



# South Texas Weather Journal



NWS Corpus Christi, TX

Fall 2014 Edition

## Special points of interest:

- Did you know that this year marks the 10th Anniversary of the South Texas White Christmas?
- Are the drought conditions improving?
- Learn all about the new Monthly Rainfall Maps!
- New sections added to the STWJ...find out more on pages 14-15!

## Inside this issue:

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## A look back at two historic Christmas winter events

Juan Alanis – Student Volunteer

This year will mark the 10<sup>th</sup> anniversary of the historic snowstorm which affected South Texas on Christmas Eve and Christmas morning of 2004. It will also be the 25<sup>th</sup> anniversary of the December 22-24, 1989 South Texas record breaking deep freeze.

### 10<sup>TH</sup> Anniversary—2004 White Christmas

A combination of factors led to this historic event. An arctic cold front moved through South Texas late on the 22<sup>nd</sup>, dropping temperatures from the 60s and 70s down into the 30s and 40s. On December 24, with the cold arctic air already settled in at the surface, a strong upper level disturbance approached the region from Mexico. This disturbance, combined with overrunning conditions above the surface, was responsible for the rare snow event.

The first bands of sleet and snow developed in the morning and early afternoon hours of the 24<sup>th</sup> and stretched from Laredo to Choke Canyon Reservoir and northeastward to Victoria County. A second band of sleet and snow developed around midday on the 24<sup>th</sup>, about 50 miles south of the original band and affected areas north of a Laredo to Mathis to Rockport line.

The most significant snow bands began to develop in the late afternoon hours as the upper level disturbance entered the region. The initial bands of snow developed across the south areas of the region near Hebbronville and Falfurrias, then expanded northward to cover the entire region as the evening went on. Widespread light to moderate snow, with occasionally heavier snow bands continued late into the evening and into the overnight hours early Christmas Day. Embedded thunderstorms were also observed within the heavier snow bands. The snow ended by sunrise Christmas morning as the upper level disturbance exited the region.

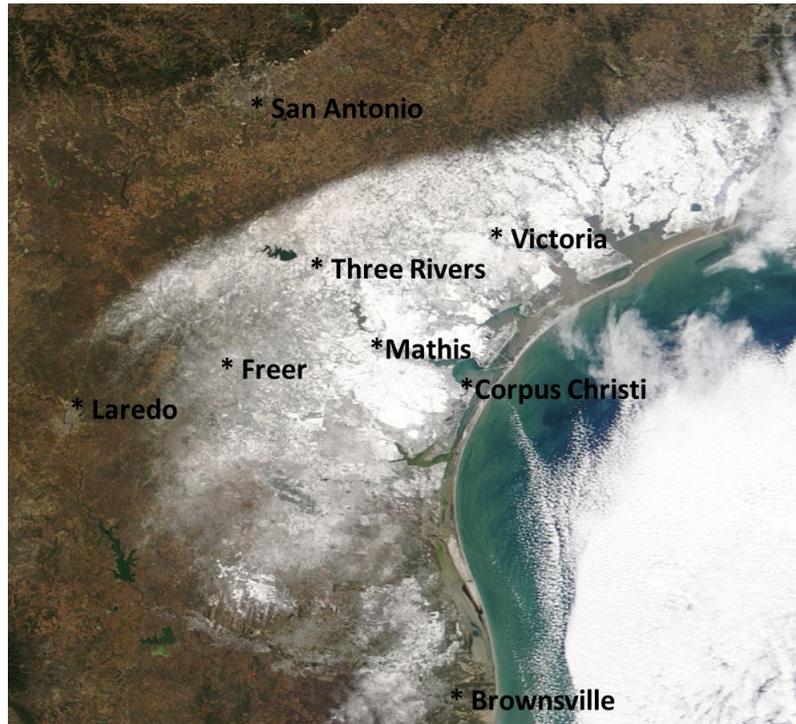




With temperatures remaining in the 30s and 40s across much of the region on Christmas Day, the snow was slow to melt in the areas that received heavier amounts. In fact, snow was still on the ground on December 26 from Kingsville northeastward to Corpus Christi, Refugio and Victoria.

This was the region's heaviest snowfall since the Valentines Day Snowstorm of 1895.

