



The Official Coastal Bend *Hurricane Guide*

PLAN ACT SURVIVE



Welcome



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Hurricanes are one of nature's most serious and dangerous threats. During the record breaking tropical seasons of 2004 and 2005, we saw the devastating impacts that violent hurricanes had on coastal communities.

The coastal bend has not experienced a direct assault from a MAJOR hurricane in 37 years, when Hurricane Celia crossed our coastline in 1970. It's not a matter of IF another hurricane will strike, but WHEN the next storm will make landfall and change our community forever.

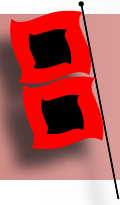
Thank goodness during 2006, the El Niño weather pattern provided unfavorable atmospheric conditions for the formation of tropical storms in the Gulf of Mexico. This year we do not foresee El Niño to be a strong inhibiting factor for this upcoming hurricane season. Developing La Niña conditions may contribute to a greater number of storms. In fact, science indicates an active hurricane period will persist across the Atlantic and Gulf of Mexico for another decade or longer. Remember, it only takes one hurricane in our region to make it a bad season.

Retired National Hurricane Center Director Max Mayfield recently stated, "You can't afford to wait for the hurricane to come knocking at your door before you get prepared." That is why it is important to be prepared even before the hurricane season begins and develop a PLAN. This 2007 Hurricane Guide for the coastal bend will provide you with the critical information you need to make a PLAN to protect yourself, your family, your property and business before, during and after the Hurricane Season.

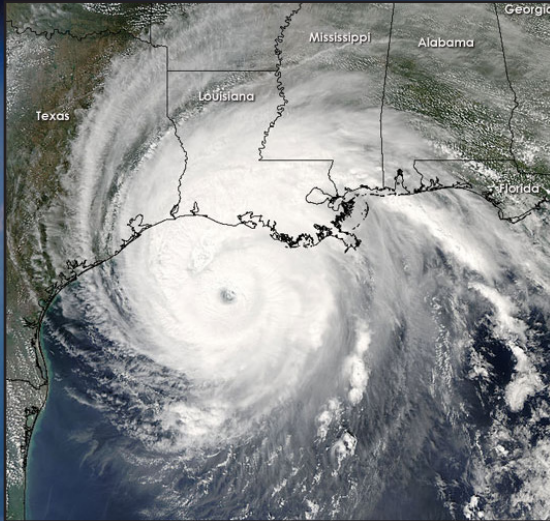
Sincerely,

Scott Cordero
Meteorologist-In-Charge
National Weather Service
Corpus Christi, Texas
Serving and Protecting South Texas Since 1887





About the Hurricane



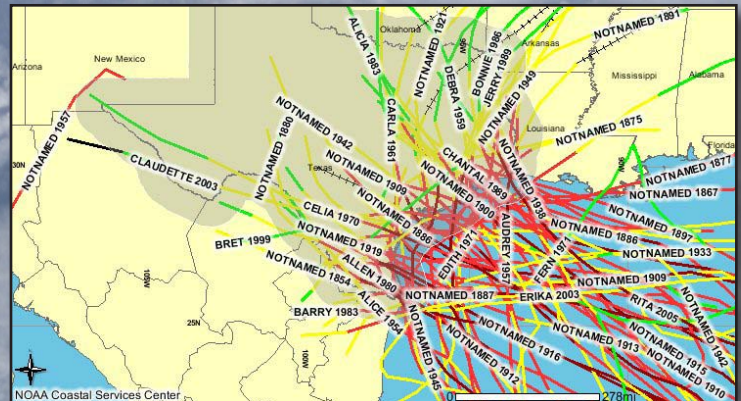
Hurricanes form over warm ocean waters, like those found in the Gulf of Mexico. The hurricane season starts June 1 and ends November 30. The peak threat for the Texas coast exists from August through September. However, hurricanes can and have struck the Texas coast during every month of the hurricane season.

Left: High resolution satellite image of Hurricane Rita over the northwest Gulf of Mexico. Image--NASA

Below Right: Historical perspective of hurricane landfalls in Texas since 1851.



Fifty-five hurricanes have struck the Texas coast since 1851. That is **one every 3 years** on average.



Definitions to Know

L **TROPICAL DEPRESSION:** An organized system of persistent clouds and thunderstorms with a closed low-level circulation and maximum winds of 38 mph or less.

S **TROPICAL STORM:** An organized system of strong thunderstorms with a well defined circulation and maximum sustained winds of 39 to 73 mph.

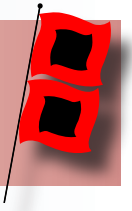
C **HURRICANE:** An intense tropical weather system with a well defined circulation and sustained winds of 74 mph or higher.

TROPICAL CYCLONE: A general term used to describe a tropical depression, tropical storm, or hurricane.

HURRICANE/TROPICAL STORM WATCH: Hurricane or Tropical Storm conditions are possible in the watch area within 36 hours.

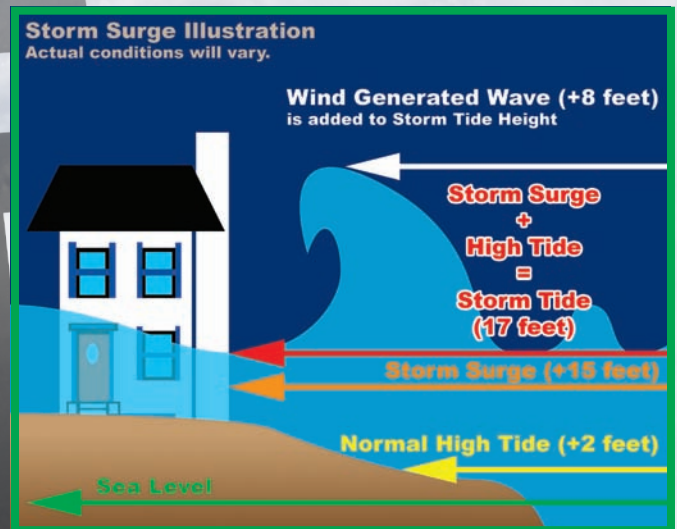
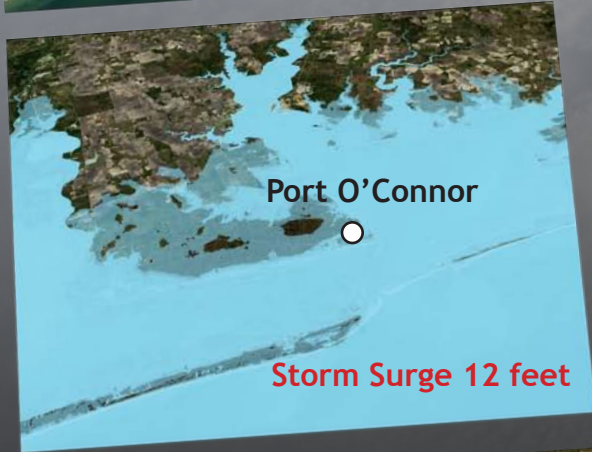
HURRICANE/TROPICAL STORM WARNING: Hurricane or Tropical Storm conditions are possible in the warning area within 24 hours.

Storm Surge



Storm surge is a large dome of water, 50 to 100 miles wide that sweeps across the coastline along and to the right of where the eye makes landfall. The stronger the hurricane winds, the higher the storm surge. The storm surge can be more than 15 feet in major hurricanes. Storm surge poses the greatest threat to life and property for coastal communities.

Computer simulations of a major hurricane landfall clearly show the huge impact a storm surge could have on a low lying coastal community. Communities such as Port O' Connor (pictured to the left) would be completely submerged if a major hurricane made a direct hit.

