

Weather Patterns



THE WEATHER FROM SPACE



Weather Satellites

- Devices in space that take pictures of clouds and collect other weather information.
- GOES (Geostationary Operational Environmental Satellite)



Cloud Families

- The types of clouds you see can help you predict what kind of weather is on its way.
- Clouds form as water vapor evaporates from Earth's surface, rises into the air, cools, and then condenses.
- Three main families: **Cumulus**, **Stratus**, and **Cirrus**.



Cumulus Clouds

- Puffy clouds
- Look like cauliflower or cotton candy
- Form when large areas of warm, moist air rise upward from Earth's surface.



Cumulus Clouds



Stratus Clouds

- Flat gray "blankets" that cover the sky.
- Form when a flat layer of warm, moist air rises very slowly.



Stratus Clouds

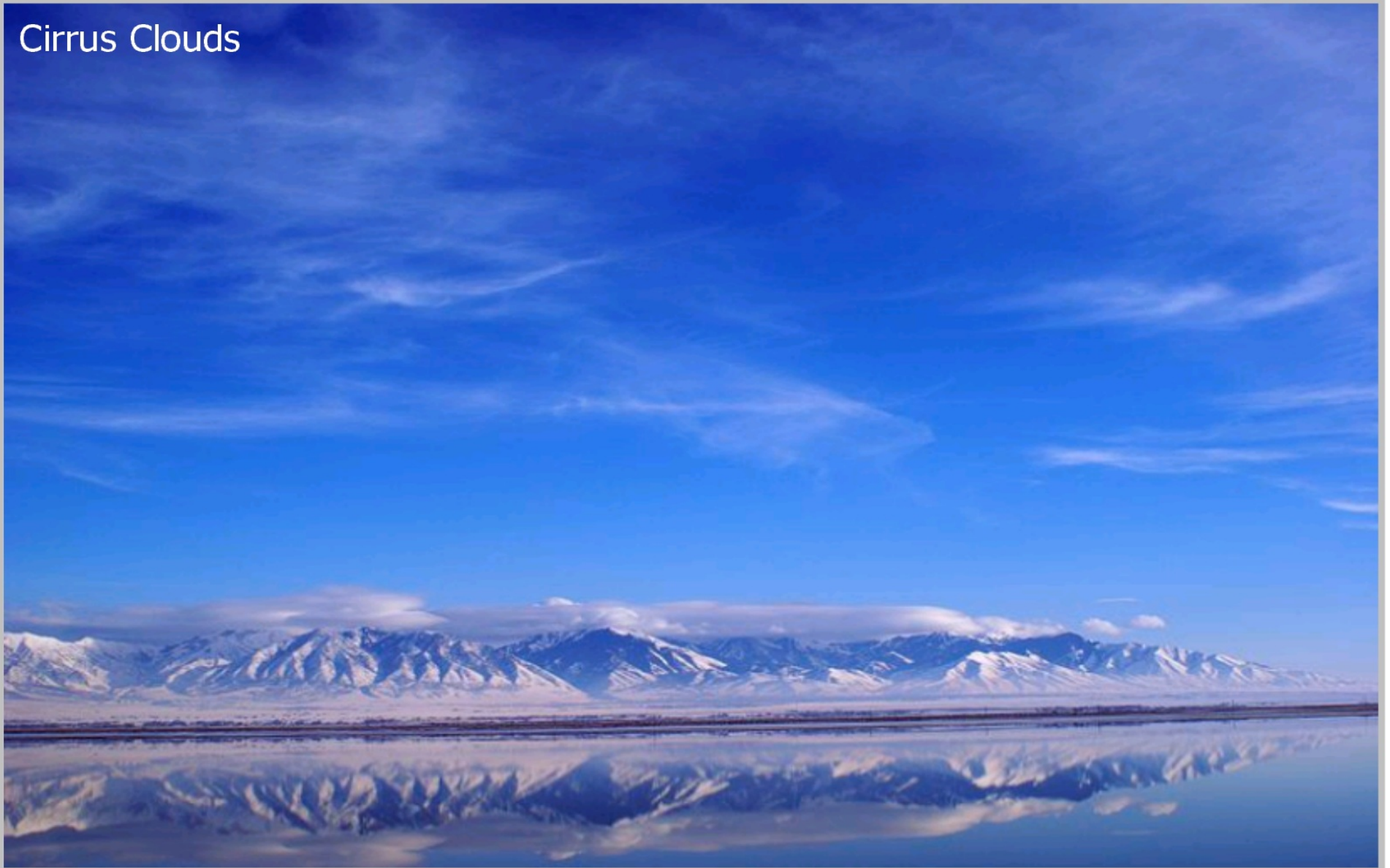


Cirrus Clouds

- Look like commas or wisps of hair high in the sky.
- Form when the air rises high enough for ice crystals to form.