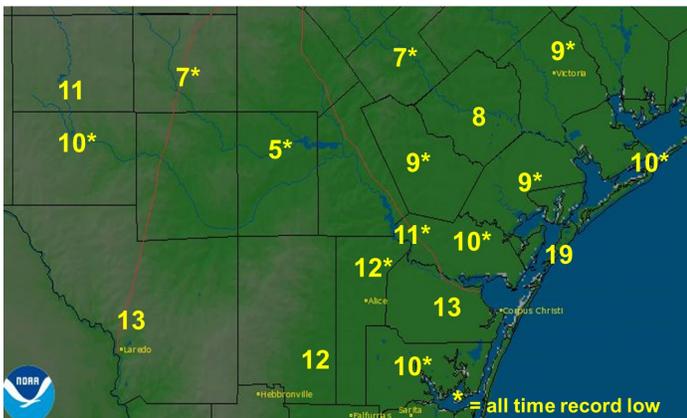
SNOW TOTALS	
DECEMBER 24-25, 2004	
Victoria	12.5"
Refugio	9.5"
Alice	8.0"
Sinton	7.0"
Three Rivers	6.0"
Goliad	5.3"
Port Lavaca	5.2"
Tilden	5.0"
Kingsville	5.0"
Encinal	4.5"
Corpus Christi	4.4"
Freer	4.0"
Laredo	1.1"



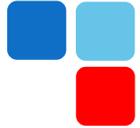
### Arctic Outbreak of December 22-24, 1989

After an initial blast of arctic air on the 15<sup>th</sup> and 16<sup>th</sup>, a much stronger 1052 mb arctic high pressure system sent an arctic front through South Texas late on the 21<sup>st</sup>, sending temperatures plunging to all time lows.

Based on data, the entire Corpus Christi forecast zone (except for Laredo, which was a "warm" 33 degrees) was below freezing on December 23, 1989, with many areas remaining in the 20s for the entire day. The night of December 23<sup>rd</sup> was the coldest on record for many locations as the strong arctic high settled into Central and South Texas. Temperatures fell into the single digits from McMullen County eastward into the Victoria Crossroads regions, with teens in all other areas. All-time record lows were set at 11 locations across the region, including Tilden, Victoria and Kingsville. Daily average temperatures were between 30 to 40 degrees below normal. In fact, December 1989 turned out to be the coldest December on record for Corpus Christi and Victoria. This arctic blast wiped out much of the Rio Grande Valley's citrus crops.



On a national scale, the strong arctic high pressure system broke all time record lows across much of the nation. The arctic air went as far south as central Florida. 122 cities set record lows on the 23<sup>rd</sup>, with 41 of those setting all time record lows for the month of December.

