

# What is a Radiosonde

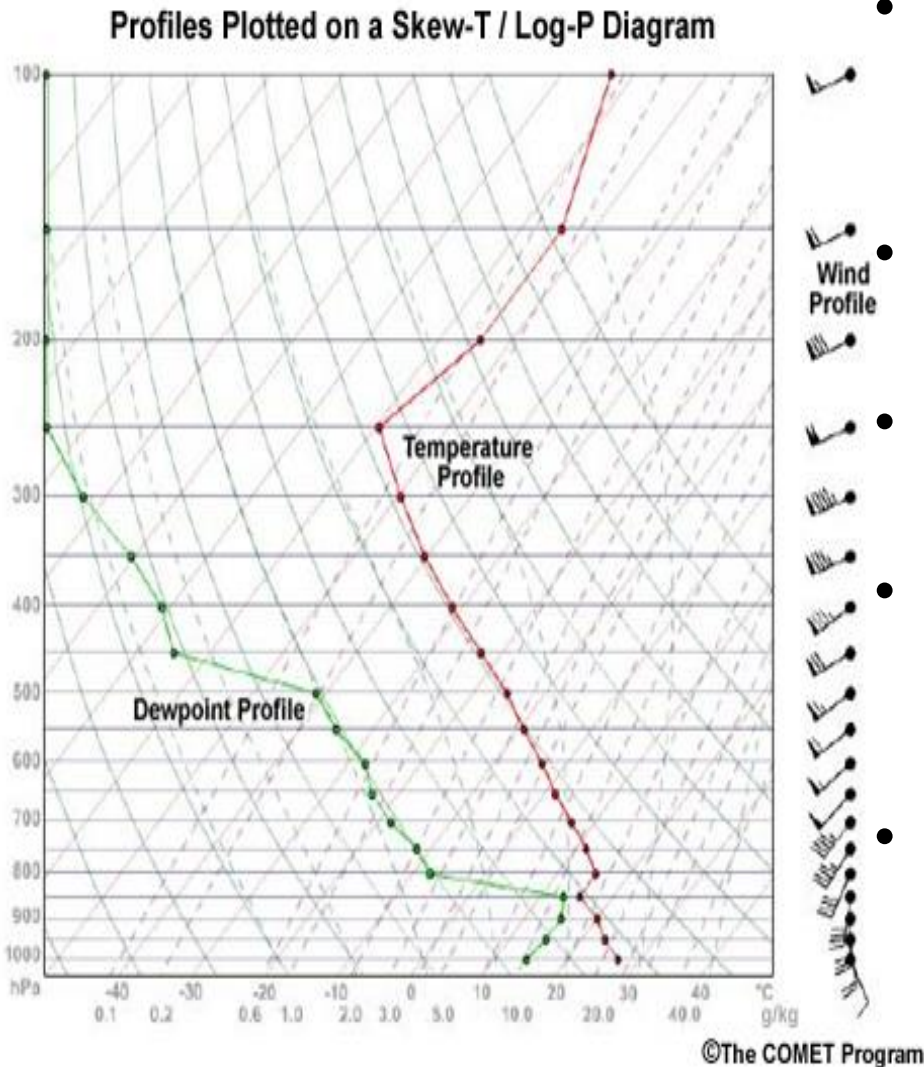
- **Balloon carries meteorological instruments aloft**
- **Temperature, moisture and wind measured at many levels**
- **Provides snapshot of these variables in the vertical**
- **This information allows meteorologists to diagnose the atmosphere in the vertical**



