Hurricanes

General Information and Preparedness

Definitions for Tropical Cyclones

A hurricane is a type of tropical cyclone, a generic term for a low pressure system that generally forms in the tropics. The cyclone is accompanied by thunderstorms and, in the Northern Hemisphere, a counterclockwise circulation of winds near the earth's surface. The ingredients for a hurricane include a pre-existing weather disturbance, warm tropical oceans, moisture, and relatively light winds aloft. If the right conditions persist long enough, they can combine to produce the violent winds, incredible waves, torrential rains, and floods.

Each year, an average of ten tropical storms develop over the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico. Many of these remain over the ocean and never impact the U.S. coastline. Six of these storms become hurricanes each year. In an average 3-year period, roughly five hurricanes strike the US coastline, killing approximately 50 to 100 people anywhere from Texas to Maine. Of these, two are typically "major" or "intense" hurricanes (a category 3 or higher storm on the Saffir-Simpson Hurricane Scale). A Category 1 storm has the lowest wind speeds, while a Category 5 hurricane has the strongest. These are relative terms, because lower category storms can sometimes inflict greater damage than higher category storms, depending on where they strike and the particular hazards they bring. In fact, tropical storms can also produce significant damage and loss of life, mainly due to flooding. Tropical cyclones are classified as:

Tropical Depression
An organized system of clouds and thunderstorms with a defined surface circulation and maximum sustained winds of 38 mph or less. A sustained wind is A 1-minute average wind measured at about 33 ft (10 meters) above the surface.

Tropical Storm
An organized system of strong thunderstorms with a defined surface circulation and 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

Basic Hurricane Safety Actions

- Know if you live in an evacuation area. Know your home's vulnerability to storm surge, flooding and wind. Have a written plan based on this knowledge.
- At the beginning of hurricane season (June 1st), check the supplies for your disaster supply kit (information on suggested kit contents is available at Fire Department Web site or Headquarters), replace batteries and use food stocks on a rotating basis.
- During hurricane season, monitor the tropics.
- Monitor NOAA Weather Radio. It is an excellent / official source for real-time weather information and warnings.
- If a storm threatens, heed the advice from local authorities.
- Evacuate if ordered.
- Execute your family plan

Watch vs. Warning: Know the Difference!

- A **HURRICANE WATCH** issued for your part of the coast indicates the possibility that you could experience hurricane conditions within 36 hours. This watch should trigger your family's disaster plan, and protective measures should be initiated, especially those actions that require extra time such as securing a boat, leaving a barrier island, etc.
- A **HURRICANE WARNING** issued for your part of the coast indicates that sustained winds of at least 74 mph are expected within 24 hours or less. Once this warning has been issued, your family should be in the process of completing protective actions and deciding the safest location to be during the storm.

What To Do Before a Hurricane

To prepare for a hurricane, you should take the following measures:

- 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” marine 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.

- Be sure trees and shrubs around your home are well trimmed.

- Clear loose and clogged rain gutters and downspouts.

- Determine how and where to secure your boat.
- Consider building a safe room.

What To Do During a Hurricane

If a hurricane is likely in your area, you should:

- Listen to the radio or TV for information.
- Secure your home, close storm shutters, and secure outdoor objects or bring them indoors.
- Turn off utilities if instructed to do so. Otherwise, turn the refrigerator thermostat to its coldest setting and keep its doors closed.
- Turn off propane tanks.· Avoid using the phone, except for serious emergencies.
- Moor your boat if time permits.
- Ensure a supply of water for sanitary purposes such as cleaning and flushing toilets. Fill the bathtub and other large containers with water.

You should evacuate under the following conditions:

- If you are directed by local authorities to do so. Be sure to follow their instructions.
- 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.

If you are unable to evacuate, go to your 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.

What To Do When You Return Home

Returning home can be both physically and mentally challenging. Above all, use caution. Do not attempt to move seriously injured persons unless they are in immediate danger of death or further injury. If you must move an unconscious person, first stabilize the neck and back, then call for help immediately.

- Keep a battery-powered radio with you.
- Use a battery-powered flash light to inspect a damaged home.
  Note: The flashlight should be turned on outside before entering - the battery may produce a spark that could ignite leaking gas, if present.
- Watch out for animals, especially poisonous snakes. Use a stick to poke through debris.
- Be wary of wildlife and other animals
- Use the phone only to report life-threatening emergencies.
- Go to www.redcross.org to make contact with family members.
- Stay off the streets. If you must go out, watch for fallen objects; downed electrical wires; and weakened walls, bridges, roads, and sidewalks.
- Specific information is available for protecting for your type of home and needs, including landscaping. furniture, pictures, mirrors, trees at http://www.fema.gov/plan/prevent/howto/index.shtm

Before You Enter Your Home

Walk carefully around the outside and check for loose power lines, gas leaks, and structural damage. If you have any doubts about safety, have your residence inspected by a qualified building inspector or structural engineer before entering.

Do not enter if: you smell gas or floodwaters remain around the building, or if your home was damaged by fire and the authorities have not declared it safe.