

25.2.3.4 Station Plot Models

Land, ship, buoy, and C-MAN stations are plotted on the chart to aid in analyzing and interpreting the surface weather features. These plotted observations are referred to as station models. Some stations may not be plotted due to space limitations. However, all reporting stations are used in the analysis.

Figure 25-10 and Figure 25-11 contain the most commonly used station plot models used in surface analysis charts.

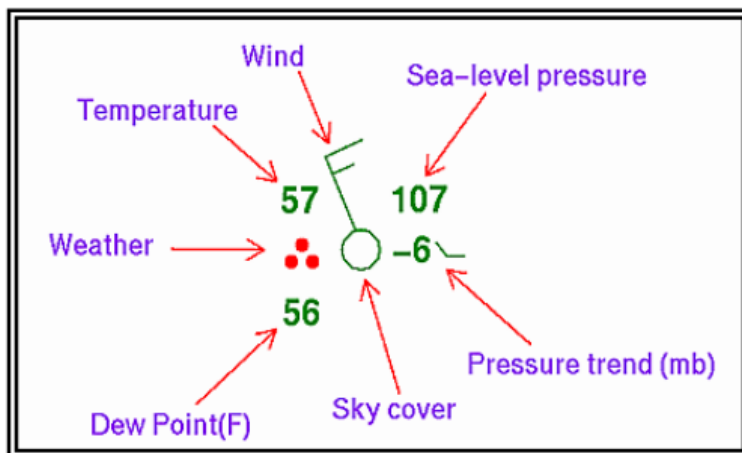


Figure 25-10. NWS Surface Analysis Chart Station Plot Model

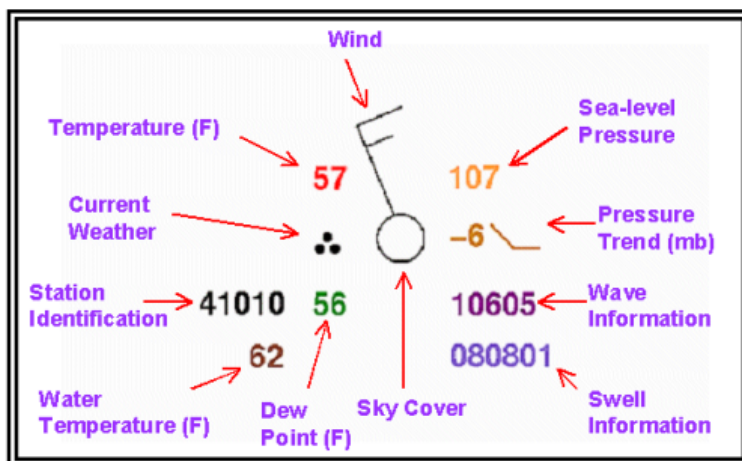


Figure 25-11. NWS Surface Analysis Chart Ship/Buoy Plot Model

The WPC also produces surface analysis charts specifically for the aviation community. Figure 25-12 contains the station plot model for these charts.

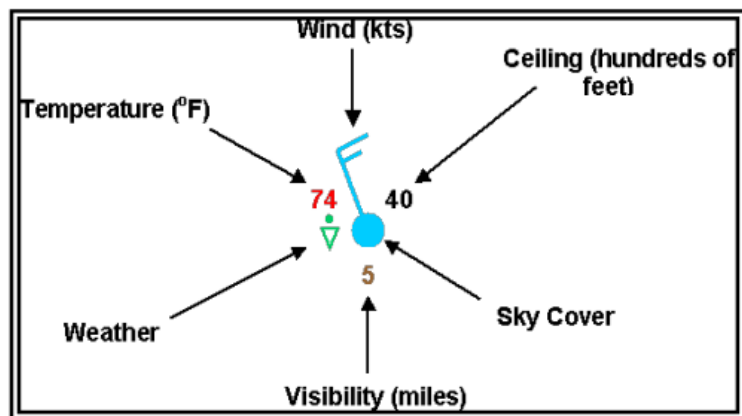


Figure 25-12. NWS Surface Analysis Chart for Aviation Interests Station Plot Model

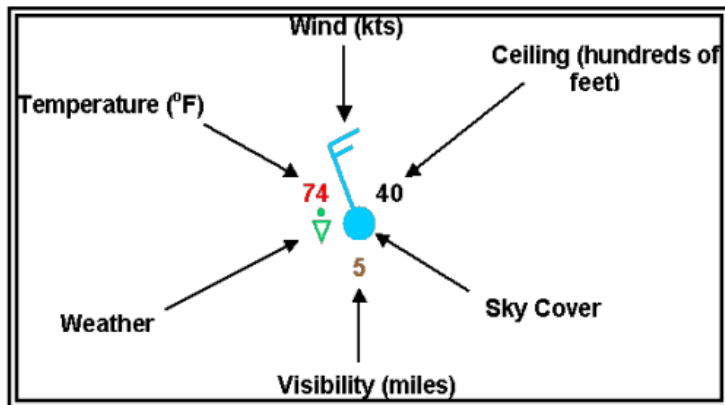


Figure 25-12. NWS Surface Analysis Chart for Aviation Interests Station Plot Model

