmarks near the tide gauges. SSBM is NOT changed to agree with this survey information, unless there is a known shift in SSBM
Water Temperature	Water Temperatures are in degrees Celsius (e.g. 20.5 deg C)
Air Temperature	Air Temperatures are in degrees Celsius (e.g. 20.5 deg C)
Barometric Pressure	Barometric Pressures are in hPa (mb) (e.g.. 1010.1 hPa)
Residuals	Residual sea levels are in metres (e.g. -0.014m indicates that the observed sea level is 0.014m below predicted sea level)
Adjusted Residuals	Sea level anomalies are in metres (e.g. -0.077m indicates that the observed sea level is 0.077m below predicted sea level, adjusted for the static barometric pressure effect)
Wind Direction	Wind Directions in Degrees True (e.g. 205 degrees True)
Wind Gust	Wind Gusts are in m/sec (e.g. 8.5 m/sec)
Wind Speed	Wind Speeds are in m/sec (e.g. 6.5 m/sec)

Missing or erroneous data points are set to a value of -9999 (you need to remove these to plot the data).

HOW TO VIEW THE HOURLY DATA:

1. The hourly data is in a format that can be easily viewed using spreadsheet software such as MS Excel.

2. Firstly click (or double click) on the link in the table of hourly data.

3. If you have MS Office 2000 or later the Comma Separated Variable (.csv) file will be opened in your browser window.

4. Older versions of MS Office may ask you if you want to open the file or to save it to your computer.

   - It is easier to save the file to your computer in a place that you are familiar with (eg desktop or My Documents) and then open the file from there. This also means that you can save any changes that you make to the file.

   - If you choose to open the file from the table, it will open in your browser window. You then need to click on view in the menu bar at the top then select "toolbars" and "standard". This should put all the icons in the toolbar for plotting etc.

   - For MS Office 2000+ you can also save the file to your computer or use the above method to present the "standard Toolbar" in the browser. MS Office 2000+ also has a tools icon, which when selected will place all the "standard Toolbar" icons on the top toolbar.

5. The hourly data files consist of eleven columns of data and information. The first column is the date and time stamp in the format of dd/mm/yyyy mm:ss. If the values are shown as "########", select "Column"/"AutoFit Selection" from the "Format" menu.

6. The following nine columns are hourly data of the following parameters: Sea Level, Water Temperature, Air Temperature, Barometric Pressure, Sea Level Residuals, Sea Level Anomilies, Wind Gust, Wind Direction and Wind Speed.

7. The first row of the 10th column is the site name.

8. When you have this data in a spreadsheet, you can then proceed with plotting any of the nine types of data in the hourly files.

HOW TO GRAPH (PLOT) HOURLY DATA:

1. Firstly select the date and time column by clicking on the top cell (the "A" column cell). This should highlight the first column. This column becomes the X axis data for a time series chart. If the values are shown as "########", select "Column"/"AutoFit Selection" from the "Format" menu.

2. Either click on the chart wizard icon in the toolbar (picture of a bar graph) or select "chart" in the "insert" drop down menu.

3. In the Chart Type window select XY(scatter).

4. Select the Sub-Type of graph and click on next.

5. You are then presented with a window with 2 tab like menu options (1) series and (2) data range. click on the series tab.

6. In this window you must select the positions (in the spreadsheet) of the X and Y data and of the site name for the Chart.

7. To select the X (date and time) data click the add button then the red arrow on the right side of the X values window, then click on the "A" cell at the top of the first column. You should then click on the red arrow on the right side of the small window. This should then list the reference for the X data in the X values window.

8. Then follow the previous step to select the Y values and Name. So to chart the Barometric Pressure data select the "E" column (BP) for the Y values and the K1 cell for the name. Click on next.

9. Then you should have a window with a small image of the graph and windows with the chart title and X and Y axis values. The Site name should be in the chart title window and the axis titles blank. Here you should enter the axis titles and units, eg. Time(Hours) for the X axis and Barometric Pressure(hPa) for the Y axis. Then select "next" and finish in the next window. You should then have a plot of Barometric Pressure against time from the site and year that you first selected.

10. Note that you may need to hide to top row (the first row with the column headings eg Date and time HL etc.) to get MS Excel to show the date and time in the X axis. To do this select the first row click on "format", select "rows" then "hide"