



# South Texas Weather Journal

Spring Edition 2007

Serving the Coastal Bend, Rio Grande Plains, and Victoria Crossroads

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## The Smoke Detector for Weather

During the early morning hours of February 2nd, 2007 severe weather ripped through portions of central Florida. At least three tornadoes touched down, including one which destroyed mobile home parks, frame houses, churches and businesses in Lady Lake. Unfortunately 21 people lost their lives, most of whom were asleep at the time.



Arial view of tornado damage in Lake Mack, FL on Feb. 2, 2007

Severe weather, like that which occurred in Florida, can occur in South Texas at all hours of the day. So how can you be warned of severe weather late at night while you are sound asleep? What about the smoke detector for weather: NOAA All Hazards Radio. When a NWS forecaster issues a warning for severe weather these radios will sound a very loud alarm, waking a person from sleep and giving them the time they need to protect themselves and their family. Newer versions of these radios give you the ability to only alarm when a warning is issued for the particular county you live in. In addition to severe weather warnings, these radios can alert residents with important information and instructions concerning non-weather events, such as chemical and other HAZMAT incidents as well as terrorist incidents. NOAA All Hazards Radios can be found at most electronic stores, and are a small price to pay for the safety and peace of mind for you and your family.

## SKYWARN Spotters Begin Training for the Spring Severe Weather Season

Working for their local communities and with their local NWS offices, SKYWARN spotters provide invaluable assistance and critical information to decision makers when severe weather threatens. Countless lives have been saved because of this unique partnership. Spotters are the eyes of NWS forecasters, providing ground truth to what is seen on



Tornado caught by DPS camera in George West, TX on Nov. 15, 2001

radar, and in some cases what cannot be seen on radar. This has enabled the NWS to issue more timely and accurate warnings for tornadoes, severe thunderstorms and flash floods.

NWS Corpus Christi will be conducting dozens of SKYWARN spotter training classes across South Texas during Spring. For more information on when and where you can attend one of these classes look for the SKYWARN link at [www.srh.noaa.gov/crp/weather/topic.htm](http://www.srh.noaa.gov/crp/weather/topic.htm).



## South Texas Severe Weather Awareness Week in March

The NWS and the Texas Department of Emergency Management are asking for your help in spreading information to the public about the threat of severe weather and the life saving measures to be taken when severe weather occurs.

Severe weather watches and warnings are ineffective if the public does not receive the message or is not knowledgeable of the safety procedures to follow. The purpose of Severe Weather Awareness Week is to provide people with the knowledge necessary to protect their lives when severe weather threatens.

Whether in the form of severe thunderstorms, tornadoes, or flash floods, severe weather can develop very quickly. Once a tornado approaches, or flooding develops, it is too late to start working on a preparedness plan. When severe weather develops, and warnings are issued, we must take immediate action to protect ourselves. Preparing for severe weather is the theme of this program.

So how does one prepare for severe weather? For a severe weather preparedness plan to be successful it must include the following: knowledge of terminology such as watches and warnings, a thorough knowledge of safety rules to follow when severe weather strikes, a reliable method of receiving emergency information, the designation of an appropriate shelter, and drills to test the plan.

For more information pertaining to Severe Weather Awareness Week in South go to: <http://www.srh.noaa.gov/lub/SWAW/>



Tornado in Corpus Christi, TX on Oct. 24, 2002



15" of rain on June 1-2, 2006 produced flash flooding in Ricardo, TX



Hail in San Jose, TX on Oct. 27, 2005

# WEATHER NUTZ

by Steve Smart



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# South Texas Tornado Climatology

Although the threat for tornadoes is greater in North Texas and Oklahoma, closer to the “Tornado Alley”, tornadoes can and do occur across South Texas. Tornadoes have been observed across South Texas in every month except January. Since 1950, around 375 tornadoes have been documented in the South Texas area. This gives an average of almost 7 tornadoes per year across South Texas. In the graph, note the two peaks in the tornado distribution during the year. The first is during the typical spring months, when warm moist air from the Gulf of Mexico collides with cold fronts. The other peak is associated with the hurricane season (August-September). The tornadoes that do occur in South Texas are typically weaker. Tornado strength is judged relative to the damage caused by the tornado using the Fujita scale or F-scale. Since 1950, there have only been 21 tornadoes rated significant (F2) in South Texas. However, one of the deadliest tornadoes to strike the state of Texas occurred at Goliad in 1902 when an F4 tornado struck, killing 114 people.

