South Texas Weather Journal

FEBRUARY 2004

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

IN THIS ISSUE

VISIT OUR WEBSITE

www.srh.noaa.gov/crp

Severe Weather Awareness Week Declared

Tornado in George West, TX on November 15, 2001. Photo courtesy of TX DPS.

Governor Rick Perry has proclaimed the week of February 29th through March 6th as Severe Weather Awareness Week in Texas. In his message to Texans, Governor Perry noted that severe weather can strike anywhere in the state, often with little warning. The arrival of the spring season brings a transition from cool stable air to warm moist air from the Gulf of Mexico. The resulting heat in the atmosphere gives way to increased instability, a catalyst for severe weather. The peak climatic period for violent severe weather in South Texas is late March through early June. This is also the time when outdoor activities increase significantly. As you and your family make preparations, remember: Severe weather can develop quickly. Thunderstorm winds, hail, tornadoes, lightning, and flash floods all threaten life and property. To keep you informed of the potential for severe weather, your local National Weather Service produces a daily Hazardous Weather Outlook. This product is broadcast on NOAA weather radio and is available on our website at www.srh.noaa.gov/crp.

If you'd like more information on Severe Weather Awareness Week, please contact us.

Schley Receives Award for 40 Years of Voluntary Service

Brooks Schley of George West has been holding on to a family tradition that was passed on by his uncle. In 1916 his uncle moved to George West and the National Weather Service (then the U.S. Weather Bureau) put in a rain gauge on his property. The rain gauge has been in his family ever since then. Brook's father Charles took over reading the gage in 1918 until his death in 1962. It was then that Brooks assumed the responsibility of reporting rainfall to the National Weather Service. On Thursday December 18th, Larry Maifeld a Hydrometeorological Technician and Dave Davenport the Data Acquisition Program Manager with the National Weather Service in Corpus Christi visited George West and presented

Schley receives 40-year Service Award from HMT Larry Maifeld.

(See Award on Page 2)

