

Tornado Preparedness



Understanding Tornadoes

The National Weather Service has codified a series of strict definitions that will help you better understand the size and speed of approaching storms.

These EF ratings are based on speed levels, and are commonly discussed during weather reports and on various warning systems. But there's much more to learn about how tornadoes form, how often they happen and when they are most likely to appear:

DEFINING TORNADOES

A tornado is described as a rotating column of winds that extend from the bottom of a storm cloud down to the ground. This column creates a dangerous funnel of air and condensation that carries dirt and debris. How fast these storms rotate is determined by using the Enhanced Fujita Scale — or EF, for short — when measuring three-second gusts. This has been the standardized approach to rating storm strength since 2007. The National Weather Service reports that EF-0 storms are between 65-85 miles per hour. The scale continues upward with EF-1 (86-110 mph), EF-2 (111-135 mph), EF-3 (136-165 mph), EF-4 (166-200 mph) and EF-5 (200+ mph). Tornadoes with ratings on the highest



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end of this spectrum are the most dangerous, with the power to break apart structures, badly damage infrastructure and pull trees from the ground.

WHERE TORNADOES OCCUR

The National Weather Service says that around 1,200 of these storms are annually

reported in the U.S. Official tracking of tornadoes began in 1950, so information about the oldest weather events is based more on eyewitness accounts. Nevertheless, trends have become clear over the decades: The central area of the United States, for instance, is known as “Tornado Alley” because of the frequency of storms.

Other areas may not have the same intense concentration of tornadic activity, but no one is exempt from this danger.

WHEN STORMS HAPPEN

There is no set “tornado season,” since they are more likely to happen based on specific conditions in each region. The National Weather Service says peak seasons, in

general, happen as temperatures warm. They include early spring along the Gulf Coast, May until June in the Southern Plains region, and June until July in the Northern Plains and Upper Midwest. Damaging storms can happen outside of these typical seasons, however, so it's important to remain weather-aware.