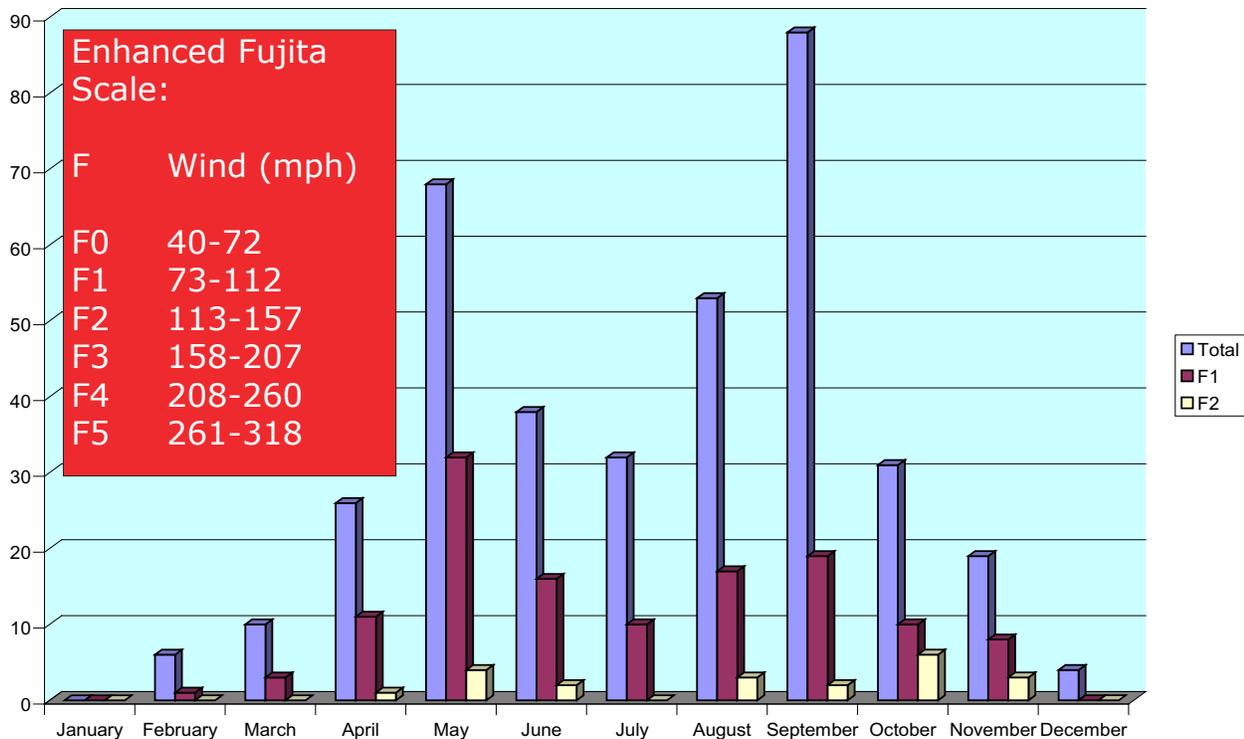
South Texas averages almost 7 tornadoes per year.

In 2002, an F2 tornado struck Corpus Christi, TX killing one person and causing over \$75 million in damage.

In 1902, one of the most deadliest tornadoes in Texas struck Goliad, TX. This F4 tornado killed 114 people.

In 1905, a tornado killed 21 people in Laredo, TX and Nuevo Laredo, Mexico. The tornado collapsed two spans of the International Bridge into the Rio Grande River.

South Texas Tornadoes 1950 - 2006 According to F-Scale



Your National Weather Service staff has been proudly serving and protecting South Texas since 1887. The combined total years of weather service and meteorological expertise from current staff members equals 2 1/2 centuries!





# A Penny Saved is Severe Hail

Spring comes in March and along with the season comes severe weather. One of the criteria for a thunderstorm to be classified as severe is the hail size produced by the storm. Often, severe thunderstorms occur but are not verified as such because observation and measurement of hail on the ground was not made. National Weather Service (NWS) Cooperative Observers and certified spotters often report hail size to the NWS or local law enforcement agencies. It can be confusing though, since hail size is not always observed, measured and reported accurately or timely.