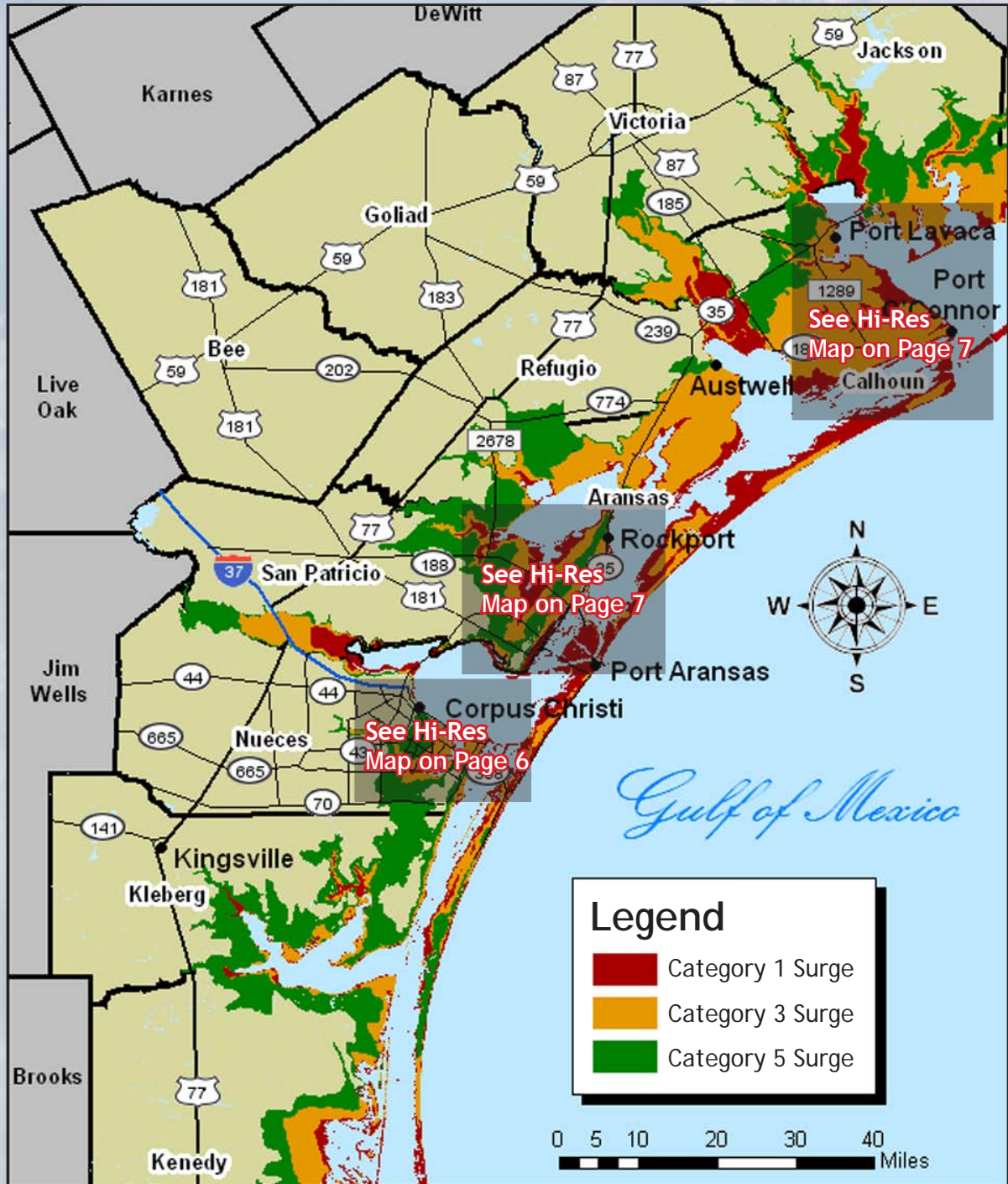


A major hurricane's storm surge has the potential to submerge and destroy most of the coastal properties in Port O'Connor, Port Aransas, Rockport, and Corpus Christi. Thus to avoid losing your life, evacuation to areas well inland would be essential before a major hurricane strikes.

Graphics courtesy of Gordon Wells from the Center for Space Research and Mike Peacock from the Governor's Division of Emergency Management.

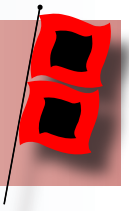
Storm Surge

South Texas Storm Surge Inundation Map

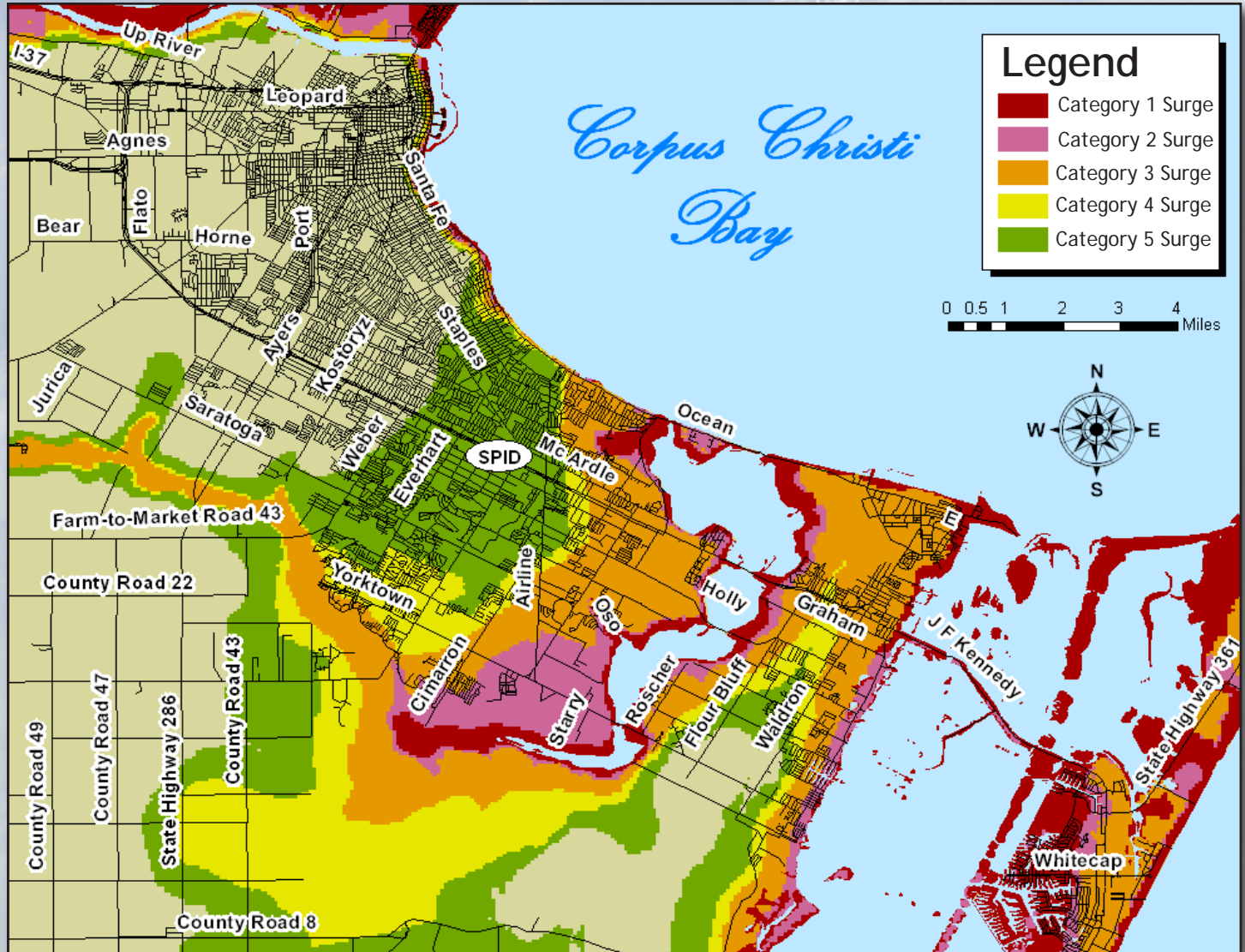


Above: This map indicates the potential inland penetration of the storm surge based on a given category of hurricane. Accuracy is +/- 20%.

Storm Surge Maps



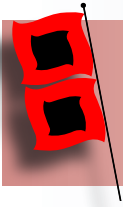
City of Corpus Christi Storm Surge Inundation Map



Above: Storm surge inundation map for the city of Corpus Christi. Accuracy is +/- 20%.

