

National Weather Service, Raleigh News

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“Get In, Get Down, and Cover Up” when Severe Weather Threatens

By Jeff Orrock

The state of North Carolina will observe Severe Weather Awareness Week March 1 – 7, 2009. Among the activities taking place during the week, the statewide Tornado Drill will occur on Wednesday, March 4, 2009 at 930 am. This drill will be conducted in cooperation with local broadcasters, State Emergency Management and the Department of Public Instruction. The statewide tornado drill utilizes the Emergency Alert System providing schools, businesses and residents a chance to test their preparedness and action plans for a simulated tornado event. At 930 am all NOAA Weather Radio stations along with local broadcast and cable stations will transmit the tornado drill message and all public facilities and businesses are strongly urged to practice their severe weather safety plans during the drill.

Taking a look back at 2008, North Carolina was struck by some of the most violent storms experienced in the last 10 years. In fact North Carolina ranked fourth in the nation last year in the overall amount of severe weather experienced falling behind Texas, Kansas and Missouri. A number of deadly tornadic supercell thunderstorms struck the state resulting in as many as 10 strong to violent tornadoes rated on the Enhanced Fujita Scale as EF2 and higher with winds in excess of 130 mph. These tornadoes claimed 3 lives, injured dozens more and left many families homeless resulting in over 15 million dollars in damages. Many of these tornadoes also struck at night as everyone slept catching many individuals off guard despite warning lead times averaging 20 minutes. These night time monsters have a history of being particularly deadly in North Carolina.

A recent study of tornadoes found that North Carolina was ranked first in the nation with the greatest percentage of killer night time tornadoes. Of all the tornado fatalities since 1950 eighty-two percent of tornado fatalities have occurred at night. Compare this with the fact that only about twenty-eight percent of all tornadoes actually touch down at night. A potential significant reason for the area's high fatality rates in comparison to high-risk areas like Tornado Alley could be the prevalence of night time tornadoes in March, May and November. These stronger tornadoes tend to strike during these three months. This factor, combined with the amount of tree cover, unique geography, and low cloud bases, make identifying tornadoes especially difficult.

Other factors may explain the larger threat that nocturnal tornadoes pose. Tornadoes are difficult to visually identify at night by both the public and trained spotters and, even if a warning is provided, the public is less likely to receive that warning at night due to normal sleeping patterns.

In addition, residents have a tendency to be in more vulnerable housing and building structures (e.g., mobile or “manufactured” and single family homes) during the night in comparison to safer locations (e.g., school or place of work in steel or reinforced-concrete buildings) during the day. Another study found that sixty-nine percent of all tornado fatalities from 1985 to 2005 occurred in either mobile or permanent homes, illustrating the enhanced vulnerability of these particular housing structures. Even though tornadoes can strike North Carolina in any month, March through June is the “usual” time of year when some of the more destructive and damaging tornadoes can occur with wind speeds over 150 mph. NOAA Weather Radio devices are one of the best tools to provide night time alerts to severe weather.

The primary mission of the National Weather Service is the protection of life and property. Twenty-four hours a day, seven days a week, the National Weather Service continually monitors Doppler radar, weather observations, satellite imagery, computer models, and other data to determine the threat for severe weather. When severe weather is possible or imminent the National Weather service issues a variety of products to keep you informed. Hazardous Weather Outlooks are issued every day highlighting the risk of severe weather over the upcoming seven days. Within about six hours of a possible severe weather event Severe Thunderstorm and Tornado Watches are issued to alerting everyone to the potential threat for severe weather in the very near future. As soon as severe or tornadic storms appear imminent, the National Weather Service immediately issues Severe Thunderstorm and Tornado Warnings. These watches and warnings are quickly sent to the public via NOAA Weather Radio, other local media outlets, and the Internet.

Despite this structured alert system many people are still injured or killed by severe thunderstorms and tornadoes every year. When a severe storm is bearing down, knowing the right steps to take, and being able to do them quickly, greatly reduces the risk of injury, and may even save your life or those of your loved ones. It is how individuals plan ahead for disasters and react that ultimately saves lives. That’s why the National Weather Service in Raleigh is urging you to “Get In, Get Down, and Cover Up” when a warning is issued.

Modeled after the successful “Stop, Drop, and Roll” campaign for fires, “Get In, Get Down, and Cover Up” describes how you can save your life when severe storms strike.

- **Get In.** Get as far inside a strong building as you can, and stay away from windows, which can easily break during strong winds or from flying debris.
- **Get Down.** Get as low as possible, by going to the lowest floor of the building. A basement or underground shelter is best, if available. By crouching down, you are minimizing the possibility of being hit by flying debris.
- **Cover Up.** Cover yourself (especially your head) with a pillow, blankets, or even a mattress, to further protect yourself from any flying debris. If possible, get beneath a workbench or table.

Remembering these simple steps can help keep you safe from injury or death if you find yourself in the path of a tornado or severe storm.

BEFORE severe weather threatens:

- Learn about severe thunderstorms and tornadoes, and what kinds of damage they can produce and the dangers they present.
- Have an emergency action plan for both your home and your workplace. Know where you will go if a severe thunderstorm or tornado warning is issued.
- Know what county you live and work in, and where within the county you are located. Severe weather warnings are issued by county or a section of a county (northern Wake County, for example).
- Before heading outdoors for an extended time, check the latest forecasts. If the risk of threatening weather is high, you may wish to postpone your plans.
- Make sure you always have access to a reliable source of weather information. A battery-powered NOAA weather radio will always provide you with the very latest weather information, including watches and warnings, and radios with an alarm feature will automatically alert you of any watches or warnings issued.

When a tornado warning is issued or a tornado is approaching:

- In a home or building, move to a pre-designated shelter, such as a basement, bathroom or closet.
- If an underground shelter is not available, move to an interior room or hallway on the lowest floor, and get under a sturdy piece of furniture.
- In a large building such as a shopping center, go to the designated shelter area, or to a small reinforced area within the building, such as a restroom. Avoid areas with a large roof expanse, as large roofs collapse under the stress of a tornado or downburst winds.
- Stay away from windows.
- Leave vehicles. Do not try to outrun a tornado in your car; instead, leave it immediately. Go to a safe shelter if available, or get into a ditch and protect your head with your hands.
- Be aware of flying debris. Flying debris from tornadoes causes most fatalities and injuries.
- Mobile homes, even if tied down, offer little protection from tornadoes and should be abandoned. Go to a reinforced shelter immediately.

A thunderstorm is classified as severe if it produces:

- Hail 3/4" or greater (about the size of a penny)
- Winds gusting in excess of 50 knots (about 58 mph)
- A tornado

Important Weather Websites...

National Weather Service <http://www.erh.noaa.gov/rah/>

Severe Weather Outlooks <http://www.erh.noaa.gov/rah/hazards/convective.php>

Severe Weather Watches <http://www.spc.noaa.gov/products/watch/>

National Severe Weather Warnings <http://www.spc.noaa.gov/products/wwa/>

NWS Doppler radar <http://radar.weather.gov/>

XML and RSS feeds for warnings <http://www.weather.gov/alerts/>

Online Weather School <http://www.srh.noaa.gov/jetstream/>