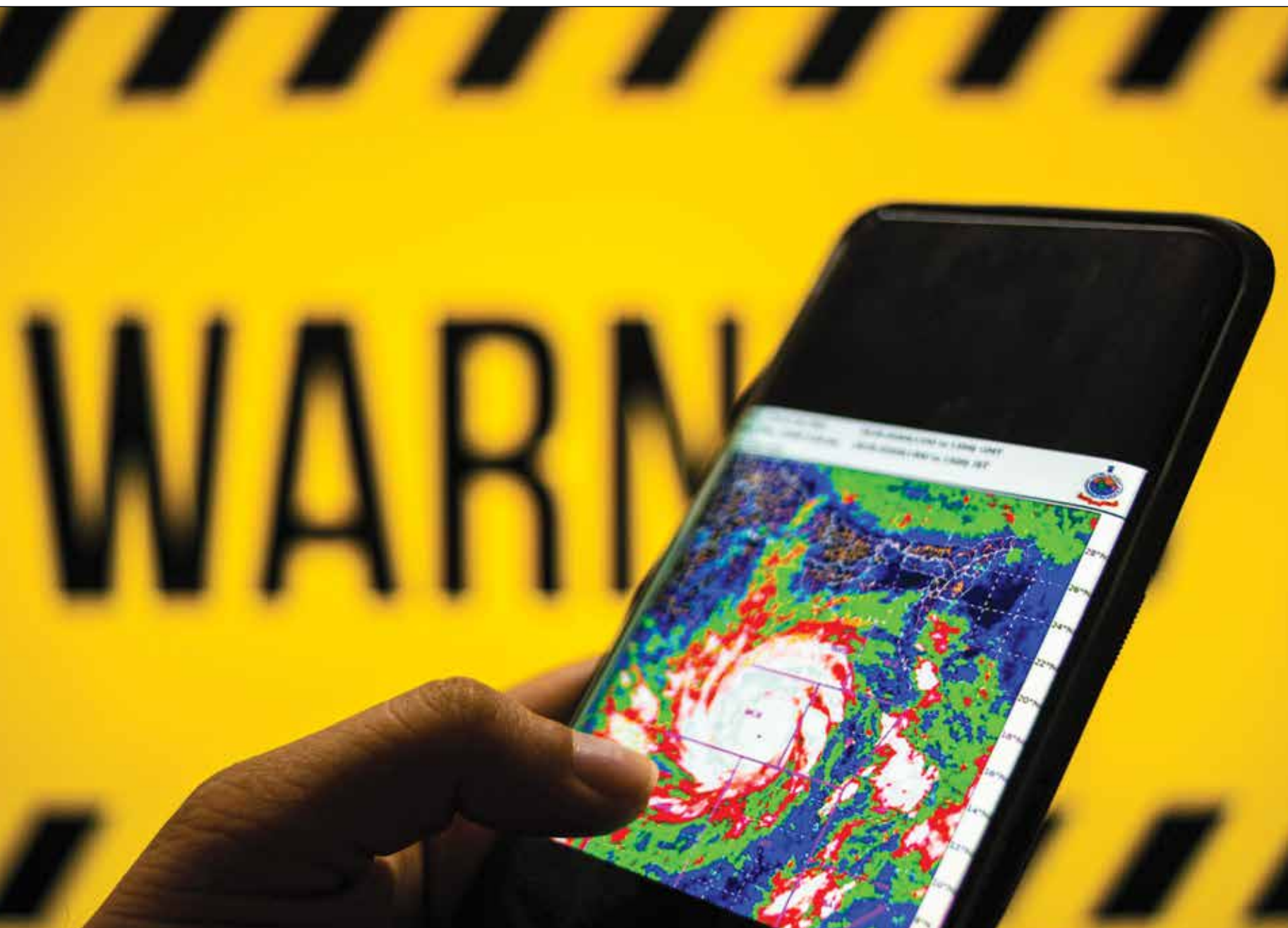
Decode the Alerts

Everyone is encouraged to heed all warnings from the National Weather Service and local weather pros, since their expertise can help keep you and your family safe during violent storms.

But what happens when they begin using specific terms or jargon that you may not completely understand? Knowing what they mean could be the difference between safety and very real danger. Here's a guide to decode the most commonly used alerts:

TORNADO WATCHES

A tornado watch is issued when your area is experiencing conditions that are favorable for the development of storms. They're simply meant to heighten awareness so that action can be quickly taken if needed. Watches occasionally shift rapidly upward to more serious alerts, so remain vigilant if you find yourself in a watch area. Remain inside a structure that provides adequate protection and stay tuned to weather channels, while looking and listening for the possibility of changing conditions. Act quickly if storms approach or if a tornado warning is later issued.



TORNADO WARNINGS

This is a much more serious alert, since watches simply note that tornadic activity is possible. Warnings follow when a tornado has been indicated on radar or has been confirmed by eyewitness account. They require an immediate response. Move as quickly as possible to an interior area on the lowest floor of your building. A storm cel-

lar or basement is ideal. Stay away from windows. Those who find themselves outdoors, in a vehicle or mobile home should move to a sturdier structure, if possible, and prepare for the risk of flying debris.

THUNDERSTORM ALERTS

Severe thunderstorms are defined by the National Weather Service as any sys-

tem with winds of more than 58 miles per hour. They're often associated with heavy rain and hail. But large thunderstorms also have the potential to spin off tornadoes, so be aware of these alerts, as well. As with tornadoes, a thunderstorm warning means a severe weather system has been spotted on weather radar or by storm watchers.

If you are already under a tornado watch when these warnings occur, the risk of a damaging funnel cloud rises sharply. Stay tuned to local weather broadcasts, related apps and National Weather Service reports. Severe thunderstorm alerts typically arrive before rain begins to fall, and cover 4 to 8 hours depending on the speed and severity of the storm system.

What to Look For

Tracking technology has made it easier than ever to prepare for and adequately react to dangerous weather patterns.

But what happens when your power fails? Without the benefit of trained meteorologists, you'll have to become your own storm spotter. Learn more about the sights and sounds associated with these storms.

EARLY ALERTS

Become familiar with the tornado siren, if your area has one. This general alert is given so that residents have time to seek shelter when there's a looming weather event. Those in tornado-prone areas should also invest in a battery-operated weather radio in order to keep up with all of the latest expert analysis. Weather experts now have access to the most sophisticated tracking technology the profession has ever known. They can help you understand the danger in real-time.

