

Hurricanes: A Danger In Paradise



Hurricane season officially starts June 1 and lasts until November 30. 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 we associate with this phenomenon.

Each year, an average of eleven tropical storms develop over the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico. In an average three-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).

Tracking a Storm

Those of us who live along the Florida Gulf Coast should track every Atlantic hurricane or tropical storm. Many times, we will need to begin making preparations before the storm ever enters the Gulf of Mexico. When tracking a storm, remember that a hurricane is not just a point on a map. Usually the coordinates of the center of the storm are given so that you can track it on your map, however, hurricanes can have tropical storm force winds over 200 miles from the center and hurricane force winds over 75-100 miles from the center. We must remember that hurricane forecasting is not an exact science and they don't always go where predicted.

Storm Surge

Storm surge is the most deadly of hurricane hazards. Storm surge is salt water flooding which rushes over coastal and river areas near where the eye of the hurricane strikes, destroying homes and businesses. Storm surge can reach seven feet above sea level in a category 1 hurricane to as much as 28 feet above sea level in a category 5 hurricane.

Inland Flooding

While storm surge is always a potential threat, recent history shows more people die from inland flooding. The high death toll may be from the misunderstanding of the fact that intense rainfall is not directly related to the wind speed of tropical cyclones. In fact, some of the greatest rainfall amounts occur from weaker storms that drift slowly or stall over an area. Inland flooding can be a major threat to communities hundreds of miles from the coast as intense rain falls from these huge tropical air masses.

| The Saffir/Simpson Hurricane Scale | |
|------------------------------------|--|
| Category | Definition-Effects |
| 1 | Winds : 74-95 mph (64-82 kt) Surge: 4-5 feet Damage primarily to unanchored mobile homes, shrubbery, and trees. Some coastal flooding and minor pier damage. |
| 2 | Winds : 96-110 mph (83-95 kt) Surge: 6-8 feet Some roofing material, door, and window damage. Considerable damage to vegetation, mobile homes, etc. Flooding damages, piers and small craft in unprotected moorings may break their moorings. |
| 3 | Winds : 111-130 mph (96-113 kt) Surge: 9-12 feet Structural damage to small residences and utility buildings. Mobile homes are destroyed. Flooding near the coast and well inland. Larger structures damaged by debris. |
| 4 | Winds : 131-155 mph (114-135 kt) Surge: 13-18 feet Roof structure damage. Major erosion of beach areas. Terrain may be flooded well inland. Trees down, roads cut off. Mobile homes destroyed. |
| 5 | Winds : 155+ mph (135+ kt) Surge: ≥18 feet Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Flooding causes major damage to lower floors of all structures near the shoreline. Massive evacuation of residential areas may be required. |

What to do before a Hurricane

- Understand “Watch” and “Warning” terms (See page 11).
- Purchase a NOAA weather radio.
- Fuel your car. You will need it to evacuate and pumps don’t work without electricity.
- Bring in outdoor objects such as lawn furniture, toys and garden tools.
- Prepare boats as appropriate.
- Call an out-of-town friend or relative to let them know of your plans. Instruct other family members to call that person for information about your family after the storm.
- Fill large containers, sinks and bathtubs with water.
- Get an extra supply of cash. Banks and ATMs may not be operational immediately after the storm.
- Make plans to care for your pets in case you must evacuate.
- 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.
- Have a plan to shelter-in-place or evacuate, notify other family or friends outside of the hurricane area of your intentions.
- Plan for elderly /handicapped /invalid care at a shelter or at home.
- Take photos of your property from all angles; it may not look the same once the storm passes.
- Check for, fix or remove loose items on your structures/homes.
- Be sure trees and shrubs around your home are well trimmed.
- Clear loose and clogged rain gutters and down spouts
- Turn off small appliances that are not needed.
- 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.
- Ensure a supply of water for sanitary purposes such as cleaning and flushing toilets.



Should you Evacuate? Yes, if you:

- Live in a storm surge zone.
- Live in a low-lying or flood prone area.
- Live in a manufactured home or recreational vehicle.
- Require a respirator or other electric-dependent medical equipment.

No, if you:

- Live in a sound structure and the categories listed under “yes” do not apply.

