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

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

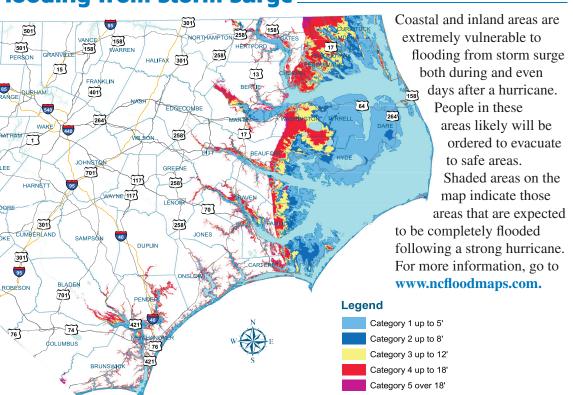


Additional damage includes: Complete roof failure on many residences and industrial buildings. Some complete building failures; small utility buildings blown over or away. Massive evacuation of residential areas on low ground may be required.

Saffir-Simpson Scale

	Winds		Storm Surge	
CATEGORY	МРН	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



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.

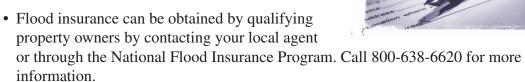
Hurricane Warning

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.



- 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.
- 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.

How to avoid property loss before a hurricane

Protection from Wind

- Analyze your home's or business's structural weaknesses.
- Retrofit your existing roof with hurricane straps and gable end braces.
- If you are building a new home or business, consider a hip roof with a pitch of 30 degrees or less.
- Plant vegetation to serve as wind breaks.
- Along the shoreline, stabilize dunes with native vegetation.
- Cover windows with storm shutters, siding or plywood.
- Move vehicles into garages, if possible, or park them near the home and away from trees.
- Move grills, patio furniture and potted plants into the house or garage. Tie down anything that cannot be brought indoors to prevent objects from being moved by the wind
- Install braces to give additional support to garage doors.

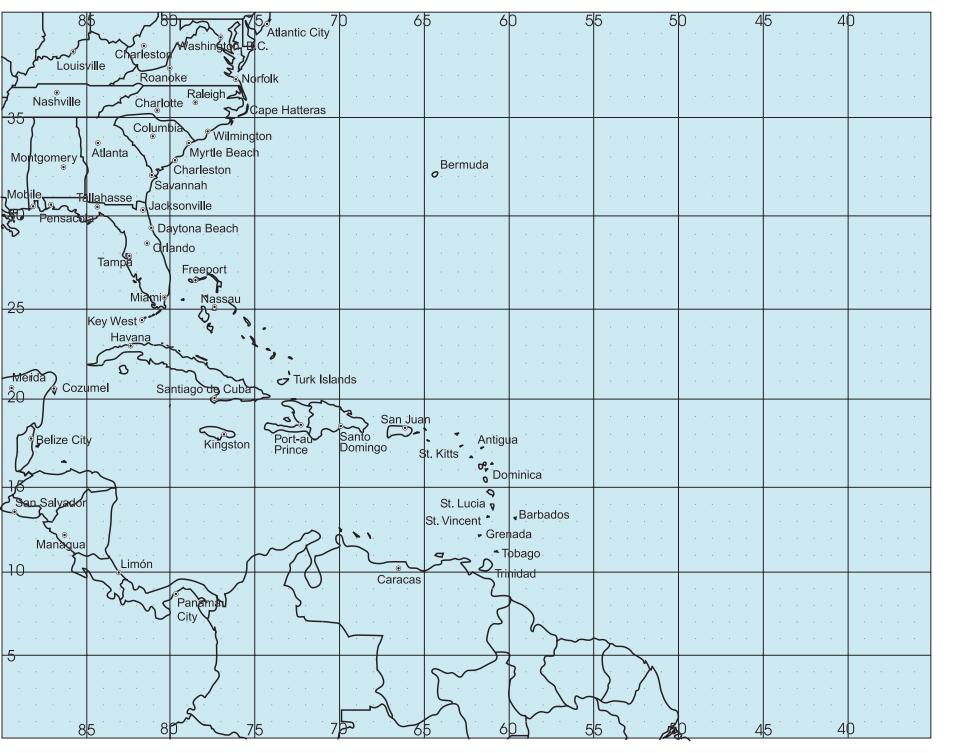
Protection from Flooding

- Buy flood insurance. For more information call the National Flood Insurance Program (NFIP) at 800-638-6620.
- Move valuables and appliances out of the basement.
- Have the main breaker or fuse box and utility meters elevated.
- Consider elevating your home/business above the 100-year floodplain or estimated surge inundation level.
- Make sure that any flood-proofing efforts are in compliance with minimum NFIP requirements, and with state and local building codes.

After the Storm Hits

- Contact your insurance agent quickly to ask for instructions on what to do until
 the adjuster arrives.
 Melka a list of paragraph preparty that has been demaged as destroyed. Take
- Make a list of personal property that has been damaged or destroyed. Take pictures of the damaged property.
- Protect property from further damage. Reasonable expenses to protect property are part of the loss and are generally reimbursed by the insurance company. Keep
- all receipts.
 Do not make permanent repairs until the insurance company has inspected the property and you have reached an agreement on the cost of repairs.
- If necessary, rent temporary shelter. Most homeowners' policies pay additional living expenses while property is being repaired. Before renting shelter, check with your insurance company to determine what expenses will be reimbursed.

Atlantic Ocean Hurricane Tracking Chart



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