

...NORTH CAROLINA HURRICANE PREPAREDNESS WEEK...

This week has been declared North Carolina's Hurricane Preparedness Week for 2010. All week long the National Weather Service will issue informative messages to help you prepare for hurricane season.

Each day we will cover a different topic. Today we will talk about tornadoes in tropical systems.

Nearly all tropical storms and hurricanes produce tornadoes which adds to the storm's destruction. Seventeen percent of all recorded tornadoes in Central North Carolina have been associated with tropical systems. In 2004, a record year for tornadoes in North Carolina, around 45 tornadoes touched down statewide mostly spawned by the remnants of Hurricanes Bonnie...Charley...Gaston...Frances and Ivan. No region of the state has avoided tropical tornadoes. Three people died during the 2004 tropical season as a tornado destroyed their mobile home in Pender County during Tropical Storm Bonnie. Both Hurricanes Floyd and Fran produced numerous tornadoes destroying homes in central and eastern North Carolina.

Tornadoes are typically the first threat North Carolina faces from hurricanes as the outer rain bands or squall lines push inland... sometimes over a hundred miles ahead of the hurricane's eye. The tornado threat precedes hurricane landfall by many hours. As the first outer rain bands from these systems move inland well away from the center of circulation...tornadoes usually occur.

Most tornadoes in tropical systems occur north and east of the primary circulation or eye. This region of the storm has the most shear and favorable wind profiles necessary for tornado development. Since tropical squalls typically move at 40 to 60 mph...tornadoes embedded in these bands strike quickly...sometimes with little warning. Tropical tornadoes develop in a matter of minutes and forecasters work diligently providing warnings for those circulations that may become tornadic.

Most tornadoes associated with the outer bands of a tropical system are relatively weak...however these weak tornadoes still pack winds of 80 to 130 mph. This is enough to demolish mobile homes...severely damage well built houses and in some cases flip cars.

No mobile home or manufactured home is safe in hurricane force or tornadic winds. Residents in mobile homes should always evacuate to a safer structure which may include the home of another family member or friend nearby. When in a sturdy building...you want to take shelter on the lowest floor in a bathroom or closet when high winds threaten.

When a tropical system is forecast to move into the area you can expect tornadoes. Realize that tropical systems can make landfall in another state other than North Carolina and still pose a serious tornado threat to your home and family. You should always monitor local forecasts paying attention to tornado outlooks...watches and warnings issued well in advance of the tropical system.

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