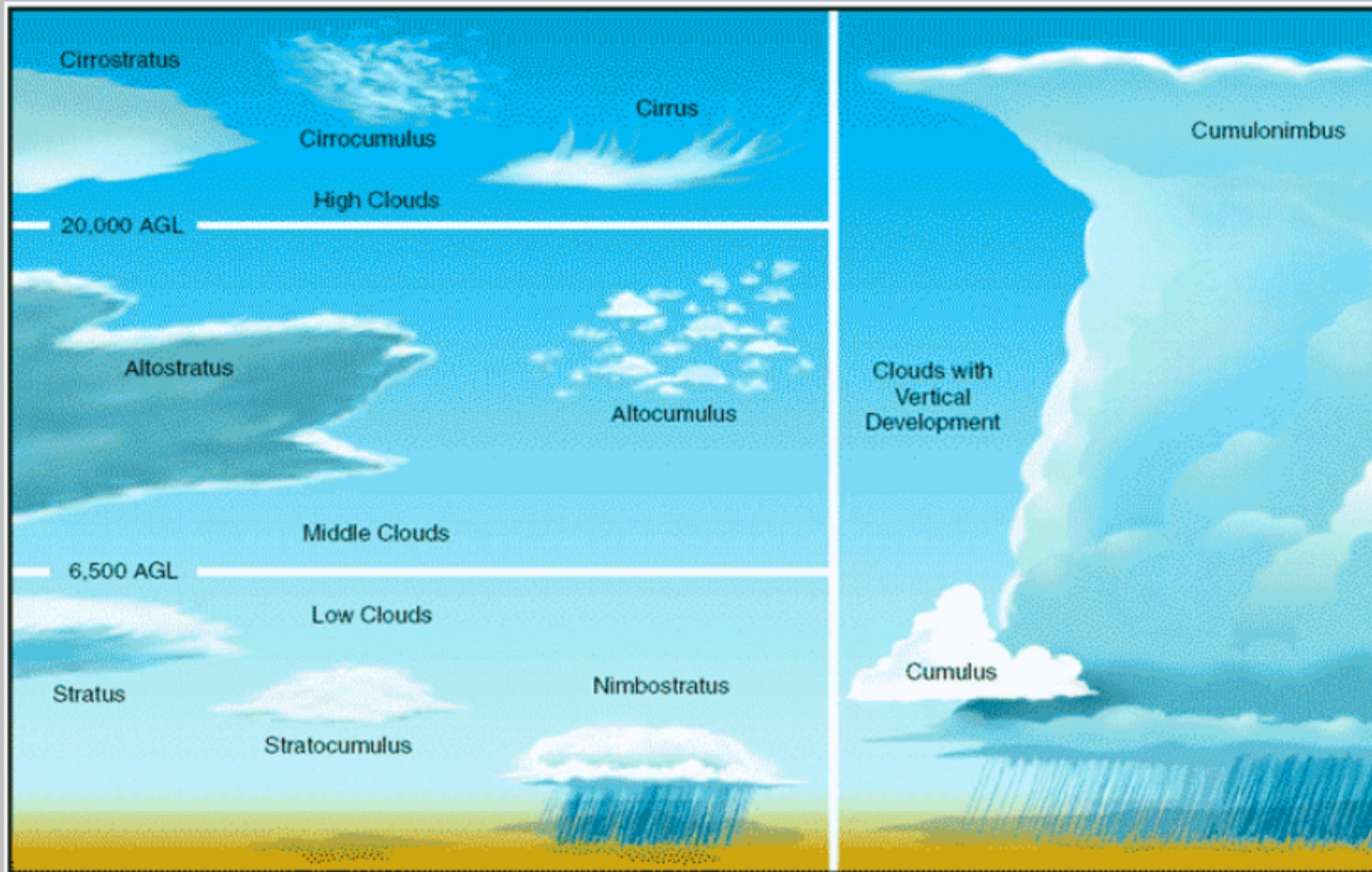


Cirrus Clouds



"Halo" or "Icebow"







Nimbostratus

Nimbus:

- Latin for "rain"
- "Nimbus" or "Nimbo-" in a cloud name tells you it is a rain cloud.



Cumulonimbus

"Cirro-": Clouds that form high in the sky

Cirrostratus:
Stratus clouds
that form high
in the sky.



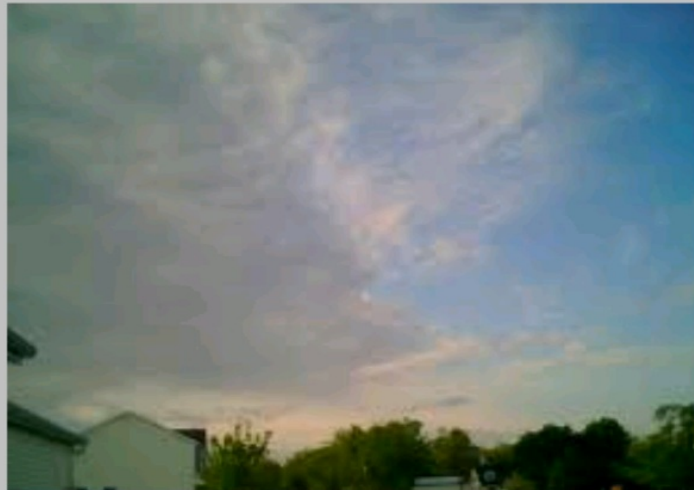
Cirrocumulus:
Cumulus clouds
that form high
in the sky.

"Alto-": Clouds that form at a medium height in the sky.



Alto
cumulus
Clouds

Alto
stratus
Clouds



 can tell you what kind of weather is on the way.

Cloud Type	Associated Weather
Cirrus (Ci)	None
Altostratus (As)	Light rain which may or may not reach the ground.