# Why these measurements are important

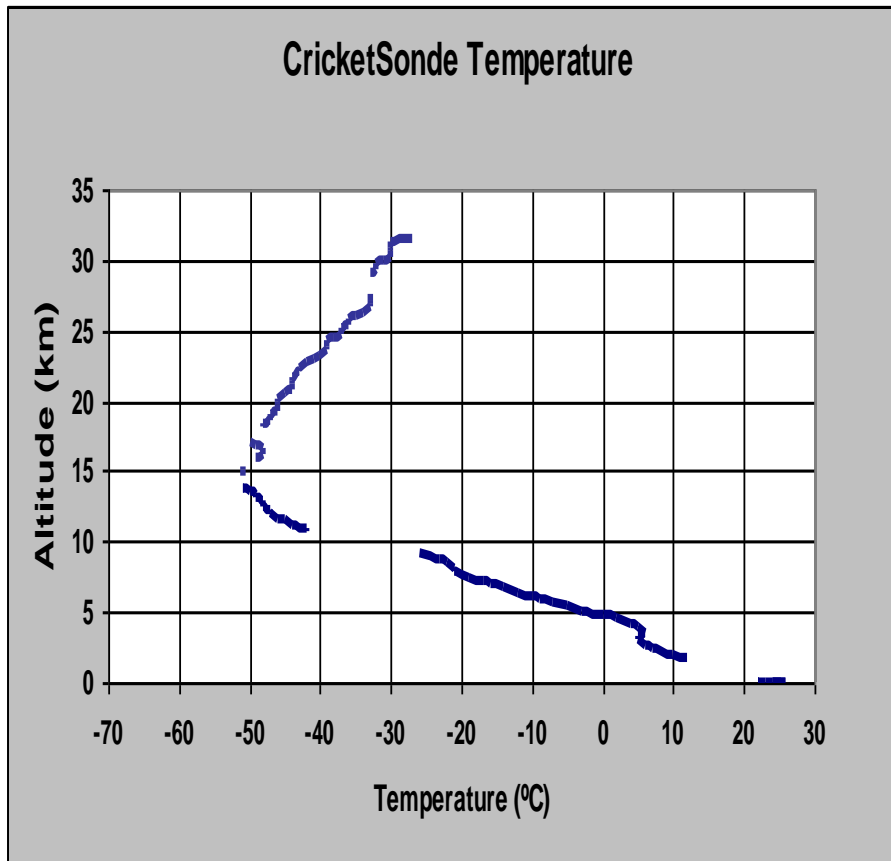
- ***These observations allow us to diagnose the atmosphere*** similar to the snapshot that blood pressure measurements provide the doctor
- When coupled with surface weather reports and satellite data, ***we get a 3 dimensional view (horizontal, vertical and time) of atmosphere***
- These measurements 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)

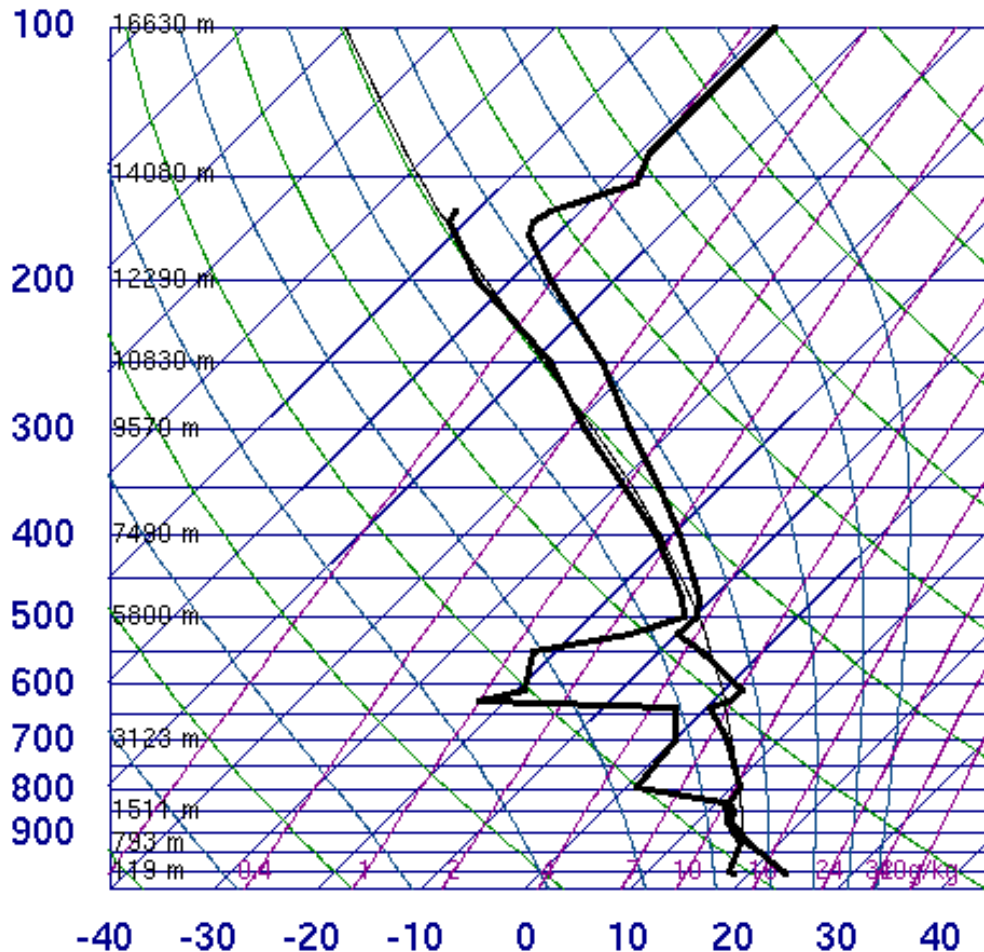
# Have fun with today's balloon launch





# Albany, NY sounding at 8:00pm last night

72518 ALB Albany



SLAT	42.70
SLON	-73.83
SELV	96.00
SHOW	1.54
LIFT	-0.27
LFTV	-0.33
SWET	209.0
KINX	29.30
CTOT	21.70
VTOT	22.30
TOTL	44.00
CAPE	110.4
CAPV	176.6
CINS	-2.64
CINV	-2.15
EQLV	492.4
EQTV	490.9
LFCT	911.6
LFCV	914.6
BRCH	2.22
BRCV	3.54
LCLT	289.7
LCLP	924.5
MLTH	296.3
MLMR	13.03
THCK	5681.
PWAT	38.69

