



South Texas Weather Journal

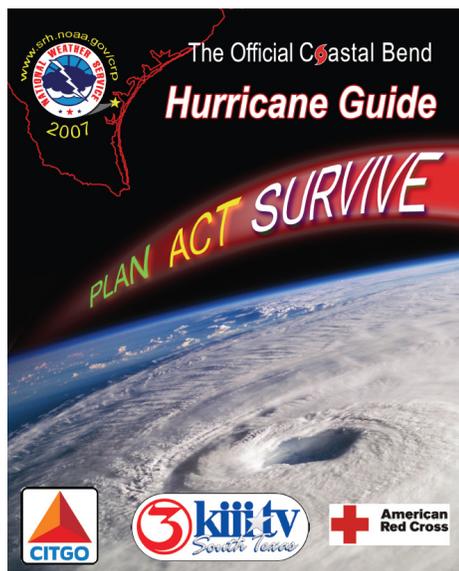


2007 Summer Edition

Corpus Christi, Texas

Weather Forecast Office

Hot Off The Press: The 2007 Official Coastal Bend Hurricane Guide!



Plan...Act...Survive. These three words are the message and theme portrayed in this year's Official Coastal Bend Hurricane Guide. This year's guide has a new, easy to read format. All the necessary preparedness, evacuation and returning home information is included. Our Hurricane Guide also features highly detailed storm surge inundation maps, home and business preparedness and insurance information, and a look at what would have happened to the area had Hurricane Rita made landfall near Corpus Christi in 2005.

This year's guide can be found at Coastal Bend Wal-Marts, Pizza Huts, KFC and Long John Silvers. Or you can stop by KIII in Corpus Christi or your NWS office located at the Corpus Christi International Airport and pick up a guide. A downloadable version can also be found on our website at www.weather.gov/corpuschristi.

HAVE A PLAN TO ACT AND SURVIVE:

by Scott Cordero, Meteorologist-In-Charge

Hurricanes are a serious and dangerous threat. The record breaking tropical seasons of 2004 and 2005 demonstrated how coastal communities are impacted by violent hurricanes.

The mid Texas coast has not experienced a direct assault from a MAJOR hurricane in 37 years, when Hurricane Celia crossed our coast line in 1970. It's not a matter of IF another hurricane will hit South Texas, but WHEN the next storm will make landfall and change our community forever. Galveston Mayor Lyda Ann Thomas most recently stated at the 2007 Texas State Hurricane Conference, "It is absolutely essential to plan when the Gulf of Mexico is your front door." This statement really bodes not only for her city but for the whole Texas coast including the entire Coastal Bend.

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 season we do not foresee El Niño to be a strong inhibiting factor, so don't be complacent. In fact, science indicates an active hurricane period 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." By having a plan, making sure everyone knows that plan and by practicing that plan you can ensure your survival when a high impact tropical storm or hurricane occurs across South Texas.

Outlook for 2007 Hurricane Season:

It Looks like another busy year!

NOAA's 2007 Atlantic hurricane season outlook indicates a very high 75% chance of an above-normal hurricane season, a 20% chance of a near-normal season, and only a 5% chance of a below-normal season. This outlook is produced by National Weather Service scientists at the Climate Prediction Center (CPC), National Hurricane Center (NHC), Hurricane Research Division (HRD), and Hydrometeorological Prediction Center (HPC).

The outlook calls for a very high likelihood of an above-normal hurricane season, with 13-17 named storms, 7-10 hurricanes, and 3-5 major hurricanes. This prediction signifies an expected sharp increase in activity from the near-normal season observed in 2006.