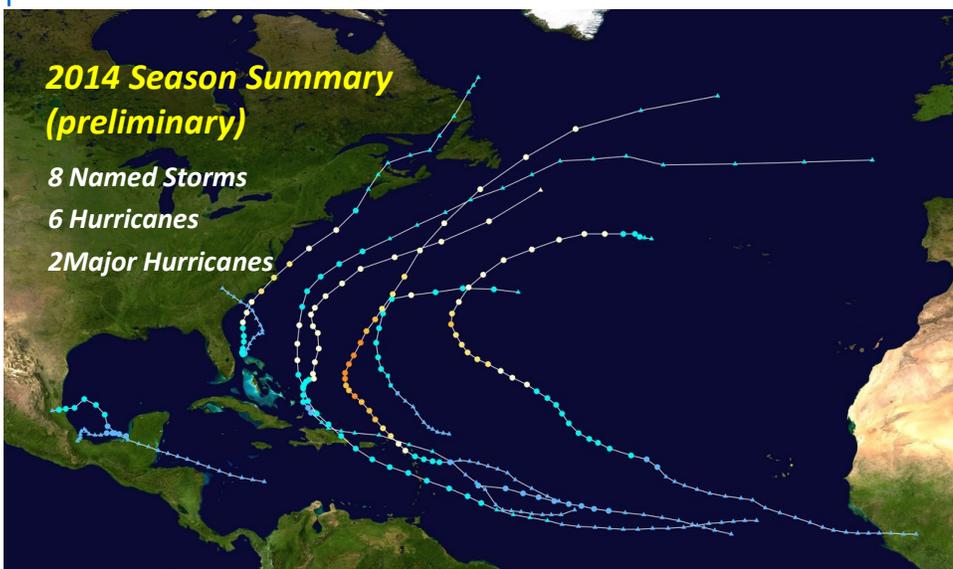


# A LOOK BACK

## Preliminary Summary of 2014 Atlantic Hurricane Season

John Metz—Warning Coordination Meteorologist

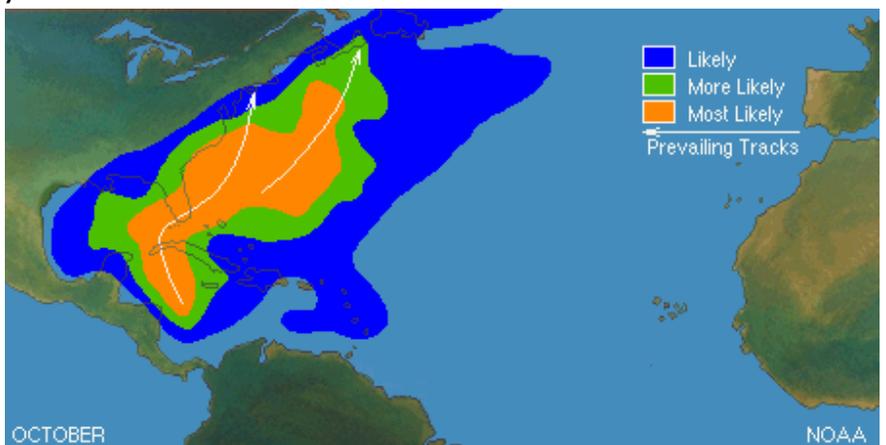
Although it's been quiet, the Atlantic hurricane season is not over. During the month of October, tropical cyclones are more favored to form in the western Caribbean, eastern Gulf of Mexico and along the Atlantic seaboard (see map below). In November, storms are more likely to develop near Cuba and the Bahamas. In an average year, we could expect another 4-5 storms to develop through the end of the season which officially wraps up at the end of November.



Here is a preliminary summary of the season thus far. Overall, it has been very quiet, even more so than predicted. There have been a total of 8 named storms, 6 hurricanes and 2 major hurricanes. The early NOAA Predictions (May 22, 2014) called for a 70% probability of 8-13 named storms, 3-6 hurricanes, and 1-2 major hurricanes. This was revised slightly lower on August 7. But again, the season is not over.

The only hurricane to directly impact the United States this season has been Hurricane Arthur, which moved up the Atlantic seaboard from July 1-5. Tropical Storm Dolly has been the closest Gulf storm, which made landfall near Tampico Mexico on Sept 3, and resulted in higher than normal tides, dangerous rip currents, and increased rainfall across South Texas. Edouard and Gonzalo have been the only major hurricanes, and fortunately, these storms remained over the open Atlantic with no impacts to any mainland.

As it stands, the U.S. has gone another year without a major hurricane landfall. The last major hurricane to strike the U.S. was Wilma, which hit south Florida in October 2005 as a category 3 storm. This is the longest streak without major hurricane U.S. landfall dating back to 1900. The streak also continues for the Coastal Bend as it's been 44 years since the last direct hit of a major hurricane. These long



streaks are a welcome relief for coastal communities, but lead to a greater false sense of security.



What's the likelihood of an October or November storm hitting Texas? Approximately 2% or less. There have been nine October and two November hurricanes in the historical archive dating back to 1527. The most recent was hurricane Jerry which struck near Galveston on Oct 16, 1989. On the mid coast, Corpus Christi suffered a direct hit of a Category 1 storm on Oct 16, 1912 and Matagorda Bay saw a deadly hurricane in November of 1527 in which 200 lives were lost.

The message for coastal residents is be prepared. To learn about how you can be prepared for the next storm, check our local hurricane guide, available on our website in both English and Spanish.

