




























Surface Weather Plot Symbols

[Cloud types](#) | [Present weather](#) | [Sky Cover](#) | [Pressure tendency](#) | [Wind Speed & Direction](#) | [Past Weather](#)

Cloud Symbol Priority

	Highest to Lowest Priority (left to right)								
High-level clouds									
	H9	H7	H8	H6	H5	H4	H3	H2	H1
Mid-level clouds									
	M9	M8	M7	M6	M5	M4	M3	M2	M1
Low-level clouds									
	L9	L3	L4	L8	L2	L1	L5	L6	L7





















Often, more than one cloud type occurs in each level (low, middle, or high) in the atmosphere. However, since only one cloud type is indicated for each level, the cloud that is coded is based upon a priority list of the most predominate cloud for each particular level.

At right is a list of priority and symbol for each cloud type. Hold mouse over symbols to reveal cloud type name.

How is this list used? If more than one cloud type exists for any given level, the cloud with the highest priority is plotted. For example, an observer might see a cumulonimbus (L9) and stratocumulus (L5) at the same time. In the list of priorities, only the cumulonimbus (L9) will be plotted.











Present Weather Symbols

Following are the 99 present weather symbols used in meteorology. They are divided into groups as indicated below.











Codes 00-09 General Group: No precipitation, fog, dust storm, sandstorm, drifting or blowing snow at the station at the time of observation or, except for 09 during the preceding hour.									
00	01	02	03	04	05	06	07	08	09
									
Cloud development NOT observed or NOT observable during past hour (not plotted)	Clouds generally dissolving or becoming less developed during past hour (not plotted)	State of sky on the whole unchanged during past hour (not plotted)	Clouds generally forming or developing during past hour (not plotted)	Visibility reduced by smoke	Haze	Widespread dust in suspension in the air, not raised by wind at or near the station at the time of observation	Dust or sand raised by the wind at or near the station at the time of observation, but no well-developed dust whirl(s), and no sandstorm seen: or, in the case of ships, blowing spray at the station	Well developed dust whirl(s) or sand whirl(s) seen at or near the station during the preceding hour or at the time of observation, but no dust storm or sandstorm	Dust storm or sandstorm within sight at the time of observation, or at the station during the preceding hour
Codes 10-19 General Group: No precipitation at the station at the time of observation or, except 17, during the preceding hour.									
10	11	12	13	14	15	16	17	18	19
									
Mist	Patches of shallow	More or less continuous	Lighting visible,	Precipitation within sight,	Precipitation within sight,	Precipitation within sight,	Thunder heard, but no	Squall(s) within	Funnel cloud(s) /

fog at station, NOT deeper than 6 feet on land	shallow fog at station, NOT deeper than 6 feet on land	no thunder heard	but NOT reaching the ground	reaching ground or the surface of the sea, but distant, i.e. estimated to be more than 3 miles from the station	reaching the ground or the surface of the sea, near to (within 3 miles), but not at the station	precipitation at the station	sight during past hour	Tornado(s) during the preceding hour or at time of observation
--	--	------------------	-----------------------------	---	---	------------------------------	------------------------	--











Codes 20-29 General Group: Precipitation, fog, ice fog, or thunderstorm at the station during the preceding hour but not at the time of observation.

20	21	22	23	24	25	26	27	28	29
									
Drizzle (not freezing) or snow grains not falling as shower(s) ended in the past hour	Rain (not freezing) not falling as shower(s) ended in the past hour	Snow not falling as shower(s) ended in the past hour	Rain and snow or ice pellets not falling as shower(s) ended in the past hour	Freezing drizzle or freezing rain not falling as shower(s) ended in the past hour	Shower(s) of rain ended in the past hour	Shower(s) of snow, or of rain and snow ended in the past hour	Shower(s) of hail, or of rain and hail ended in the past hour	Fog or ice fog ended in the past hour	Thunderstorm (with or without precipitation) ended in the past hour











Codes 30-39 General Group: Dust storm, sandstorm, drifting or blowing snow.

