

# Storm Surge and the Saffir-Simpson Hurricane Scale


These surge values are averages for these storm categories. Actual surge depths may be much greater.

**Category 1: Minimal Damage**  
**Winds: 74-95 mph**  
**Surge: 4 to 5 feet**



No real damage to buildings. Damage primarily to unanchored mobile homes, shrubs and trees. Some coastal road flooding and minor pier damage.

**Category 2: Moderate Damage**  
**Winds: 96-110 mph**  
**Surge: 6 to 8 feet**




Some roofing material, door and window damage. Shrubs and trees damaged; trees blown down. Damage to mobile homes, signs and piers. Small craft in unprotected anchorages break moorings.

**Category 3: Extensive Damage**  
**Winds: 111-130 mph**  
**Surge: 9 to 12 feet**



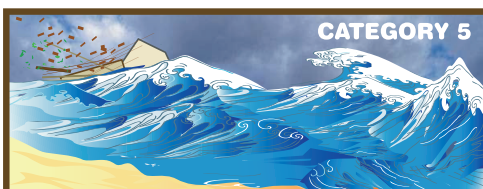
Structural damage to small residences and utility buildings. Foliage blown off trees; large trees blown down. Mobile homes and some signs are destroyed. Flooding near the coast destroys smaller structures; Larger structures damaged by floating debris.

**Category 4: Extreme Damage**  
**Winds: 131-155 mph**  
**Surge: 13 to 18 feet**



Some complete roof structure failures on small residences. Shrubs, trees and and most signs are blown down. Mobile homes completely destroyed. Extensive damage to doors and windows. Major damage to lower floors of structures near the shore.

**Category 5: Catastrophic Damage**  
**Winds: More than 155 mph**  
**Surge: Higher than 18 feet**

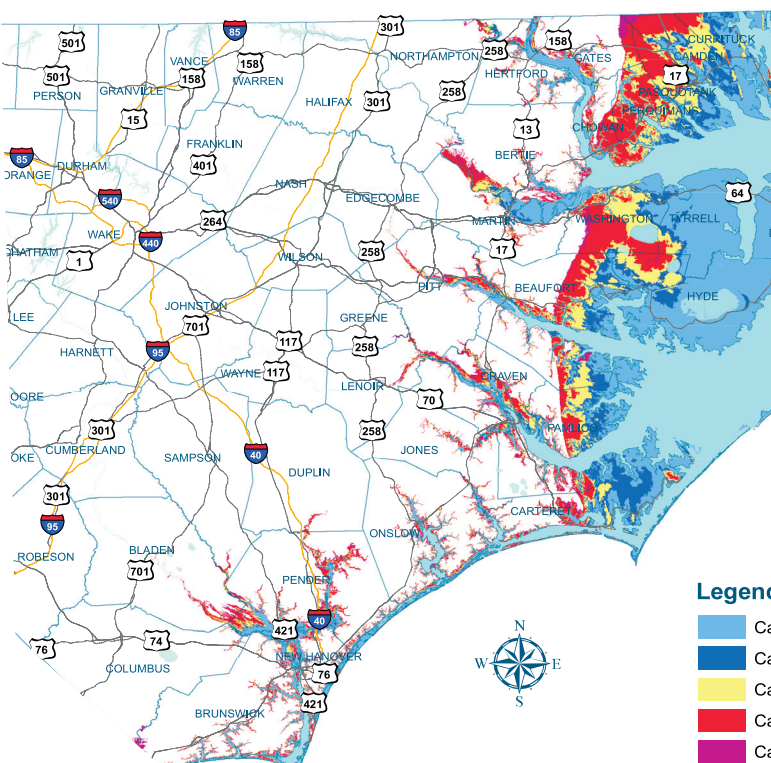


Additional damage includes: Complete roof failure on many residences and businesses. Some complete building failures; small utility buildings blown over or away. Massive evacuation of residential areas on low ground likely. (Graphics courtesy of S.C.E.M.D.)

