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Hazelwood Fire Activities

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All About Tornadoes.....

What is a tornado?

A tornado is a violent rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes can produce massive destruction with wind speeds of 250 mph or more. Damage paths can be more than 1 mile wide and 50 miles wide. The typical tornado moves from southwest to northeast, but they have been known to move in any direction. The average forward speed of a tornado is 30 mph but it may vary from stationary to 70 mph. Although tornadoes occur in many parts of the world, they are found most frequently in the United States east of the Rocky Mountains during the spring and summer months. In an average year, 800 tornadoes are reported nationwide, resulting in 80 deaths and over 1,500 injuries.

How do tornadoes form?

Before thunderstorms develop, a change in wind direction along with an increase of wind speed with increasing height creates an invisible, horizontal spinning effect in the lower atmosphere. Rising air within the thunderstorm updraft tilts the rotating air from horizontal to vertical. The area of rotation, 2-6 miles wide, now extends through much of the storm. This rotating column of air, known as a funnel extends from the cloud and grows downward toward the ground. Once the funnel touches the ground it becomes a tornado. Since the center of the funnel is a low pressure area, air rushes into the column and rises. The air is cooled as it rises and water vapor condenses to form the familiar funnel shaped cloud. As the rotating winds begin to pick up dirt and debris from the ground, the funnel will darken. The strongest tornadoes occur in supercell thunderstorms which can also produce large hail and strong downbursts.

How do we classify tornadoes?

Tornadoes are classified by wind speed and damage according to the Fujita Scale.

FUJITA WIND DAMAGE SCALE

Classification	Wind Speed	Damage
FO	72 MPH	LIGHT
F1	73-112 MPH	MODERATE
F2	113-157 MPH	CONSIDERABLE
F3	158-206 MPH	SEVERE
F4	207-260 MPH	DEVASTATING
F5	260-319 MPH	INCREDIBLE

Where and when do tornadoes occur?

Tornadoes can occur anywhere at an time of the year. However there are certain areas that favor tornado formation at different times of the year.

- In the southern states peak tornado season is March through May when warm, moist gulf air mixes with the cooler air masses that extend into the south.
- In the northern states the peak tornado season is in the summer, when the warm, moist gulf air reaches farther north.
- In some areas along the Gulf Coast there is a second peak season in the fall.

Who is most at risk from Tornadoes?

- People in automobiles
- The elderly, very young, and the physically or mentally impaired
- People in mobile homes
- People who may not understand the warning due to a language barrier

How can I tell if a tornado is about to occur?

In addition to keeping abreast of the latest watches and warnings issued by the NWS there are certain environmental clues that Mother Nature provides us with:

- Dark, often greenish sky
- Wall cloud
- Large hail
- Loud roar-similar to a freight train.

How does the National Weather Service warn the public of Tornadoes?

When conditions are favorable for severe weather to develop, a severe thunderstorm or tornado **WATCH** is issued by the National Weather Service. Weather Service personnel use information from weather radar, spotters, and other sources to issue severe thunderstorm and tornado **WARNINGS** for areas where severe weather is imminent. The warnings are passed on to local radio and television stations and are broadcast over local NOAA Weather Radio stations serving the warned areas. These warnings are also relayed to local emergency management and public safety officials who can activate local warning systems to alert communities.

What is the difference between a Tornado Watch and a Tornado Warning?

A **Tornado Watch** means that tornadoes are possible in your area.

A **Tornado Warning** means that a tornado has been sighted or indicated by weather radar.

What should I do?

- [Before the Storm?](#)
- [If a Tornado Warning is issued or a Tornado is approaching?](#)

Where can I find out more information about tornadoes?

These are only some of the many excellent links out on the web. It's a great start.

- [Tornadoes....Nature's Most Violent Storms](#), A Preparedness Guide published by NOAA and the American Red Cross.
- [Storm Prediction Center](#)
- [National Severe Storms Laboratory](#) Questions and answers about tornadoes.
- [The Why Files about tornadoes](#)
- [FEMA Tornado Safety Tips](#)
- [The Tornado Page](#) by Cory Forsyth
- [Owlie Skywarn Weather Book](#) Great for elementary school children.
- [Are you ready for a tornado?](#)

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