Weather Map Symbols

A In the upper left, the temperature is plotted in Fahrenheit. In this example, the temperature is 77°F.

D On the second row, the far left number is the visibility in miles. In this example, the visibility is 5 miles.

H The number at the lower left is the dew point temperature. The dew point temperature is the temperature the air would have to cool to become saturated, or in other words reach a relative humidity of 100%.

B Along the center, the cloud types are indicated. The top symbol is the high-level cloud type followed by the mid-level cloud type. The lowest symbol represents low-level cloud over a number which tells the height of the base of that cloud (in hundreds of feet) In this example, the high level cloud is Cirrus, the mid-level cloud is Altocumulus and the low-level clouds is a cumulonimbus with a base height of 2000 feet.

3	Ci	Dense Ci	Dense Ci from Cb	Ci invading sky	Cs below 45°	Cs above 45°; not overcast	Overcast Cs	Cs not ovcercast; not increasing	Cc
2	As	Dense As a/o Ns	Ac; semi-transparent	Ac Standing Lenticularis	Ac invading sky	Ac from Cu	Ac with As / Ns	Ac congestus	Ac of chaotic sky
1	Cu	Moderate Cu	Cb no anvil	Sc from Cu	Sc NOT from Cu	St	Stfra or CuFra of bad weather	Cu ans Sc different heights	Cb w/anvil

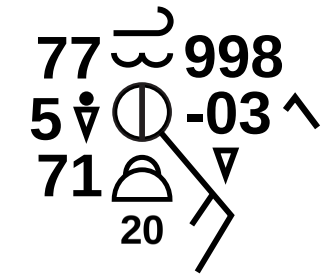
C At the upper right is the atmospheric pressure reduced to mean sea level in millibars (mb) to the nearest tenth with the leading 9 or 10 omitted. In this case the pressure would be 999.8 mb. If the pressure was plotted as 024 it would be 1002.4 mb. When trying to determine whether to add a 9 or 10 use the number that will give you a value closest to 1000 mb.

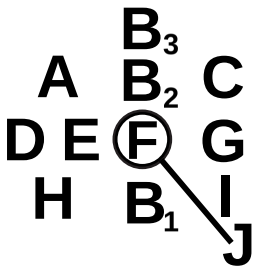
E Next to the visibility is the present weather symbol. There 95 symbols which represent the weather that is either presently occurring or has ended within the previous hour. In this example, a light rain shower was occurring at the time of the observation.

F The circle symbol in the center represents the amount of total cloud cover reported in eighths. This cloud cover includes all low, middle, and high level clouds.

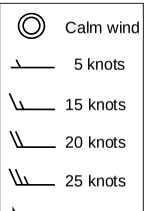
I The lower right area is reserved for the past weather, which is the most significant weather that has occurred within the past six hours excluding the most recent hour.

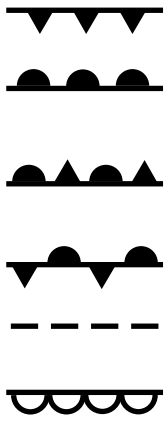
n/a	Clear or Few Clouds (not plotted)
n/a	Partly cloudy (scattered) or variable sky (not plotted)
n/a	Cloudy (broken) or overcast (not plotted)
	Sandstorm or dust storm, or drifting or blowing snow
	Fog, or smoke, or thick dust haze
	Drizzle
	Rain
	Snow, or rain and snow mixed, or ice pellets (sleet)
	Shower(s)
	Thunderstorm, with or without precipitation





J These lines indicate wind direction and speed rounded to the nearest 5 knots. The longest line, extending from the sky cover plot, points in the direction *FROM* which that wind is blowing. Thus, in this case, the wind is blowing *FROM* the southeast. The shorter lines, called barbs, indicate the wind speed in knots (kt). The speed of the wind is determined by the barbs. Each long barb represents 10 kt with short barbs representing 5 kt. A pennant is used to represent each 50 kt. In this example, one short barb and one long barb means the wind speed is 15 kt.





