

2006 Hurricane Survival Guide - Galveston

Hurricanes have been called the "greatest storms on earth" because of their size and potential destruction. A hurricane can produce a devastating combination of storm surge, powerful winds, tornadoes, and torrential rains. Leading experts have warned us that the lull in hurricane activity is ending as climate cycles change.

Recent hurricanes have reemphasized the need for everyone - families, businesses, agencies, and institutions - to be prepared.

Introduction

Take Action Now!

Use this safety information to make your family and your neighborhood hurricane plans.

- Read this guide carefully.
- Know your evacuation zone and determine if and when you would have to leave.
- If an evacuation is ordered, all manufactured/mobile home residents must evacuate regardless of location.
- Decide **NOW** where you would go if you were ordered to evacuate. You may choose a hotel, motel, or the home of a friend or relative in a safe location. You may want to leave the region entirely.
- Check your disaster supplies kit and obtain the items you need.
- If you need special assistance during an evacuation, register immediately with the Mayor's Citizens Response Team by calling (409) 797-3723.
- Plan for your pets.



Hurricane Season Weather Terms

Tropical Depression. A disturbance with a clearly defined low-pressure area; high wind speed is 38 mph.

Tropical Storm: A distinct low-pressure area defined by a counterclockwise rotating circulation with winds of 39 - 73 mph.

Hurricane. Once a tropical storm's constant wind and speed reaches 74 mph or greater, it is classified as a hurricane. In the western Pacific hurricanes are called typhoons. Similar storms in the Indian Ocean are called cyclones.

Hurricane Warnings and Advisories

Tropical Storm Watch. An alert for a specific area that a tropical storm may pose a threat within 36 hours

Tropical Storm Warning. An alert that tropical storm conditions, including sustained winds of 39 to 73 mph are expected in specific areas within 24 hours.

Hurricane Watch. An alert for specific areas that hurricane conditions pose a threat to an area within 36 hours.

Hurricane Warning. An issued when hurricane conditions (winds of 74 miles per hour or greater, or dangerously high water and rough seas) are expected in 24 hours or less. All precautions should be completed immediately.

Evacuation Order. The most important instruction you will receive. The Mayor will authorize the level and the extent of the evacuation from voluntary through mandatory.

Hurricane Hazards

Hurricanes can combine storm surge, powerful winds, tornadoes, and torrential rains into a devastating combination.

Storm Surge. Storm surge is an abnormal rise in sea level 50 to 100 miles wide that sweeps across the coast near where the "eye" of the hurricane makes landfall. The surge of high water, topped by waves, is devastating. Along the immediate coast, storm surge is the greatest threat to life and property. Most hurricane-related deaths are caused by drowning.

Winds. Hurricane force winds, 74 mph or more, can destroy buildings and mobile homes. Debris can become flying missiles in hurricanes. Winds often stay above hurricane strength well inland. If you do not have to evacuate, it is extremely important to secure your home and cover your windows before the storm. Remember, mobile homes are extremely vulnerable to high winds and should be evacuated.

Heavy Rains and Floods. Widespread torrential rains often in excess of 10 inches can accompany a hurricane and can produce destructive floods. This is a major threat to areas well inland.

Tornadoes. Hurricanes also produce tornadoes, which add to the hurricane's destructive power.



Before Storm – Planning Ahead

Hurricane Season is June 1 – November 30. Be Prepared!

Preparing yourself and your property against hurricanes, storms or possible flooding can be an awesome task when you consider the dozens of large and small details you must handle, but you can do it if you have a plan. Advanced planning helps minimize the tasks left to complete as a hurricane approaches.

What Should I Do?

These simple tasks could save your life and your home.

- Listen for weather updates on local radio ([KTRH News Radio 740AM](#)) and television stations or on your NOAA Weather Radio. Don't trust rumors, and stay tuned to the latest information.
- Check your disaster supplies kit. Obtain any needed items.
- Refill prescriptions. Maintain at least a one to three month supply during hurricane season.
- Check your insurance policies. Organize important documents into an easy to transport file. Photo identification and other documentation will be required in the event of an evacuation and reentry. Please see reentry plan for specific information.
- Clear yard of all loose objects, such as potted plants, bicycles and trashcans.
- Protect your windows and glass doors.
- Store valuables/irreplaceable treasures in your empty appliances - washer, dryer, dishwasher, oven, microwave.
- Brace double entry and garage doors at the top and bottom.
- Fill your car's gas tank and check oil, water, and tires. Gas pumps don't operate without electricity.
- Secure your boat early. Drawbridges will be closed to boat traffic after an evacuation order is issued.
- Leave the swimming pool filled and super-chlorinated. Cover the filtration system.
- Get cash. Banks and ATMs won't be in operation without electricity and few stores will be able to accept credit cards.
- Keep a set of tools with you during the storm.



