



Hurricane Preparedness

The following information on hurricane preparedness has been excerpted from the U.S. Federal Emergency Management Agency (FEMA). "FEMA's mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards." For more information, please visit the FEMA website at www.fema.gov.

What is a Hurricane?

Hurricanes are tropical storms that have a sustained wind speed greater than 75 mph. In the northern hemisphere, these low pressure systems rotate counterclockwise. As a hurricane approaches the coast, the wind speed on the right side of the storm is added to the forward speed of the storm. Hence, the greatest impacts from storm surge, wave battering and wind speed tend to occur to the right of the eye at landfall.

Storm surge is an increase in sea level along the coast caused primarily by strong onshore winds and low barometric pressure. The strongest hurricanes are Category 5, having sustained wind speeds in excess of 155 mph and storm surge in excess of 20 feet. Hurricanes and tropical storms can also spawn tornadoes and microburst, and cause extensive damage from heavy rainfall. Lightning and flooding are also dangerous effects of hurricanes.

The Atlantic hurricane season begins June 1 and ends November 30, with the peak of the season being mid-August to late October.

Terms Used to Identify a Hurricane

Tropical Depression: An organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds of 38 mph or less.

Tropical Storm: An organized system of strong thunderstorms with maximum sustained winds of 39-73 mph.

Hurricane: An intense tropical weather system of strong thunderstorms with a well-defined surface circulation and maximum sustained winds of 74 mph or higher.

Storm Surge: A dome of water pushed onshore by hurricane and tropical storm winds. Storm surges can reach 25 feet high and be 50-1,000 miles wide.

Tropical Storm Watch: Hurricane/tropical storm conditions are possible in the specified area, usually within 48 hours. Tune in to NOAA Weather Radio, commercial radio or television for information.

Hurricane/Tropical Storm Warning: Hurricane/tropical storm conditions are expected in the specified area, usually within 36 hours.

Take Protective Measures

Before a Hurricane

- Get an emergency supply kit, which includes items such as non-perishable food, water, a battery-powered or hand-crank radio, extra flashlights and batteries. You may want to prepare a portable kit and keep it in your car in case you are told to evacuate.
- Prepare your family by making a family emergency plan. Your family may not be together when disaster strikes, so it is important to know how you will contact one another, how you will get back together and what you will do in case of an emergency.
- Prepare your business by putting together a disaster plan. This increases the chances that your business will survive and recover.
- Make plans to secure your property. Permanent storm shutters offer the best protection for windows. A second option is to board up windows with 5/8" plywood, cut to fit and ready to install. Tape does not prevent windows from breaking.
- Install straps or additional clips to securely fasten your roof to the frame structure. This will reduce roof damage.
- Reinforce your garage doors. If wind enters a garage, it can cause dangerous and expensive structural damage.
- Install a generator for emergencies.
- Be sure trees and shrubs around your home are well trimmed.
- Clear loose and clogged rain gutters and downspouts.
- Bring in outdoor objects such as lawn furniture, toys and garden tools or anchor them if they cannot be brought indoors.
- Listen to the radio or TV for information.
- Check emergency supplies.
- Fuel your car.
- Secure buildings by closing and boarding up windows.
- Turn off utilities if instructed to do so. Otherwise, turn the refrigerator thermostat to its coldest setting and keep its doors closed. Open only when necessary and close quickly.
- Find out how to keep food safe during and after an emergency by visiting www.FoodSafety.gov.
- Turn off propane tanks. Avoid using the phone, except for serious emergencies.
- Store drinking water in clean bathtubs, jugs, bottles and cooking utensils.
- Ensure you have a supply of water for sanitary purposes such as cleaning and flushing toilets. Fill the bathtub and other large containers with water.

Saffir-Simpson Hurricane Wind Scale

Category 1: Sustained Winds of 74-95 mph

Very dangerous winds that will produce some damage such as: minor damage to exterior of homes; toppled tree branches, uprooting of smaller trees; extensive damage to power lines; power outages.

Category 2: Sustained Winds of 96-110 mph

Extremely dangerous winds will cause extensive damage such as: major damage to exterior of homes; uprooting of small trees and many roads blocked; guaranteed power outages for long periods of time—days to weeks.