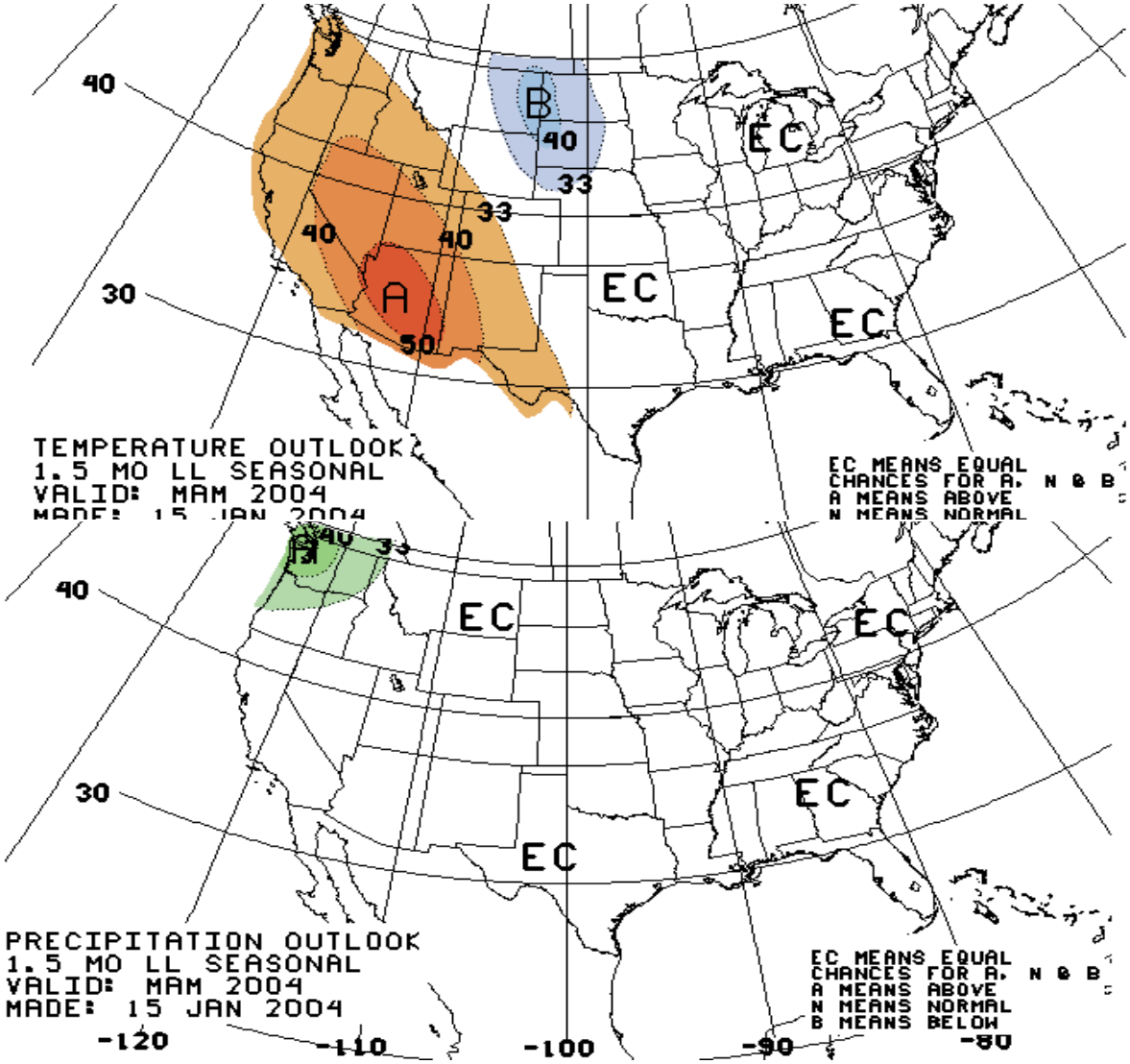
Award-Continued from Page 1

Brooks with a 40 year service award for voluntary service with the United States Government. Dave and Larry also presented Brooks with a wind breaker with the National Weather Service logo to commemorate the occasion.

The weather service depends on thousands of volunteers across the nation like Schley to fill in huge voids in weather coverage where there otherwise would be no reports. His rainfall readings are used on a near real time basis as well as for research. The actual rainfall amounts are used to verify amounts shown on the Doppler radar and help to forecast rises on the rivers. Brooks reports his rainfall amounts via phone and the data is available for all government agencies to use within minutes. His unselfish dedication and commitment to weather reporting have far-reaching and long-lasting effects of mastering the art and science of meteorology.

Warmer Spring in Store?

The National Weather Service's Climate Prediction Center produces long term forecasts of Temperature and Rainfall for the continental United States. These forecasts are updates every month on the 15th and are available online. The outlook for South Texas for the March, April, and May period indicates temperatures and precipitation will be near normal. Normal high temperatures in March range from the lower 70's in Victoria to the lower 80's in Laredo, while in May, normal high temperatures range from the mid 80's in Victoria to the mid 90's in Laredo. Normal precipitation for the three-month time period ranges from 5.2 inches in Laredo to over 10 inches in Victoria.



Above: *Temperature Outlook for Mar-May. Orange is above normal temperatures and blue is below normal temperatures.* ***Below:*** *Precipitation Outlook. Green is above normal.*

NOAA WEATHER RADIO TRANSMITTER INFORMATION

Corpus Christi 162.55MHz

Victoria 162.40MHz

Port O'Connor 162.475MHz

Riviera 162.525MHz

Dilley 162.500MHz

Laredo 162.475MHz

NOAA Weather Radio will be expanding into Three Rivers and Hebbronville in the coming months.

Severe Weather Climatology

INTERESTING WEATHER FACTS

The Corpus Christi NWS County Warning Area averages 7 tornadoes per year. Most of these are weak F0 and F1 tornadoes. However, in 1967 there were 48 tornadoes reported. Of these, 42 were associated with Hurricane Beulah.

May is by far the peak month for severe weather in South Texas. On average there is 1 tornado, 3 damaging wind events, and 3 severe hail events across the area during the month of May.

Only 2% of tornadoes ever reach violent F4 or F5 category, yet they are responsible for 70% of all tornado deaths in the US annually. No F4 or F5 tornadoes have been reported in the Corpus Christi county warning area since 1950.

The National Weather Service defines a severe thunderstorm as a storm that produces either a tornado, a wind gust of at least 50 knots (58 mph) or hail equal to or greater than the diameter of a penny (3/4 inches). History shows that severe weather is not as common in South Texas as it is across many other parts of the United States. Although they are infrequent, severe thunderstorms have been observed in every month and at all hours of the day or night across South Texas. But historically the main peak during the year in which severe thunderstorms are observed is during the spring months of April, May and June. More specifically, the month of May has the highest incidence of severe weather. May is one of the rare months in which moisture streams in from the Gulf of Mexico, instability is high (warm temperatures near the surface overrun by cold air aloft), and late season cold fronts plunge into the area providing a lifting mechanism adequate for the development of severe thunderstorms. Summertime thunderstorms are usually non-severe and are driven inland by the summer sea-breeze.

Damage done in Port Lavaca after Hurricane Claudette made landfall on July 15, 2003.