## Saffir-Simpson Scale

CATEGORY	Winds		Storm Surge
	MPH	KNOTS	FEET ABOVE TIDE
Tropical Depression	< 39	< 35	none
Tropical Storm	39-73	35-63	1-3
1	74-95	64-82	4-5
2	96-110	83-95	6-8
3	111-130	96-113	9-12
4	131-155	114-135	13-18
5	> 155	> 135	> 18

## Flooding from Storm Surge



Coastal and inland areas are extremely vulnerable to flooding from storm surge both during and even days after a hurricane. People in these areas likely will be ordered to evacuate to safe areas. Shaded areas on the map indicate those areas that are expected to be completely flooded following a strong hurricane. For more information, go to [www.ncfloodmaps.com](http://www.ncfloodmaps.com).

**Legend**

- Category 1 up to 5'
- Category 2 up to 8'
- Category 3 up to 12'
- Category 4 up to 18'
- Category 5 over 18'

# Know Your Weather Terms

## Tropical Depression

An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of <39 mph (<35 knots) or less.

## Tropical Storm

An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39 to 73 mph (35-63 knots).

## Hurricane

An intense tropical weather system with a well defined circulation and maximum sustained winds of 74 mph (64 knots) or higher.

Hurricanes are produced by the warmth and energy found in tropical atmospheres. Gaining strength over warm seas, the storms sweep inland, bringing high tides and spawning tornadoes, torrential rains and floods.

In an average year, 10 tropical storms, six of which become hurricanes, develop over the Atlantic Ocean, Caribbean Sea or Gulf of Mexico. Many of these remain over the ocean; however, about five hurricanes strike the United States coastline every three years. Of these five, two will be major hurricanes, category 3 or greater on the Saffir-Simpson Hurricane Scale.

## Tropical Storm Watch

Tropical Storm conditions are possible in the specified area, usually within 36 hours.

## Tropical Storm Warning

Tropical Storm conditions are expected in the specified area, usually within 24 hours.

## Hurricane Watch

Hurricane conditions are possible in the specified area, usually within 36 hours. During a Hurricane Watch, prepare to take immediate action to protect your family and property in case a Hurricane Warning is issued.

## Hurricane Warning

Hurricane conditions are expected in the specified area, usually within 24 hours. Complete all storm preparations and evacuate if directed by local officials.