Category 3: Sustained Winds of 111-130 mph

Devastating damage will occur: extensive damage to exterior of homes; many trees uprooted and many roads blocked; extremely limited availability of water and electricity.

Category 4: Sustained Winds of 131-155 mph

Catastrophic damage will occur: loss of roof structure and/or some exterior walls; most trees uprooted and most power lines down; isolated residential due to debris pile up; power outages lasting for weeks to months.

Category 5: Sustained Winds of more than 155 mph

Catastrophic damage will occur: a high percentage of homes will be destroyed; fallen trees and power lines isolate residential areas; power outages lasting for weeks to months; most areas will be uninhabitable.

Source: Ready America, "Hurricanes," <http://www.ready.gov/america/beinformed/hurricanes.html>.

During a Hurricane Warning

- Listen constantly to a battery-operated radio or television for official instructions.
- If in a mobile home, check tie downs and evacuate immediately.
- Store valuables and personal papers in a waterproof container on the highest level of the home.
- Avoid elevators at work.
- If at home, stay inside away from windows, skylights and glass doors.
- Keep a supply of flashlights and extra batteries handy. Avoid open flames, such as kerosene lamps as a source of light.
- If power is lost, turn off major appliances to reduce power “surge” when electricity is back on.

Evacuate Conditions

- Evacuate if you are directed by local authorities to do so. Be sure to follow their instructions.
- Leave as soon as possible. Avoid flooded roads and watch for washed-out bridges.
- If you live in a mobile home or temporary structure—such shelters are particularly hazardous during hurricanes no matter how well-fastened to the ground.
- If you live in a high-rise building—hurricane winds are stronger at higher elevations.
- If you live on the coast, on a floodplain, near a river, or on an inland waterway.
- If you feel you are in danger.
- Tell someone outside of the storm area where you are going.

If you are unable to evacuate, go to your wind-safe room. If you do not have one, follow these guidelines:

- Stay indoors during the hurricane and away from windows and glass doors.
- Close all interior doors—secure and brace external doors.
- Keep curtains and blinds closed. Do not be fooled if there is a lull, it could be the eye of the storm—winds will pick up again.
- Take refuge in a small interior room, closet or hallway on the lowest level.
- Lie on the floor under a table or another sturdy object.

After a Hurricane

Return home only after authorities advise that it is safe to do so.

- Avoid loose or dangling power lines and report them immediately to the power company.
- Enter your home with caution.
- Beware of snakes, insects and animals driven to higher ground by flood waters.
- Open windows and doors to ventilate and dry your home.
- Check refrigerator foods for spoilage.

Inspecting Utilities in a Damaged Home

Check for gas leaks. If you smell gas or hear blowing or hissing noise, open a window and leave the building. Turn off the gas at the outside main valve if you can and call the gas company from a neighbor's home. If you turn off the gas for any reason, it must be turned on by a professional.

Look for electrical system damage. If you see sparks or broken or frayed wires, turn off the electricity at the main fuse box or circuit breaker. If you have to step on wires to get to the fuse box or circuit breaker, call an electrician first for advice.

Check for sewage and water line damage. If you suspect sewage lines are damaged, call a plumber. If water pipes are damaged, contact the water company and avoid using water from the tap. You can obtain safe water by melting ice cubes.

Recommended Training

FEMA's Emergency Management Institute (EMI) has developed a training program to encourage community hurricane preparedness. This computer-based course provides basic information about dealing with tropical cyclones and hurricanes. Visit www.training.fema.gov/EMIWeb/IS/is324a.asp and select the "take this course" option to take the interactive web-based course.

Federal and National Resources

Find additional information on how to plan and prepare for a hurricane by visiting the following resources:

- Federal Emergency Management Agency
- NOAA Hurricane Center
- American Red Cross
- U.S. Environmental Protection Agency
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention

-Information excerpted from FEMA "Preparing for a Hurricane Fact Sheet," www.fema.gov and Ready America, "Hurricanes," www.ready.gov/america/beinformed/hurricanes.html.



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