



NOAA Cloudwise

There are ten basic cloud types arranged in three divisions based on the altitude at which they form. Low level clouds are Cumulus, Cumulonimbus, Stratus, and Stratocumulus. Middle level clouds are Altostratus, Cirrostratus, and Cirrocumulus. High level clouds are Cirrus, Cirrocumulus and Cirrostratus. Precipitation primarily occurs from Cumulus, Cumulonimbus and Nimbostratus.

These ten clouds are further divided into 27 classifications. Many of these classifications represent the same basic cloud type (or combinations of clouds) but in various stages of development, opacity, or sky cover.

Learn more about clouds at www.weather.gov/jetstream
www.noaa.gov/education www.weather.gov

Cirrus

High1
Cirrus: Straight, nearly straight, or curved filaments, strands or hooks.

Altostratus

Mid2
Altostratus: Full or nearly full sky cover that is gray, shapeless and translucent; produces no halo.

Cumulus

Low1
Cumulus: Thin and ragged edges, forms during fair weather by daytime heating.

Cirrus

H2
Cirrus: Dense white puffs remains, which were originally the upper parts of Cumulonimbus.

Nimbostratus

M3
Altostratus: Thick opaque bands or patches in a relatively continuous layer.

Cumulonimbus

L3
Cumulonimbus: Very tall summits, which lack sharp outlines and are not anvil-shaped.

Cirrus

H3
Cirrus: Dense, anvil-shaped remains, which were originally the upper parts of Cumulonimbus.

Altostratus

M4
Altostratus Lenticularis: Lens or almond shaped, often formed by air moving over hills or mountains.

Cumulonimbus

L4
Stratocumulus: Spread out Cumulus when vertical development stabilizes; sometimes can occur along with Cumulus.

Cirrus

H4
Cirrus: Filaments, strands or hooks, increasing in coverage and generally thickening as a whole.

Altostratus

M5
Altostratus: One or more layers of translucent or opaque bands.

Cumulonimbus

L5
Stratocumulus: One or more layers, not resulting from spreading Cumulus.

Cirrostratus

H5
Cirrostratus: Veil covering the whole sky, sometimes a halo around the sun or moon is present.

Altostratus

M6
Altostratus: A result of the spreading tops of Cumulus or sides of Cumulonimbus.

Stratus

L6
Stratus: In a continuous layer, or Stratus fractus: In ragged shreds, or both, without precipitation.

Cirrus

H6
Cirrus: with or without Cirrostratus: Increasing density and covering much of, but not the entire sky.

Altostratus

M7
Altostratus: In one or more opaque layers, sometimes with Altostratus or Nimbostratus.

Stratus

L7
Stratus- or Cumulus- fractus: Ragged shreds during precipitation, usually seen below Altostratus or Nimbostratus.

Cirrus

H7
Cirrus: Veil covering the whole sky, sometimes a halo around the sun or moon is present.

Altostratus

M8
Altostratus: Small towers, which can be similar to small Cumulus with wispy trails of virga.

Cumulonimbus

L8
Cumulonimbus: Very tall summits with anvil-shaped upper part.

Cirrus

H8
Cirrus: Thin white ripples or small puffs, which may be accompanied by some Cirrus/Cirrostratus.

Altostratus

M9
Altostratus: Chaotic sky with multiple layers and kinds of Altostratus at several altitudes.

Cumulonimbus

L9
Asperitas: Long waves that ripple through the base of the cloud near the dry/moist air boundary of a thunderstorm.

Other Cloud Phenomena

Fog: A cloud on the ground which lifts from the surface and becomes Stratus or dissipates with heat from the sun.

Wall Cloud: Rotating, lowered, rain-free base of thunderstorm in area of strongest updraft, under which a tornado may form.

Shelf Cloud: Forms in a gust front from a squall line or thunderstorm.

Virga: Precipitation that evaporates before reaching the surface.

Sky cover

The percent of sky covered by clouds. Clouds near the horizon appear to be lower, more numerous and closer together.

	Sky Clear	0%
	Few	1 - 25%
	Scattered	26 - 50%
	Broken	51 - 99%
	Overcast	100%

