

## Weather Level 3

### Types of Clouds

#### Prefixes and Suffixes Used to Describe Clouds:

Clouds are defined by both the way they look and how high they are in the atmosphere. For example, **cirro** (meaning "wisp of hair") is a prefix given to high-altitude clouds (above 20,000 feet). **Alto** (meaning "high") is a prefix given to mid-altitude clouds (between 6,000 and 20,000 feet). There is no prefix for low-altitude clouds. When clouds are by the ground we call them fog.

**Nimbo** (meaning "rain") as a prefix, or nimbus added as a suffix, in a cloud name indicates that the cloud can produce precipitation (rain, snow, or other forms of falling water). **Cumulo** (meaning "heap") refers to piled-up clouds. **Strato** (meaning "layer") refers to flat, wide, layered clouds.

Type of Cloud (Genus)	Appearance	Altitude (height)
<b>Cumulo-nimbus</b> =Thunderheads	Can cause lightning, thunder, hail, strong rains, strong winds, and tornadoes	Near ground up to 75,000 feet (Vertical clouds)
<b>Cirro-stratus</b>	Thin, wispy, appears in sheets. Located above thunderheads	Above 18,000 feet (High-altitude clouds)
<b>Cirrus</b>	Thin, wispy, filamentous, or curly	Above 18,000 feet (High-altitude clouds)
<b>Cirro-cumulus</b>	Small, puffy, patchy and/or with a wavelike appearance	Above 18,000 feet (High-altitude clouds)
<b>Alto-cumulus</b>	Medium-sized puffy, patchy, scattered clouds - often in linear bands	6,500 - 20,000 feet (Middle-altitude clouds)
<b>Alto-stratus</b>	Thin, uniform	6,500 - 20,000 feet (Middle-Altitude clouds)
<b>Strato-cumulus</b>	Broad and flat on the bottom, puffy on top,	Below 6,500 feet (Low-altitude clouds)
<b>Cumulus</b>	Puffy and piled up.	Below 6,500 feet (Vertical clouds)
<b>Stratus</b>	Uniform, flat, thick to thin layered clouds will ill-defined edges	Below 6,500 feet (Low-altitude clouds)
<b>Nimbo-stratus</b>	Uniform, dark, flat, low, featureless clouds that produce precipitation	Below 6,500 feet (Low-altitude clouds)

Type of Cloud (Genus)	Appearance	Altitude (height)
Fog	Very low stratus clouds	In contact with the ground (Ground-hugging clouds)

**Other types of clouds:**

**Mammatus clouds** are dark clouds shaped like sagging pouches. These clouds often appear after a tornado.

**Orographic clouds** are clouds that are formed as moist air rises over mountains or other major geographic features. The air floats up the side of the mountain and cools quickly, condensing and turning into a cloud.

A **pileus cloud** is a smooth cloud that is found over or on the top of a major geographic feature, like a mountain.

A **contrail** (short for **CONDensation TRAIL**) is a cloud-like vapor trail that forms behind some aircraft when flying in cold, clear, humid air. The contrail forms from the water vapor contained in the jet's engine exhaust.