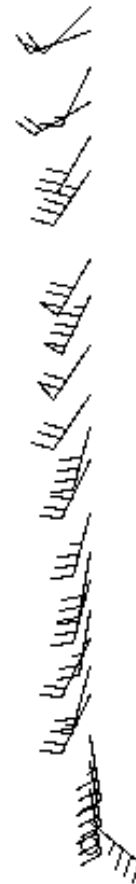
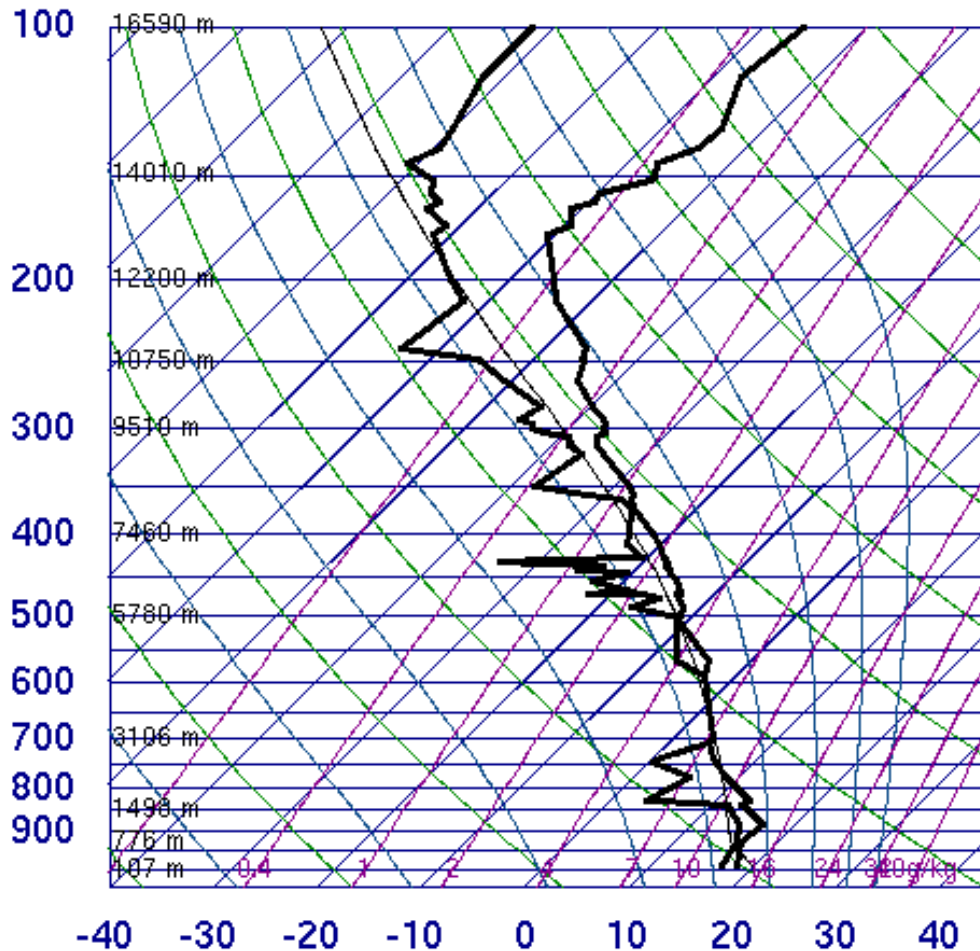
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# Maniwaki, PQ sounding at 8:00pm last night

71722 WMW Maniwaki



SLAT	46.38
SLOE	-75.96
SELV	173.0
SHOW	-0.92
LIFT	0.42
LFTV	0.40
SWET	237.5
KINX	37.40
CTOT	23.40
VTOT	25.10
TOTL	48.50
CAPE	12.97
CAPV	21.58
CINS	-101.
CINV	-92.2
EQLV	502.5
EQTV	502.5
LFCT	759.6
LFCV	774.0
BRCH	0.17
BRCV	0.28
LCLT	289.4
LCLP	948.2
MLTH	293.9
MLMR	12.45
THCK	5673.
PWAT	40.97

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