Classification of Tornadoes

Tornados in the United States and Canada are classified according to the Enhanced Fujita Scale, introduced in 2007. This scale replaced the original Fujita scale, developed in the late 1960s by Japanese American scientist Tetsuya Fujita. Like the original scale, the Enhanced Fujita Scale classifies tornadoes according to the damage they cause. But the new scale provides better alignment between actual damage to buildings and other objects (such as flag poles and trees) and estimated wind speeds. It also takes into account different kinds of buildings and how well they were constructed.

On the enhanced scale, EF-0 is the weakest kind of tornado. An EF-0 tornado has estimated wind speeds of 65 to 85 miles per hour (105 to 137 kilometers per hour), which causes minimal damage. An example of the damage caused would be shingles stripped from the roof of a building. An EF-2 tornado has estimated wind speeds of 111 to 135 miles per hour (179 to 217 kilometers per hour). It can take entire roofs off houses and uproot large trees. An EF-5 is the most powerful kind of tornado. It has estimated wind speeds greater than 200 miles per hour (322 kilometers per hour). It is capable of completely destroying a well-built house, leaving only the foundation behind. An EF-5 can also rip pavement from roads and toss objects as big as cars hundreds of feet.

Tornado Warnings and Protection

Meteorologists and emergency management officials have created an effective system to alert citizens to tornadoes or to the possibility that they might occur. Tornado watches indicate areas where tornadoes may form within a certain period. The watches are issued by the Storm Prediction Center in Norman, Oklahoma. It is run by the National Oceanic and Atmospheric Administration (NOAA). Using this data and other information from storm spotters and Doppler radar, local offices of the National Weather Service (NWS) issue tornado warnings for specific parts of counties or states. Warnings indicate that a tornado has formed and is moving on the ground. People in areas that receive tornado warnings should seek shelter at once and follow tornado safety rules.

H. Michael Mogil
Meteorologist
How the Weatherworks

See also: Hurricanes ; Jet Streams ; Weather ; Winds .

Print Reset