Severe size hail is destructive and can be lethal. Therefore, hail size should not be measured until it is safe to do so. Often, severe size hail is a precursor to tornadic activity so extreme caution is always advised before venturing outdoors. Hail size should be measured as soon as possible after it hits the earth. The diameter of the largest hail stone found should be measured to the nearest 1/10 inch using a NWS standard rain gage measuring stick, or to the nearest 1/4 inch using a standard ruler. If these tools are not available, an authorized list of common items can be used to measure hail size. Report hail size information to the NWS or local law enforcement agency as soon as possible. Common items and their corresponding match to severe hail size:

- Penny = 0.75 inch hail
- Nickel = 0.88 inch hail
- Quarter = 1.00 inch hail
- Half Dollar = 1.25 inch hail
- Golfball = 1.75 inch hail
- Hen's egg = 2.00 inch hail
- Tennis ball = 2.50 inch hail
- Baseball is = 2.75 inch hail
- Grapefruit = 4.00 inch hail



On May 8, 2005 a severe thunderstorm produced 2" hail in Corpus Christi, TX. This was only the third time since 1950 that hail 2" or greater has been reported in Nueces County.

On June 2, 2003 a supercell struck Laredo, TX producing golfball size hail and 95 mph winds, causing \$33 million in damage.

The largest hail stone ever recorded in the U.S. fell in Aurora, NE and measured 7" in diameter!

## DID YOU KNOW?

**THE DIFFERENCE BETWEEN THESE PRODUCTS ISSUED BY YOUR NATIONAL WEATHER SERVICE IN CORPUS CHRISTI...**

**TORNADO WATCH:** is issued when weather conditions are favorable for tornado development within the next several hours. Persons included in the watch should remain informed as weather conditions can change rapidly.

**TORNADO WARNING:** is issued when a tornado has been reported by the public or doppler radar indicates that tornado development is very likely within a few minutes. If a tornado warning is issued for your area, seek immediate shelter!!

### 2006 Rainfall Totals Across South Texas

Corpus Christi	
Actual Rainfall	33.93 inches
Normal Rainfall	32.21 inches
Departure	+1.72 inches

Victoria	
Actual Rainfall	39.44 inches
Normal Rainfall	40.10 inches
Departure	-0.66 inches

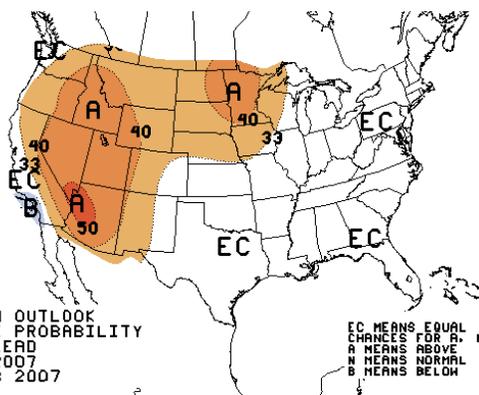
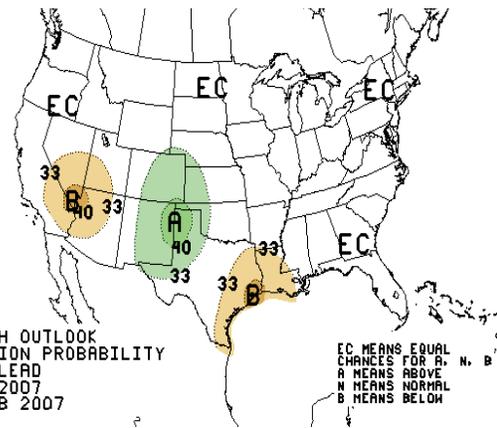
Laredo	
Actual Rainfall	15.35 inches
Normal Rainfall	21.53 inches
Departure	-6.18 inches



# La Niña May Soon Arrive

The 2006-2007 El Niño, which resulted in a decrease in the number of Atlantic hurricanes in 2006 and brought South Texas a cool and wet winter, has faded. In its place a precursor to La Niña conditions has been recently noted in the equatorial Pacific. Typically during the spring and summer months La Niña conditions can result in drier than normal conditions across South Texas. Also La Niña episodes often have an effect on Atlantic hurricane activity. Although other scientific factors affect the frequency of hurricanes, there tends to be a greater-than-normal number of Atlantic hurricanes during La Niña events. Stay tuned to the NWS this Spring and Summer!

