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**

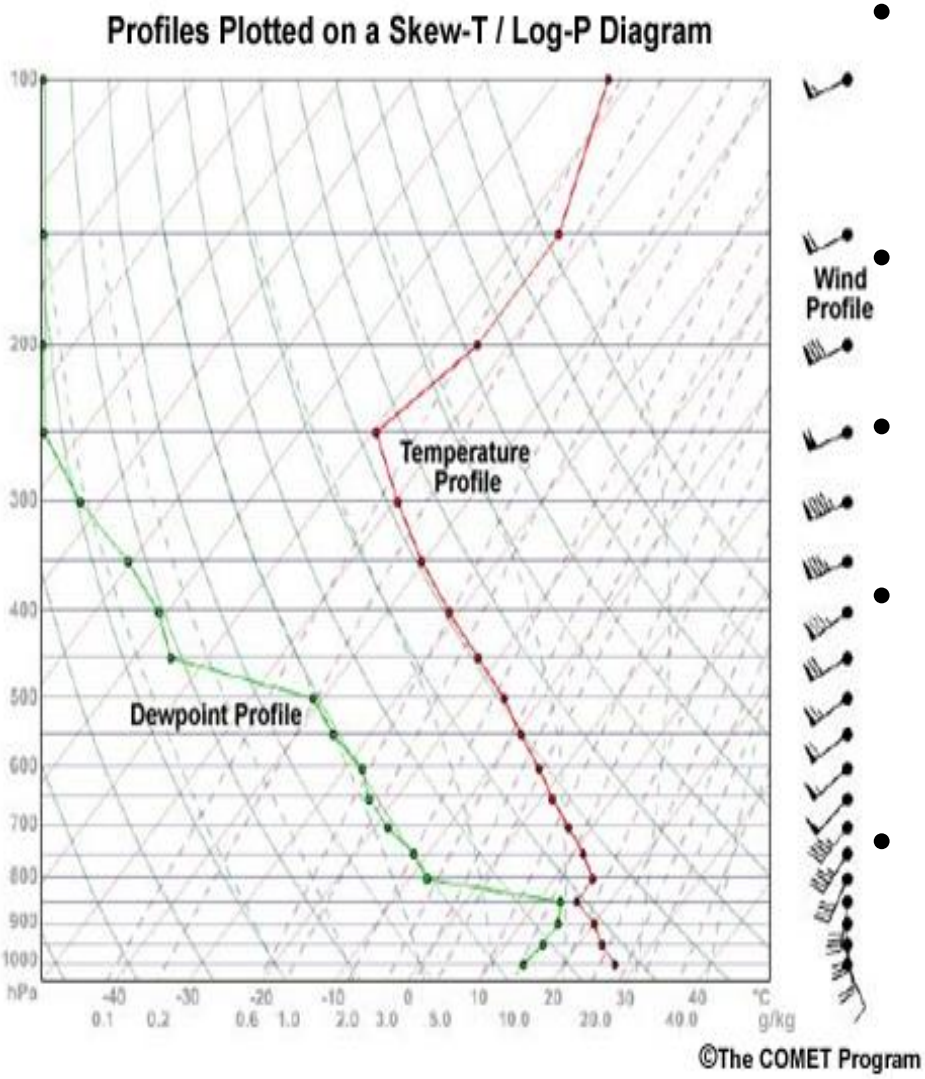
Why these measurements are important

- ***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***

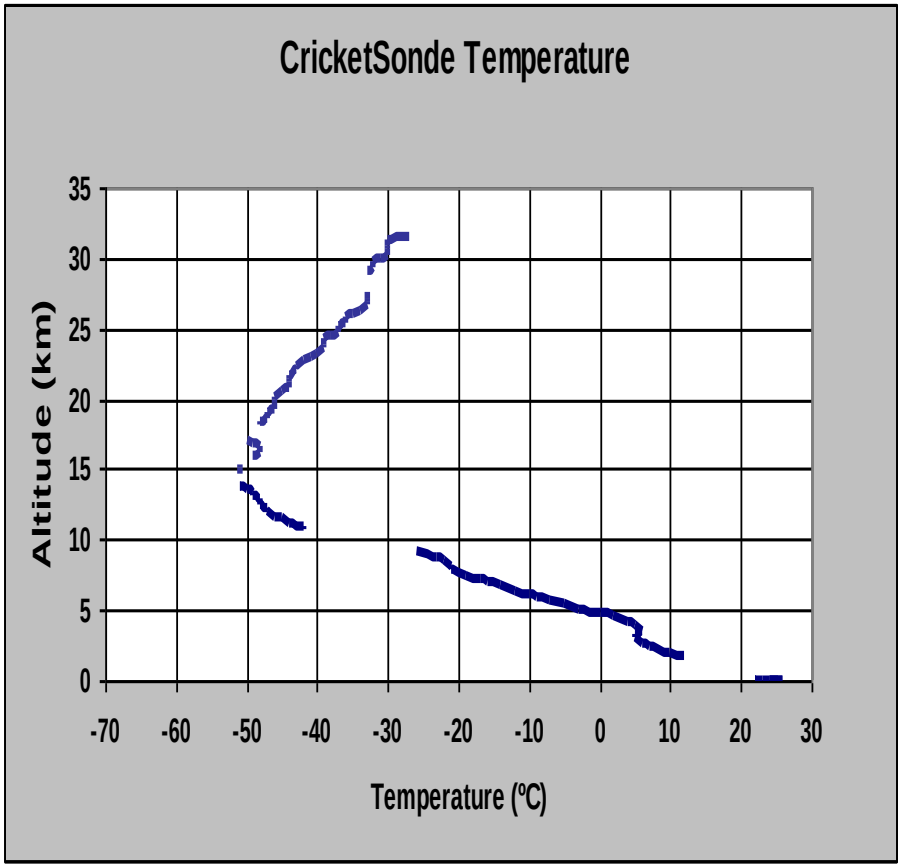
- These measurements provide clues assisting the meteorologist in ***understanding and anticipating motion in the atmospheric***

