

Alberta Clipper

A fast moving low pressure system that moves southeast out of Canadian Province of Alberta (southwest Canada) through the Plains, Midwest, and Great Lakes region usually during the winter. This low pressure area is usually accompanied by light snow, strong winds, and colder temperatures. Another variation of the same system is called a "Saskatchewan Screamer".

Anvil

The flat, spreading top of a cumulonimbus cloud, often shaped like an anvil. Thunderstorm anvils may spread hundreds of miles downwind from the thunderstorm itself, and sometimes may spread upwind.

Arcus

A low, horizontal cloud formation associated with the leading edge of thunderstorm outflow (i.e., the gust front). Roll clouds and shelf clouds both are types of arcus clouds.

Avalanche

A mass of snow, rock, and/or ice falling down a mountain or incline. In practice, it usually refers to the snow avalanche. In the United States, the term snow slide is commonly used to mean a snow avalanche.

Back Door Cold Front

A cold front moving south or southwest along the Atlantic seaboard and Great Lakes; these are especially common during the spring months.

Back-building Thunderstorm

A thunderstorm in which new development takes place on the upwind side (usually the west or southwest side), such that the storm seems to remain stationary or propagate in a backward direction.

Back-sheared Anvil

[Slang], a thunderstorm anvil which spreads upwind, against the flow aloft. A back-sheared anvil often implies a very strong updraft and a high severe weather potential.

Beaver(s) Tail

[Slang], a particular type of inflow band with a relatively broad, flat appearance suggestive of a beaver's tail. It is attached to a supercell's general updraft and is oriented roughly parallel to the pseudo-warm front, i.e., usually east to west or southeast to northwest. As with any inflow band, cloud elements move toward the updraft, i.e., toward the west or northwest. Its size and shape change as the strength of the inflow changes. See also inflow stinger.

Blizzard

(abbrev. BLZD)- A blizzard means that the following conditions are expected to prevail for a period of 3 hours or longer:

- Sustained wind or frequent gusts to 35 miles an hour or greater; and
- Considerable falling and/or blowing snow (i.e., reducing visibility frequently to less than $\frac{1}{4}$ mile)

Blue Watch or Blue Box

[Slang], a severe thunderstorm watch

Bow Echo

A radar echo which is linear but bent outward in a bow shape. Damaging straight-line winds often occur near the "crest" or center of a bow echo. Areas of circulation also can develop at either end of a bow echo, which sometimes can lead to tornado formation - especially in the left (usually northern) end, where the circulation exhibits cyclonic rotation.

Cell

Convection in the form of a single updraft, downdraft, or updraft/downdraft couplet, typically seen as a vertical dome or tower as in a towering cumulus cloud. A typical thunderstorm consists of several cells.

The term "cell" also is used to describe the radar echo returned by an individual shower or thunderstorm. Such usage, although common, is technically incorrect.

Clear Ice

A thin coating of ice on terrestrial objects, caused by rain that freezes on impact. The ice is relatively transparent, as opposed to rime ice, because of large drop size, rapid accretion of liquid water, or slow dissipation of latent heat of fusion.

Cold Front

A zone separating two air masses, of which the cooler, denser mass is advancing and replacing the warmer.

Comma Echo

A thunderstorm radar echo which has a comma-like shape. It often appears during latter stages in the life cycle of a bow echo

Cyclone

(abbrev. CYC) - A large-scale circulation of winds around a central region of low atmospheric pressure, counterclockwise in the Northern Hemisphere, clockwise in the Southern Hemisphere.

Debris Cloud

A rotating "cloud" of dust or debris, near or on the ground, often appearing beneath a condensation funnel and surrounding the base of a tornado. This term is similar to dust whirl, although the latter typically refers to a circulation which contains dust but not necessarily any debris. A dust plume, on the other hand, does not rotate. Note that a debris cloud appearing beneath a thunderstorm will confirm the presence of a tornado, even in the absence of a condensation funnel.

Derecho

(Pronounced day-RAY-cho), a widespread and usually fast-moving windstorm associated with convection. Derechos include any family of downburst clusters produced by an extratropical MCS, and can produce damaging straight-line winds over areas hundreds of miles long and more than 100 miles across.

Directional Shear

The component of wind shear which is due to a change in wind direction with height, e.g., southeasterly winds at the surface and westerly winds aloft. A veering wind with height in the lower part of the atmosphere is a type of directional shear often considered important for tornado development.

Divergence

The expansion or spreading out of a vector field; usually said of horizontal winds. It is the opposite of convergence. Divergence at upper levels of the atmosphere enhances upward motion, and hence the potential for thunderstorm development (if other factors also are favorable).

Dobson Unit

Unit used to measure the abundance of ozone in the atmosphere. One Dobson unit is the equivalent of 2.69×10^{16} molecules of ozone/cm².

Doppler Radar

Radar that can measure radial velocity, the instantaneous component of motion parallel to the radar beam (i.e., toward or away from the radar antenna).

Downdraft

(Abbrev. DWNDFT) - A small-scale column of air that rapidly sinks toward the ground, usually accompanied by precipitation as in a shower or thunderstorm. A downburst is the result of a strong downdraft.

Drizzle

Precipitation consisting of numerous minute droplets of water less than 0.5 mm (500 micrometers) in diameter

Drought

Drought is a deficiency of moisture that results in adverse impacts on people, animals, or vegetation over a sizeable area. NOAA together with its partners provides short- and long-term Drought Assessments

Dry Line

A boundary separating moist and dry air masses, and an important factor in severe weather frequency in the Great Plains. 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). The dry line typically advances eastward during the afternoon and retreats westward at night. However, a strong storm system can sweep the dry line eastward into the Mississippi Valley, or even further east, regardless of the time of day. A typical dry line passage results in a sharp drop in humidity (hence the name), clearing skies, and a wind shift from south or southeasterly to west or southwesterly. (Blowing dust and rising temperatures also may follow, especially if the dry line passes during the daytime. These changes occur in reverse order when the dry line retreats westward. Severe and sometimes tornadic thunderstorms often develop along a dry line or in the moist air just to the east of it, especially when it begins moving eastward.

Dry Line Bulge

A bulge in the dry line, representing the area where dry air is advancing most strongly at lower levels. Severe weather potential is increased near and ahead of a dry line bulge.

Dust Devil

A small, rapidly rotating wind that is made visible by the dust, dirt or debris it picks up. Also called a whirlwind, it develops best on clear, dry, hot afternoons

Dust Storm

A severe weather condition characterized by strong winds and dust-filled air over an extensive area.