

Reading a Weather Map

Name: _____

Date: _____

Class: _____

Read the lesson at myweatherrock.com/journal/explainers/reading-a-weather-map (or the printed copy), then answer below.

Remember

Each cluster of numbers on a professional surface map is a station model: one observing site's whole report drawn in shorthand. Temperature sits upper left, dew point lower left, the circle in the middle fills in with sky cover, the barbed stick flies with the wind, and the three digit number upper right is sea-level pressure with its front chopped off: put a 9 or 10 back on, whichever lands nearer 1000, and add a decimal before the last digit. Learn the one dot and a real Weather Prediction Center surface analysis stops being wallpaper and starts being hundreds of simultaneous eyewitness reports.

Questions

1. On a station model, the number in the upper left corner is:

- ☐ A. Pressure
- ☐ B. Air temperature
- ☐ C. Wind speed

2. A wind barb's staff runs toward the southwest from the circle, with one full barb and one half barb. The wind is:

- ☐ A. Blowing toward the southwest at 15 knots
- ☐ B. Coming from the southwest at 15 knots
- ☐ C. Coming from the northeast at 25 knots

3. The coded pressure on a station reads 992. The sea-level pressure is:

- ☐ A. 992.0 mb
- ☐ B. 999.2 mb
- ☐ C. 1099.2 mb

4. The station circle is completely filled in. That reports:

- ☐ A. Heavy rain
- ☐ B. An overcast sky
- ☐ C. Night time

5. Several neighboring stations all show pressure tendencies near -25. Reading the map, that cluster means:

- ☐ A. Their barometers share a defect
- ☐ B. A system is approaching that part of the map
- ☐ C. High pressure is building there

In your own words

A station dot reads: temperature 72, dew point 70, wind from the south, pressure falling. Describe the afternoon you would plan for, and name which number convinced you most.

Answer key (for the teacher)

1. On a station model, the number in the upper left corner is:

B. Air temperature — Temperature upper left, dew point lower left. The pair is plotted together because the gap between them is a reading in its own right.

2. A wind barb's staff runs toward the southwest from the circle, with one full barb and one half barb. The wind is:

B. Coming from the southwest at 15 knots — The staff flies FROM the wind's origin: a staff pointing southwest means a southwest wind. A full barb is 10 knots and a half is 5, summed: 15.

3. The coded pressure on a station reads 992. The sea-level pressure is:

B. 999.2 mb — Prepend 9 or 10, whichever lands nearer 1000, and set a decimal before the last digit: 9 plus 992 gives 999.2. Prepending 10 would give 1099.2, nowhere near Earth's surface pressures.

4. The station circle is completely filled in. That reports:

B. An overcast sky — The circle is sky cover, filled by fraction of the dome, the same eighths the okta system counts. Solid means overcast; precipitation gets its own symbol to the left.

5. Several neighboring stations all show pressure tendencies near -25. Reading the map, that cluster means:

B. A system is approaching that part of the map — Steep three hour falls across a region are a low or front announcing itself; the tendency field shows a system's approach before the isobars finish redrawing. The falling glass lesson is that story at one station.