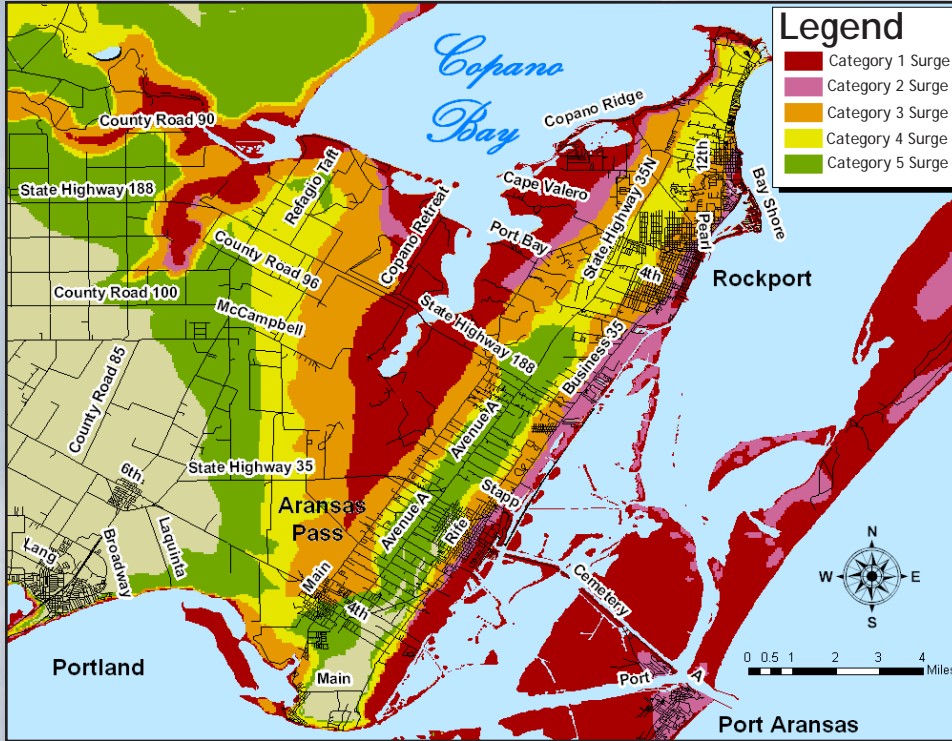
- ▶ In 1875 a major hurricane with winds up to 150 mph struck Indianola, TX. The resultant storm surge was 15 feet high, inundating the town and killing 176 people.
- ▶ In 1919 a major hurricane with winds up to 125 mph struck Corpus Christi, TX. A 16 foot storm surge spread through the downtown area killing 284 people, second only to the Great Storm of 1900 that hit Galveston.
- ▶ In 1961, Hurricane Carla, with wind gusts up to 170 mph, produced the highest recorded storm surge along the Texas coast. It was 22 feet at Port Lavaca.





Storm Surge Maps

Rockport/Port Aransas



Above: Storm surge inundation map for the Rockport/Port Aransas area. Accuracy is +/- 20%.

"The greatest potential for loss of life related to a hurricane is from the storm surge."

- National Hurricane Center

Right: Storm surge inundation map for the Port O'Connor/Port Lavaca area. Accuracy is +/- 20%.

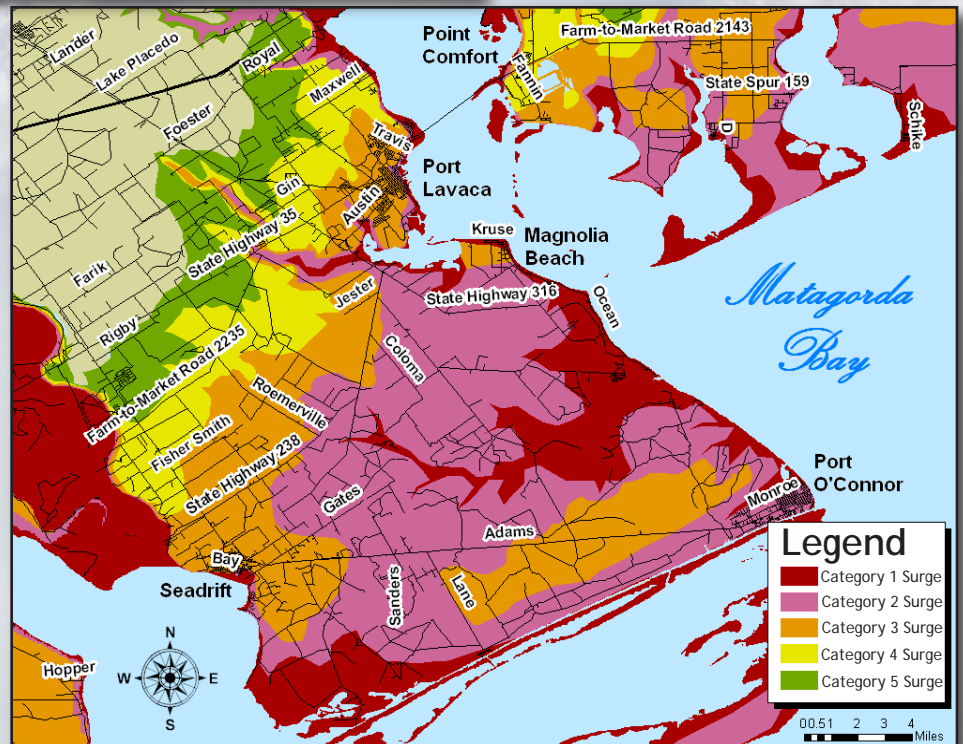


More Info?

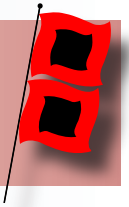
Want to see more high resolution storm surge maps? Go To:

www.weather.gov/corpuschristi
OR
www.srh.noaa.gov/crp

Port O'Connor



Winds



Hurricane force winds of 74 mph or more can destroy buildings, mobile homes, trees and power poles. Debris such as signs, roofing material, siding, and small items left outside become flying missiles in a hurricane. The strongest winds occur in a region of the hurricane called the eyewall. Wind gusts in the right side of the eyewall are the most destructive. Hurricane force winds can be felt as far as 150 miles from the coast.

It is imperative to ensure your home or business is well constructed to minimize the damage from the wind. See page 8 in this guide for cost effective home improvement tips that can help you reduce your damage from a hurricane.



Above: This large piece of plywood was driven through the trunk of a palm tree during the fierce winds of Hurricane Andrew in south Florida in 1992.



MOBILE HOME RESIDENTS MUST EVACUATE



- ▶ No mobile home or manufactured home - no matter how new it is - can provide safe shelter from hurricane force winds.
- ▶ Straps or other tie-downs ***will not*** protect a mobile home from the high winds associated with a hurricane.
- ▶ Mobile home residents ***must evacuate*** when told to do so by local authorities.

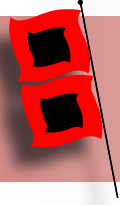
Left: A destroyed mobile home in Mindendorf, SC is a result of tornado damage from Hurricane Frances. *Photo: Marvin Nauman/FEMA News Photo.*



The Saffir-Simpson Hurricane Intensity Scale



- | | | | |
|--------------|----------------------|--------------|----------------------------|
| ▶ Category 1 | Winds 74 to 95 mph | ▶ Category 4 | Winds 131 to 155 mph |
| ▶ Category 2 | Winds 96 to 110 mph | ▶ Category 5 | Winds greater than 155 mph |
| ▶ Category 3 | Winds 111 to 130 mph | | |



Flooding and Tornadoes

Inland Flooding

Inland freshwater flooding from tropical cyclones is a major threat to people well inland from the coast. Very slow moving tropical storms and hurricanes can produce tremendous rains of 20 to 30 inches or more in a very short amount of time, resulting in disastrous flooding.

Right: These homes are completely submerged under several feet of water as a result of inland freshwater flooding.



Tornadoes

Tropical cyclones many times produce tornadoes adding to the storm's destructive power. Tornadoes are most likely to occur in the right front quadrant of the tropical cyclone in the eyewall region. Tornadoes can also occur in the outer rain bands as far as 150 miles from the center of the storm. The tornadoes are usually weak and short lived, but still pose a serious threat to life and property.

Left: Tornado spawned by Hurricane Emily in Duval County, TX.



In the last 30 years, inland freshwater flooding has killed more people than any other tropical cyclone related weather hazard. Flooding associated with Hurricane Beulah killed 39 people in 1967.



In 2004, Hurricane Ivan spawned 127 tornadoes which is the most known tornadoes to be spawned by a tropical system. This broke the previous record of 115 set by Hurricane Beulah in south Texas.

Planning and Preparing



Preparing Your Home Before the Storm

Proper hurricane preparations made ahead of time will not completely protect your property from damage. However, following a few simple tips may greatly reduce the damage to your home and property.



Above: Hurricane clips attaching roof trusses to side walls.



Important Home Preparation Tips

Elevation Matters

- ▶ Know the elevation of your home! Are you in a flood and/or evacuation zone?

Mobile Homes

- ▶ Check tie-downs for rust or breakage.
- ▶ Residents of mobile homes *must evacuate* when told to do so!!

Landscaping

- ▶ Trim trees, shrubbery and dead limbs, especially ones close to your home.
- ▶ Repair or replace broken or damaged fences.
- ▶ Shredded bark is preferred instead of small gravel or stone bedding.

Roofing

- ▶ Inspect the roof for loose tiles, shingles or debris. Consider replacing old or damaged shingles with new ones rated for hurricane force winds.
- ▶ Check for and/or install hurricane clips to secure roof trusses to side walls. (See above Image)
- ▶ Clear loose and clogged rain gutters and downspouts.

