TORNADOES

Tornadoes are powerful, circular windstorms that may be accompanied by winds in excess of 250 miles per hour. Tornadoes typically develop during severe thunderstorms and may range in width from several hundred yards to more than a mile across.

Tornadoes pose a high risk because the low atmospheric pressure, combined with high wind velocity, can:

- Rip trees apart.
- Destroy buildings.
- Uproot structures and objects.
- Send debris and glass flying.
- Overturn cars and mobile homes.

While tornadoes have been reported in every State, they are most prevalent east of the Colorado-Wyoming-New Mexico area. Most frequently, tornadoes are found in the area from Kansas to Kentucky, the Great Plains, and the Upper Midwest. "Tornado Alley" includes Texas, Oklahoma, and Kansas.

More than 1,000 tornadoes are reported yearly.

Tornado season lasts from March to August, but can occur year-round. More than 80 percent of tornadoes occur between noon and midnight, and one quarter occur from 4:00 p.m. to 6:00 p.m. Tornadoes are most likely to occur between 3:00 p.m. and 9:00 p.m.

9,000 deaths have been attributed to tornadoes in the past 50 years. Each year about 100 people are killed. Annual damage from tornadoes can run into the hundreds of millions of dollars.

The population in the ten tornado-prone States is increasing because of more rapid urban development, which increases the likelihood of injuries and deaths.

Fujita Wind-Damage Scale

Wind-Damage Level	Wind Speed and Anticipated Damage
F0	▪ Winds: Up to 72 miles per hour (mph) ▪ Damage: Light
F1	▪ Winds: 73–112 mph ▪ Damage: Moderate
F2	▪ Winds: 113–157 mph ▪ Damage: Considerable
F3	▪ Winds: 158–206 mph ▪ Damage: Severe
F4	▪ Winds: 207–260 mph ▪ Damage: Devastating
F5	▪ Winds: 261 mph or greater ▪ Damage: Incredible

TORNADOES (CONTINUED)

Although the Midwest and sections of the Southeast have the highest risk of tornadoes, with the help of sophisticated radar and other measures, meteorologists are now able to predict when conditions favorable for tornado formation exist and are able to warn the public better. However, many tornadoes (usually F0 and F1) are still unreported or unconfirmed.

Do the following to prepare for a tornado:

- Know the risk for tornadoes in the area. Although tornadoes have been reported throughout the United States, some areas are clearly at higher risk than others.

- Identify a "safe" room where family members can gather during a tornado.

  - In a home, the safest place to be is in the basement, away from all windows. If the home has no basement, the safest place is an interior hallway or room on the lowest floor.
  - In a high-rise building, the safest place is in a hallway in the center of the building.
  - Mobile homes are not safe during a tornado. Those who live in mobile homes should seek shelter in a nearby sturdy building.

- Learn the community's warning system. Broad areas use EAS to warn of imminent hazards. Within these areas, though, communities may have other warning systems for tornadoes, including sirens that are also used to signal fires and other hazards. For those who live in communities that use sirens, it is critical to learn the siren warning tone to ensure recognition. Also, when severe weather threatens, NOAA weather radio carries current information and instructions.

- Conduct periodic tornado drills with your family to ensure that all family members know what to do and where to go during a tornado emergency.

The most obvious clues that a tornado may be forming or has formed are high winds and very large hail. Be alert for these clues and to take protective action, even if no tornado warning is issued.

- Damage often occurs when wind gets inside a home. Keep all windows and doors closed. Houses do not explode because of air pressure differences.

- Go to the "safe" room or area. Stay away from windows to avoid flying debris and glass.

- Listen to EAS or NOAA Weather Radio for current emergency information and instructions.

If you are driving and see a tornado, go to a nearby sturdy building and seek an area on the lowest level, without windows. If there are no buildings nearby, get out and away from the vehicle and lie down in a low spot on the ground. Protect the head and neck.

TORNADOES (CONTINUED)

Following a tornado, citizens should continue listening to EAS or NOAA weather radio for updated information and instructions. As with many other hazards, post-tornado actions include:

- Avoiding fallen power lines or broken utility lines and immediately reporting those you see.
- Staying out of damaged areas until told that it is safe to enter.
- Staying out of damaged buildings.
- Using a flashlight to look for damage and fire hazards and documenting damage for insurance purposes.
- Turning off utilities, if necessary.
- Reserving the telephone for emergencies.

Tornado Myths and Facts

Myth:	Areas near lakes, rivers, and mountains are safe from tornadoes.
Fact:	No place is safe from tornadoes. A tornado near Yellowstone National Park left a path of destruction up and down a 10,000-foot mountain.
Myth:	The low pressure with a tornado causes buildings to explode as the tornado passes overhead.
Fact:	Violent winds and debris slamming into buildings cause most structural damage.
Myth:	Windows should be opened before a tornado approaches to equalize pressure and minimize damage.
Fact:	Windows should be left closed to minimize damage from flying debris and to keep the high wind out of the structure.
Myth:	If you are driving and see a tornado, you should drive at a right angle to the storm.
Fact:	The best thing to do is seek the best available shelter. Many people are injured or killed by remaining in their vehicles.
Myth:	People caught in the open should seek shelter under highway overpasses.
Fact:	Do not seek shelter under highway overpasses or under bridges. If possible, take shelter in a sturdy, reinforced building.

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