Before hurricane season begins



Make an evacuation plan well in advance.

- Determine your family's final destination.
- Check the most up to date City of Galveston evacuation map & prescribed hurricane evacuation routes.
- Know how many people will be traveling in your party.

Prepare a disaster supplies kit that includes the following items:

- Flashlight and extra batteries
- Portable, battery-operated radio and extra batteries
- First-aid kit and manual
- Duct tape
- Water & containers (1 gallon per person per day for two weeks)
- Non-perishable food items
- Non-electric can opener
- Essential medicines
- Camera & film
- Plastic trash bags
- Mosquito repellent
- Cash and credit cards
- Sturdy shoes
- Toiletries



- If evacuating, also include the following items:
 - Food and beverage coolers
 - Pillows, blankets, & sleeping bags
 - Important papers:
 - Property inventories
 - Insurance paperwork
 - Driver's License or personal identification card
 - Special medical information

Make arrangements for pets.

- Pet owners are responsible for disaster planning for their pet(s). If you evacuate, plan for your pets as well.
- Compile a pet survival kit:
 - Proper ID collar and rabies tag/license (keep your pets vaccinations up-to-date. Pet shelters will require proof that your pet has had its shots in the last 12 months.)
 - Carrier or cage
 - Leash
 - Ample food supply
 - Water/food bowls
 - Any medications
 - Specific care instructions
 - Newspapers, cat litter, scoop, plastic trash bags for handling waste
 - Proper ID on all belongings
 - Non-electric can opener



Educate your family how to respond to a hurricane.

- Teach family members how and when to turn off gas, electricity, and water.
- Teach children how and when to call 9-1-1, police, or fire department.
- Teach family which radio station to tune to for emergency information, for Galveston, this is [KTRH News Radio 740AM](#).

Develop emergency communication plan for family.

In case family members are separated from one another during a disaster (a real possibility during the day when adults are at work and children are at school), have a plan for getting back together.



During an emergency it may be easier to call long distance. Designate an out-of-town relative as a “family contact” and instruct all family members to call and check in with that person before, during (if possible), and after the storm with their location and plans. Make sure everyone in the family knows the name, address, and phone number of the contact person.

Make plan & buy supplies to secure and protect property.



- Protect your windows. Permanent shutters are the best protection. A lower cost approach is to put up plywood panels. Use 1/2 inch plywood – marine plywood is best – cut to fit each window. Remember to mark which board fits which window. Pre-drill holes every 18 inches for screws. Do this long before the start of storm season.
- Keep your home in good repair. Tack down loose roofing and siding. Trim dead or broken branches from trees.
- The experts agree that homes can survive a hurricane's fury if a few relatively minor improvements, such as bracing the gable ends of roofs, are made. Contact your builder, a professional engineer, licensed contractor or architect to inspect your home for structural integrity.
- Make plans and purchase materials to secure your home before the storm threatens (plywood, shutters, and/or protective window film; plastic sheeting, nails, etc.).
- Purchase a battery-powered NOAA Weather Radio.
- Inventory your property (a video tape is excellent) and store the information with insurance papers in a safe place (such as safety deposit box) or send a copy to a relative out of the area.
- Make sure your address number is clearly marked on your home.

Check your insurance policies.

Review your insurance policies with your agent now. Do you have homeowner's, windstorm, and flood insurance? Homeowner's insurance does not cover damage to your

home or belongings caused by flooding and/or wind. Flood and wind insurance is available through an insurance agent or broker. If your home is substantially damaged (50% or greater), you may be required to rebuild to existing codes. Will you be covered? Homeowners and tenants - are your contents and personal belongings covered? Will your insurance cover replacement costs?

You can find out about the National Flood Insurance Program and the Texas Windstorm Insurance Association Program through your local insurance agent.

During a Hurricane Watch

(A Hurricane Watch is issued when there is a threat of hurricane conditions within 24-36 hours.)

- Listen to a battery-operated radio or television for hurricane progress reports.
- Check emergency supplies.
- Fuel car.
- Bring in outdoor objects such as lawn furniture, toys, and garden tools and anchor objects that cannot be brought inside.
- Secure buildings by closing and boarding up windows. Remove outside antennas.
- Turn refrigerator and freezer to coldest settings. Open only when absolutely necessary and close quickly.
- Store drinking water in clean bathtubs, jugs, bottles, and cooking utensils.
- Store valuables and personal papers in a waterproof container on the highest level of your home.
- Review evacuation plan.
- Moor boat securely or move it to a designated safe place. Use rope or chain to secure boat to trailer. Use tie-downs to anchor trailer to the ground or house.