Altimcumulus (Ac)	Usually none but can grow into rain.
Nimbostratus (Ns)	Heavy continuous rain or snow.
Cumulus (Cu)	Usually none unless large formations, which may be associated with showers of rain or snow.
Cumulonimbus (Cb)	Thunderstorms, lightning, showers of rain, snow or hail.
Stratocumulus (Sc)	May be drizzle; usually associated with reduced visibility.
Stratus (St)	May be drizzle; usually associated with reduced visibility.

cirrus



cirrocumulus



cirrostratus



Cumulonimbus

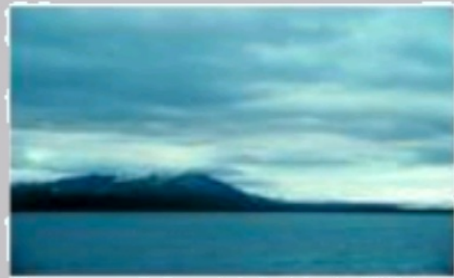


HIGH

altocumulus



altostratus



MIDDLE

Cumulus

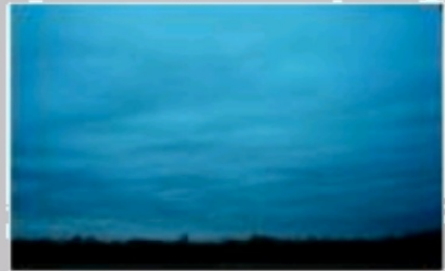
(with development)



**Cumulus
(fair weather)**



Stratus



LOW



