



A hurricane is a type of tropical cyclone or severe tropical storm that forms in the southern Atlantic Ocean, Caribbean Sea, Gulf of Mexico, and in the eastern Pacific Ocean. A typical cyclone is accompanied by thunderstorms, and in the Northern Hemisphere, a counterclockwise circulation of winds near the earth's surface.

All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes. Parts of the Southwest United States and the Pacific Coast also experience heavy rains and floods each year from hurricanes spawned off Mexico. The Atlantic hurricane season lasts from June to November, with the peak season from mid-August to late October. The Eastern Pacific hurricane season begins May 15 and ends November 30.

Hurricanes can cause catastrophic damage to coastlines and several hundred miles inland. Hurricane can produce winds exceeding 155 miles per hour as well as tornadoes and mircrobursts. Additionally, hurricanes can create storm surges along the coast and cause extensive damage from heavy rainfall. Floods and flying debris from the excessive winds are often the deadly and destructive results of these weather events. Slow moving hurricanes traveling into mountainous regions tend to produce especially heavy rain. Excessive rain can trigger landslides or mud slides. Flash flooding can occur due to intense rainfall.

Between 1970 and 1999, more people lost their lives from freshwater inland flooding associated with land falling tropical cyclones than from any other weather hazard related to tropical cyclones.

#### Before a Hurricane

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

- To begin preparing, you should build an emergency kit and make a family communications plan.
- Know your surroundings.
- Learn the elevation level of your property and whether the land is flood-prone. This will help you know how your property will be affected when storm surge or tidal flooding are forecasted.
- Identify levees and dams in your area and determine whether they pose a hazard to you.
- Learn community hurricane evacuation routes and how to find higher ground. Determine where you would go and how you would get there if you needed to evacuate.



- Make plans to secure your property:
  - ✓ 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" 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 so they are more wind resistant.
  - ✓ Clear loose and clogged rain gutters and downspouts.
  - ✓ Reinforce your garage doors; if wind enters a garage it can cause dangerous and expensive structural damage.
  - ✓ Plan to bring in all outdoor furniture, decorations, garbage cans and anything else that is not tied down.
  - $\checkmark$  Determine how and where to secure your boat.
  - ✓ Install a generator for emergencies.
  - $\checkmark$  If in a high-rise building, be prepared to take shelter on or below the 10th floor.
  - ✓ Consider building a safe room.

Hurricanes cause heavy rains that can cause extensive flood damage in coastal and inland areas. Everyone is at risk and should consider flood insurance protection. Flood insurance is the only way to financially protect your property or business from flood damage. To learn more about your flooding risk and how to protect yourself and your business, visit the Federal Insurance and Mitigation Administration (NFIP) Web site,www.floodsmart.gov or call 1-800-427-2419. For more detailed information on how you can protect your property, view NFIP's printer-friendly handout *Avoiding Hurricane Damage*.

#### 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 purpose such as cleaning and flushing toilets. Fill the bathtub and other larger containers with water.
- Find out how to keep food safe during and after and emergency.

If you are directed by local authorities you should evacuate under the following conditions. Be sure to follow their instructions.

- If you live in a mobile home or temporary structure such shelter are particularly hazardous during hurricane 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 island waterway.

Read more about evacuating yourself and your family. 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.
- Avoid elevators.

#### After a Hurricane

- Continue listening to a NOAA Weather Radio or the local news for the latest updates.
- Stay alert for extended rainfall and subsequent flooding even after the hurricane or tropical storm has ended.
- If you have become separated from your family, use your family communications plan or contact FEMA or the American Red Cross.

FEMA has established the National Emergency Family Registry and Locator System (NEFRLS), which has been developed to help reunite families who are separated during a disaster. The NEFRLS system will enable displaced individuals the ability to enter personal information into a website database so that they can be located by others during a disaster.



The American Red Cross also maintains a database to help you find family. Contact the local American Red Cross chapter where you are staying for information. Do not contact the chapter in the disaster area.

- If you evacuated, return home only when officials say it is safe.
- If you cannot return home and have immediate housing needs. Text **SHELTER** + your ZIP code to **43362** (4FEMA) to find the nearest shelter in your area (example: *shelter 12345*).
- For those who have longer-term housing needs, FEMA offers several types of assistance, including services and grants to help people repair their homes and find replacement housing. Apply for assistance or search for information about housing rental resources
- Drive only if necessary and avoid flooded roads and washed¬ out bridges. Stay off the streets. If you must go out watch for fallen objects; downed electrical wires; and weakened walls, bridges, roads, and sidewalks.
- Keep away from loose or dangling power lines and report them immediately to the power company.
- Walk carefully around the outside your home and check for loose power lines, gas leaks and structural damage before entering.
- Stay out of any building if you smell gas or if floodwaters remain around the building or your home that was damaged by fire and the authorities have not declared it safe.
- Inspect your home for damage. Take pictures of damage, both of the building and its contents, for insurance purposes. If you have any doubts about safety, have your residence inspected by a qualified building inspector or structural engineer before entering.
- Use battery-powered flashlights in the dark. Do NOT use candles. Note: The flashlight should be turned on outside before entering the battery may produce a spark that could ignite leaking gas, if present.
- Watch your pets closely and keep them under your direct control. Watch out for wild animals, especially poisonous snakes. Use a stick to poke through debris.
- Avoid drinking or preparing food with tap water until you are sure it's not contaminated.
- Check refrigerated food for spoilage. If in doubt, throw it out.
- Wear protective clothing and be cautious when cleaning up to avoid injury.
- Use the telephone only for emergency calls.