During a Hurricane Warning

(A Hurricane Warning is issued when hurricane conditions – winds of 74 mph or greater, or dangerously high water and rough seas – are expected in 24 hours or less.)

- Listen constantly to a battery-operated radio or television for official instructions.
- If in a mobile home, check tie downs and evacuate immediately.
- Avoid elevators.
- 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 candles and kerosene lamps, as a source of light.
 - If power is lost, turn off major appliances to reduce power “surge” when electricity is restored.

If officials indicate evacuation is necessary:



- Leave as soon as possible. Avoid flooded roads and watch for washed-out bridges.
 - Secure your home by unplugging appliances and turning off the main electricity breaker, the gas valve at each appliance, and the main water valve.
 - Call your designated family contact and inform them of your travel plans and final destination.
 - Check your insurance policies. Organize important documents into an easy to transport file. Photo identification and other documentation will be required in the event of an evacuation and reentry. Please see reentry plan for specific information."
 - If time permits, and you live in an identified surge zone, elevate furniture to protect it from flooding or better yet, move it to a higher floor.
- Pack your pre-assembled disaster supplies kit, protective clothing, blankets, and sleeping bags in your vehicle. Load your pet(s) and your pet's survival kit into your vehicle.
 - Lock your home and leave.

If You Stay Home

- Clean containers for drinking water and your bathtub for storing clean water. Line the tub with plastic sheeting or a clean shower curtain, or caulk the drain with silicone caulking - it will hold water for weeks and it cleans up easily when dry. Plan on three gallons per person, per day for all uses.
- Obtain at least a two-week supply of nonperishable foods. Don't forget a non-electric can opener.
- During the storm, stay inside and away from windows, skylights, and glass doors. Find a safe area in your home - an interior, reinforced room, closet, or bathroom on the lower floor.
- Wait for official word that the danger is over. Don't be fooled by the storm's calm "eye".
- If flooding threatens your home, turn off electricity at the main breaker.
- Offer your home as shelter to friends or relatives who live in vulnerable areas or mobile homes.
- If you lose power, turn off major appliances, such as the air conditioner and water heater to reduce damage when electrical power is restored.

Advice For Older Adults

Galveston is particularly vulnerable to hurricanes and elders are especially susceptible to their effects. Those who live alone, or are without the support family or friends, must take special precautions in the event of an emergency



situation. People who are frail or disabled (either mentally or physically) may need special assistance from family members, friends or social service agencies. Older adults who are also caregivers may require outside assistance. Excessive stress and anxiety can contribute to increased episodes of illness, particularly for persons with heart disease and other illnesses.

If an older adult lives in a nursing home, adult living facility or boarding home, the administrator should be contacted to learn about the evacuation plan for that facility.

Home Health Care And Home Bound Patients

- Notify your health agency where you will be during a hurricane and determine when care can be reestablished.
- If you are homebound and under the care of a physician, but not a home health agency, contact your physician.
- If you require respirators or other electric-dependent medical equipment, you should make prior medical arrangement with your physician.
- If you require oxygen, check with your supplier about emergency plans.
- If you evacuate, remember to take medications, written instructions regarding your care, special equipment, and bedding with you.

If you need assistance in an evacuation, please register **NOW** with the Mayor's Citizens Response Team (CRT) by calling (409) 797-3723.

During The Storm

Evacuation Assistance

If you will need assistance or transportation during an evacuation because of age, disability or other special needs, please contact the Mayor's Citizens Response Team (CRT) by calling (409) 797-3723 today.



DO NOT CALL 9-1-1 FOR HURRICANE INFORMATION! 9-1-1 IS FOR EMERGENCIES ONLY!

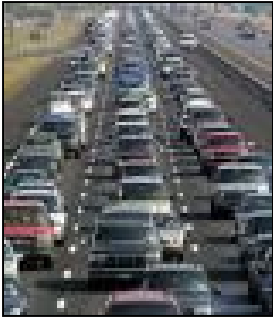
During actual hurricane operations, please restrict calls to your local emergency response agencies to those that are absolutely necessary (for bona fide emergency assistance). The City of Galveston's [Emergency Operations Center](#) can be contacted by calling (409) 797-3710. Local radio and television stations should be monitored to obtain current hurricane status and general evacuation information.