Pet Planning

If you plan to stay home during an evacuation:

- Bring pets indoors and prepare an area away from a window.
- Prepare a pet disaster kit including:
 - ✓ Food, water and bowls
 - ✓ Leashes, toys, bedding and carrier
 - ✓ Medications
 - ✓ Newspapers, cat litter and plastic bags for handling waste
 - ✓ License and vaccination documentation

If you and your pet plan to evacuate:

- Go to your predetermined shelter (family, friends, hotel/motel)
- Take needed items for you and your pet to be self-sufficient for up to seven days

For a list of kennels and hotels/motels that can shelter your pet, visit: <http://www.santarosa.fl.gov/emergency>



How to use Sand bags

Filling

- Work with another person, with one of you holding the bag while the other shovels sand or other material.
- The first shovelful is placed on the edge of the bag to keep the bag open.
- The shoveler gets rounded scoops of sand and fills the bag to just one-third full.
- Fold over the open end of the bag in a triangle to prevent sand from leaking out. Close-knit burlap bags are recommended.

Placing Sandbags

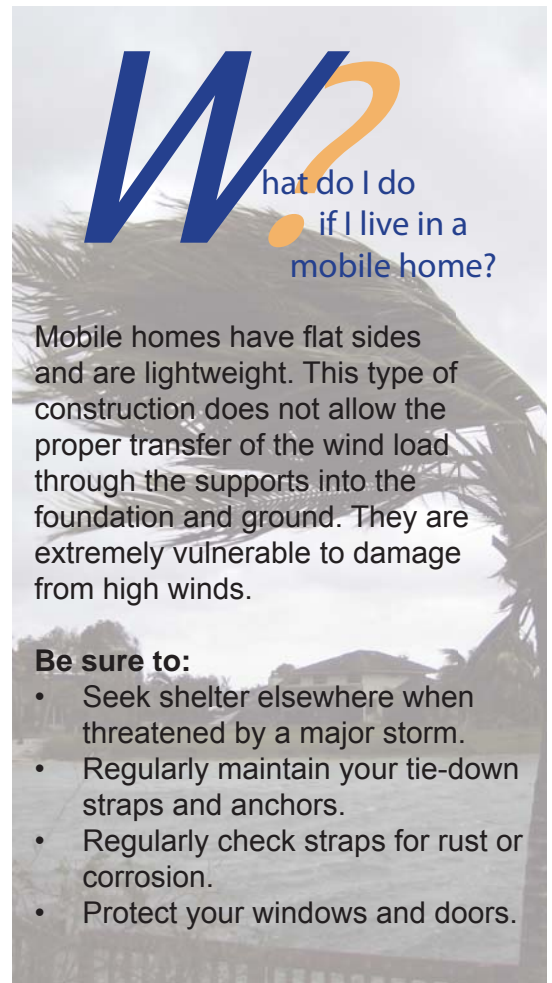
- Overlap the sandbags, placing the first layer of bags lengthwise and lapping the bags so the filled portion of one bag lies on the unfilled portion of the next.
- The second layer of bags should be perpendicular to the first layer.
- Limit placement to two layers unless a building is used as a backing.
- It is important to place the bags with the folded top of the bag in the upstream or uphill direction to prevent the bags from opening when water runs by them.

Limitations

- Sandbags will not seal out water.
- Sandbags deteriorate when exposed for several months to continued wetting and drying. If bags are placed too early, they may not be effective when needed. If it is necessary that bags remain durable for a longer time, the addition of cement can increase effective life.
- Sandbags are basically for low-flow protection (up to two feet). Protection from high flow requires a permanent type of structure.

What to do during a Hurricane

- Remain in an interior hallway, bathroom or closet on lowest level of structure away from windows.
- Cover yourself and family with a mattress or seek shelter under a solid piece of furniture.
- Keep disaster kit handy.
- Close all interior doors and brace exterior doors if possible.
- If the eye of the storm passes over, it will be calm for a short period of time. **REMAIN INDOORS!** As soon as the eye passes over, winds will increase rapidly to hurricane force from the opposite direction.
- Remain calm. It may take several hours for the storm to pass.
- Monitor radio and TV for current information.



Securing Your Boat for a Hurricane

The key to protecting your boat from hurricanes or any severe threatening weather is planning, preparation and timely action. Each boat owner needs a plan unique to the type of boat, the local boating environment, and the severe weather conditions likely to occur.