Doors

- ▶ Reinforce garage doors and tracks or replace with a hurricane tested door.
- ▶ Reinforce double entry doors with heavy duty foot and head bolts.
- ▶ Use a security dead bolt with a one inch minimum bolt length.
- ▶ Doors may be shuttered, but one entry must be left easily accessible.

Windows

- ▶ If possible, install tested/manufactured hurricane shutters.
- ▶ Inspect existing shutters to ensure they are in good working order.
- ▶ Alternative: Use 5/8" or greater exterior grade plywood secured by 2 1/2" screws and/or special clips. Obtain wood and fasteners, cut wood to size (labeling pieces), pre-drill holes and place anchors on homes.
- ▶ Store shutters or plywood lying flat to avoid warping when not in use.



Planning and Preparing



Business and Employee Preparation



Important Tips for Businesses

- ▶ Establish a temporary location for business operations in case your facility is damaged.
- ▶ Give employees enough time to secure their homes and families.
- ▶ Consider paying employees before they leave to prepare their homes.
- ▶ Identify and protect vital records. Backup and store key files off site.
- ▶ Protect electronic equipment from possible water damage.
- ▶ Have extra cash and blank checks in case extra money is needed after the storm.
- ▶ Identify a safe room for employees that must remain in the building.
- ▶ Develop a 24-hour emergency contact with phone numbers of key employees.
- ▶ Set up telephone numbers for employees to check in and receive company information.

Protecting Your Boat - Marine Preparations



Important Tips for Boat Owners

- ▶ Check your marina contract for policies and procedures for hurricanes.
- ▶ Check with the manufacturer for proper ways to secure your boat during a storm.
- ▶ Consider moving arrangements well in advance of an approaching storm.
- ▶ Trailer boats should be removed from the water and securely stored at least 48 hours before a hurricane is expected to make landfall.
- ▶ Purchase necessary hurricane materials such as additional mooring lines, crew anchors, fenders, fender boards, chafing gear, and anchors.
- ▶ Safe storm moorings should consist of good condition ropes of sufficient diameter and length, with at least three or four substantial anchor points.
- ▶ Do not moor parallel to bank. Receding tides often breach or capsize boats in this type of anchorage.

Special Needs and Pets



General Preparations for People with Special Needs



Preparation in advance of hurricane season is essential, especially for people with special needs. It is essential that a destination is identified ahead of time that can accommodate people with special needs. Shelters should be considered as a **last resort** when people with special needs evacuate because many shelters cannot provide the attention required. Assisting elderly neighbors and acquaintances with pre-hurricane preparations is encouraged.



Important Special Needs Preparation Tips

- ▶ Identify with whom you will stay in the event an evacuation become necessary.
- ▶ Make arrangements for transportation in the event you evacuate. Make sure that your transportation can accommodate any equipment or other supplies that need to be taken with you.
- ▶ Make sure you have the following items that should be stored in advance:
 - ✓ *Extra copies of your prescriptions in case your physician's office is damaged and not operational.*
 - ✓ *At least a 1 month supply of medications.*
 - ✓ *Identification.*

Preparing For Your Pet's Safety

Your pet should be part of your overall hurricane preparation plans. Below are a few important things to help you prepare:



- ▶ Make sure your pet's vaccinations are current and have proof they are current. **DO NOT** assume that a public shelter or hotel will accept your pet.
- ▶ Be sure to have a current photo of your pet.
- ▶ Each animal should have a properly sized pet carrier. The carrier should be large enough for the animal to stand up and turn around.
- ▶ Make sure your pet has a proper ID collar.
- ▶ Pack enough food and bottled water for the duration of your evacuation. **DO NOT** let your pet eat food or drink water from outside that may have become contaminated.
- ▶ Be sure to pack all medications your pet may need along with a muzzle, collar, leash, paper towels, and trash bags.



Contact Info/Supply Kit

The Coastal Bend - Texas Chapter of the American Red Cross recommends that you have the following items in your Hurricane Supply Kit. Do not forget to have a family meeting before hurricane season and review your communication information and evacuation plan. Make sure the contact information such as home, work, school, cell phone numbers, and your "Out of Town" contact person's information is current.



American Red Cross

For More Information

www.cbtreddcross.org

(361) 887-9991

Emergency Contact Information

Out of Town Contact Address: _____

Out of Town Contact Phone Number: _____

Work Telephone Number: _____

Cell Number/Spouse Cell Number: _____

Children Cell Number: _____

School Telephone Number: _____

Doctor Telephone Number: _____

Bank/Credit Card Telephone Number: _____



HURRICANE SUPPLY KIT



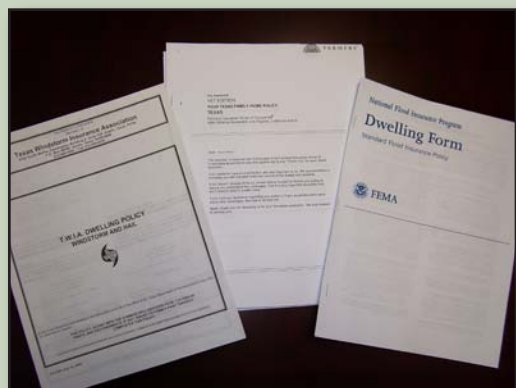
- ▶ At least a 7-day supply of non-perishable food and a manual can opener
- ▶ At least a 7-day supply of water. One gallon per person per day is recommended
- ▶ Battery powered portable television or radio with extra batteries
- ▶ Flashlight with extra batteries
- ▶ First Aid kit and manual
- ▶ Sanitation and hygiene items such as instant hand sanitizing gel, moist towelettes, toilet paper, and feminine hygiene products
- ▶ Matches in a waterproof container
- ▶ Whistle
- ▶ Kitchen accessories and cooking utensils
- ▶ Cash
- ▶ Extra clothing, blankets, and sleeping bags
- ▶ Photocopies of identification, insurance, prescriptions, household inventory, credit cards, and your latest utility bill
- ▶ CD or photocopies of important documents such as birth/marriage certificates and titles
- ▶ Prescription medications, eyeglasses, contact lens solution, and hearing aid batteries
- ▶ Formula, baby food, diapers, and pacifiers
- ▶ Pet carriers and leashes for each animal evacuating with you
- ▶ A good map showing county roads and highways
- ▶ Tire repair kit, booster cables, pump, and flares
- ▶ White distress flag
- ▶ Toys and games for children
- ▶ List of family phone numbers and addresses outside the area

Insurance Tips



Insurance Preparation Tips -- Before the Storm

- ▶ When shopping for insurance, get quotes from different companies and consider financial strength and history of complaints from each company.
- ▶ Ask agents for discounts if available.
- ▶ New and existing policies **will not be written or modified** when a storm nears the Gulf of Mexico.
- ▶ Make sure you fully understand what perils are covered and excluded in your policy.
- ▶ Make sure your coverage is adequate to replace your home and contents in today's dollar.
- ▶ **DO NOT** cancel an old policy until you have a new policy in effect.
- ▶ Before hurricane season, prepare a photographic inventory of your home's contents and store it in a safe place.
- ▶ If your insurance company does not cover flood or windstorm perils, ask about coverage through the Texas Windstorm Insurance Association or the National Flood Insurance Program.