25.2.3.4.1 Station Identifier

The format of the station identifier depends on the observing platform:

- Ship: Typically, four or five characters. If five characters, then the fifth will usually be a digit.
- Buoy: Whether drifting or stationary, a buoy will have a five-digit identifier. The first digit will always be a 4.
- C-MAN: Usually located close to coastal areas. Their identifier will appear like a five-character ship identifier; however, the fourth character will identify off which state the platform is located.
- Land: Land stations will always be three characters, making them easily distinguishable from ship, buoy, and C-MAN observations.

25.2.3.4.2 Temperature

The air temperature is plotted in whole degrees Fahrenheit.

25.2.3.4.3 Dewpoint

The dewpoint temperature is plotted in whole degrees Fahrenheit.

25.2.3.4.4 Weather

A weather symbol is plotted if, at the time of observation, precipitation is either occurring or a condition exists causing reduced visibility.

Figure 25-13 contains a list of the most common weather symbols.



















			Rain (light,moderate,heavy)
			Snow (light,moderate,heavy)
			Thunder (with rain,snow,no precipitation)
			Shower (rain,snow)
			Drizzle
			Freezing rain, Freezing drizzle
			Ice pellets/Sleet
			Fog (shallow,deep)
			Haze

Figure 25-13. NWS Surface Analysis Chart Common Weather Symbols

25.2.3.4.5 Wind

Wind is plotted in increments of 5 kt. The wind direction is referenced to true north and is depicted by a stem (line) pointed in the direction from which the wind is blowing. Wind speed is determined by adding the values of the flags (50 kt), barbs (10 kt), and half-barbs (5 kt) found on the stem.

If the wind is calm at the time of observation, only a single circle over the station is depicted.

Figure 25-14 includes some sample wind symbols.

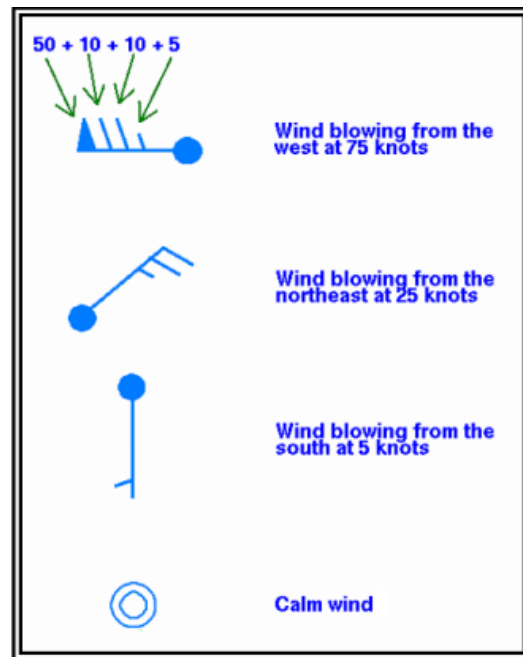


Figure 25-14. NWS Surface Analysis Chart Sample Wind Symbols

25.2.3.4.6 Ceiling

Ceiling is plotted in hundreds of feet AGL.

25.2.3.4.7 Visibility

Surface visibility is plotted in whole statute miles.

25.2.3.4.8 Pressure

Sea level pressure is plotted in tenths of millibars, with the first two digits (generally 10 or 9) omitted. For reference, 1,013 mb is equivalent to 29.92 inHg. Below are some sample conversions between plotted and complete sea level pressure values.

410	1,041.0 mb
103	1,010.3 mb
987	998.7 mb
872	987.2 mb

25.2.3.4.9 Pressure Trend

The pressure trend has two components, a number and a symbol, to indicate how the sea level pressure has changed during the past 3 hours. The number provides the 3-hour change in tenths of millibars, while the symbol provides a graphic illustration of how this change occurred.

Figure 25-15 contains the meanings of the pressure trend symbols.



Figure 25-15. NWS Surface Analysis Chart Pressure Trends

25.2.3.4.10 Sky Cover

The approximate amount of sky cover can be determined by the circle at the center of the station plot. The amount that the circle is filled reflects the amount of sky covered by clouds. Figure 25-16 contains the common cloud cover depictions.



Figure 25-16. NWS Surface Analysis Chart Sky Cover Symbols

