

Reading a Weather Map

Meteorologists use a series of symbols to provide a picture of local and national weather conditions. Use the information below to interpret the weather map.




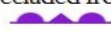




Materials

- Map for reading the weather
- Hand lens

Procedures

1. Find the station model for Dallas, Texas and Miami, Florida on the weather map.
2. Find the barometric pressure, temperature, dew point, wind speed, wind direction and general weather conditions (such as rain, snow).
3. Determine what type of front is near Dallas and Miami.
4. In which direction are the fronts, in general, moving across the United States (the half circles and triangles point in the direction the front is moving)?
5. Record information and answers to the conclusion questions on your sheet.

Weather Map Symbols

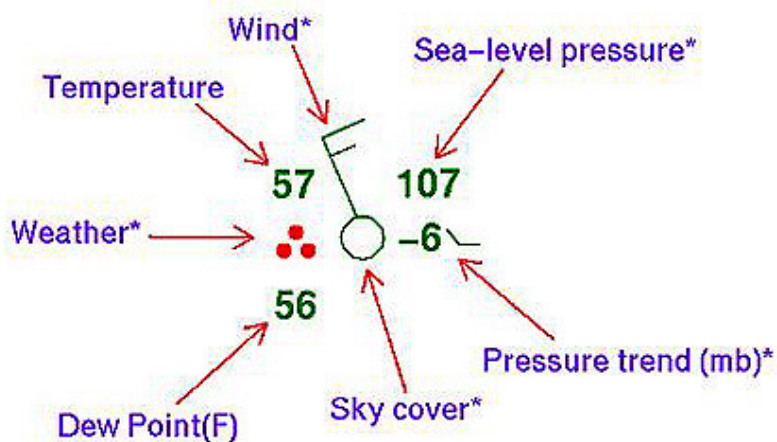
<u>Sky Cover</u>	<u>Wind</u>	<u>Fronts</u>	<u>Selected Weather Symbols</u>
○ clear	☉ Calm	cold front 	• Rain
⊙ 1/8	— 1-2 knots (1-2 mph)	warm front 	• Rain Shower
☉ scattered	— 3-7 knots (3-8 mph)	stationary front 	⚡ Thunderstorm
☉ 3/8	— 8-12 knots (9-14 mph)	occluded front 	' Drizzle
☉ 4/8	— 13-17 knots (15-20 mph)	trough 	* or ←← Snow
☉ 5/8	— 18-22 knots (21-25 mph)	radar intensities 	* Snow Shower
● broken	— 23-27 knots (26-31 mph)	tornado (T) #300 	☉ Freezing Rain
● 7/8	— 48-52 knots (55-60 mph)	severe thunderstorm (S) #287 	☉ Freezing Drizzle
● overcast	— 73-77 knots (84-89 mph)		= Fog
⊗ obscured	— 103-107 knots (119-123 mph)		∞ Haze
⊕ missing	Shaft in direction wind is coming from		☹ Smoke
			⚡ Dust or Sand
			⚡ Blowing Snow

Conclusion Questions

1. Locate the pressure system over California. Predict what will happen to the weather in Texas as this system moves to the east.

2. The prevailing westerlies are winds responsible for much of the weather across the United States. Based on this, would you expect South Carolina to continue to have clear skies? Explain your reasoning and evidence to support your answer.

3. The direction line on the station model indicates the direction from which the wind blows. The wind is named for that direction. Infer what the name of the station below would be given the station information.



Wind Speed _____

Wind Direction _____

Temperature _____

Dew Point _____

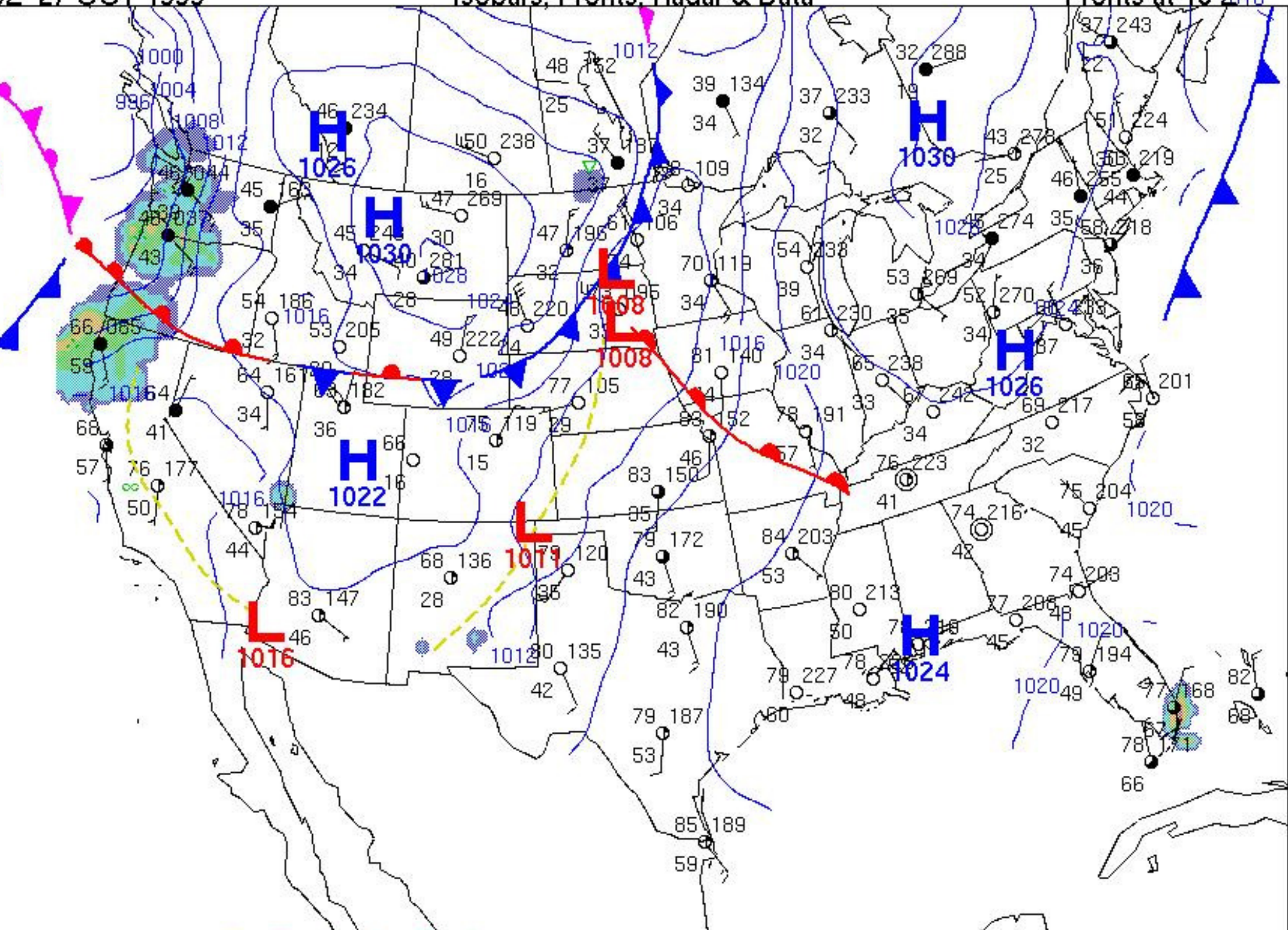
General Weather _____

Sky Coverage _____

0Z 27 OCT 1999

Isobars, Fronts, Radar & Data

Fronts at 18 Z 16



cho Intensities: 1 2 3 4 5 6

Blue - Isobars (4 mb)