Cold Front - a zone separating two air masses, of which the cooler, denser mass is advancing and replacing the warmer.

Warm Front - a transition zone between a mass of warm air and the cold air it is replacing.

Occluded Front - a composite of two fronts, formed as a cold front overtakes a warm or quasi-stationary front. Two types of occlusions can form depending on the relative coldness of the air behind the cold front to the air ahead of the warm or stationary front. A cold occlusion results when the coldest air is behind the cold front and a warm occlusion results when the coldest air is ahead of the warm front.

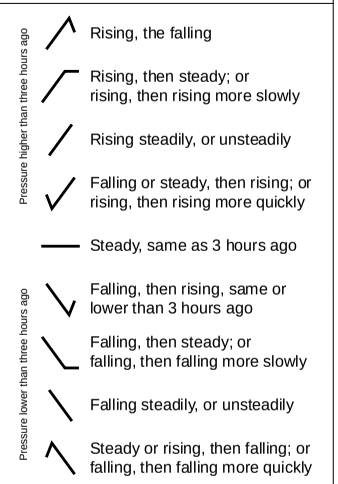
Stationary Front - a front between warm and cold air masses that is moving very slowly or not at all.

Trough - No temperature difference across boundary

Dry Line - a boundary separating moist and dry air masses. It typically lies north-south across the central and southern high Plains states during the spring and early summer, where it separates moist air from the Gulf of Mexico (to the east) and dry desert air from the southwestern states (to the west).

Squal Line - a line of active thunderstorms, either continuous or with breaks, including contiguous precipitation areas resulting from the existence of the thunderstorms.

G This number and symbol tell how much the pressure has changed (in tenths of millibars) in the past three hours and the trend in the change of the pressure during that same period. In this example, the pressure was steady then fell (lowered) becoming 0.3 millibars LOWER than it was three hours ago.



JetStream - An Online School for Weather: Surface Weather Plot Key
http://www.weather.gov/jetstream/synoptic/images/sfc_plot_key.pdf

