

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 five 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 Altcumulus 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 overcast; 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.

| | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|--------------|
| | | | | | | | | | |
| No Clouds | 1/8th | 2/8th | 3/8th | 4/8th | 5/8th | 6/8th | 7/8th | 8/8th | Sky Obscured |

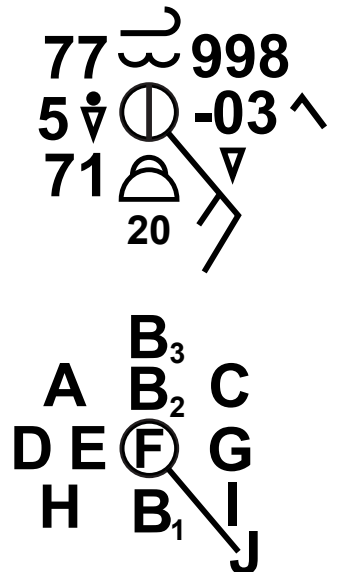
J These lines indicate wind direction and speed rounded to the nearest 5 knots. The longest line, extending from the sky cover plot, points in the direction FROM which that wind is blowing. Thus, in this case, the wind is blowing FROM the southeast. The shorter lines, called barbs, indicate the wind 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.

| | |
|--|-----------|
| | Calm wind |
| | 5 knots |
| | 15 knots |
| | 20 knots |
| | 25 knots |
| | 55 knots |

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.

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 |



| | |
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| | 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. |

| | | |
|--|--|---|
| | | Rising, the falling |
| | | Rising, then steady; or rising, then rising more slowly |
| | | Rising steadily, or unsteadily |
| | | Falling or steady, then rising; or rising, then rising more quickly |
| | | Steady, same as 3 hours ago |
| | | Falling, then rising, same or lower than 3 hours ago |
| | | Falling, then steady; or falling, then falling more slowly |
| | | Falling steadily, or unsteadily |
| | | Steady or rising, then falling; or falling, then falling more quickly |

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 freezing 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 above 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 |