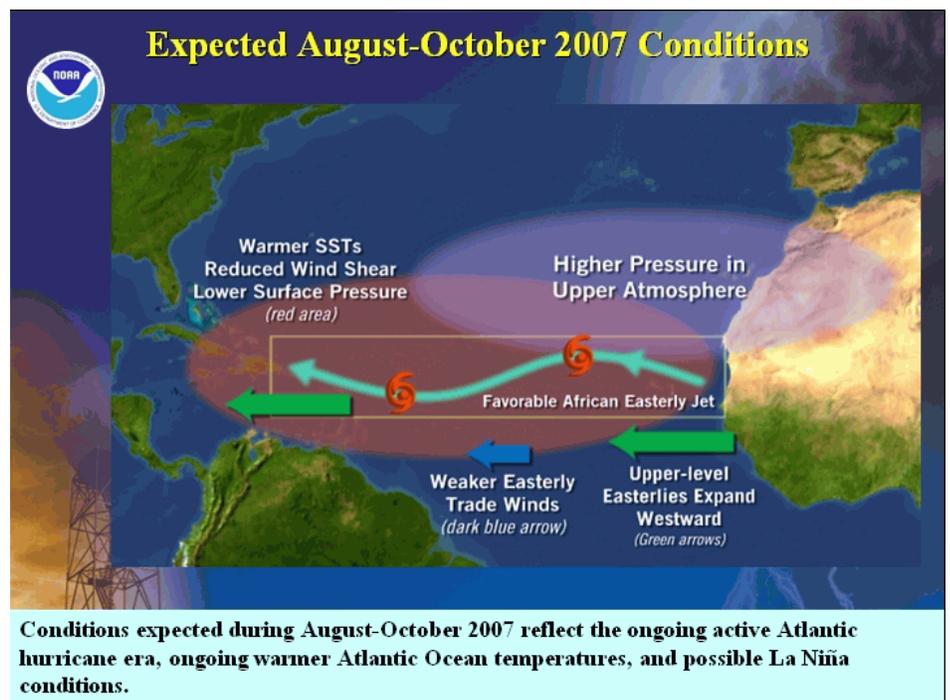
The prediction for an above-normal 2007 hurricane season reflects the expected combination of two main climate factors: 1) the continuation of conditions that have been conducive to above-normal Atlantic hurricane seasons since 1995, ([see graph](#)) and 2) the strong likelihood of either ENSO-neutral or La Niña conditions in the tropical Pacific Ocean.

The vast majority of tropical storms and hurricanes are expected to form during August-October over the tropical Atlantic Ocean, which is typical for above-normal seasons. These systems generally track westward toward the Caribbean Sea and/or United States as they strengthen. Historically, above-normal seasons have averaged 2-4 hurricane strikes in the continental United. However, it is currently not possible to confidently predict at these extended ranges the number or intensity of land falling hurricanes, or whether a given locality will be impacted by a hurricane this season.

Regardless of whether it's a busy season or not, you should always be prepared for a hurricane. During the hurricane season of 1919, there were only three storms that year, but one was a major category 4 storm that ravaged the Corpus Christi area. The 1919 Hurricane made it a big season for this community. It only takes one!

2007 Hurricane Names

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



The Deadly Corpus Christi Hurricane of 1919

In the early 1900s, Corpus Christi had become the second largest port in Texas behind Galveston with nearly 20,000 people residing in the sparkling city. Other coastal communities in Texas had suffered devastating hurricanes since 1875. Indianola was hit twice by hurricanes in 1875 and 1886. Indianola never recovered after the second invasion from the sea. Galveston suffered the greatest natural disaster in United States history when over 8 thousand people died in 1900. A second disastrous hurricane would visit Galveston in 1915.



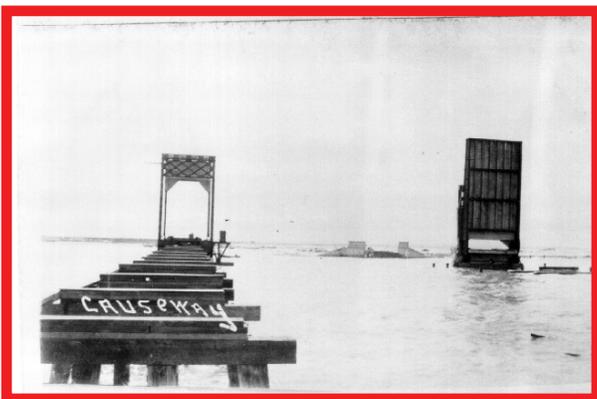
Residents in Corpus Christi began to believe in a false sense of security that major hurricanes would not hit the Coastal Bend. And if one did, the barrier islands and the high bluff that the city was situated on would protect it. In 1916, a category 4 hurricane made landfall south of Baffin Bay. There were relatively few casualties and only minor damage in Corpus Christi. This only heightened the complacency with regards to preparedness. This would end in September of 1919.