<http://www.srh.noaa.gov/crp/?n=2014hurricaneguide>

<http://www.srh.noaa.gov/crp/?n=2014spanishhurricaneguide>

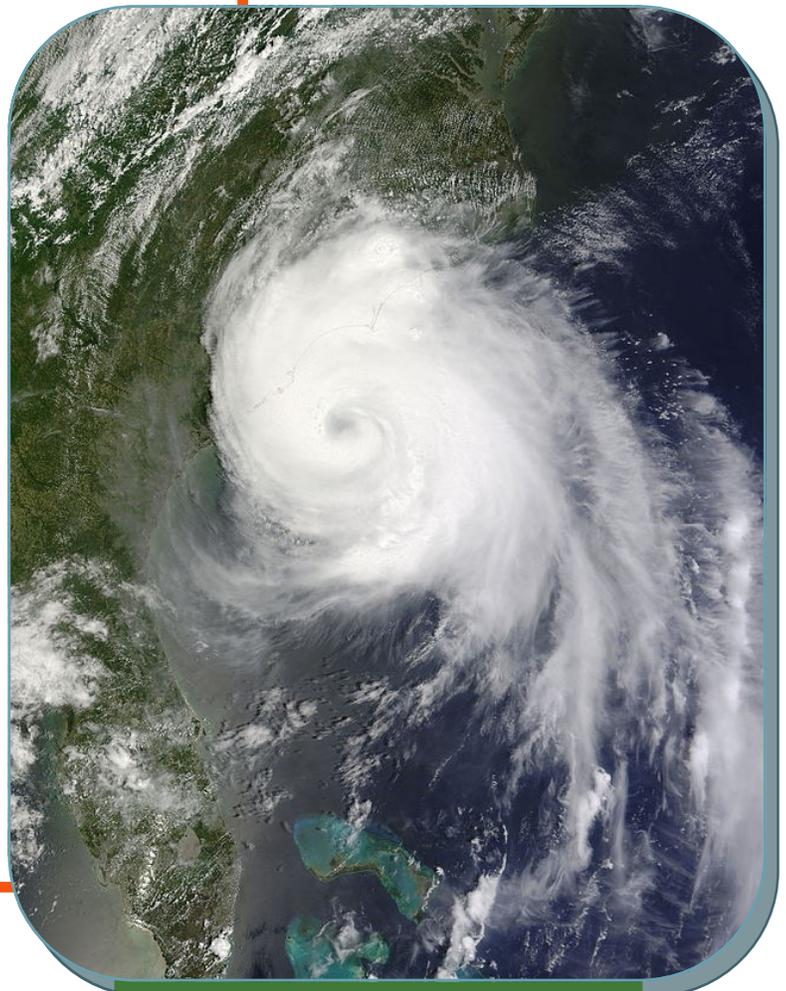
### Listing of October and November Hurricanes

#### October

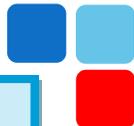
1837	October 5	Brownsville
1842	October 5	Galveston
1848	October 17	Lower Coast
1867	October 3	Entire Coast
1871	October 2	Galveston
1886	October 12	Beaumont
1912	October 16	Corpus Christi
1949	October 2	Freeport
1989	October 16	Galveston

#### November

1527	November?	Matagorda Bay
1839	November 5	Galveston



Hurricane Arthur (NOAA)



## Hurricane Preparedness Roadshow 2014

### John Metz—Warning Event Coordinator

For the 9<sup>th</sup> consecutive year, the National Weather Service (NWS) in Corpus Christi teamed up with Mark Hanna, the spokesperson for the Insurance Council of Texas, and over a dozen media outlets across the mid Texas coast, to advise local residents that the peak of the hurricane season was approaching and that every citizen should have a plan.



Mark Hanna illustrated the importance of having the correct insurance policies for your home, including Fire & Theft, Windstorm, and Flood. He also emphasized that every home owner should take a home inventory, which is used to settle your insurance claim.

Manuel Villarreal, the ombudsman for the Texas Department of Insurance (TDI) also accompanied this group and stressed the value in the TDI windstorm inspection program and the steps every home owner should take if they make repairs to their home.



NWS Meteorologists John Metz and Alina Nieves, and Meteorologist in Charge, Tom Johnstone, discussed the deadly hazards that accompany a hurricane, and how to get the latest hurricane forecast information.

In total, there were sixteen media outlets visited over a two day period from August 20-21. Thanks to all of our media partners for allowing us to visit with you and share

this important message of hurricane preparedness.

### MEDIA OUTLETS VISITED AUGUST 20-21

Victoria Advocate	KSAB-FM Corpus Christi – Live Interview
KAVU-TV Victoria—Taped TV Program	KNCN-FM Corpus Christi – Live Interview
KHMC-FM Victoria – Live Radio Interview	KORO-TV Corpus Christi – Taped Interview
Port Lavaca Wave – Interview	Corpus Christi Caller Times – Interview
Rockport Pilot – Interview	KRIS TV Corpus Christi – Live Interview
Port Aransas South Jetty – Interview	KEDT-FM Corpus Christi – Taped Interview
KIII-TV Corpus Christi – Live Interview	105.5 Exitos Corpus Christi - Taped Interview
KRYS-FM Corpus Christi – Live Interview	98.3 La Caliente – Taped Interview



