

# Hurricane Best Practices Guide

Hurricane Preparations

Emergency Information

Returning Home



# KNOW THE TERMS

## “Know the Terms”

### **Hurricane**

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

### **Tropical Storm**

An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39 to 73 mph (34-63 knots).

### **Tropical Depression**

An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph (33 knots) or less.

### **Storm Surge**

This large dome of water, often 50 to 100 miles wide, sweeps ashore near where a hurricane strikes land and typically accounts for nine of ten storm deaths. A surge of up to 15 feet or more can cause severe flooding and damage along the coast, particularly when the storm surge coincides with normal high tides.

### **Tornadoes**

Even though a hurricane or tropical storm weakens as it moves inland, it can produce deadly and damaging tornadoes.

### **Flooding**

Typically, hurricanes bring heavy rains which can compound drainage problems in areas experiencing storm surge flooding. Rainfall totals of 10 inches or more are not uncommon when a tropical storm or hurricane moves across a coastal location. Over land, torrential rain may continue even after the wind has diminished which could easily result in destructive flash flooding and river flooding.

## **WATCHES AND WARNINGS**

As outside preparedness activities become difficult once winds reach tropical storm force, the National Hurricane Center issues watches 48 hours in advance of the anticipated onset of tropical storm-force winds. The NHC issues warnings 36 hours in advance of the predicted onset of tropical storm-force winds.

### **Storm Surge Watch**

The possibility of life-threatening rising water moving inland from the shoreline somewhere within the specified area, generally within 48 hours and in association with a tropical storm. The watch may be issued earlier when other conditions, such as the onset of tropical storm-force winds, are expected to limit the time available to take protective actions for surge (e.g., evacuations). The watch may also be issued for locations not expected to receive life-threatening inundation, but which could potentially be isolated by inundation in adjacent areas.

### **Tropical Storm Watch**

An announcement that tropical storm conditions are possible within the specified area.

### **Hurricane Watch**

An announcement that hurricane conditions are possible within the specified area.

**Action:** Prepare your home and review your plan for evacuation in case a hurricane or tropical storm warning is issued. Listen closely to instructions from local officials.

### **Storm Surge Warning**

The actual danger of life-threatening inundation from rising water moving inland from the shoreline somewhere within the specified area, generally within 36 hours, in association with a tropical, subtropical or post-tropical cyclone.

### **Tropical Storm Warning**

An announcement that tropical-storm conditions are expected within the specified area.

### **Hurricane Warning**

An announcement that hurricane conditions are expected within the specified area.

**Action:** During a warning, finish storm preparations and immediately leave the threatened area if directed by local officials. Have a plan for where you will stay such as a hotel, shelter or with loved ones.

### **Extreme Wind Warning**

Extreme sustained winds of a major hurricane (115 mph or greater), usually associated with the eyewall, are expected to begin within an hour.

**Action:** Take immediate shelter in the interior portion of a well-built structure.

# EMERGENCY ALERT SYSTEMS

**LiveSafe App:** The LiveSafe app provides students, faculty and staff with a direct connection to campus safety so that everyone can easily communicate all their safety needs. Its easy-to-use features help you stay safe every day and enables us to better protect you.

## To download and setup LiveSafe:

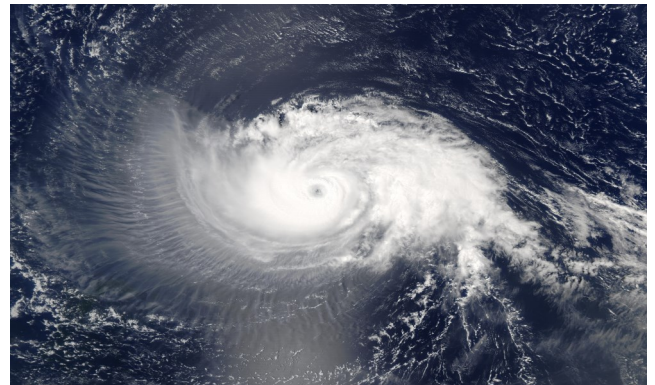
1. Download the app on your iPhone or Android device.
2. Select “UNC Pembroke” as your affiliation.
3. Fill in your user profile.
4. You’re set! Start using the app to stay safe everyday.



