

Frequently Asked Questions

What are damaging winds?

Damaging winds are often called “straight-line” winds to differentiate the damage they cause from tornado damage. Strong thunderstorm winds can come from a number of different processes. Most thunderstorm winds that cause damage at the ground are a result of outflow generated by a thunderstorm downdraft. Damaging winds are classified as those exceeding 50-60 mph.

What are straight-line winds?

Straight-line winds are generally any thunderstorm wind that is not associated with rotation, and is used mainly to differentiate from tornadic winds.

What causes straight-line winds?

Most straight-line winds are a result of outflow generated by a thunderstorm downdraft.



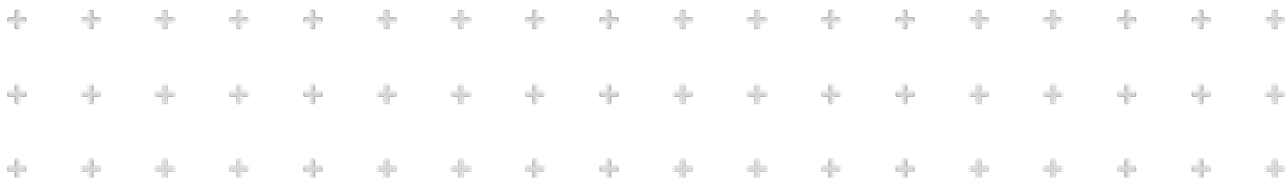
Are damaging winds really a big deal?

Damage from severe thunderstorm winds account for half of all severe reports in the lower 48 states and is more common than damage from tornadoes. Wind speeds can reach up to 100 mph and can produce a damage path extending for hundreds of miles.

Who is at risk from damaging winds?

Since most thunderstorms produce some straight-line winds as a result of outflow generated by the thunderstorm downdraft, anyone living in thunderstorm-prone areas of the world is at risk for experiencing this hazard.

People living in mobile homes are especially at risk for injury and death. Even anchored mobile homes can be seriously damaged when winds gust over 80 mph. Winds from thunderstorms can cause EF-2 damage.



Why is the wind gust limit set at 58 mph?

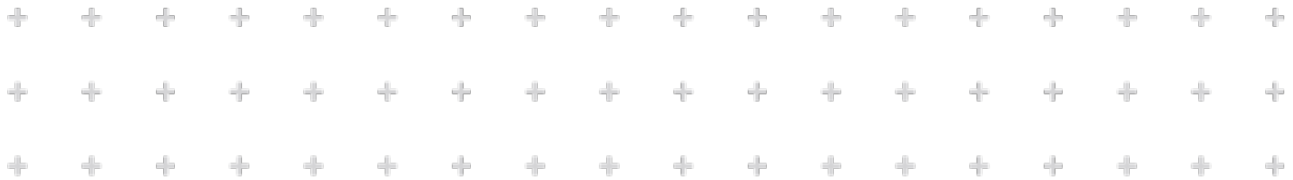
In the 1950's and 1960's, there were three types of convective watches that could be issued: Tornado Watches, Public Severe Thunderstorm Watches, and Aviation Severe Thunderstorm Watches. At first, the public severe thunderstorm watch wind criterion was 75 mph, while the limit for aviation watches was 50 mph. Negotiations with the Air Force raised the minimum speed required for an aviation watch to 58 mph (50 knots) in 1962. In 1970, the Aviation Severe Thunderstorm and Public Severe Thunderstorm watches were combined into a single Severe Thunderstorm Watch, with a minimum wind gust criterion of 50 knots, to reduce confusion.

What is the difference between a microburst and a downburst?

A downburst is the general term for all localized strong wind events that are caused by a strong downdrafts within a thunderstorm, while microburst simply refers to an especially small downburst that is less than 4 km across.

We had damaging winds in our area; how can we tell if they were caused by a tornado or a microburst?

To see if the National Weather Service has conducted a damage survey in your area, go to: weather.gov



Source: <https://www.nssl.noaa.gov/education/svrwx101/wind/faq/>

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