

## Need To *Know*\* Weather Facts

- 1) All station model information: How to make one. How to read one.
- 2) Wind: Counterclockwise into a LOW. Clockwise out of a HIGH (pressure center)
- 3) Cause of winds: uneven heating of earth's surface (due to differences in S.H. & characteristics (roughness, reflectivity)
- 4) Surface that is best absorber - best radiator - best reflector
- 5) Storm track
- 6) Convection in the atmosphere
- 7) Cool, dry = high = anticyclone. Warm, moist = low = cyclone
- 8) Kinds of fronts and direction of fronts on weather maps.
- 9) Where air masses are (behind the fronts)
- 10) Kinds of air masses and the meanings of symbols cP, cA, cT, mT, mP (and where they originate)
- 11) All storms are lows (mostly mT)
- 12) Be able to recognize and use isobars, isotherms.
- 13) Wind belts & jet stream (page 14 R.T.)
- 14) Wind direction: High to Low (pressure)
- 15) Wind speed: depends on pressure gradient
  
- 16) What happens at dewpoint: 100% RH, Air saturated, No evaporation, Condensation.
- 17) How to find R.H. & dewpoint using charts on page 12 (R.T.)
- 18) How to convert Fahrenheit <--> Celsius and millibars <--> inches
- 19) Be able to read atmosphere information on page 14 (R.T.)
- 20) Relationship between altitude of sun & intensity of insolation.
- 21) Relationship between latitude & intensity of the sun
- 22) Relative humidity: What it is and how it is affected by temperature, moisture content of air
  
- 23) Orographic effect: Air rises over mountains, cools, moisture condenses, rains on windward side, warms coming down causing deserts to form on leeward side.
- 24) Sublimation
- 25) Precipitation (rain, hail, sleet, snow) - what they are - how different - how they form
- 26) Condensation nuclei
- 27) Water cycle
- 28) Weather instruments: psychrometer, barometer, rain gauge: What they are. What they do.
- 29) Evaporation: affected by: R.H., exposed surface area, wind, temperature.
- 30) What gives air masses their characteristics ..... surface over which they formed.
  
- 31) How to interpret weather maps
- 32) How to interpret satellite weather photos

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To *KNOW* the facts (memory)

To *UNDERSTAND* what they mean and how they *RELATE* to one another.

To be able to *APPLY* what you have learned when answering questions.