**BraveAlert:** In the event of a serious threat—whether the threat is crime-related or a natural disaster—to the campus community, the university has the ability to send immediate notifications via telephone and email by using BraveAlert, a computerized campus notification system. BraveAlert, using the (RAVE) system, offers the additional advantage of having groups contacted immediately via text message, phone, email and web.

## How do I subscribe?

1. Sign in to BraveWeb: UNC Pembroke > BraveWeb.
2. Click “Sign up for Emergency Text Messages” from the menu.
3. Click “Add a Cell Phone Number”.



**Outdoor Emergency Alert System:** The university’s outdoor emergency alert system consists of two separate, specially designed and strategically placed 50 foot towers outfitted with a series of powerful speakers. The system is designed for immediate campus-wide notification of a serious emergency. In the event of such an emergency, university police can utilize alert audio tones as well as voice broadcasts to warn the campus community of the specific nature of the threat and where to seek shelter.

**CodeRED:** Robeson County is using CodeRED Emergency Notification System. It is an ultra high-speed telephone communication service for emergency notifications and the distribution of information considered to be important.

The system allows us to telephone all or targeted areas of Robeson County in case of an emergency situation that requires immediate action, such as an evacuation, contaminated water, hazardous chemical spill, severe thunderstorm, flash flood, tornado warning, etc.

Register for CodeRED Emergency Alerts at [public.coderedweb.com](http://public.coderedweb.com)



**Emergency Information Hotline: 910.521.6888**  
**Monitor the university homepage for updates:**  
[uncp.edu](http://uncp.edu)

# PREPARE

The Saffir-Simpson Hurricane Wind Scale is a 1 to 5 rating based on a hurricane's sustained wind speed. This scale estimates potential property damage. Hurricanes reaching Category 3 and higher are considered major hurricanes because of their potential for significant loss of life and damage. Category 1 and 2 storms are still dangerous, however, and require preventative measures. In the western North Pacific, the term "super typhoon" is used for tropical cyclones with sustained winds exceeding 150 mph.



**Category 1: Very dangerous winds will produce "...some damage. (Winds: 74—95 mph)"**

Well-constructed frame homes could have damage to roof, shingles, vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.



**Category 2: Extremely dangerous winds will cause extensive damage. (Winds: 96—110 mph)**

Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees may be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.



**Category 3: Devastating damage will occur. (Winds: 111—129 mph)**

Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water may be unavailable for several days to weeks after the storm passes.



**Category 4: Catastrophic damage will occur. (Winds: 130—156 mph)**

Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees may be snapped or uprooted and power poles downed. Fallen trees and power poles may isolate residential areas. Power outages may last weeks to possibly months. Most of the area may be uninhabitable for weeks or months.

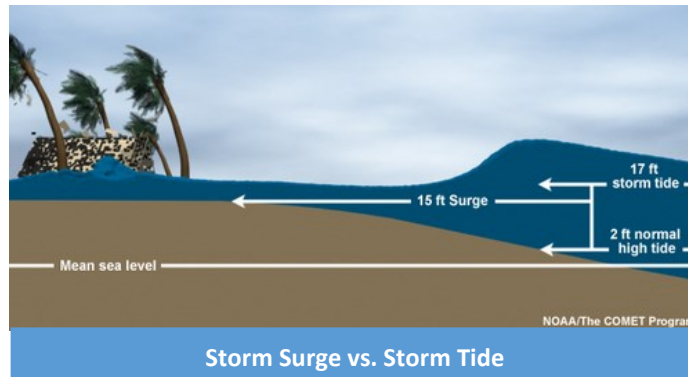


**Category 5: Catastrophic damage will occur. (Winds: 157 or higher)**

A high percentage of framed homes can be destroyed, with total roof failure and wall collapse. Fallen trees and power poles may isolate residential areas. Power outages may last for weeks to possibly months. Most of the area may be uninhabitable for weeks or months.

