# DeCODED (raw) DATA EDITOR.

| 🕻 RAOB DataFile – 97020  | 100.WMO              | <u>×</u>     |  |  |  |  |  |
|--|----------------------|--------------|--|--|--|--|--|
| File Help  |                      |              |  |  |  |  |  |
| Station Data   | Pres & Temp          | Hgt & Wind   |  |  |  |  |  |
| Original data format: Standard WMO<br>Data Identification & Information  |                      |              |  |  |  |  |  |
| 72520 - KPIT - PITTSBURGH, PA @01/0000Z  |                      |              |  |  |  |  |  |
| Meters: 373 Feet: 1224   Estimate Elevation   Check box if the station elevation is not known. The station elevation will be estimated. Caution: an estimated elevation will not normally produce analysis results as accurate as from a measured station elevation. |                      |              |  |  |  |  |  |
| Coordinates  | D N Long: 80         | * 13 '00 • ₩ |  |  |  |  |  |
| Format<br>© Degrees/Minutes/Seconds © Degrees (decimal)  |                      |              |  |  |  |  |  |
| Save as Default Data   | a Apply Default Data | Help         |  |  |  |  |  |

Access this data editor through RAOB's EDIT menu.

All sounding data processed by RAOB can be viewed and edited using this DeCoded (or Raw) Data editor.

When RAOB reads data containing a WMO number, the RAOB.STN data file is searched for a matching WMO number. If a match is found, then the station's ICAO identifier and station name & location are automatically placed in the sounding's Identification & Information line. Additionally, if a match is found, both the elevation and coordinate data are also automatically attached to the data file for processing. For stations not listed in the RAOB.STN file and for all newly entered raw data soundings, both the elevation and coordinates must be manually entered as described next.

### Station Data.

The <u>Original Data Format</u> line identifies the format of sounding data's source file. To view the source data and its original format, use the Sounding's EDIT Menu and then the SOURCE Data Editor.

The <u>Data Identification & Information</u> line is a free form text line available to the user. RAOB will automatically fill this line with significant information regarding the sounding, which is found from the source file or from information obtained using a WMO match from the RAOB.STN locator file. This information line is always initially displayed upon activating the Add and Edit modes. This information line is always displayed along with the sounding's filename on all screen displays and on all output products.

<u>Station Elevation</u> must be entered in Meters (MSL). Elevations below sea-level are entered using a minus sign (e.g., -20). If the elevation is not known, RAOB will then estimate the station elevation using the Pressure-Altitude method. To do this, first remove data from the Meters data box, and then click on the Estimate Elevation check box. Entry of the sounding site's surface elevation is essential for accurate data processing by RAOB's algorithms. Caution: Elevation estimation is only an approximation -- only the actual measured station elevation will produce accurate results.

Coordinates can be entered in one of two different formats:

Degrees/Minutes/Seconds - or - Decimal-Degrees.

<u>Default Data</u> options exist to help automate entry of new data soundings for the same location. The SAVE option records the above data, while the APPLY option pastes the saved information onto the Station Data edit form.

### RAOB DataFile - CAPE.RAW × File Help Station Data Pres & Temp Hgt & Wind Levels: 29 T-Td (\*C) PRS (mb) T (\*C) 882.0 29.6 13.0 . Insert Delete 1 876.0 27.8 10.0 2 Invert Levels 3 850.0 25.0 9.0 800.0 20.8 8.0 4 750.0 5 17.6 11.0 PRS Format 6 735.0 16.4 12.0 700.0 12.6 10.0 Integer 7 8 650.0 7.2 7.0 Tenths 9 600.0 1.2 5.0 10 590.0 -0.1 2.0 Temperature 11 556.0 -4.5 4.3 550.0 12 -5.13.4 ⊙ •C 13 532.0 -7.7 0.7 ○ **\***E 14 512.0 -8.9 10.0 11.0 15 500.0 -9.5 16 450.0 -16.111.0 Moisture 444.0 17 -16.9 11.0O Td 400.0 -20.512.0 18 🖲 T-Td 19 350.0 -26.5 11.0 20 300.0 -33.5 10.0 264.0 -40.110.0 21 Missing DewPoint (Td) 22 250.0 -43.3m data is represented by the "m" character. 23 200.0 -53.5 m 175.0 -58.7 24 m 167.0 25 -60.7 m Help