Some Important Web Information

National Flood Insurance Program
www.fema.gov/business/nfip

Texas Windstorm Insurance Association
www.twia.org

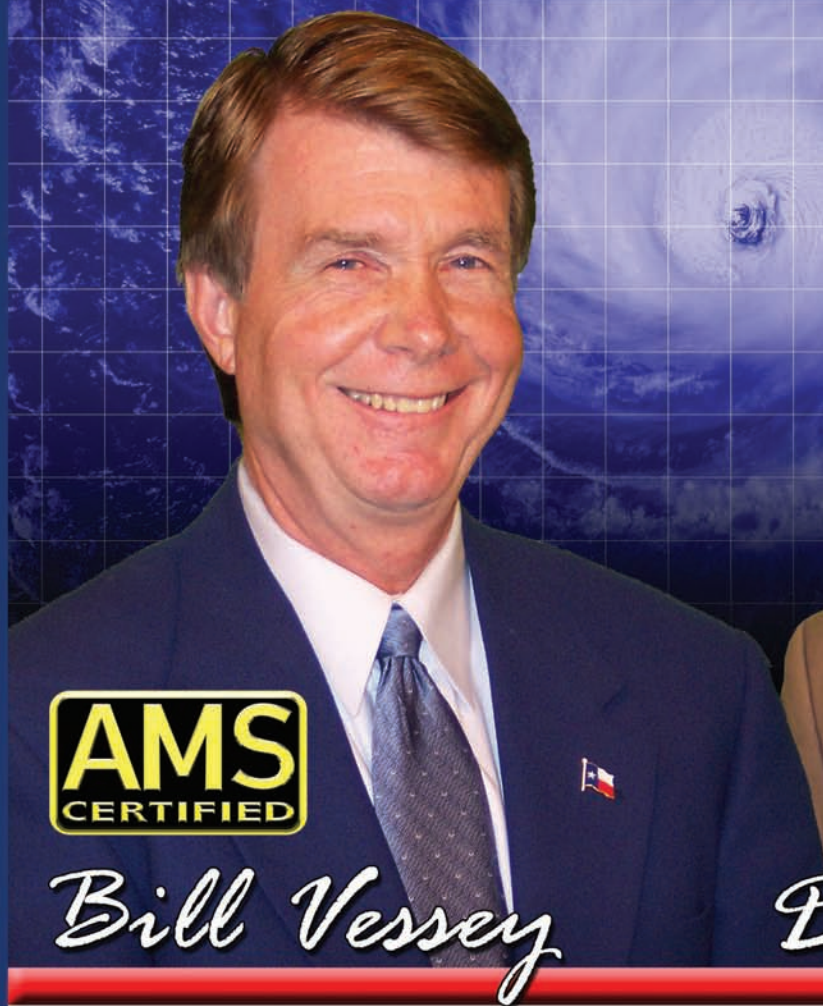
Texas Department of Insurance
www.tdi.state.tx.us/consumer

Insurance Tips -- After the Storm

- ▶ Give prompt written notice to your insurance company.
- ▶ If you cannot be easily contacted, give your insurance company the contact information of a trusted friend or relative who can reach you if necessary.
- ▶ Photograph or videotape damaged structures and all damaged property. Make a list of damaged or lost items.
- ▶ **DO NOT** throw out damaged property before your adjuster has inspected the debris unless it is a health hazard or impedes local cleanup.
- ▶ Protect your property from further damage.
- ▶ Keep an accurate record of temporary repair and living expenses if a loss of use is suffered.
- ▶ Along with insurance adjuster estimate for repairs to home, obtain two or more contractor estimates. Estimates must be broken down per line item.
- ▶ Expect insurance service within 1 week in most severely damaged zip codes (but longer in less damaged zip codes).
- ▶ Payment advancements are made to policy holder for home repairs, personal property and living expenses. Final payments are made only after completed repairs and adjuster review.

WHEN THE WEATHER IS AT IT'S WORST
WE'RE AT OUR BEST!

3 NEWS



Bill Vessey



Dave Cochran

- * Committed To The Safety Of South Texas
- * Exclusive Genesis Weather Forecasting Technology
- * Round The Clock Coverage When A Storm Threatens

24 Hour Weather Info Line: 814-WIND

www.kiiitv.com

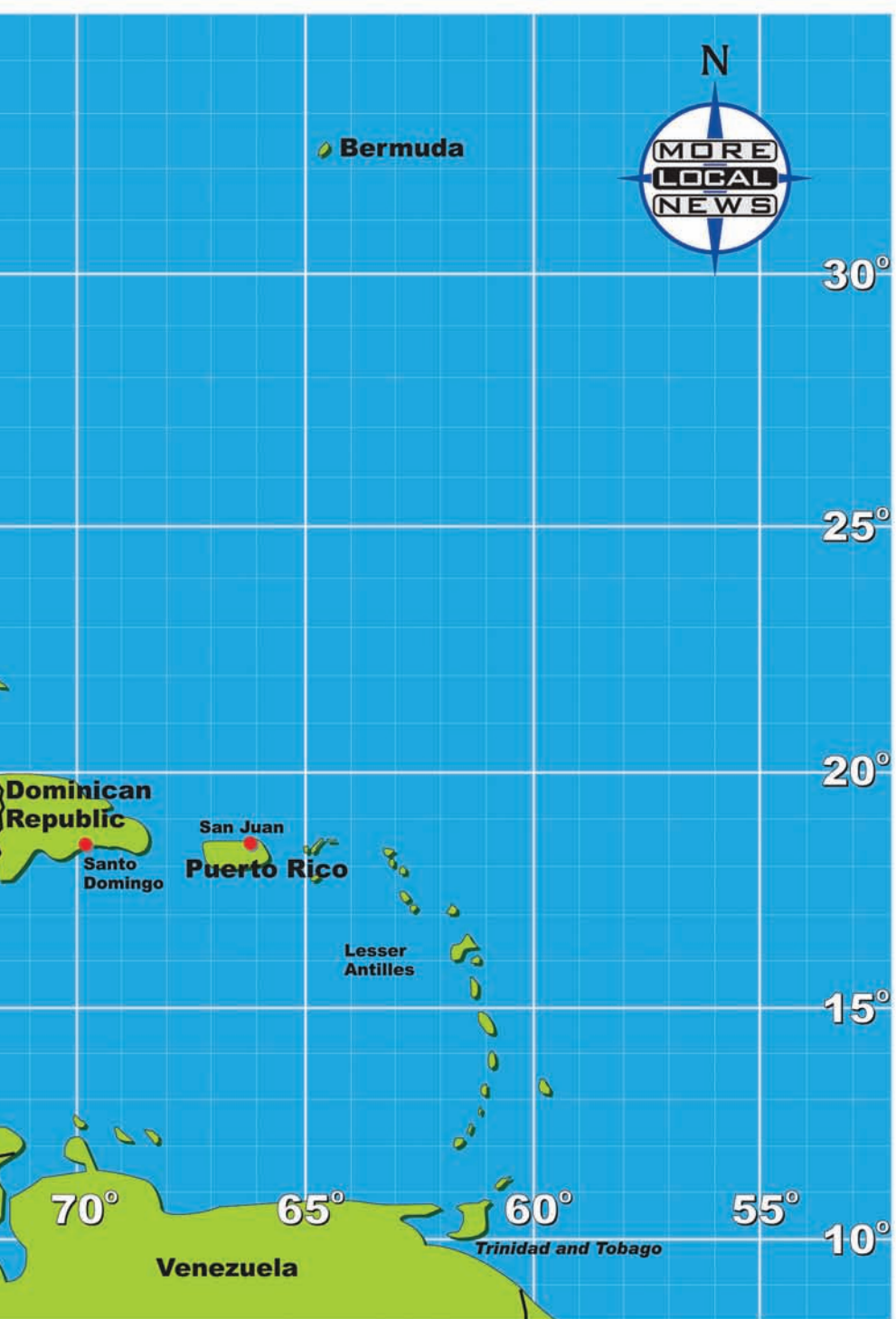


Hurricane Tracking Chart





**American
Red Cross**



2007 Hurricane Names

- Andrea**
- Barry**
- Chantal**
- Dean**
- Erin**
- Felix**
- Gabrielle**
- Humberto**
- Ingrid**
- Jerry**
- Karen**
- Lorenzo**
- Melissa**
- Noel**
- Olga**
- Pablo**
- Rebekah**
- Sebastien**
- Tanya**
- Van**
- Wendy**

Hurricane Forecasts



The National Hurricane Center (NHC) in Miami, FL is the official source for tropical cyclone advisories and forecasts and is responsible for issuing tropical cyclone watches and warnings for the United States.

Additional Weather Information

National Weather Service

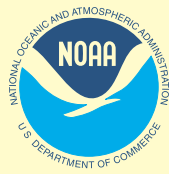
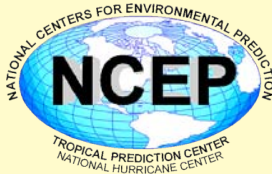
www.weather.gov/corpuschristi

National Hurricane Center

www.nhc.noaa.gov

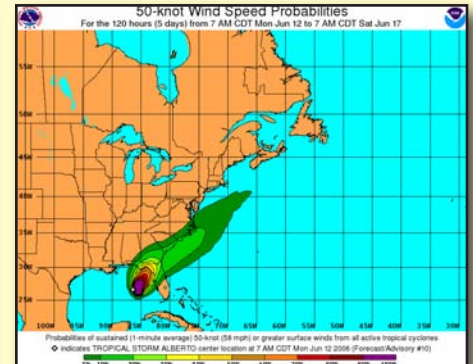
NWS 24-Hour Phone Recording

(361) 289-1861



Tropical Cyclone Products

- 🔥 Public Advisories
- 🔥 Forecast Advisories
- 🔥 Forecast Discussions
- 🔥 Wind Speed Probability Forecasts
- 🔥 Hurricane Local Statements
- 🔥 Inland Hurricane Watches and Warnings
- 🔥 Intermediate Public Advisories (every 2 to 3 hours close to landfall)



Utilizing and Interpreting NHC's Forecast Advisory

- ▶ The white uncertainty cone on the forecast advisory represents the 10-year average error. The center of the tropical cyclone **will remain in the white error cone only 67% of the time.**
- ▶ Remember that hurricane conditions can be felt hundreds of miles away from the center of the storm.
- ▶ **DO NOT** focus solely on the exact forecast track!
- ▶ **DO NOT** wait for a hurricane watch or warning before implementing your initial preparations, as it may be too late to complete them.