After The Storm

What to Expect

After major hurricanes, residents may have to endure a hot, humid weather without power, water, food, or any of the services and businesses we normally rely on. Immediate response may not be possible, so residents must be prepared to be self-reliant for several weeks. Here is how you can prepare:

Reentry



- [Click here to view the City of Galveston's reentry plan.](#)
- **BE PATIENT.** Access to affected areas will be controlled. You won't be able to return to your home until search and rescue operations are complete and safety hazards, such as downed trees and power lines, are cleared. It may take up to three days for emergency crews to reach your neighborhood and may take two to four weeks or more before utilities are restored.
- Stay tuned to a local radio station ([KTRH News Radio 740AM](#)) for advice and instructions about emergency medical aid, food, and other forms of assistance.
- Avoid driving. Roads will be littered with debris, which may puncture your tires!
- Control your curiosity and don't go sightseeing, especially at night. You might be mistaken for a looter and shot!

For Your Safety

- Avoid downed or dangling utility wires. Metal fences may have been "energized" by fallen wires. Be especially careful when cutting or clearing fallen trees. They may have power lines tangled in them.
- Beware of snakes, insects, or animals driven to higher ground by floodwaters.
- Enter your home with caution. Remove plywood/shutters. Open windows and dry your home.
- If there has been flooding, have an electrician inspect your home or office before turning on the breaker.
- Be careful with fire. Do not strike a match until you are sure there are no breaks in nearby gas lines. Avoid using candles. Use battery-operated flashlights and lanterns instead.
- Limit grills for cooking to outdoor, well-ventilated areas.
- Assess and photograph damage to your home and its contents.
- Use your telephone sparingly. Limit calls to emergencies to help maintain open lines for emergency communications.
- After the storm has passed, be careful in allowing your pet outdoors. Familiar scents and landmarks may be altered and your pet could easily be confused and become lost. Downed power lines, animals and insects brought in with high

water could present real dangers to your pet. Take care not to allow your pet to consume food or water, which may have become contaminated.

Repairs



- Make temporary repairs to correct safety hazards and minimize further damage. This may include covering holes in the roof, walls or windows, bracing, and debris removal.
- Only hire licensed contractors to do repairs. Check with local City's [Planning and Community Development Department](#) (409) 797-3660 to ensure the contractor is licensed.
- If you hire a contractor, do not pull the permits for them. If the contractor requests that you act as the contractor, this may be an indication that he is not properly licensed and is not entitled to permitting privileges.

Generators

Fueled by gas, generators can run appliances and fans. Sizes range from 750 watts, which will run a fan and a light, up to 8,000 watts, which will practically run a house (except for the air conditioner). Refrigerators require 400-1,000 watts. If you have lost power, don't connect a portable generator directly to the building wiring (this could injure or kill neighbors or electrical crews). Plug appliances, etc. directly into the generator, place generator outdoors or in a well-ventilated area. Remember to check the oil every time you add gas. Conserve fuel by alternating appliances. For example, refrigerators can be kept cool by supplying power eight hours a day. Store spare fuel away from the generator in well ventilated areas.

Clean-up Precautions

Call professionals to remove large, uprooted trees, etc. Always use proper safety equipment such as heavy gloves, safety goggles, heavy boots, light colored long sleeve shirts, and long pants. Tie back long hair and wear a hat and sunscreen. Drink plenty of fluids, rest between objects, and ask for help when you need it. Lift with the legs, not with the back. Don't burn trash. If you can't identify something, don't touch it. Be especially cautious of downed electrical wires. Be extremely careful with a chain saw - don't use it for the first time to clear your yard - and always heed safety warnings.

Water Precautions

Whenever widespread flooding occurs there is a potential for bacterial contamination. Bacteria, such as shigella and salmonella, can lead to life threatening dehydration for people and their pets if untreated by antibiotics. Disinfect any tap water you drink or use for cooking or cleaning. You must purify the tap water until officials notify you of its safety. Bring water to a rolling boil for a full five minutes or use chemicals (eight drops of chlorine bleach or iodine per gallon) or water purification tablets, as directed. Let the

water sit at least 10 minutes before using. Water you saved in clean containers before the storm will be fine for 2-3 weeks. To be sure, add a couple of drops of chlorine or iodine per gallon before drinking. Listen to Public Health advisories regarding disposal of sewage. If necessary, use doubled-bagged garbage bags to collect human waste.

Other precautions to remember: Use disinfected water for brushing teeth, cleaning contact lenses, and washing hands. Keep soap and disinfected water near the toilet for washing hands. This is an important way to avoid spread of disease. This is especially important if you have any cuts, etc. Apply a disinfectant such as alcohol or antibiotic cream after washing with the disinfected water.

Disaster Assistance

Volunteer organizations and local, state and federal government agencies will work together in a major disaster to provide aid to families and businesses affected by the storm. If a federal disaster is declared, Disaster Recovery Centers (DRCs) will be set up to explain programs and provide long-range support (temporary housing, business subsidies, etc.)