What is a Radiosonde

- Balloon carries meteorological instruments aloft

- *Temperature, moisture* and *wind* measured at many levels

- Provides *snapshot of these variables in the vertical*

- This information allows meteorologists to *diagnose the atmosphere* in the vertical
Why these measurements are important

- *These observations allow us to diagnose the atmosphere* similar to the snapshot that blood pressure measurements provide the doctor.

- When coupled with surface weather reports and satellite data, *we get a 3 dimensional view (horizontal, vertical and time) of atmosphere*.

- These measurements provide clues assisting the meteorologist in *understanding and anticipating motion in the atmospheric*.
What a vertical plot looks like

- Temperature and Dewpoint (moisture) are plotted at appropriate pressure levels
- Temperature values are connected with RED line
- Dewpoint values are connected with GREEN line.
- The closer together the temperature and dew point, the more moist the air is.
- Where the lines are close, clouds are likely
Note relationship between temperature and altitude

- Temperature decreases with altitude in lower portion of atmosphere (Troposphere)
- Temperature increases with altitude in upper portion of atmosphere (Stratosphere)
Have fun with today’s balloon launch
Albany, NY sounding at 8:00pm last night
Maniwaki, PQ sounding at 8:00pm last night