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***

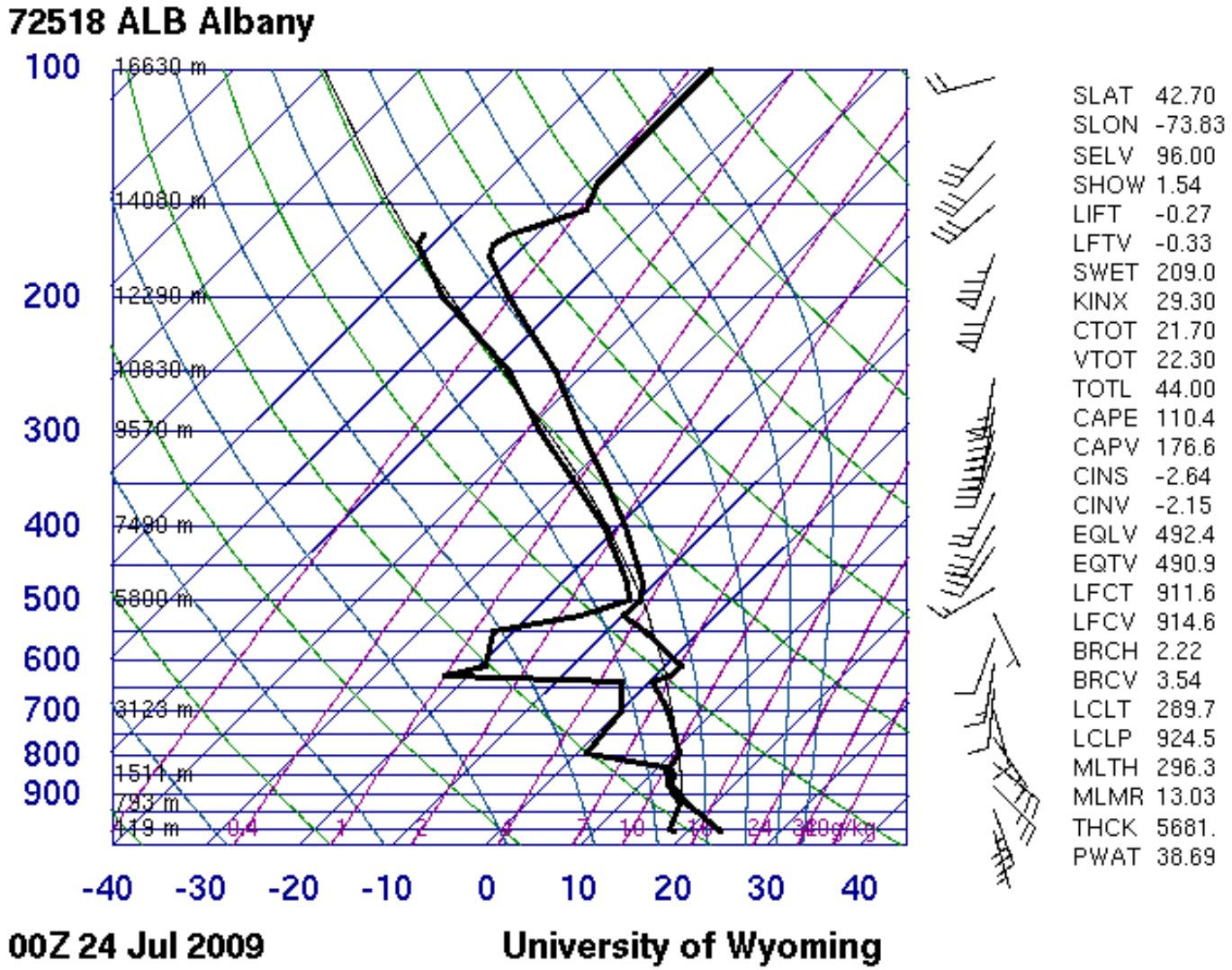
Note relationship between temperature and altitude



- 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