EXPERT ANALYSIS

The National Weather Service or local meteorologists will report a tornado watch when conditions become favorable for the development of a storm. They make this determination by using predictive models calculating a range of behaviors in the atmosphere. This information

is gleaned from sources like local weather stations, satellites, aircraft and weather balloons. Modern software then helps complete a forecast pointing to when a tornado might occur, including its touch-down point and subsequent track. Like all weather, tornadoes can be unpredictable. So weather professionals combine these models with their own years of expertise and specialized training to narrow the forecast parameters. They'll then issue watches and warnings as needed.

ON THE LOOKOUT

Unfortunately, conditions may make it difficult or impossible to follow this expert advice. You might find yourself away from television or radio, or having trouble maintaining a signal on the phone. Power, cable, internet and satellite outages are common during destructive storms. If this happens to you, you'll have to take over the responsibility of monitoring for signs of a tornado. The Red Cross recommends watching for cloud movement at the bottom of a thunderstorm, especially the beginning of a funnel shape. A roaring sound that lasts longer than the usual thunderclap also serves as a warning. If you see flying debris or cloud rotation at ground level, you are already in the storm's danger zone. Immediately seek shelter in a basement or windowless area, even if you're not aware of any tornado watches or warnings.



Preparing Your Home

Key changes around and inside the home can ensure your family's safety in the event of a hurricane, but they must be made long before you hear warning sirens.

Create established strategies in advance since tornadoes tend to happen so suddenly that they leave little time for discussions or decisions. Begin with a plan to move to an enclosed underground area or interior room of your home, then commit to sheltering in place. Stay off the roadways. Then rely on these important modifications to weather the storm:

HOME CHANGES

The Federal Emergency Management Agency offers a number of safety-focused construction tips for those who are building in tornado-prone areas. Attach wall studs to the rafters in the roof of your property using metal hurricane clips. Bolt walls securely to the foundation. Reinforce walls and floors with multiple boards. If you've already moved in, consider special windows with higher wind ratings.

SAFETY FIRST

Create a regular inspection schedule to make sure your home is in good shape before it must withstand a storm's wrath. Tornado activity usually hap-



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pens suddenly, so there won't be time for inspections. Hold a family discussion so that meeting spots are confirmed, then practice so that even small children instinctively know where they should go if alerted. Consider installing storm shutters that can be closed when a tornado watch is issued.

Secure top-heavy home furnishings like bookcases, larger appliances and China cabinets to the top of walls with straps and bolts. Should they fall over, grave injury might result. They can also cut off escape routes. Pre-arrange other furniture to make it easier to move toward the family's meeting point.

Study the procedure for shutting off your home's utilities at the main switch, particularly if your home uses gas, to lessen the danger of leaks.

KEY SUPPLIES

You might be taking cover in the agreed-upon meeting space for a while, depending on the

size of the storm system. Keep a supply of blankets, snacks, water, a flashlight and first-aid kit on hand. Store cleaning materials in a well-ventilated spot apart from this emergency food and water. A locked or latched cabinet is ideal. Make sure there are extra batteries on hand for your weather radio.

The Coverage You'll Need

In general, the insurance industry classifies tornadic activity as an everyday windstorm rather than a more unusual catastrophic event like a flood or earthquake.

That means the typical home policy will usually cover any resulting damage. Still, you should take note of the fine print — and you may decide to opt for any of a series of additional protections:

YOUR DEDUCTIBLE

The Property Casualty Insurers Association of America reports that basic homeowner policies should cover the repairs needed after a tornado. But your deductible might be a problem, particularly if your home was not directly hit by the storm. In that event, fixing rain and wind damages might end up becoming your responsibility if you've agreed to higher deductibles in order to keep premiums in check. Even in a near-miss situation, these costs can add up quickly. Those in tornado-prone areas might consider opting for a higher regular premium that has a lower deductible.

PRIOR INVENTORY

A personal property insurance policy typically replaces



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items lost in a storm or helps cover the cost of replacement. (You'll also be protected against wildfire and lightning, as well as theft and vandalism.) But you'll need to account for the specific items lost. List all of your possessions before a tornado strikes. (This will also help ensure that your policy adequately covers everything

inside your home.) Attach any available receipts to the list, particularly for more expensive things like electronics, jewelry and appliances. Take pictures or a video to create a visual record, as well. Store all of this in a lockbox inside the home's designated meeting room, or offsite in a safe deposit box. Filing your post-

storm claim should now be a much more straightforward process.