30	31	32	33	34	35	36	37	38	39
									
Slight or moderate dust storm or sandstorm (has decreased during the preceding hour)	Slight or moderate dust storm or sandstorm (no appreciable change during the preceding hour)	Slight or moderate dust storm or sandstorm (has begun or increased during the preceding hour)	Severe dust storm or sandstorm has decreased during the preceding hour	Severe dust storm or sandstorm has no appreciable change during the preceding hour	Severe dust storm or sandstorm has begun or increased during the preceding hour	Slight or moderate drifting snow (generally below eye level)	Heavy drifting snow (generally below eye level)	Slight or moderate blowing snow (generally above eye level)	Heavy drifting snow (generally above eye level)

Codes 40-49 General Group: Fog at the time of observation.

40	41	42	43	44	45	46	47	48	49
									
Fog at a distance at the time of observation, but not at the station during the preceding hour, the fog or ice fog extending to a level above that of the observer	Fog in patches	Fog sky visible (has become thinner during preceding hour)	Fog sky obscured (has become thinner during preceding hour)	Fog sky visible (no appreciable change during the preceding hour)	Fog sky obscured (no appreciable change during the preceding hour)	Fog sky visible (has begun or has become thicker during the preceding hour)	Fog sky obscured (has begun or has become thicker during the preceding hour)	Fog, depositing rime ice, sky visible	Fog, depositing rime ice, or ice fog, sky obscured

Codes 50-59 General Group: Drizzle.

50	51	52	53	54	55	56	57	58	59
									
Drizzle, not freezing, intermittent	Drizzle, not freezing, continuous	Drizzle, not freezing, intermittent	Drizzle, not freezing, continuous	Drizzle, not freezing, intermittent	Drizzle, not freezing, continuous	Drizzle, freezing, slight	Drizzle, freezing, moderate	Drizzle and rain, slight	Drizzle and rain, moderate

(slight at time of observation) (slight at time of observation) (moderate at time of observation) (moderate at time of observation) (heavy at time of observation) (heavy at time of observation) or heavy or heavy

Codes 60-69 General Group: Rain.

60	61	62	63	64	65	66	67	68	69
Rain, not freezing, intermittent (slight at time of observation)	Rain, not freezing, continuous (slight at time of observation)	Rain, not freezing, intermittent (moderate at time of observation)	Rain, not freezing, continuous (moderate at time of observation)	Rain, not freezing, intermittent (heavy at time of observation)	Rain, not freezing, continuous (heavy at time of observation)	Rain, freezing, slight	Rain, freezing, moderate or heavy	Rain or drizzle and snow, slight	Rain or drizzle and snow, moderate or heavy

Codes 70-79 General Group: Solid precipitation not in showers.


70	71	72	73	74	75	76	77	78	79
Intermittent fall of snowflakes (slight at time of observation)	Continuous fall of snowflakes (slight at time of observation)	Intermittent fall of snowflakes (moderate at time of observation)	Continuous fall of snowflakes (moderate at time of observation)	Intermittent fall of snowflakes (heavy at time of observation)	Continuous fall of snowflakes (heavy at time of observation)	Ice needles (with or without fog)	Snow grains (with or without fog)	Isolated star-like snow crystals (with or without fog)	Ice pellets (sleet)

Codes 80-99 General Group: Showery precipitation, or precipitation with current or recent thunderstorm.