- Never stay aboard your boat during a hurricane.
- Contact local marinas and ask for advice. You will find marina operators knowledgeable and helpful. They can advise you on the best methods for securing your boat.
- Remove small boats from the water and move them to a secure location. Ensure the trailer and boat are secured above likely flood areas.
- Remove all loose items.
- Ensure the boat is tied securely to the trailer.
- If your boat is too large to be removed from the water, move it to a safe haven well before the storm approaches.
- Double up and secure mooring lines.
- Secure all hatches and portals and cover windscreens.
- Take down mast whenever possible.
- Remove all loose items from decks and superstructure and from area around mooring. Leave nothing unsecured.

Never forget that storms move quickly and they are unpredictable. You can always replace a boat; you cannot replace a life.

What to do after a Hurricane

The danger does not end with the storm.

- Monitor radio and TV for current information.
- Be aware of any boil water notices and avoid unsafe food.
- If home is safe make temporary repairs if required. Take pictures of damage.
- Check on neighbors.
- If you evacuated, return home only when authorities advise that it is safe.
- Drive only if it is absolutely necessary. Immediately following the passage of the storm, debris may be covering roadways making them impassable. Emergency crews will be working to clear roadways but it may take hours or even days to clear them all. Avoid sightseeing; water from vehicles sends wakes into others' property. Roads may be closed for your protection so if you encounter a barricade, turn around and go another way.
- Do not drive in flooded areas. Avoid weakened bridges and washed out roadways.
- Stay on firm ground. Moving water only six inches deep can sweep you off your feet. Standing water may be electrically charged from downed power lines.
- Beware of downed power lines. Lines may be charged and dangerous.
- Beware of snakes, insects or animals driven to higher ground by flood waters.
- Enter your home with extreme caution. Beware of fallen objects or damaged roof and wall sections.
- Remove shutters or plywood and open windows and doors to ventilate or dry your home if necessary.
- Check gas, water and electrical lines, and appliances for damage. Do not attempt to repair damaged gas or electrical lines. Call a professional.
- Use the telephone to report emergencies only. This includes cellular phones.
- Wait until area is declared safe before returning or venturing outside.
- Use a flashlight to inspect for damage; avoid open flames inside.

Points of Distribution

PODS are locations where the general public can obtain life-sustaining emergency relief supplies until power is restored. If a major store is open in an area, a POD will not be activated. PODS may not be open immediately or at the same time and are subject to change depending on the extent of damage.

| Potential Points of Distribution | | |
|------------------------------------|---------------------------|-------------|
| Munson Elementary School | 11550 Munson Hwy. | Munson |
| King Middle School | 5928 N. Stewart Street | Milton |
| Santa Rosa Sportsplex | 5976 Chumuckla Hwy. | Pace |
| Bray-Hendricks Park | 5213 Booker Lane | Jay |
| Across from Hickory Hammock Church | 8351 Hickory Hammock Road | East Milton |
| Gulf Breeze Middle School | 649 Gulf Breeze Blvd. | Gulf Breeze |
| Tiger Point Recreation Area | 1370 Tiger Point Lane | Midway |
| Navarre High School | 8600 High School Blvd. | Navarre |

| Atlantic Hurricane Names | | |
|--------------------------|-------------|-------------|
| <u>2009</u> | <u>2010</u> | <u>2011</u> |
| Ana | Alex | Arlene |
| Bill | Bonnie | Bret |
| Claudette | Colin | Cindy |
| Danny | Danielle | Don |
| Erika | Earl | Emily |
| Fred | Frances | Franklin |
| Grace | Gaston | Gert |
| Henri | Hermine | Harvey |
| Ida | Igor | Irene |
| Joaquin | Julia | Jose |
| Kate | Karl | Katia |
| Larry | Lisa | Lee |
| Mindy | Matthew | Maria |
| Nicholas | Nicole | Nate |
| Odette | Otto | Ophelia |
| Peter | Paula | Philippe |
| Rose | Richard | Rina |
| Sam | Shary | Sean |
| Teresa | Tomas | Tammy |
| Victor | Virginie | Vince |
| Wanda | Walter | Whitney |

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