# Pressure & Temperature Data.

# Height & Wind Data.

| X F       | KAOB DataFile - 97020100.WMO |         |           |             |   |                          |  |  |  |
|-----------|------------------------------|---------|-----------|-------------|---|--------------------------|--|--|--|
| File Help |                              |         |           |             |   |                          |  |  |  |
|           | Station Data                 |         | Pr        | Pres & Temp |   | Hgt & Wind               |  |  |  |
|           | Height                       |         | Wi        | Wind        |   |                          |  |  |  |
|           |                              | AGL (m) | Dir (deg) | Spd (kts)   | 1 | Levels: 39               |  |  |  |
|           | 1                            | 0       | 215       | 6           |   | Insert Delete            |  |  |  |
|           | 2                            | 948     | 200       | 4           |   |                          |  |  |  |
|           | 3                            | 1424    | 135       | 2           |   | Invert Levels            |  |  |  |
|           | 4                            | 1728    | 105       | 1           |   |                          |  |  |  |
|           | 5                            | 2033    | 350       | 2           |   | U.S. Mada                |  |  |  |
|           | 6                            | 2643    | 265       | 3           |   | - Hgt Mode               |  |  |  |
|           | 7                            | 2948    | 250       | 10          |   | • AGL                    |  |  |  |
|           | 8                            | 3629    | 235       | 14          |   |                          |  |  |  |
|           | 9                            | 3862    | 235       | 14          |   |                          |  |  |  |
|           | 10                           | 4472    | 240       | 19          |   |                          |  |  |  |
|           | 11                           | 5311    | 245       | 43          |   | Hgt Scale                |  |  |  |
|           | 12                           | 5386    | 245       | 42          |   | Meters                   |  |  |  |
|           | 13                           | 5691    | 250       | 49          |   | C 5                      |  |  |  |
|           | 14                           | 6910    | 255       | 54          |   | Oreet                    |  |  |  |
|           | 15                           | 7378    | 245       | 44          |   |                          |  |  |  |
|           | 16                           | 8434    | 245       | 47          |   | Wind Speed               |  |  |  |
|           | 17                           | 8591    | 240       | 44          |   | G Knots                  |  |  |  |
|           | 18                           | 9044    | 230       | 42          |   | - Kilota                 |  |  |  |
|           | 19                           | 9348    | 225       | 43          |   | O m/s                    |  |  |  |
|           | 20                           | 10013   | 235       | 57          |   |                          |  |  |  |
|           | 21                           | 10872   | 250       | 57          |   | The first (lowest) wind  |  |  |  |
|           | 22                           | 11837   | 245       | 59          |   | must be at surface level |  |  |  |
|           | 23                           | 12701   | 245       | 67          |   | where Height = 0, AGL.   |  |  |  |
|           | 24                           | 13006   | 250       | 67          |   |                          |  |  |  |
|           | 25                           | 13616   | 260       | 68          | - | Help                     |  |  |  |

This form allows entry of pressure-level data, including temperatures and dewpoints (or dewpoint spread information). Various data options give the user maximum flexibility during data entry.

A missing dewpoint (Td) must be entered with a small "m".

New or edited data will only be recorded if the user presses the ENTER key.

RAOB continually checks data entries for vertical consistency and against standard pressure-temperature relationships.

This form allows entry of height-level data, including wind speed & wind direction. Various data options give the user maximum flexibility during data entry.

The first wind <u>must be</u> entered as the surface wind. Also, this wind's height <u>must</u> be zero (0) feet or meters (AGL) or else RAOB will display a warning message.

New or edited data will only be recorded if the user presses the ENTER key.

RAOB continually checks data entries for vertical consistency and against standard wind data relationships.