NTSP
National Telecommunications Safety Panel

Tornadoes

A Fact Sheet prepared by the National Telecommunications Safety Panel

Introduction

A tornado is a violently rotating column of air extending from a thunderstorm to the ground. Tornadoes occur in many parts of the world. However, they occur most frequently in the United States. In an average year, 1,200 tornadoes cause 70 fatalities and 1,500 injuries nationwide. Tornadoes cause millions of dollars of damage every year.

Tornado Facts

- Tornadoes can occur at any time of the year. Peak tornado season in the southern states is March through May, while peak months in northern states are during the late spring and summer months.
- Tornadoes are most likely to occur between 3 and 9 p.m. but can happen at any time.
- Tornadoes have occurred in every state but are much more common in those states east of the Rocky Mountains.
- Tornadoes can be hard to see until dust and debris are picked up and lifted into the funnel. Clouds, rain and darkness can also make the funnel hard to see.
- The average tornado moves from southwest to northeast, but they have been known to move in any direction. The average forward speed is approximately 30 miles per hour but can vary from nearly stationary to 70 miles per hour.
- The strongest tornadoes produce rotating winds with speeds greater than 250 miles per hour, can be a mile wide and stay on the ground for over 50 miles with a lifetime of over an hour.

Fujita Wind Damage Scale

- The Fujita Wind Damage Scale is used to measure the strength of tornadoes.

	Damage	Wind Speed
F-0	Minor	40 – 72 mph
F-1	Moderate	73 – 112 mph
F-2	Considerable	113 – 157 mph
F-3	Severe	158 – 206 mph
F-4	Devastating	207– 260 mph
F-5	Incredible	>260 mph

Watches and Warnings

- **Tornado Watch**: Tornadoes are possible in your area. Remain alert for approaching storms. Know what counties or parishes are in the watch area. Check by listening to the Weather Radio or your local radio/television stations.
- **Tornado Warning**: A tornado has been sighted or indicated by weather radar. There is imminent danger, seek shelter.

Safety Precautions

- In a home or building, move to a pre-designated shelter, such as a storm shelter, basement or shelter area.
- If an underground shelter or basement is not available, move to a small interior room, such as a closet or bathroom on the lowest floor possible. Put as many walls as possible between you and the outside. Stay away from windows. Flying debris causes the most fatalities and the most injuries. Cover yourself with mattresses, blankets, pillows or sturdy furniture if possible.
- If in a small building such as a small central office, or repeater hut, and there is no cable vault or basement, seek shelter in the center of the building, in a restroom, or closet and away from windows.
- If caught outside in a vehicle, and the tornado funnel is close, do not try to out run the tornado. Get out of the vehicle quickly. Seek shelter in a building if possible. If no building is near, seek shelter in a ditch or depression. Cover you head with your hands.
- Do not seek shelter in a mobile home, even if tied down. Mobile homes offer little protection from tornadoes and flying debris. If in a mobile home, leave and seek shelter in a regular building or in a storm shelter.
- Do not seek shelter in large open buildings such as gymnasiums, or auditoriums.
- Vehicle accidents account for over 50 percent of injuries in tornados. When driving in a storm or in restoration activities be alert for:
  - Changing road conditions due to the weather, especially slippery conditions
  - Fallen power lines, trees or other storm damage in the roadway

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  - Potential roadway or bridge damage
  - Emergency vehicles
  - Other vehicles and pedestrians whose attention may be distracted
- Be alert for slip, trip or falling hazards created by the storm and the debris.
- Use extreme caution when entering a building that may have been damaged. Check the building for:
  - Structural damage and the potential for collapse
  - Potential for falling objects
  - Broken or leaking gas lines
  - Damaged electrical systems
- Test all potentially energized parts and equipment with the appropriate equipment before beginning work.
- Use battery powered tools and equipment in wet areas. Use GFCI protected equipment and/or circuits if electrical equipment is used.
- Follow all safe working practices and regulations without exception. Make no assumptions that conditions are the same as under normal conditions.

Additional Information:

National Oceanic & Atmospheric Administration
www.noaa.gov/tornadoes.html/

Tornadoes – OSHA Safety Guidelines
http://www.osha.gov/SLTC/emergencypreparedness/index.html

FEMA – Tornado Safety Tips
www.fema.gov./hazards/tornadoes/tornadof.shtm