POLICY LIMITS

Some companies limit the coverage amounts for personal property. You may be required to add a rider to increase your protection for items like fine art, stamp or coin collections,

particularly costly technology and jewelry. Pet coverage may also be added to help with veterinarian or funeral expenses. Keep your homeowner's insurance policy and the company contact information safe. You'll need to get in touch with them as soon as the tornado passes and everyone is safe in order to get the process underway.

Practice Makes Perfect

When a tornado looms, your emergency plan has to be executed quickly.

That means becoming so familiar with what to do that it all happens by reflex. Purchase needed supplies early, and check back often to make sure they don't need replacement. Properly store key documents, water and food, extra batteries, blankets and medicines for easy access. But to be completely ready in the confusing aftermath of a damaging storm, you'll need to practice your emergency planning until it goes like clockwork.

BEING PROACTIVE

What happens weeks or even months before a storm hits can mean the difference between life and death. Keep your safe space adequately fortified, particularly if there will be a larger group sheltering in place. Weather warnings may last hours, and a damaged home might make exiting quickly more difficult — or even impossible. Plan on needing a three-day supply of non-perishable foods and water, a week's supply of medicine, and plenty of batteries to power everything from flashlights to the weather radio. Make sure key documents like birth certificates and insurance policies are safely stored nearby.

PRACTICE, PRACTICE

Chaos surrounds a damaging storm, rendering decision-making that much harder. That's where a good practice regimen comes in handy. Go over when, how and where to shelter in place during a tornado until it's second nature. Designate a storm shelter, basement space or interior bot-

tom-floor room away from windows as your meeting area. Map out and practice navigating a quick, safe route to this spot. You'll want to avoid windows, heavy appliances or furniture and bulky wall hangings. Practicing is particularly important for groups with small children, but it can help anyone more easily find their

way to safety in a scary moment.

FINAL CHECKS

Choose an alternate route to your meeting spot in case something blocks the agreed-upon path. Pick an exterior meeting place to reunite with others after the weather threat has ended, as well as an

alternative spot in case your neighborhood is still unsafe after the storm. Those with pets should designate someone to make sure they make it to the safe space with everyone else. Practicing the escape plan with your pet is smart too, since that will help foster a sense of comfort for them in these new surroundings, too.



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After the Storm

Areas ravaged by tornadoes present a variety of lingering risks.

High winds and the resulting debris may damage buildings, infrastructure and trees, creating a landscape rife with hazards. Be particularly aware of downed powerlines, overturned vehicles, broken trees, gas leaks and the potential for related floods or fires. Even terrified wildlife may pose new dangers. So approach the cleanup phase with your own safety in mind. Unfortunately, many people end up suffering critical injury even after the winds have died down.

PROTECTIVE GEAR

Remember, you'll be surrounded by dangerous conditions, unstable footing and sharp objects. Dress appropriately, with durable (preferably steel-toed) boots to protect your feet across rugged debris fields. Opt for the most thickly made pants in your closet. Snagging on sharp objects or knocked-over trees is always a danger after a tornado, so avoid baggy clothes. You could puncture the skin, or risk injury in a fall.

Eye protection and thick work gloves are also a must. Dig out those pandemic-era masks to avoid breathing in dust and other annoying particulates. Don't touch or walk near downed powerlines, and avoid any area where you can smell gas.



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BE PATIENT

Wait until any threat of successive storms has passed before leaving your safe space to assess damage to your home and neighborhood. First, make sure everyone in your meeting area is unharmed. Evaluate your yard and gas or powerline issues. If these risky situations are pres-

ent, contact your utility company and move away from the danger. Check on those who are nearby, then begin to evaluate your damage.

AVOID INJURY

The Occupational Safety and Health Administration reports that most post-storm injuries involve sharp objects.

Broken glass, limbs and nails are common culprits. Electrical injuries are also common, though often people inadvertently come in contact with live power lines. Stay away from pools of water if you can't be sure of how deep they go. There may also be submerged dangers. The risk of trips and falls is heightened

because of scattered objects or slippery walkways. Avoid any scared wildlife you may come upon. Dehydration is also a risk, according to OSHA, because of the difficulty in securing fresh water after a storm. Exhaustion may also come into play after hours or days spent in cleanup activities.