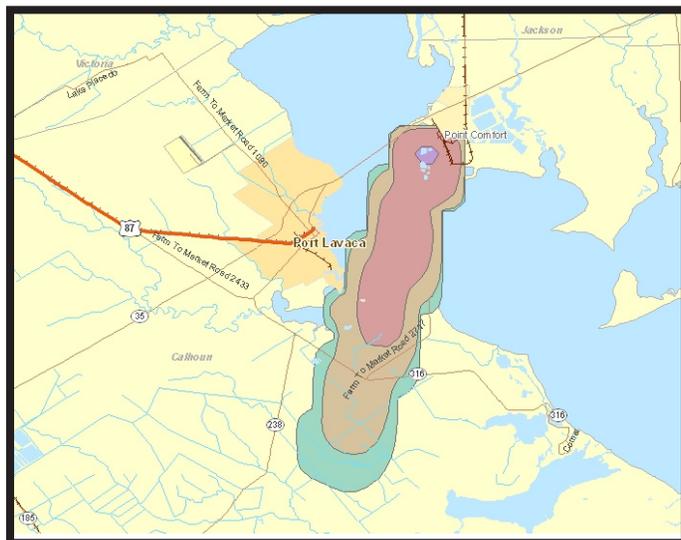
The Spring outlook issued by the NWS's Climate Prediction Center (shown at right) calls for below normal rainfall across South Texas. There are equal chances for above normal or below normal temperatures.



## How the NWS Supports Non-Weather Events

Did you know to enhance and protect public safety NWS Corpus Christi works closely with public safety officials on a wide range of all hazards events, including wildfires, major building fires, HAZMAT spills, oil spills, chemical releases and terrorist incidents. The NWS's observing systems, modeling resources, public alert capabilities and forecaster expertise can and has been tapped during such events.

For example, on October 7th, 2005 an explosion occurred in one of the units of the Formosa plastics plant in Point Comfort, TX. During the minutes after the explosion NWS Corpus Christi was able to provide emergency managers in Calhoun County with information and graphics on which way the hazardous materials plume would go. This allowed officials to order a shelter in place for the appropriate nearby residents and schools in Point Comfort and Port Lavaca.



NWS Hysplit model data depicting where a hazardous materials plume would drift on Oct. 7, 2005.

The South Texas Weather Journal can be viewed online at:  
[www.weather.gov/corpuschristi](http://www.weather.gov/corpuschristi)



# 2007 Hurricane Guide Update!

In 2006 WFO Corpus Christi launched a highly successful hurricane preparedness campaign with the debut of the 2006 Official Coastal Bend Hurricane Guide. The second edition to the hurricane guide is currently in the works. The guide will sport a new, easier to read look. In addition, the 2007 Official Coastal Bend Hurricane Guide will feature additional high detailed storm surge inundation maps, updated home and business preparedness info, insurance info, and a look at what would have happened to the area had Hurricane Rita made landfall near Corpus Christi in 2005. More details on the guide and where it will be distributed will be posted on our website in the coming weeks: [www.weather.gov/corpuschristi](http://www.weather.gov/corpuschristi).



Hurricane Rita about to make landfall near the TX/LA border in 2005.

The next South Texas Weather Journal will likely be issued early Summer 2007

## SPRING SEVERE WEATHER WORD FIND

DOPPLER RADAR

HAIL

FLASH FLOOD

LIGHTNING

NOAA WEATHER RADIO

SKYWARN

SUPERCELL

TORNADO

WARNING

WATCH

V	N	M	H	R	E	I	Q	J	I	N	J	L	J	S	B	G
R	C	G	K	D	M	E	P	O	G	B	T	B	C	M	N	M
A	D	H	A	C	C	Q	G	W	R	R	I	G	B	I	G	H
J	U	Y	A	Z	W	H	L	N	X	I	B	Z	N	C	I	L
R	R	L	L	E	C	R	E	P	U	S	N	R	X	N	K	T
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D	P	K	H	I	Y	C	A	W	I	W	A	K	O	Y	N	B
A	E	P	H	Y	K	P	K	K	S	W	E	M	O	J	U	K
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R	V	T	L	H	I	O	E	S	K	X	L	B	A	I	W	O
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P	L	X	K	U	G	G	Z	Q	E	S	F	C	E	D	B	Q
P	D	O	O	L	F	H	S	A	L	F	H	Z	T	M	Y	I
O	F	A	W	H	F	M	K	I	O	E	E	T	K	P	G	R
D	L	M	B	D	M	Z	O	P	N	R	A	W	Y	K	S	M
J	T	J	I	N	I	S	K	F	Q	W	B	G	X	L	M	X

National Weather Service Contact Information:

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