# LOOKING AHEAD

## A Weak El Niño Favored This Winter as Drought Conditions Improve over Much of South Texas

Greg Wilk—Senior Forecaster

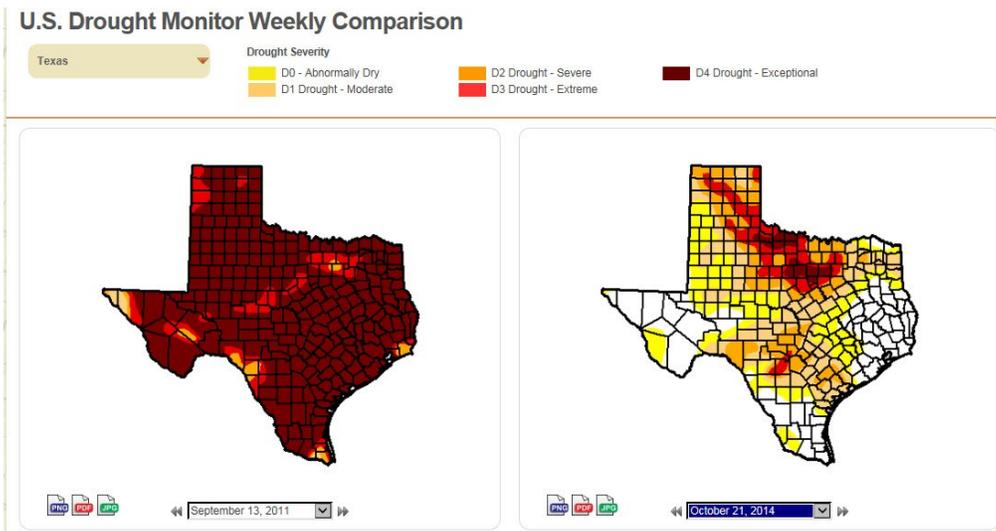
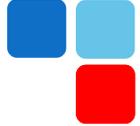
During the past several months, water temperatures over the equatorial Pacific Ocean have become warmer than normal. Once these water temperature departures exceed  $+0.5^{\circ}\text{C}$  in the East-Central Equatorial Pacific (between  $5^{\circ}\text{N}$ - $5^{\circ}\text{S}$  and  $170^{\circ}\text{W}$ - $120^{\circ}\text{W}$ ) for five consecutive three-month (running average) intervals, an El Niño episode will officially begin. The Climate Prediction Center (CPC) forecasts a 60% - 65% chance for El Niño to occur during the Northern Hemisphere fall and winter (from October 2014 through March 2015). According to CPC, El Niño is favored to begin by the end of 2014, with a weak El-Niño most likely continuing into the spring.

With a mild El Niño expected to develop by the end of 2014, CPC expects a greater likelihood for below normal temperatures and above normal rainfall for much of the Southern United States, including all of Texas (see Fig. 1 and 2) for the period December 2014 through February 2015. A “greater likelihood” does not mean that these conditions will definitely develop during this three month interval. However, El Niño conditions climatologically bring more upper level storm systems farther south, impacting the Southern United States (including South Texas), usually resulting in more rainfall and cooler temperatures.



Figures 1 and 2: Three month precipitation (left) and temperature (right) outlooks for the upcoming winter (December 2014 through February 2015). Typical with an expected El Niño pattern by the end of 2014, South Texas is expected to have wetter and cooler conditions.

Drought conditions have plagued Texas (including South Texas) for the past several years, especially during 2009 and 2011 when much of the state was in exceptional drought status (which is the most intense drought category). Recently, drought conditions have either been eliminated, or have improved over much of the state (see Figs. 3 and 4). While most of the western portions of South Texas are



Figures 3 and 4: Comparison between drought conditions at the peak of the drought in late September 2011 (left), and a more recent drought status over Texas. Much of the western portions of South Texas are no longer experiencing drought conditions.

drought-free, the Northern Coastal Bend and Victoria area are still experiencing moderate to severe drought conditions.

So, given the likelihood that rainfall will be above normal during the next few months, how will that impact drought conditions over Texas? The recent seasonal drought outlook product, valid through January 31 2015, shows drought conditions either being eliminated or at least improving over Texas (See Fig. 5).