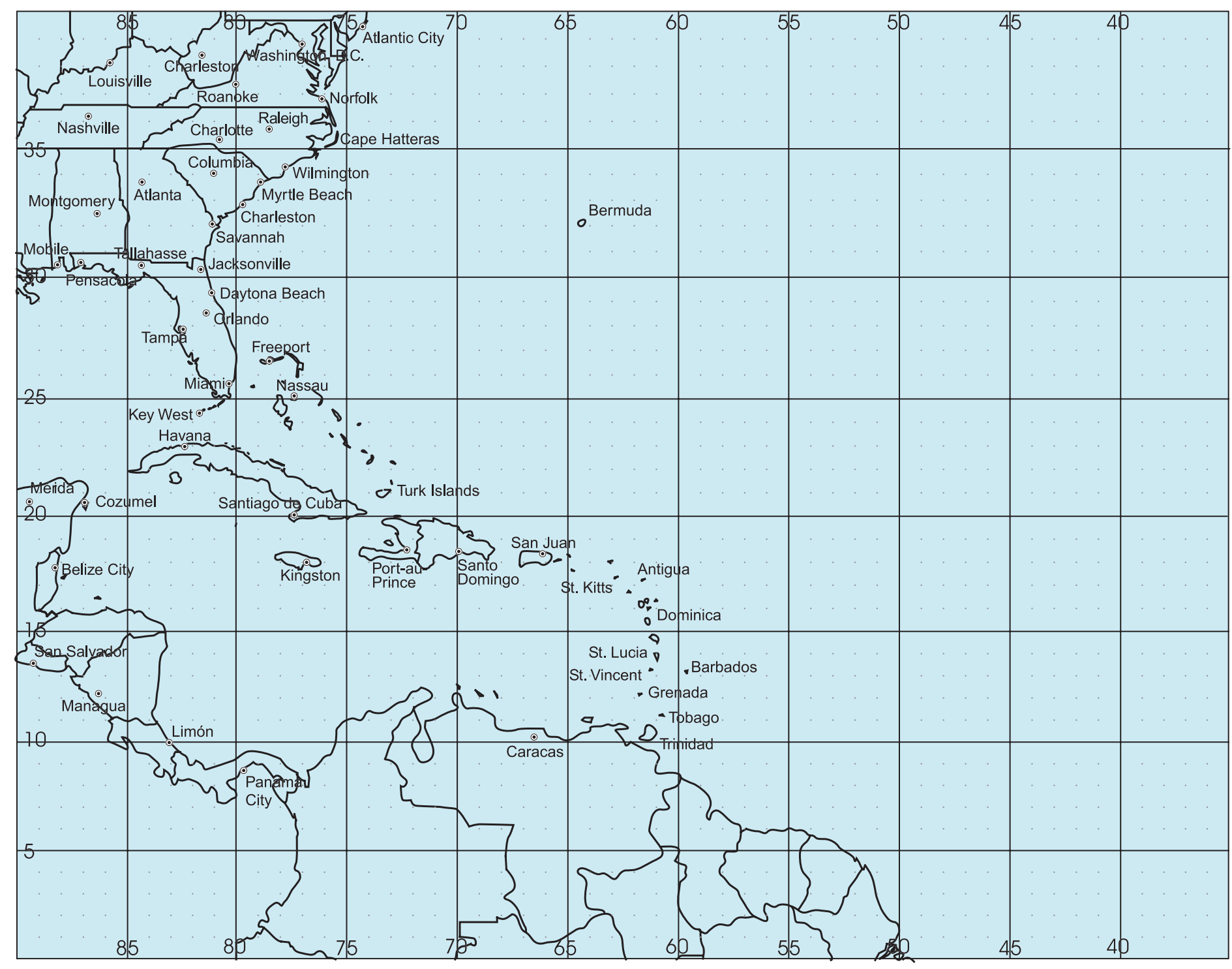
# Tips from the Department of Insurance

**Protect yourself from hurricanes by preparing for the worst. The N.C. Department of Insurance suggests the following tips for maximizing your personal safety and minimizing your property and financial losses.**

- Homeowners should review their insurance policies with their agents. Most standard homeowners policies do not cover flood damage, and some policies in coastal areas may not cover windstorm damage. Don't wait until the storm is approaching to upgrade your coverage. Be sure to discuss with your agent whether you need coverage for replacement value or actual cash value of your property.
- Flood insurance can be obtained by qualifying property owners by contacting your local agent or through the National Flood Insurance Program. Call 800-638-6620 for more information.
- The Beach Plan is a protection program designed for Outer Banks property owners. It offers coverage for fire, lightning, wind and hail. Obtain more information by calling 800-662-7048.
- Residents living in rental property should consider purchasing renter's insurance to cover losses of personal property within the rental unit.
- Make a list of your belongings and take pictures or videotape them. Include a close-up shot of the day's newspaper to provide the date. Keep your inventory list along with purchase receipts, pictures and your insurance policy in a safe-deposit box or other safe place away from your home. If you are forced to evacuate, take a copy of your policy with you.
- Additional tips for hurricane and storm preparation are also available online at the Department of Insurance's web site, [www.ncdoi.com](http://www.ncdoi.com).
- If you have any questions or problems concerning your insurance coverage, contact the Consumer Services Division of the Department of Insurance toll-free (in-state) at 800-546-5664.