A tropical storm formed near the Bahamas in early September of 1919. It would intensify into a hurricane on September 7th as it approached southern Florida. It became one of the strongest hurricanes on record to move into the Gulf of Mexico. It battered Key West with sustained winds up to 150 mph as the central pressure fell to 927 millibars. This hurricane, a strong category 4 hurricane on the Saffir-Simpson scale, would maintain its intensity as it trekked westward across the Gulf of Mexico.

Uncertainty grew about the hurricane's position once the storm moved into the Gulf of Mexico. Tides rose to 6 feet above normal at Lake Pontchartrain and Grand Isle Louisiana on September 13th. Expectations were that the hurricane would move into the upper Texas coast or Louisiana. However, during the evening of the 13th it became apparent the storm was moving toward the Coastal Bend as tides rose to 5 feet above sea level at Port Aransas at sunset.

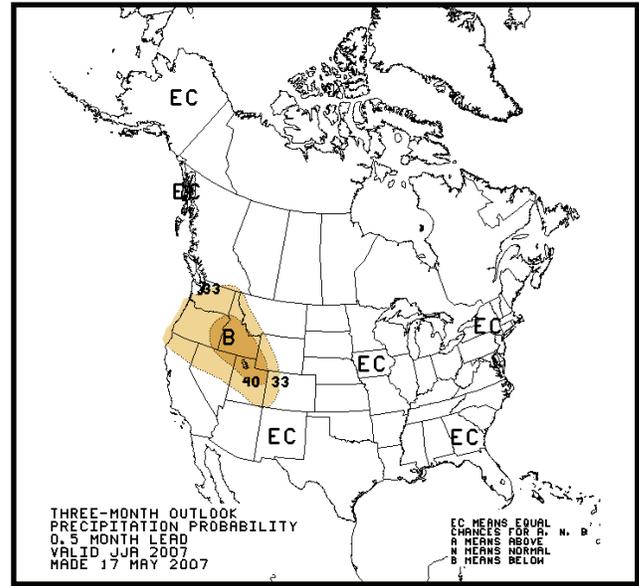
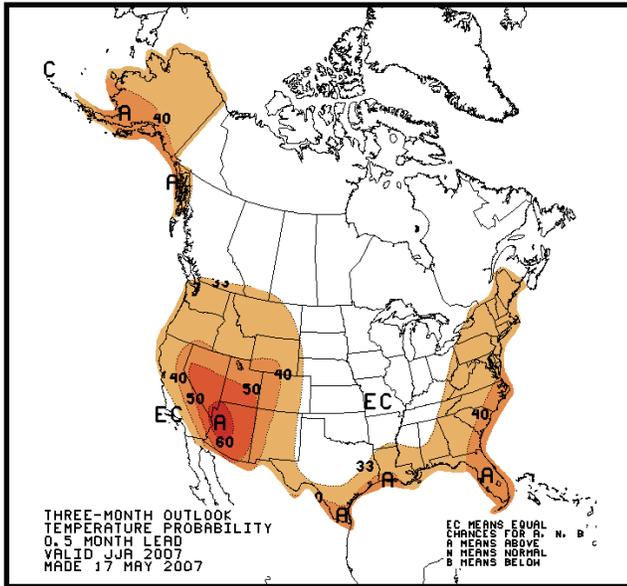
The hurricane weakened before making landfall just south of Corpus Christi on the morning of September 14th as a Category 3 hurricane with a central pressure around 950 millibars and sustained winds of 115 mph with gusts as high as 150 mph. The storm surge rolled into the Texas coast with tides rising to 8 feet above mean sea level at Sabine and Port Isabel, 9 feet at Galveston, and 13 feet at Port O'Connor.

But the worst damage was at Corpus Christi as the storm surge reached 15 to 16 feet. Only two buildings survived in the North Beach area but were both severely damaged. Debris piled up to 15 feet in the downtown area of Corpus Christi. Damage was estimated at over 20 million dollars which relates to almost 14 billion dollars as a normalization estimate to 2006 dollars. 121 bodies and 87 survivors were swept 7 miles across Nueces Bay to White's Point. Most of the bodies were covered in crude oil as barrels at Port Aransas were breached during the storm.