Final Checklists

Actions to Take When a Storm is in the Gulf

- ▶ Listen frequently to radio, TV, or NOAA weather radio for bulletins and forecasts of the storm's progress.
- ▶ Double check items in your emergency supply kit.
- ▶ Fuel and service your vehicles.
- ▶ Inspect and secure mobile home tie-downs.
- ▶ Make sure you have supplies to survive on your own for at least one week if you plan on staying.
- ▶ Board up windows (if shutters do not exist) in case storm moves quickly and you have to leave. **DO NOT USE TAPE! IT PROVIDES NO PROTECTION!**
- ▶ Store lawn furniture and other loose, light weight objects, such as garbage cans and garden tools.
- ▶ Get plenty of extra cash in case power goes out and ATMs do not work.
- ▶ Garage or store vehicles that are not being used.
- ▶ Follow instructions issued by local officials. **EVACUATE IMMEDIATELY IF ORDERED TO DO SO!**

Final Actions to Take if Leaving

- ▶ Turn off propane tanks.
- ▶ Unplug small appliances.
- ▶ Empty refrigerator and freezer.
- ▶ Turn off utilities if ordered to do so.
- ▶ Notify family members of your evacuation plans.
- ▶ Lower water level in swimming pool by one foot.
- ▶ Lock home securely.
- ▶ Board up remaining doors and brace garage door.
- ▶ Take pets with you.



Final Actions to Take if Staying

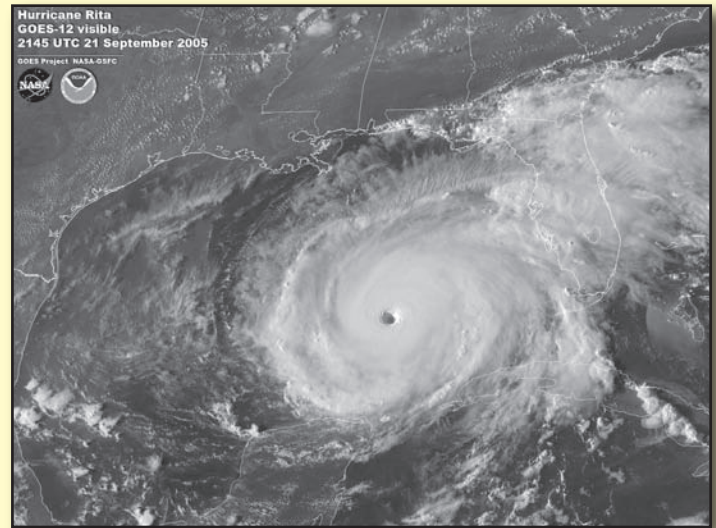
- ▶ Close storm shutters.
- ▶ Turn refrigerator or freezer to coldest setting and open only if necessary. (25 pounds of dry ice will keep a 10-cubic foot freezer below freezing for 3-4 days.)
- ▶ Follow instructions from emergency managers and be prepared to turn off utilities if ordered to do so.
- ▶ Board up remaining doors, brace garage door, and remain inside. Stay away from boarded up windows.
- ▶ Take refuge in a predetermined safe room, such as an interior closet, bathroom, or hallway.
- ▶ Beware of the calm winds in the eye of the storm and do not venture outside. Some of the strongest winds may occur shortly after the eye passes.
- ▶ **DO NOT EXPECT EMERGENCY RESPONDERS TO BE OF ANY ASSISTANCE DURING A LANDFALLING HURRICANE!**

A Dangerous Scenario



What if Hurricane Rita Struck South Texas?

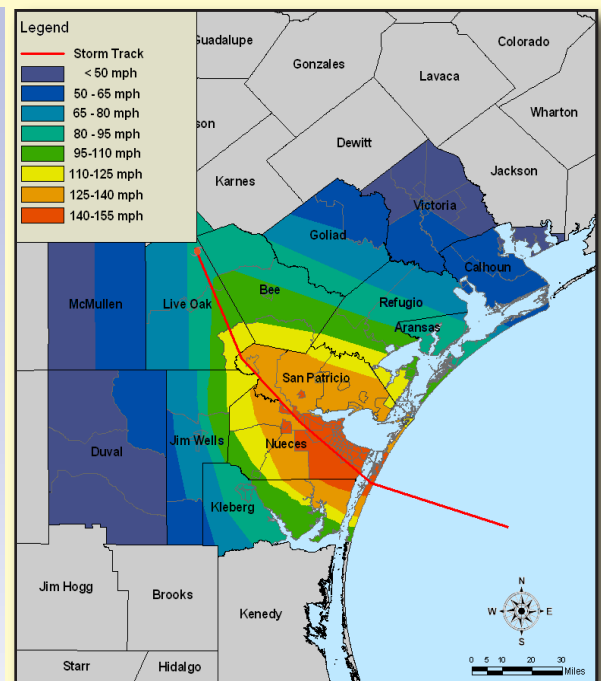
In September 2005, Hurricane Rita made landfall as a major hurricane near the Texas-Louisiana border. Prior to landfall, many computer models predicted this hurricane would make landfall along the south Texas coast. Rita eventually turned and missed south Texas. But what would have happened if Rita had not made that turn? What if Rita made landfall near Corpus Christi? The following eye-opening scenario is derived from FEMA's HAZUS model for analyzing hurricane wind losses and NOAA's SLOSH model for analyzing storm surge.



Above: A visible satellite image of Hurricane Rita over the east-central Gulf of Mexico on September 21, 2005.

Wind Impacts

- ▶ Most mobile homes in San Patricio and Nueces counties destroyed and the majority in inland counties along the track severely damaged.
- ▶ Houses of poor to average construction in San Patricio and Nueces counties severely damaged or destroyed with substantial damage to roofs and some walls of well constructed houses.
- ▶ Extensive damage caused by airborne debris, some large pieces greater than 50 pounds.
- ▶ Almost all windows in downtown Corpus Christi high rise buildings blown out with moderate structural damage possible.
- ▶ Majority of trees snapped or uprooted.
- ▶ Livestock critically injured or killed.
- ▶ Hurricane force winds inland beyond Beeville, Three Rivers and Alice.
- ▶ Over 19 million tons of debris generated, requiring over 82,000 truck loads to remove.
- ▶ Erosion along Lake Corpus Christi.
- ▶ At least 90 tornadoes across much of southeast Texas in the outer rain bands.



Above: Potential wind gusts associated with Hurricane Rita making landfall near Corpus Christi.

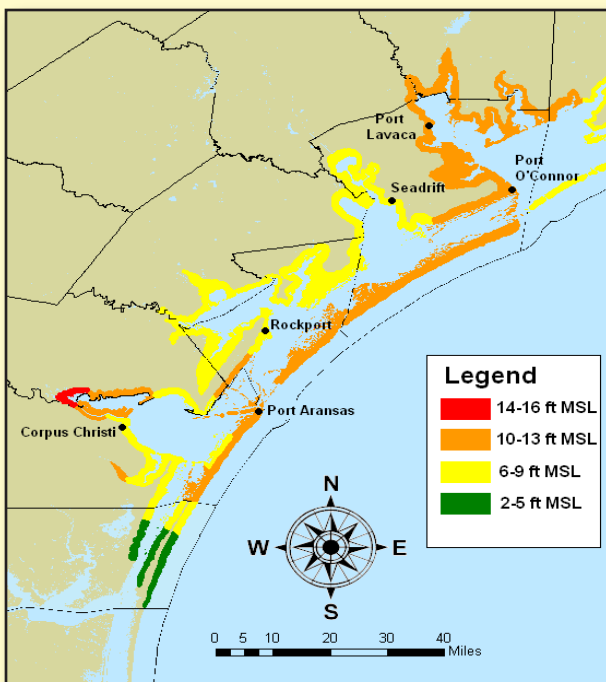


A Dangerous Scenario

What if Hurricane Rita Struck South Texas?