# Atlantic Ocean Hurricane Tracking Chart



# County Emergency Coordinators

<b>Alamance</b>	336-227-1365	<b>Edgecombe</b>	252-641-7843	<b>Onslow</b>	910-347-4270
<b>Alexander</b>	828-632-9336	<b>Forsyth</b>	336-767-6161	<b>Orange</b>	919-968-2050
<b>Alleghany</b>	336-372-6220	<b>Franklin</b>	919-496-5005	<b>Pamlico</b>	252-745-4131
<b>Anson</b>	704-694-9332	<b>Gaston</b>	704-866-3350	<b>Pasquotank</b>	252-335-4444
<b>Ashe</b>	336-219-2521	<b>Gates</b>	252-357-1394	<b>Pender</b>	910-259-1210
<b>Avery</b>	828-733-8210	<b>Graham</b>	828-479-7985	<b>Perquimans</b>	252-426-7029
<b>Beaufort</b>	252-946-2046	<b>Granville</b>	919-603-1310	<b>Person</b>	336-597-4262
<b>Bertie</b>	252-794-5302	<b>Greene</b>	252-747-2544	<b>Pitt</b>	252-902-3950
<b>Bladen</b>	910-862-6760	<b>Guilford</b>	336-373-2278	<b>Polk</b>	828-894-3067
<b>Brunswick</b>	910-253-4376	<b>Halifax</b>	252-583-2031	<b>Randolph</b>	336-318-6911
<b>Buncombe</b>	828-255-5638	<b>Harnett</b>	910-893-7580	<b>Richmond</b>	910-997-8238
<b>Burke</b>	828-430-4218	<b>Haywood</b>	828-456-2391	<b>Robeson</b>	910-671-3150
<b>Cabarrus</b>	704-920-2143	<b>Henderson</b>	828-697-4527	<b>Rockingham</b>	336-634-3017
<b>Caldwell</b>	828-757-1424	<b>Hertford</b>	252-358-7861	<b>Rowan</b>	704-216-8900
<b>Camden</b>	252-335-4444	<b>Hoke</b>	910-875-1767	<b>Rutherford</b>	828-287-6075
<b>Carteret</b>	252-728-8470	<b>Hyde</b>	252-926-4372	<b>Sampson</b>	910-592-8996
<b>Caswell</b>	336-694-5177	<b>Iredell</b>	704-878-5353	<b>Scotland</b>	910-276-1313
<b>Catawba</b>	828-465-8232	<b>Johnston</b>	828-586-7592	<b>Stanly</b>	704-986-3650
<b>Chatham</b>	919-542-2811	<b>Johnston</b>	919-989-5050	<b>Stokes</b>	336-593-2427
<b>Cherokee</b>	828-837-7352	<b>Jones</b>	252-448-1697	<b>Surry</b>	336-783-9000
<b>Chowan</b>	252-482-7265	<b>Lee</b>	919-775-8279	<b>Swain</b>	828-488-6021
<b>Clay</b>	828-389-9640	<b>Lenoir</b>	252-526-6666	<b>Transylvania</b>	828-884-3188
<b>Cleveland</b>	704-484-4841	<b>Lincoln</b>	704-736-8660	<b>Tyrrell</b>	252-796-2286
<b>Columbus</b>	910-640-6610	<b>Macon</b>	828-349-2067	<b>Union</b>	704-283-3536
<b>Craven</b>	252-636-6608	<b>Madison</b>	828-649-9608	<b>Vance</b>	252-438-8264
<b>Cumberland</b>	910-321-6736	<b>Martin</b>	252-789-4530	<b>Wake</b>	919-856-6480
<b>Currituck</b>	252-232-2115	<b>McDowell</b>	828-652-3982	<b>Warren</b>	252-257-2666
<b>Dare</b>	252-475-5655	<b>Mecklenburg</b>	704-336-2412	<b>Washington</b>	252-793-4114
<b>Davidson</b>	336-242-2270	<b>Mitchell</b>	828-688-2139	<b>Watauga</b>	828-264-4235
<b>Davie</b>	336-751-0879	<b>Montgomery</b>	910-576-4221	<b>Wayne</b>	919-731-1416
<b>Duplin</b>	910-296-2160	<b>Moore</b>	910-947-6317	<b>Wilkes</b>	336-651-7305
<b>Durham</b>	919-560-0660	<b>Nash</b>	252-459-9805	<b>Wilson</b>	252-399-2830
<b>Eastern Band of Cherokee Indians</b>	828-554-6156	<b>New Hanover</b>	910-798-6900	<b>Yadkin</b>	336-679-4232
		<b>Northampton</b>	252-534-6811	<b>Yancey</b>	828-678-9436