## PREPARE

**“Run from the water:”** Storm surge is an abnormal rise of water generated by a storm, over and above the predicted astronomical tides. Storm surge should not be confused with storm tide, which is defined as the rise in water level due to the combination of storm surge and the astronomical tide. This rise in water level can cause extreme flooding in coastal areas particularly when storm surge coincides with normal high tide, resulting in storm tides reaching up to 20 feet or more in some cases.



## WHAT TO DO BEFORE

The best time to prepare for a hurricane is before hurricane season begins on June 1. It is vital to understand your home's vulnerability to storm surge, flooding and wind. Here is your checklist of things to do **BEFORE** hurricane seasons begins.

**Know your zone:** Do you live near the Gulf or Atlantic Coasts? Find out if you live in a hurricane evacuation area by contacting your local government/emergency management office or by checking the [evacuation site](#) website.

**Put Together an Emergency Kit:** Put together a basic emergency kit. Check emergency equipment—such as flashlights, generators and storm shutters.

**Write or Review YOUR Family Emergency Plan:** Before an emergency happens, sit down with your family or close friends and decide how you will get in contact with each other, where you will go and what you will do in an emergency. Keep a copy of this plan in your emergency supplies kit or another safe place where you can access it in the event of a disaster. Start at the [ready.gov](#) emergency plan webpage.

**Review Your Insurance Policies:** Review your insurance policies to ensure you have adequate coverage for your home and personal property.

Understand NWS forecast products, especially the meaning of NWS watches and warnings.

Additional watches and warnings may be issued to provide detailed information on specific threats such as floods and tornadoes. Local National Weather Service offices issue flash flood/flood watches and warnings as well as tornado warnings.



# BASIC DISASTER SUPPLIES KIT CHECKLIST



3 days of nonperishable / non-cook food  
water (1 gal. per day per person), medication



flashlight, battery operated radio, extra batteries



first aid kit, cash, cell phone and charger



ID cards, information: (Dr., meds, allergies), family / friends  
contacts, toothbrush / toothpaste, blanket and washcloth



clothes and baby or pet supplies if you need them

## ACTIONS TO TAKE



When a hurricane threatens your community, be prepared to evacuate if you live in a storm surge risk area. Allow enough time to pack and inform friends and family if you need to leave your home.

**Secure Your Home:** Cover all of your home's windows. Permanent storm shutters offer the best protection for windows. A second option is to board up windows with 5/8 inch exterior grade or marine plywood—built to fit—and ready to install. Buy supplies before the hurricane season rather than waiting for the pre-storm rush.

**Stayed Tuned-in:** Check the websites of your local National Weather Service office and local government/emergency management office. Find out what type of emergencies could occur and how you should respond. Listen to NOAA Weather Radio or other radio or TV stations for the latest storm news.

**Follow instructions issued by local officials. Leave immediately if ordered!**

**If NOT ordered to evacuate:**

- Take refuge in a small interior room, closet or hallway on the lowest level during the storm. Put as many walls between you and the outside as you can.
- Stay away from windows, skylights and glass doors.
- If the eye of the storm passes over your area, there will be a short period of calm—but at the other side of the eye—the wind speed rapidly increases to hurricane-force winds coming from the opposite direction.

## HURRICANE HAZARDS

Hurricanes and tropical storms not only threaten North Carolina's coast but all areas of our state. It's important for all North Carolinians to prepare for hurricane season. Hurricanes and tropical storms often produce widespread, torrential rains in excess of 6 inches, which may result in deadly and destructive floods. In fact, flooding is the major threat from tropical cyclones for people living inland. Winds from a hurricane can destroy buildings and manufactured homes. Outdoor items and debris can become projectiles in high winds. Tornadoes can accompany hurricanes and tropical storms. The most tornadoes spawned by a single tropical cyclone were associated with Hurricane Ivan, which spawned 120 tornadoes in 2004.

## POWER POINTERS

If you see a downed power line, do not touch it. Do not touch tree limbs or other objects touching a power line.