The exact death toll from this hurricane in Corpus Christi and for its entire path across the Gulf of Mexico will never be known. The official number of fatalities at Corpus Christi was listed at 287 but these were only the ones that were identified. The actual number of those that lost their lives has been estimated to be between 400 and 1000 people. This hurricane is the second deadliest weather event to affect Texas in its history, only behind the 1900 Galveston hurricane.

One fact that is interesting about this hurricane, one person that evacuated Corpus Christi before the hurricane was Robert Simpson. He would later become head of the National Hurricane Center and devise the Saffir-Simpson scale for categorizing hurricane intensity.



Warm Summer on Tap for South Texas

The summer outlook (June-August), issued by the NWS's Climate Prediction Center, calls for above normal temperatures across South Texas. There are equal chances for above normal or below rainfall, which could be partially dependent on tropical systems.

South Texas Spring Severe Weather Recap

It was a relatively active Spring severe weather season in 2007 across South Texas, especially when compared to the 2006 season during the waning drought. The season got off to a bang on March 13th with hail, high winds and even a tornado. The EF0 tornado was observed over an open field in rural Bee County. Straight-line winds, ranging from 60-70 mph, produced damage in the Kingsville and Rockport communities. Hail as large as golfballs was observed across Duval County.

On March 26th isolated severe storms produced nickel size hail in Laredo and straight-line winds around 70 mph in Beeville, resulting in damage in the city. Heavy thunderstorms on March 31st resulted in significant flash flooding along U.S. 59 in southwest Goliad County as well as in the city of Victoria.

Scattered thunderstorms across the Coastal Bend on April 4th produced very heavy rainfall in the Kingsville area. Over 3 inches of rain fell during a 2 hour period, resulting in street flooding and flash flooding of creeks in the city. A roof at the Kingsville Recycling Center even collapsed due to the heavy rain.

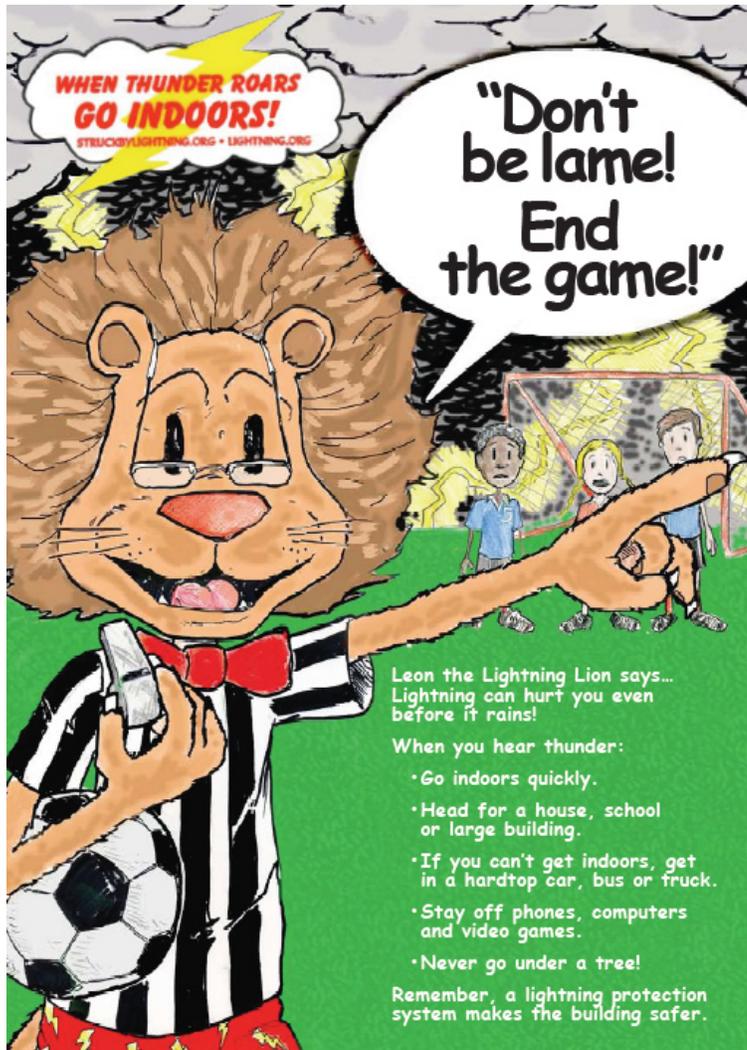
On April 30th another severe weather outbreak occurred, this time across the Rio Grade Plains and brush country of South Texas. An EF0 tornado touched down in southern McMullen County. The storms produced a swath of hail from southern McMullen County, to Freer, to Bruni and Oilton in Webb County. 3 ½ inch hail was observed in Oilton, which is between baseball and grapefruit sized! This is the sixth largest sized hail ever reported in South Texas since severe weather records began in 1950, and the largest ever reported in Webb County! (continued on next page)