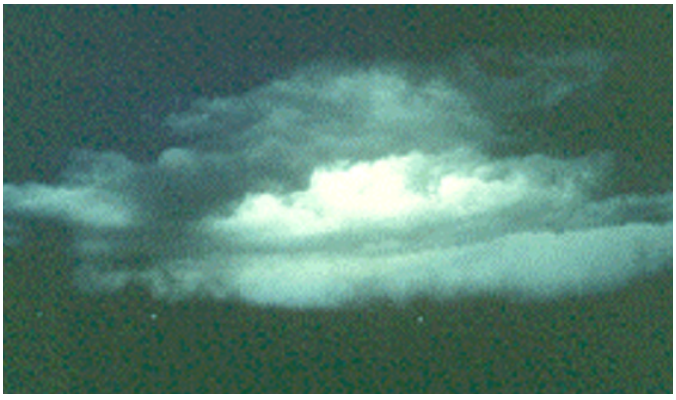
The main peak of tornado activity occurs in May. But looking further at the monthly distribution of tornadoes, we discover another peak occurrence during the months of August, September, and October, associated with landfalling tropical cyclones. Hurricane Beulah spawned over 40 tornadoes when she made landfall across South Texas in September of 1967. When associated with tropical cyclones, tornadoes are not usually accompanied by hail or a lot of lightning. They can also develop at any time of the day or night.

Since 1950 the overwhelming majority of South Texas tornadoes have been classified as weak F0 (40-72 mph) or F1 (73-112 mph) on the Fujita Scale. Only 49 tornadoes were strong, classified as F2 (113-157 mph) and F3 (158-206 mph). No violent F4 or F5 tornadoes have been confirmed since 1950, however back in 1901, the town of Goliad was devastated by a violent tornado, so we know they can happen.

Finally, like that of tornadoes, a peak in severe thunderstorm wind and hail events also occurs in the month of May. The month of May has seen more than double the occurrence of damaging wind and hail events than the next two closest months of April and June. We also see a peak in the distribution of damaging wind and hail reports during the late afternoon and early evening hours, between 5 and 7 p.m. CST. However, similar to tornadoes, severe thunderstorm winds and hail can occur at all hours of the day or night.

DID YOU KNOW?

Severe thunderstorms can produce downbursts of extreme winds. On occasion, the sinking motion associated with this downburst causes a hole in the cloud like this image seen here. Bright sunlight is observed shining through the hole illuminating a gust front of strong damaging winds.



Microburst cloud hole.

Severe Weather Summary for 2003

Damage done to a hangar at the Laredo International Airport after a June 2, 2003 severe thunderstorm.

How did 2003 measure up? Despite the historical fact that the month of May should be the most active severe weather month, no severe thunderstorms were reported across South Texas in May of 2003. It was an extremely dry month across South Texas, with the Corpus Christi International Airport only recording 0.01" of rain, the 3rd driest May in 117 years. However, residents of South Texas did experience two major severe weather events in 2003. The first occurred when a severe thunderstorm ripped across the north and east side of Laredo during the evening of June 2nd producing both damaging hail and straight line winds. Hail the size of golfballs and wind gusts between 85 and 95 mph were observed in Laredo, with the area around the Laredo International Airport hit the hardest. Damage was reported at $33 million.

Another event which caught most everyones attention, was Hurricane Claudette. Claudette made landfall as a Strong Category 1 hurricane along the middle Texas Coast, near Port O'Connor, around 1030 a.m. on July 15, 2003. Claudette was the first hurricane to make a direct landfall in the Port O'Connor area since Hurricane Carla in 1961. Claudette produced one F1 tornado in Palacios and one F0 tornado in Port Lavaca. Two post-storm fatalities were associated with Claudette from falling trees. Over 21,000 homes in Texas received damage, most of which occurred around Victoria, Texas. 191 homes were completely destroyed, mostly in coastal areas. Damage in Texas associated with Claudette stood at $45.7 million in uninsured losses and $90.0 million in insured losses at the time of this writing.

Overall 2003 saw only 4 tornado events across the Corpus Christi CWA, 24 severe thunderstorm wind events and 11 hail events for a total of 39 confirmed severe thunderstorm events. Since 1995 the Corpus Christi CWA has averaged close to 59 confirmed severe thunderstorm events per year. In terms of severe thunderstorms across South Texas, 2003 was much below average. This is in part to an overall dry Spring and more importantly a very dry May, the climatological peak of the South Texas severe weather season.

Weather Observers Needed

The National Weather Service (NWS) in Corpus Christi is looking for volunteers who have an interest in weather, who want to collect critical weather information, and provide reports during extreme weather situtations. Observers are needed to collect and report daily rainfall information, and to relay critical severe weather reports. Daily Rainfall data is used to calibrate the Nexrad doppler radar, to produce more accurate river flood forecasts, for climatology, and for research. Severe Weather reports help the NWS accomplish our mission of protecting lives and property of the citizens of south Texas.

Observers are mainly needed in rural areas of the Coastal Bend and Rio Grande plains away from the bigger cities where observations are more plentyful. During the months of January, February, and March, Meteorologists from the NWS conduct SKYWARN Spotter Training talks to educate volunteers how to recognize and report severe weather.

If you are interested in being a weather observer or hosting a SKYWARN session in your community, contact John Metz at 361-299-1353 x 223 or send e-mail to john.metz@noaa.gov.

IN OUR NEXT ISSUE