

# THE STORM SPOTTER'S DICTIONARY

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**Anticyclonic** - Rotation in a clockwise direction when viewed from above, similar to a high pressure area. Anticyclonic features rotate from right to left when viewed from the ground.

**Anvil** - The flat, spreading top of a cumulonimbus, often shaped like a blacksmith's anvil.

**Beaver('s) Tail** - A low cloud band with a relatively broad, flat appearance suggestive of a beaver's tail. It is attached to a supercell's updraft base and extends to the east or northeast.

**Clear Slot** - A local region of clearing skies or reduced cloud cover, indicating an intrusion of drier air. A clear slot is often seen on the west or southwest side of a wall cloud and is visual evidence of a rear flank downdraft.

**Cyclonic** - Rotation in a counterclockwise direction when viewed from above, similar to a low pressure area. Cyclonic features rotate from left to right when viewed from the ground.

**Downburst** - A strong downdraft resulting in an outward burst of damaging winds on or near the ground. Sometimes called "straight-line winds," downbursts may be large (macroburst) or small (microburst) in scale.

**Downdraft** - A column of air that rapidly sinks toward the ground, usually accompanied by precipitation as in a shower or thunderstorm.

**Flanking Line** - A line of cumulus, or towering cumulus, clouds connecting to and extending outward from the most active part of a supercell, normally on the southwest side.

**Flash Flood** - A rapid rise of swift-moving water, resulting in a threat to life and property. Flash floods can occur within minutes or hours of excessive rainfall.

**Flash Flood Warning** - An urgent weather product indicating a flash flood is imminent or occurring.

**Funnel Cloud** - A condensation funnel extending from the base of a thunderstorm, associated with a rotating column of air that is *not* in contact with the ground.

**Gust Front** - The leading edge of a thunderstorm downdraft that is often marked by a wind shift and gusty winds. Gust fronts are sometimes associated with a shelf cloud or roll cloud.

**Gustnado** - A surface-based circulation associated with thunderstorm outflow. Gustnadoes are not associated with updrafts and are not attached to cloud bases, so they are not considered true tornadoes.

**High Precipitation (HP) Supercell** - A supercell with a large amount of visible precipitation encircling the mesocyclone. HP supercells can be difficult to observe visually, as the precipitation often obscures the updraft-related cloud features.

**Inflow Bands** - Bands of low clouds, arranged parallel to the low-level winds, that move into or toward a thunderstorm. They may indicate the strength of the inflow of moist air into a storm, as well as a storm's overall intensity.

**Low Precipitation (LP) Supercell** - A supercell with little visible precipitation falling from it. LP supercells often have flared-out updraft towers with striations, thus they are easy to recognize visually. However, they can be difficult to detect on radar.

**Mammatus Clouds** - Rounded, smooth, pouch-like protrusions hanging from the underside of a thunderstorm anvil. Mammatus clouds often accompany severe thunderstorms, but do not produce severe weather.

**Mesocyclone** - A rotating updraft within a thunderstorm that is typically 2 to 6 miles in diameter. Mesocyclones are often found in the right rear flank of a supercell or on the front flank of an HP supercell.

**Multiple-Vortex Tornado** - A tornado in which two or more condensation funnels or debris clouds are present and often rotate around a common center or each other.

**Overshooting Top** - A dome-like protrusion above a thunderstorm anvil, representing a strong updraft.

**Power Flash** - A blue-green flash that is often a visual indication of damaging winds.

**Rain Foot** - A horizontal bulging of a precipitation shaft near the ground, forming a foot-shaped prominence. It is a visual indication of strong outflow winds.

**Rain-Free Base** - A pronounced outward bend of the precipitation shaft near the ground that has a foot-shaped appearance. It is a visual indication of strong outflow winds.

**Rear Flank Downdraft** - A region of sinking, dry air that wraps around the backside of a mesocyclone. It is often visible as a clear slot wrapping around the wall cloud.

**Scud** - Small, ragged, low cloud fragments that are unattached to the main thunderstorm cloud base but can become part of it.

**Severe Thunderstorm** - A thunderstorm which produces hail of one inch in diameter or greater, and/or damaging winds of 58 mph (50 kts) or greater, and/or a tornado.

**Shelf Cloud** - A low, horizontal wedge-shaped cloud, associated with a thunderstorm gust front. The shelf cloud is usually attached to the base of the parent cloud above it.

**Special Weather Statement** - A weather product used to inform the public of significant weather that does not reach severe storm criteria.

**Squall Line** - A solid or nearly solid line or band of active thunderstorms. Squall lines typically have updraft areas on the leading edge, above or just ahead of a large gust front.

**Striations** - Grooves or channels in cloud formations that are arranged parallel to the flow of air and are often observed with a rotating updraft. Striations often indicate the presence of rotation via a barber pole or "corkscrew" appearance.

**Supercell** - A thunderstorm with a persistent mesocyclone. Supercells are responsible for a high percentage of severe weather events: tornadoes, extremely large hail, damaging straight-line winds, and flash flooding.

**Tail Cloud** - A horizontal, tail-shaped cloud (not a funnel cloud) at low levels that extends from the wall cloud toward the thunderstorm's precipitation region.

**Tornado** - A violently rotating column of air in contact with the ground that extends from the base of a thunderstorm.

**Towering Cumulus** - A large cumulus cloud with great vertical development, usually with a cumuliform or cauliflower-like appearance but lacks the characteristic anvil of a cumulonimbus.

**Updraft** - A column of rising air, often associated with the active portion of a thunderstorm.

**Wall Cloud** - A localized, persistent, and often blocky or abrupt lowering of cloud from a rain-free base. Wall clouds indicate a strong updraft and are normally found on the south side of a thunderstorm.

**Severe Thunderstorm Watch** - A severe weather forecast product, indicating conditions are favorable for severe weather. Watches typically cover numerous counties and are valid for approximately six hours.

**Severe Thunderstorm Warning** - An urgent severe weather product indicating severe weather is imminent or occurring. Warnings are typically issued on a storm by storm basis and are usually valid for one hour or less.