3 1/2 Inch Hail Measured in Oilton, Texas

On May 8th severe thunderstorms roared out of Mexico into Webb and LaSalle counties. In addition, flooding was reported in isolated spots of Laredo. High winds from these thunderstorms resulted in tree and roof damage in subdivisions northwest of Laredo as well as in Encinal. Flash flooding occurred in Alice on May 25th, when a nearly stationary thunderstorm dumped between 4 and 5 inches of rain over the city. Some residents were evacuated due to the rising water.

Finally on May 27th a severe thunderstorm produced straight-line winds of around 70 mph in Palito Blanco, a community in rural Jim Wells County. Numerous large tree limbs were damaged, highway signs were blow down and a roof was partially blown off a home.



When Thunder Roars, Go Indoors!

With outdoor activities increasing during the summer months, residents across South Texas should minimize their risk to lightning by knowing and practicing good lightning safety.

The **30/30 Rule** is an easy to remember rule regarding lightning safety. When you see lightning, count the time until thunder is heard. If that is 30 seconds or less, the thunderstorm is close enough to be dangerous. You should seek shelter immediately and stay inside until 30 minutes after the last rumble of thunder is heard. More than half of lightning deaths occur after a thunderstorm has passed.

The safest shelter from lightning activity is a house or other fully enclosed building, but stay away from electrical appliances, plumbing, and telephone wiring. Do not watch lightning from doorways or windows. Unsafe buildings include car ports, beach pavilions, golf shelters, sheds, camping tents, or picnic shelters.

The second safest place for protection against lightning is an enclosed metal vehicle, car, truck, or van. Do not touch any metal surfaces that will become conducting paths leading to the outside. The metal shell is the protection.

For boaters, many injuries and deaths from lightning occur on boats with no cabin. If you own a small boat and thunderstorms are in the forecast, it is recommended that you do not go out. If you are on the water and darkening skies threaten, get back to shore and find a safe building or vehicle. Boats with cabins are safer, especially if the boat has a properly installed lightning protection system. Stay inside the cabin and off the radio unless it is an emergency.

For activities this summer, plan ahead and be prepared in case lightning threatens. The best source for the latest weather information is a NOAA Weather Radio. Portable weather radios are convenient for outdoor activities.

Did You Know...

- The air in a lightning bolt can be heated to 50,000 degrees Fahrenheit
- One ground stroke can carry 100 million to 1 billion volts of electricity
- Lightning kills more people in the U.S. every year than tornadoes
- There is an estimated 100,000 thunderstorms every year in the U.S. producing an estimated 25 million cloud to ground lightning strikes



Photo courtesy of Associated Press/World Wide Photos

The Saffir-Simpson Hurricane Scale

There are five categories in the Saffir-Simpson Hurricane Scale. A hurricane category is assigned after measuring a hurricane's wind speed using the one-minute averaging method. The hurricane scale is used to give an estimate of the potential property damage and flooding expected along the coast from a land-falling hurricane. Flooding from storm surge is dependent on the slope of the continental shelf and shape of the coastline. The following table summarizes the Saffir-Simpson Hurricane Scale.

Hurricane Category	Wind Speeds	General Storm Surge
Category One	74-95 mph, 64-82 knots	4 to 5 feet
Category Two	96-110 mph, 83-95 knots	6 to 8 feet
Category Three Major Hurricane	111-130 mph, 96-113 knots	9 to 12 feet
Category Four	131-155 mph, 114-135 knots	13 to 18 feet
Category Five Catastrophic Hurricane	Wind greater than 155 mph, 135 knots	Greater than 18 feet

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Coming Up in the Fall/Winter South Texas Weather Journal:

- **2007 Hurricane Season Recap**
- **La Nina Update**
- **Winter Outlook**
- **Plus, much more!**

