

Straight Line Wind – Hide From It

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“It’s ONLY straight line wind” A phrase meteorologists with the National Weather Service hear time and time again. But is it really “only” straight line wind. What are severe straight line winds? By definition severe winds occur at speeds of 58 mph or greater causing damage to houses, businesses and trees. That said everyone knows not all thunderstorms are created equal. We experience a variety of storms ranging from individual slow moving pulse summer thunderstorms lasting only a half hour to squalls lines and tornadic supercells moving at speeds of sixty miles per hour lasting several hours. Squall lines, one of the more dangerous forms of severe storms, are organized lines of thunderstorms also known as Quasi Linear Convective Systems (QLCSs). QLCSs are not rare and typically occur in the spring and early summer months. They are very dangerous given their rapid motion and interaction with strong winds aloft which translate down to the ground resulting in damage. QLCSs typically generate straight line winds of 60 to 80 mph. These high winds occur over a large area resulting in widespread damage. Compared to weak tornadoes of this intensity (60 to 80 mph) which typically only impact a small local area, QLCSs span 50 to 100 miles generating extensive damage from severe straight line winds. These wind cause damage across entire communities, cities and counties. So let’s consider the types of damage caused by straight line winds of 60 to 80 mph.

Using the Enhanced Fujita Scale developed for rating tornadoes based on damage, winds of 65 to 80 mph are expected to cause the following types of damage;

- Roof damage to homes resulting in 20% or less of roof loss, removal of gutters and siding, some windows and doors blown in.
- Single wide mobile homes blown off foundations and complete loss of roofing. Some mobile homes may roll over.
- Severe damage to barns and outbuildings blowing in doors, removal of roof panels and collapse of some walls
- Numerous trees uprooted and snapped

When it comes to straight line wind versus a tornado, “wind is wind”. Structures and trees experiencing severe winds from a weak tornado or severe straight line winds experience similar damage. Therefore all severe winds are dangerous and the more widespread the wind, as in cases of squall lines, the larger the threat to life and property. Recognizing the power of wind is vital. Treating all severe wind the same way is key to protecting lives and property. Remember to “Hide from the Wind” seeking shelter on the lowest floor away from windows and doors. Safety statements in nearly all Severe Thunderstorm Warnings state, “ EXPECT CONSIDERABLE TREE DAMAGE. WIND DAMAGE IS ALSO LIKELY TO MOBILE HOMES...ROOFS...AND OUTBUILDINGS. FOR YOUR PROTECTION MOVE TO AN INTERIOR ROOM ON THE LOWEST FLOOR OF A BUILDING. MOVE IMMEDIATELY TO SHELTER INSIDE A STRONG BUILDING. STAY AWAY FROM WINDOWS.”

Severe storms will strike again, so remember anytime you hear a Severe Thunderstorm Warning, think wind. Take action to protect yourself and your family. The National Weather Service wants you to be informed, safe and WeatherReady. For more storm information on thunderstorms, tornadoes and lightning check out <http://www.nws.noaa.gov/om/severeweather/resources/ttl6-10.pdf>