Do not attempt to tie generators into the house circuit. This can be dangerous to you, your neighbors and to linemen. Plug appliances directly into the generator.

Should the power go out while you are cooking, remember to turn the stove off and remove any cookware from the cooking surfaces and oven.

Do not open refrigerators or freezers during an outage unless absolutely necessary. Repeated openings cause the cold air to escape and food to thaw more quickly.

If you smell gas, leave your home immediately and call the power company.



## FUNCTIONAL NEEDS

Put your most important identification and medical records into a digital format for easy safekeeping and quicker movement because paper documents can easily get misplaced or damaged during a significant weather event.

Put your name and contact information on your equipment in case it gets misplaced during the excitement of evacuation, sheltering or shelter consolidation.

Ask for help if you need it. Call your local emergency management office. Some offices have a list of people who need extra help during an emergency.

Know yourself and have your plan ready and in place. Make sure other people know your plan. Leave as soon as you can so you can reach your destination safely ahead of a storm.

Review the hurricane preparation checklists in this guide. Think about any additional items you may need like batteries for hearing aids and similar devices, extra oxygen tanks, electrical backups for medical equipment or special food requirements.

### Resources

**NC DPS: Emergency Management Division**

<https://www.ncdps.gov/ncem>

**National Hurricane Center**

<https://www.nhc.noaa.gov/>

**FEMA**

<https://www.fema.gov/>

**State of North Carolina**

<https://www.nc.gov/>

**American Red Cross**

[redcross.org](https://www.redcross.org)

**NC DOT**

<https://www.ncdot.gov/>



# AFTER A HURRICANE



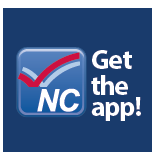
If you have evacuated, some areas may be inaccessible even after the official evacuation order is rescinded. Return home only after local authorities advise it is safe to do so. Listen to your local radio and TV stations and monitor social media for recovery information.

- Continue listening to a NOAA Weather Radio or the local news for the latest updates.
- If you evacuated, return home only when officials say it is safe.
- Once home, drive only if necessary and avoid flooded roads and washed-out bridges. If you must go out, watch for fallen objects in the road, downed electrical wires, and weakened walls, bridges, roads and sidewalks that might collapse.
- Walk carefully around the outside of your home to check for loose power lines, gas leaks and structural damage.
- Stay out of any building if you smell gas, if floodwaters remain around the building, if the building or home was damaged by fire or if the authorities have not declared it safe.
- Carbon monoxide poisoning is one of the leading causes of death after storms in areas dealing with power outages. Never use a portable generator inside your home or garage. Review generator safety.
- Use battery-powered flashlights. Do NOT use candles. Turn on your flashlight before entering a vacated building. The battery could produce a spark that could ignite leaking gas, if present.
- Take pictures. Photos of the damage will help in filing insurance claims. Contact your insurance claims agent as soon as possible.
- Let a relative know you are home. Tell them how to get in touch with you, especially if phone service is out.

## Other Resources

Ready NC

<https://readync.org/EN/Index.html>



WeatherSTEM: Local Weather Station

<https://robesson.weatherstem.com/unccp>



## IMPORTANT PHONE NUMBERS

University Police and Public Safety:	910.521.6235
Off-campus Emergencies:	911
Student Health Services:	910.521.6219
Facilities Operations:	910.521.6233
Counseling and Psychological Services:	910.521.6202
Environmental Health and Safety:	910.521.6792 / 910.775.4772
Town of Pembroke Police Department:	910.521.4333
Robeson County Sheriff:	910.671.3100
Robeson County Emergency Management:	910.671.3150
Scotland County Sheriff:	910.276.3385
American Red Cross:	1.800.733.2767
Dept. of Transportation (Traffic):	511
N.C. Department of Insurance:	1.855.408.1212
N.C. Department of Public Safety:	919.733.2126
<b>UNCP Emergency Information Hotline:</b>	<b>910.521.6888</b>



**ENVIRONMENTAL  
HEALTH AND SAFETY**

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