Surge Impacts

- ▶ Port Aransas 4-6 feet underwater.
- ▶ Northern end of Padre Island National Seashore underwater.
- ▶ Much of North Padre Island in Nueces County 5-10 feet underwater.
- ▶ Matagorda Island flooded 5 feet in many places.
- ▶ North Beach in Corpus Christi under 5-6 feet of water.
- ▶ All T-Heads in downtown Corpus Christi completely underwater.
- ▶ Water within a few feet of the top of the Corpus Christi seawall and protection dike with waves likely crashing over them.
- ▶ Portions of Flour Bluff flooded east of Waldron Road and west of Flour Bluff Drive.
- ▶ Some areas of NAS Corpus Christi flooded.
- ▶ Many areas along Oso Bay and Creek flooded east of Rodd Field as well as south of Yorktown.
- ▶ Significant flooding of the Nueces River plain through Labonte Park.
- ▶ Port O'Connor isolated and water 3-6 feet deep in some places.
- ▶ Magnolia Beach 1 foot underwater and isolated.
- ▶ Much of Aransas Wildlife Refuge flooded.
- ▶ Half of Lamar underwater.
- ▶ Port Alto 1-2 feet underwater.
- ▶ Some flooding in coastal sections on north shore of Point Comfort and north section of Port Lavaca.
- ▶ All escape routes in and out of Rockport cut off and water 3-4 feet deep along waterfront.
- ▶ Highway 35 flooded on the west side of Aransas Pass.
- ▶ Water around north and south ends of Aransas Pass seawall, with shallow flooding occurring, up to 2 feet on Main Street.



Societal Impacts

- ▶ Over \$10 billion in property damage.
- ▶ Over \$2 billion in business interruption.
- ▶ Over 53,000 coastal bend households, or nearly 150,000 people, displaced temporarily after the hurricane.
- ▶ Power and possibly water service unavailable for many days, possibly weeks in Nueces and San Patricio counties.
- ▶ Essential services such as fire, police, and hospitals hampered in the first couple of days after the storm.
- ▶ Nearly half of all area schools received moderate or greater damage.

Left: Potential storm surge associated with Hurricane Rita making landfall near Corpus Christi.

Evacuations



Evacuees need to consider the projected path of the hurricane when choosing an evacuation route and destination. Evacuation studies estimate that it takes between 18 and 30 hours to evacuate the coastal bend in advance of tropical storm force winds. This underscores the need for coastal residents to have an evacuation plan. When evacuating, be sure to check local weather and highway conditions before departing. When local authorities order an evacuation of your area, leave immediately!



Texas Road Information

TXDOT Road Conditions

1-800-452-9292

TXDOT Corpus Christi Office

1-361-808-2300

Emergency Broadcast Information

KLUX Radio 89.5 FM



Above: The three main routes away from the coastal bend. These can often quickly become congested.

Left: Congestion in Houston, TX from evacuations ahead of Hurricane Rita in September 2005.



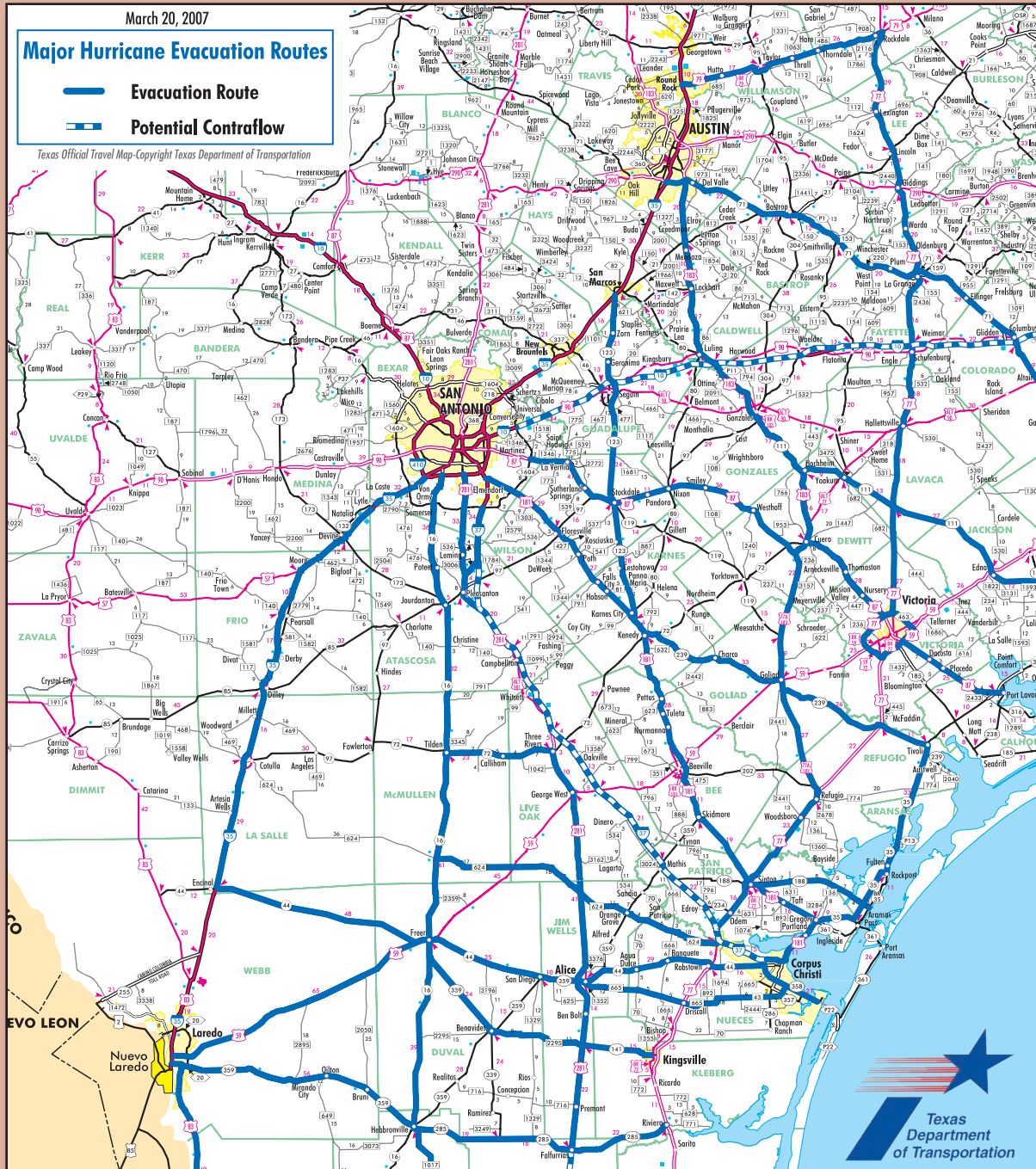
Final Actions before Evacuating

- ▶ Follow evacuation orders provided by your local officials. Once the evacuation order has been given, LEAVE IMMEDIATELY!
- ▶ Take your Hurricane Supply Kit with you (as described on page 13).
- ▶ Leave as early as possible to avoid heavy traffic and hazardous weather.
- ▶ See TXDOT map on the next page for an illustration of primary and alternate evacuation routes. Remember that the primary routes often become congested quickly.
- ▶ Do not stay in a mobile home near the coast under any circumstance.
- ▶ Remember that large boats and travel trailers may not be allowed to cross the JFK causeway or Harbor Bridge once high winds commence.
- ▶ Prepare to stay at your evacuation destination for a week or more, as re-entry into the affected area may be restricted.



Evacuation Routes

Suggested Evacuation Routes from TXDOT



TXDOT will have courtesy patrols along hurricane evacuation routes to assist motorists.

Emergency Information



Important Phone Numbers

ARANSAS

- ▶ Rockport Police
(361) 729-1111
- ▶ County Sheriff
(361) 729-2222

BEE

- ▶ County Emergency Management
(361) 362-3271
www.co.bee.tx.us
- ▶ County Sheriff
(361) 362-3221

CALHOUN

- ▶ County Emergency Management
(361) 553-4400
- ▶ County Sheriff
(361) 553-4646

GOLIAD

- ▶ County Emergency Management
(361) 645-1729
- ▶ County Sheriff
(361) 645-3451

JIM WELLS

- ▶ County Emergency Management
(361) 668-1018
- ▶ Alice Emergency Management
(361) 664-3111

KLEBERG

- ▶ County Emergency Management
(361) 595-8527
- ▶ County Sheriff
(361) 595-8500

LIVE OAK

- ▶ County Sheriff
(361) 449-2271

NUECES

- ▶ County Emergency Management
(361) 888-0513
- ▶ City of Corpus Christi
(361) 826-1100
www.cceoc.com
- ▶ Port Aransas City Hall
(361) 749-4111
www.cityofportaransas.org

REFUGIO

- ▶ County Sheriff
(361) 526-1698

SAN PATRICIO

- ▶ County Emergency Management
(361) 364-6144
- ▶ Ingleside Police
(361) 776-2531
- ▶ Portland Police
(361) 643-2546

VICTORIA

- ▶ City/County Emergency Management
(361) 485-3362
- ▶ City/County Emergency Hotline
(361) 485-3020

Additional Information

U.S. Department of Homeland Security

www.ready.gov

National Red Cross

www.redcross.gov

FEMA

www.fema.gov

Community Resource Information

2-1-1

DO NOT CALL 911 FOR NON-EMERGENCIES!!

