



**Here we go again!**

### ***Tornado Preparedness Takes Center Stage***

Preliminary estimates for 2012 by the National Oceanic Atmospheric Association (NOAA) report more than 900 tornadoes—22 of which were “killer tornadoes.” From droughts to floods to temperature extremes, it seems that weather systems are upside down all over the country. January 2012 was an unusually violent month for severe weather, with more than 70 tornadoes reported. Unfortunately, extreme weather is becoming more commonplace: Over the past three years, the United States has averaged more than 1,300 tornadoes.<sup>1</sup>

Deaths and property damage from tornadoes are not limited to the most severe storms: 109 people were killed in 2011 by storms rated EF3 or lower.<sup>2</sup> So what can we do? In a word, PREPARE!

Tornado season lasts from March to August, but tornadoes 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 4:00 p.m. and 9:00 p.m. While tornadoes have been reported in every state, they are most prevalent in the area known as “Tornado Alley,” which includes states located between the Rocky Mountains and Appalachians.

Tornado strength is measured on the Enhanced Fujita (EF) Intensity Scale, which correlates damage with wind speed. The scale has six wind-damage levels, as shown on the accompanying chart.

### ***How can you prepare for a tornado? Plan with a PURPOSE***

**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 others can gather during a tornado.** In the Joplin, Missouri, storms of 2011, people survived by taking shelter in a walk-in cooler. Whatever you designate as your safe room, it should be determined *before* you need it. Examine your property—both your home and business—and create a plan. A basement location away from all windows is preferable. If there is no basement, an interior hallway or room on the lowest floor is best. A nearby sturdy building is another option. Once you designate a safe room, consider having it reinforced, if possible, for additional protection.

Operational EF Scale	
EF Number	3-Second Gust (mph)
0	65-85
1	86-110
2	111-135
3	136-165
4	166-200
5	Over 200

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**Learn your community’s tornado warning system.** Broad areas use an Emergency Alert System (EAS) to warn of imminent hazards. But within these areas, communities may have other warning systems for tornadoes, including sirens that are used to also signal fires and other hazards. If your community uses sirens, it is critical to learn the tornado warning tone to ensure recognition. Also, when severe weather threatens, the NOAA weather radio carries current information and instructions provided by the National Weather Service.

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 are favorable for tornado formation and are better able to warn the public. However, many tornadoes (usually EF0 and EF1) are still unreported or unconfirmed.

**Practice makes perfect.** Conduct periodic emergency drills. A drill helps to ensure that everyone knows what to do and where to go during a tornado emergency. All employees should understand how they should respond to any workplace emergency.

### ***Tornado Recognition***

This isn’t as easy as it may sound. The “obvious” is not always obvious. For example, tornadoes may appear nearly transparent until they pick up dust and debris, or be rain wrapped, which could hide them from observers. Each severe storm has its own characteristics, and what happens during one storm may be totally different from the next. So what can you do? Be alert for weather clues and take protective action, even if no tornado warning is issued. If weather forecasts include a potential for severe weather, monitor a local radio station. If you live in an area prone to severe weather, you may want to consider investing in a weather radio.

What’s the difference between a watch and a warning?

A tornado **watch** means weather conditions are favorable for the formation of tornadoes.

A tornado **warning** means a tornado has been sighted nearby or radar indicates cloud rotation and people should take shelter immediately.

### ***What should you do when you see a tornado or receive a tornado warning?***

#### **During a Tornado...**

- Damage often occurs when wind gets inside a building. Keep all windows and doors closed. Buildings do not explode because of air pressure differences.
- Go to the designated “safe” room or area. Stay away from windows and get under a stable structure 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 of and away from the vehicle and lie down in a low spot on the ground. Protect your head and neck.

#### **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 winds out of the structure.

**Myth:** If you are driving and see a tornado, you should drive at a right angle to the storm.

**Fact:** Ideally, you should seek the best available shelter. Many people are injured or killed by remaining in their vehicle.

**Myth:** People caught in the open should seek shelter under highway overpasses.

**Fact:** This is not safe for a number of reasons.



### **After a Tornado...**

Continue listening to EAS or NOAA weather radio for updated information and instructions. 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 it is safe to enter
- Staying out of damaged buildings
- Looking for damage and fire hazards, and documenting damage for insurance purposes
- Turning off utilities, if necessary
- Reserving the telephone for emergencies

### **Take it Home**

You are vulnerable anywhere whenever severe weather is forecast. Make sure you educate your loved ones on the proactive steps they can take to protect themselves. Children and the elderly are especially vulnerable – help them understand and *practice* what to do during severe weather.

For more information on tornado preparedness and other risk management topics, contact your local Federated representative.

<sup>1</sup> ThorntonWeather.com; <http://www.thorntonweather.com/tornado-stats.php>

<sup>2</sup> NOAA's National Weather Service; <http://www.spc.noaa.gov/climo/torn/fataltorn.html>

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