80	81	82	83	84	85	86	87	88	89
Rain shower(s), slight	Rain shower(s), moderate or heavy	Rain shower(s), violent	Shower(s) of rain and snow mixed, slight	Shower(s) of rain and snow mixed, moderate or heavy	Snow shower(s), slight	Snow shower(s), moderate or heavy	Shower(s) of snow pellets or small hail, slight with or without rain or snow mixed	Shower(s) of snow pellets or small hail, moderate or heavy with or without rain or snow mixed	Shower(s) of hail, with or without rain or snow mixed, not associated with thunder, slight
90	91	92	93	94	95	96	97	98	99
Shower(s) of hail, with or without rain or snow mixed, not associated with thunder,	Thunderstorm during the pre-ceding hour but not at time of observation with slight rain at time of observation	Thunderstorm during the pre-ceding hour but not at time of observation with moderate or heavy rain at time of observation	Thunderstorm during the pre-ceding hour but not at time of observation with slight snow, or rain and snow mixed, at time of observation	Thunderstorm during the pre-ceding hour but not at time of observation with moderate or heavy snow, or rain and snow mixed, at time of observation	Thunderstorm, slight or moderate, without hail but with rain and or snow at time of observation	Thunderstorm, slight or moderate, with hail at time of observation	Thunderstorm, heavy, without hail but with rain and or snow at time of observation	Thunderstorm combined with dust storm or sandstorm at time of observation	Thunderstorm, heavy, with hail at time of observation

Sky Cover Symbols


These are the ten symbols that represent the total amount of sky cover at the time of the observation (reported in eighths).




No
Clouds




1/8th
skycover




2/8ths
skycover




3/8ths
skycover




4/8ths
skycover




5/8ths
skycover




6/8ths
skycover



7/8ths
skycover












8/8ths
skycover
(completely
overcast)



Sky Obscured
(used when a surface-based weather
phenomena (i.e. fog, dust, etc.) blocks the
view of the sky)

Pressure tendency symbols

	Code	Symbol	Description
Pressure higher than three hours ago	0		Rising, the falling
	1		Rising, then steady; or rising, then rising more slowly
	2		Rising steadily, or unsteadily
Pressure the same as three hours ago	3		Falling or steady, then rising; or rising, then rising more quickly
	4		Steady, same as 3 hours ago
Pressure lower than three hours ago	5		Falling, then rising, same or lower than 3 hours ago
	6		Falling, then steady; or falling, then falling more slowly
	7		Falling steadily, or unsteadily
	8		Steady or rising, then falling; or falling, then falling more quickly

These symbols show the pressure trend during the past three hours. It is useful for determining motion of front. For example, a typical pressure pattern for a cold front that has passed a station would be code 3, falling or steady, then rising; or rising, then rising more quickly.

The steady or falling pressure will be the change in pressure before the front passes over the location. After frontal passage, higher pressure moves over the station as indicated by the pressure rising more quickly.

Wind Speed & Direction

Wind speed. A combination of long/short barbs and pennants indicate the speed of the wind in station weather plots rounded to the nearest 5 knots. Calm wind is indicated by a large circle drawn around the skycover symbol.

One long barb is used to indicate each 10 knots with the short barb representing 5 knots. At 50 knots, the barbs changes to a pennant. For wind speeds higher than 50 knots, long and short barbs are used again in combination with the pennant(s). (See examples below.)

Observed
wind
speed

0-2 kts
(0-2
mph)

3-7 kts
(3-8
mph)

8-12 kts
(9-14
mph)

13-17
kts
(15-20
mph)

18-22
kts
(21-25
mph)

23-27
kts
(26-31
mph)

28-32
kts
(32-37
mph)

33-37
kts
(38-43
mph)

48-52
kts
(55-60
mph)

53-57
kts
(61-66
mph)

58-62
kts
(67-71
mph)

63-67
kts
(73-77
mph)

98-102
kts
(113-117
mph)

102-107
kts
(119-123
mph)

Rounded
to the
nearest 5

0 kts

5 kts

10 kts

15 kts

20 kts

25 kts

30 kts

35 kts

50 kts

55 kts


60 kts


65 kts


100 kts


105 kts


Plotted
as












































Wind FROM 340°
(NNW)

Wind FROM 040°
(NE)

Wind FROM 190°
(S)



The wind direction is indicated by the long shaft. The shaft will point to the direction FROM which the wind is blowing. The direction is based upon a 36-point compass.

Past Weather Symbols

These symbols represent the most significant weather within the past six hours of the observation but not during the most recent hour.									
0	1	2	3	4	5	6	7	8	9
N/A	N/A	N/A							
Clear or Few Clouds (not plotted)	Partly cloudy (scattered) or variable sky (not plotted)	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