Present Weather Symbols

00  Cloud development NOT observed during past hour (not plotted)	01  Clouds generally becoming less developed (not plotted)	02  State of sky on the whole unchanged during past hour (not plotted)	03  Clouds generally forming or developing during past hour (not plotted)	04  Visibility reduced by smoke	05  Haze	06  Widespread dust in the air, not raised by wind at or near station	07  Dust or sand due to wind at or near the station but no dust whirl/sandstorm	08  Well developed dust whirl and/or sand whirl but no dust storm/sandstorm	09  Dust storm or sandstorm within sight or at the station during past hour
10  Mist	11  Patches of shallow fog at station, NOT deeper than 6 feet on land	12  More or less continuous shallow fog at station, NOT deeper than 6 feet	13 Lighting visible, no thunder heard	14  Precipitation within sight, but NOT reaching the ground	15  Precipitation within sight, reaching the surface, but more than 3 miles away	16  Precipitation within sight, reaching the surface within 3 miles	17  Thunder heard, but no precipitation at the station	18  Squall(s) within sight during past hour	19  Funnel cloud(s) and/or Tornado(es) during the preceding hour
20  Drizzle (not freezing) or snow grains, not as shower(s), has ended	21  Rain (not freezing) not falling as shower(s) , ended in the past hour	22  Snow not falling as shower(s) ended in the past hour	23  Rain and snow or ice pellets, not as shower(s) ended in the past hour	24  Freezing drizzle or freez-ing rain, not as shower(s) ended in the past hour	25  Shower(s) of rain ended in the past hour	26  Shower(s) of snow, or of rain and snow ended in the past hour	27  Shower(s) of hail, or of rain and hail ended in the past hour	28  Fog or ice fog ended in the past hour	29  Thunderstorm (with or without precipitation) ended in the past hour
30  Slight or moderate dust storm or sandstorm (has decreased in past hour)	31  Slight or moderate dust storm/sandstorm (no change during past hour)	32  Slight or moderate dust storm or sandstorm (has begun or increased)	33  Severe dust storm or sandstorm, decreased during the past hour	34  Severe dust storm or sandstorm, has no change during past hour	35  Severe dust storm or sandstorm has begun or increased	36  Slight or moderate drifting snow (generally below eye level)	37  Heavy drifting snow (generally below eye level)	38  Slight or moderate blowing snow (generally above eye level)	39  Heavy blowing snow (generally above eye level)
40 Fog at a distance, but not at the station during the preceding hour	41 Fog in patches	42 Fog, sky visible (has become thinner during preceding hour)	43 Fog, sky obscured (has become thinner during preceding hour)	44 Fog, sky visible (no appreciable change during the past hour)	45 Fog, sky obscured (no appreciable change during the past hour)	46 Fog, sky visible (has begun or has become thicker during past hour)	47 Fog, sky obscured (has begun or has become thicker during past hour)	48 Fog, depositing rime ice, sky visible	49 Fog, depositing rime ice, or ice fog, sky obscured
50 Drizzle, not freezing, intermittent (slight at time of observation)	51 Drizzle, not freezing, continuous (slight at time of observation)	52 Drizzle, not freezing, intermittent (moderate at time of observation)	53 Drizzle, not freezing, continuous (moderate at time of observation)	54 Drizzle, not freezing, intermittent (heavy at time of observation)	55 Drizzle, not freezing, continuous (heavy at time of observation)	56 Drizzle, freezing, slight	57 Drizzle, freezing, moderate or heavy	58 Drizzle and rain, slight	59 Drizzle and rain, moderate or heavy
60 Rain, not freezing, intermittent (slight at time of observation)	61 Rain, not freezing, continuous (slight at time of observation)	62 Rain, not freezing, intermittent (moderate at time of observation)	63 Rain, not freezing, continuous (moderate at time of observation)	64 Rain, not freezing, intermittent (heavy at time of observation)	65 Rain, not freezing, continuous (heavy at time of observation)	66 Rain, freezing, slight	67 Rain, freezing, moderate or heavy	68 Rain or drizzle and snow, slight	69 Rain or drizzle and snow, moderate or heavy
70 Intermittent fall of snowflakes (slight at time of observation)	71 Continuous fall of snowflakes (slight at time of observation)	72 Intermittent fall of snowflakes (moderate at time of observation)	73 Continuous fall of snowflakes (moderate at time of observation)	74 Intermittent fall of snowflakes (heavy at time of observation)	75 Continuous fall of snowflakes (heavy at time of observation)	76 Ice needles (with or without fog)	77 Snow grains (with or without fog)	78 Isolated star-like snow crystals (with or without fog)	79 Ice pellets (sleet)
80 Rain shower(s), slight	81 Rain shower(s), moderate or heavy	82 Rain shower(s), violent	83 Shower(s) of rain and snow mixed, slight	84 Shower(s) of rain and snow mixed, moderate or heavy	85 Snow shower(s), slight	86 Snow shower(s), moderate or heavy	87 Shower(s) of snow pellets or small hail, slight with or without rain or rain/snow	88 Shower(s) of snow pellets or small hail, moderate or heavy w/ or w/o rain/snow	89 Shower(s) of hail, slight, w/ or w/o rain or rain/ snow mixed, no thunder
90 Shower(s) of hail, w/ or w/o rain or rain/snow, no thunder, mod. or heavy	91 Thunderstorm during past hour w/ slight rain at time of observation	92 Thunderstorm during past hour w/ current moderate/ heavy rain	93 Thunderstorm ended w/ current slight snow, rain/ snow mixed, or hail	94 Thunderstorm ended w/ current moderate/heavy snow, rain/snow, or hail	95 Thunderstorm, slight or moderate, w/o hail but w/ rain and/or snow	96 Thunderstorm, slight or moderate, with hail at time of observation	97 Thunderstorm, heavy, w/o hail but with rain and/or snow	98 Thunderstorm combined with dust storm or sandstorm	99 Thunderstorm, heavy, with hail at time of observation

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