National Weather Service

www.weather.gov/corpuschristi

National Hurricane Center

www.nhc.noaa.gov

NWS 24-Hour Phone Recording

(361) 289-1861





Returning Home



IF YOU EVACUATED THE AREA, WAIT FOR AN ALL CLEAR FROM THE CITY OR COUNTY BEFORE ATTEMPTING TO RETURN TO YOUR HOME. BE PREPARED TO SHOW PROOF OF RESIDENCE BY HAVING A COPY OF YOUR LATEST UTILITY BILL.



General Cleanup

- ▶ Be cautious of structural damage and downed power lines. Do not attempt to move structural supports or large pieces of debris.
- ▶ DO NOT run power generators indoors. Inhalation of carbon monoxide from the exhaust can cause death. Ensure exhaust is well ventilated.
- ▶ DO NOT use open flames indoors.
- ▶ Restrict your driving to emergency use only. Road conditions may be unsafe until road debris is cleared.

Debris Cleanup

- ▶ Cities and counties will publish a schedule for debris pick-up and removal. Debris cannot be removed from private property.
- ▶ Construction materials, vegetative debris, household hazardous waste and household appliances will need to be placed into separate piles and moved to the curbside for pick-up.



Water

- ▶ Listen for instructions regarding public water supply. Use only bottled, boiled or treated water until you know that your water supply is safe.
- ▶ You can use household chlorine bleach to treat water for drinking or cleaning. Add 1/8 teaspoon of bleach per gallon of clear water or 1/4 teaspoon of bleach per gallon if water is cloudy. Allow water to stand for 30 minutes before using.

Returning Home



Utility Cleanup

- ▶ Check for gas leaks. If you smell or hear gas leaking, leave immediately. DO NOT use the phone or turn on lights in your home. Call the gas company from a neighbor's phone.
- ▶ Report any visible damage of power lines to the electric company. Turn off power at main breaker if any electrical equipment or circuits have been exposed to water.
- ▶ DO NOT connect generators to your home's electrical circuits. If a generator is on line when electrical service is restored, it can become a major fire hazard. Also, line workers working to restore power will be endangered if a generator is hooked up to the home's circuits.
- ▶ It is likely that an electric company other than your own will reconnect the lines to your home; however, they can not turn the service back on. Only your electric company can actually turn the power back on to your house.



Sewage Cleanup

- ▶ If you suspect water or sewage lines are damaged, do not use your plumbing (toilets, sinks, etc.). Contact the water company or a plumber for repairs.
- ▶ A chemical portable commode can be created by the following:
 - ✓ Use 5 gallon buckets with tight lids, lined with heavy duty plastic garbage bags.
 - ✓ Add kitty litter to the bucket as a disinfectant and deodorizer. Keep lids on firmly.
 - ✓ Keep buckets in a cool, dark place. Clean and disinfect buckets immediately.
- ▶ Your toilet can also be used by flushing until the bowl has no water. Then, line with heavy duty trash bags and disinfect with chlorine bleach after each use. Remove waste to an outside location.
- ▶ If significant sewer outages have occurred, instructions for disposal of human wastes will be announced.
- ▶ DO NOT dispose of human waste through your regular trash!

Interior Cleanup

- ▶ Disinfect and dry interior buildings and items inside. This will prevent growth of some bacteria, viruses, mold, and mildew that can cause illness.
- ▶ Clean walls, floors, and counter tops with soap and water. Disinfect them with a solution of 1 cup of bleach to 5 gallons of water.
- ▶ Wash all clothes and linens in hot water. Air dry and spray all unwashable items with disinfectant. Steam clean carpets. Throw away all items touched by water that cannot be disinfected.

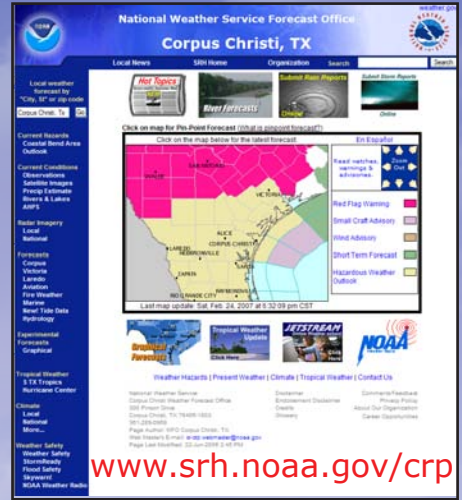
What We Do For You



Complete Weather Information 24 hours a day!

Receive our weather information via All Hazards NOAA Weather Radio or our award-winning website!

Products & Services:



- Watches
- Warnings
- Advisories
- Aviation Weather
- Marine Weather
- Tropical Weather
- Local Forecasts

361-289-1861

- Current Conditions
- Outreach Activities
- Training Sessions
- Office Tours
- Complete Website

www.srh.noaa.gov/crp



Staff members representing over 2 1/2 centuries of experience!

And More...



Proudly Serving and Protecting South Texas Since 1887

WAL★MART®



At Wal-Mart, helping communities is what we do every day. When a crisis strikes, that charge becomes an even greater priority. Though we operate more than 3,900 stores in the U.S. and 2,700 more abroad, we truly believe every emergency is a local emergency. From hurricanes in the Southeast, to brush fires in the Southwest; from earthquakes in the West to snow storms in the Northeast, we have assisted with numerous response and relief efforts over the years.



Our Focus

1. Take care of our associates
2. Take care of our operations
3. Take care of our communities

Impact of Wal-Mart

Globally:

- 6,792 Facilities
- 1.9 million Associates

In Texas:

- 423 Facilities
- 147,180 Associates



At Wal-Mart, we believe that the key to swift, effective response is focusing on the development of resources and the fostering of relationships before a disaster strikes. In each and every of the communities we serve, our stores stand ready to help and work with local leaders, community organizations and elected officials in the instance of a disaster.

Due to the size of our company, we can touch people from coast to coast and help communities in times of need in so many ways. We recognize that basic needs become paramount in times of crisis and that many of the products on our shelves, as well as the systems by which we get them there, can literally save lives in traumatic times.



Community sustainability in times of crisis is very important to us because we know unforeseen events allow us to use our strengths as a business to serve those in need.

Following Hurricane Katrina's catastrophic impact on the Gulf Coast region; Wal-Mart was there to give a helping hand through the days, weeks and months.

How to work with Wal-Mart/Sam's

- Cities/Countries/Parishes: contact local store or club Manager
- State and Federal Agencies: work through the Corporate Emergency Management Department
EOC: (479-277-1001)





**“WHETHER IT’S A HURRICANE, CHEMICAL ACCIDENT,
OR TERRORIST EVENT . . .
YOUR SAFETY DEPENDS ON YOU HAVING A PLAN!”**

RICHARD HOOKS
CORPUS CHRISTI FIRE CHIEF /
LEPC CHAIRMAN

MAKE A PLAN!

- *KNOW YOUR EVACUATION ROUTES!**
- *HAVE AN EMERGENCY SUPPLY KIT!**
- *KNOW WHERE TO GET INFORMATION!**
- *LEARN HOW TO SHELTER IN PLACE!**

FIND OUT MORE AT
WWW.CCLEPC.ORG

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At Six and Ten

Joe Gazin Bill Vessey Dan McReynolds



At Five

Rudy Trevino Katy Kiser



First Edition

Katia Uriarte Regina Garcia



Weekends

Andrew Whitman Dave Cochran Alan Harwell



Maps Available At:



WE DRIVERS IN THE STORM



We strive to do what it takes to assist those in need during times of crisis.

CITGO employees volunteered countless hours to help our neighbors in the Gulf Coast region in the aftermath of two devastating hurricanes. CITGO pledged \$5 million in support for Hurricane Katrina survivors and reconstruction over time and more than \$100,000 has been paid out in employee and matching gift contributions to a variety of relief organizations.

Closer to home at the Corpus Christi Refinery, the CITGO Cares Team volunteers to assist non-profits in the area, including YMCA, Boys & Girls Club, Diabetes Walk, Tree for All, Junior Achievement, etc. CITGO remains among the largest corporate donors to United Way organizations in Corpus Christi.