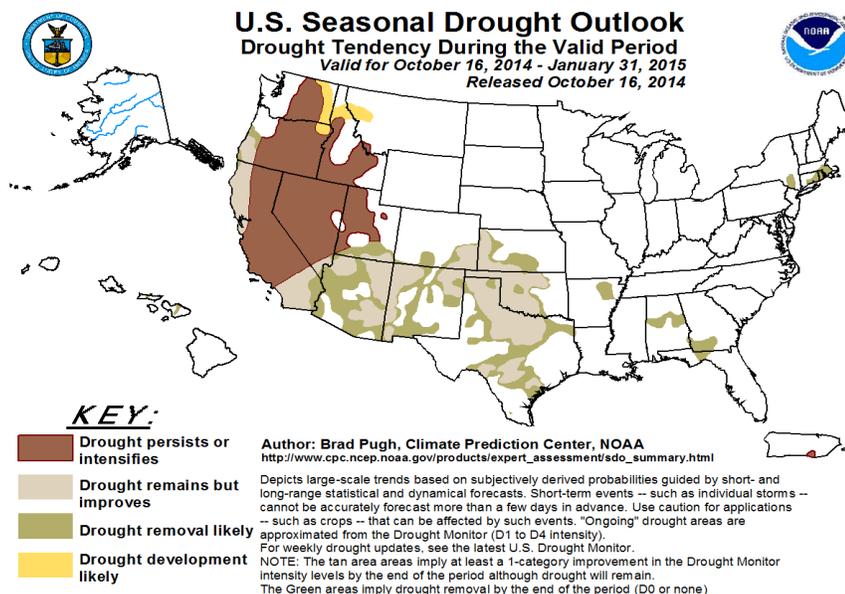


Figure 5: Seasonal Drought Outlook valid through the end of January 2015. Drought conditions are expected to be eliminated (green) or improve (grey) over Texas.

This will be good news for farmers and ranchers, who have suffered for years during this extended drought period. However, water supplies (including aquifers) for residents and businesses may continue to remain dangerously low, as above normal rainfall for the next few months does not guarantee that water supplies will be re-charged. Often, a major, widespread flood event is needed to sufficiently recharge water supplies that have been deleted for several years. Hopefully, Texas will see not only an end to the drought but a recharge of water to reservoirs across the Lone Star State. However, it may take months (if not longer) for conditions to return to pre-drought levels.



# ADVANCEMENTS & ON THE WEB

## Monitoring Tides

Ian Blaylock—Meteorologist Intern

Between July and September 2014, WFO Corpus Christi expanded its data monitoring capabilities with the development of a new, multi-purpose observation monitor. The new monitor allows for the simultaneous display of weather conditions and tidal information from a variety of sources. Development was initially spurred by the need for a more convenient way to monitor tide conditions along the middle Texas coast, and these newly added capabilities are the primary operational benefit of the new system.

Station Name	Ob Time	Height	Current State	Predicted Tide	Surge	High Tide	Low Tide
CRP							
Port O'Connor	Oct 29 1530Z	0.08	Falling	0.57	-0.49	16H 46M	04H 43M
Seadrift	Oct 29 1524Z	0.25	Falling	0.25	0.00	26H 46M	11H 28M
Port Lavaca	Oct 29 1530Z	0.17	Falling	0.32	-0.16	18H 49M	07H 46M
Copano Bay	Oct 29 1530Z	0.27	Falling	0.22	0.05	21H 19M	07H 22M
Rockport	Oct 29 1524Z	0.28	Falling	0.23	0.05	20H 19M	06H 37M
Port Aransas	Oct 29 1524Z	-0.25	Falling	-0.15	-0.10	11H 07M	01H 37M
Aransas Wildlife	Oct 29 1530Z	0.21	Falling	0.82	-0.61	23H 55M	12H 04M
Ingleside			Falling			18H 55M	06H 01M
Nueces Bay	Oct 29 1524Z	0.29	Falling	0.44	-0.15	18H 58M	08H 19M
USS Lexington	Oct 29 1530Z	0.08	Falling	0.71	-0.63	19H 04M	07H 07M
Packery Channel	Oct 29 1530Z	0.32	Falling	0.38	-0.06	21H 13M	08H 49M
Bob Hall Pier	Oct 29 1524Z	-0.51	Falling	-0.36	-0.15	10H 46M	01H 28M
S. Bird Island	Oct 29 1530Z		Rising		-0.01		
Baffin Bay	Oct 29 1524Z		Rising		-0.59		

Datum: MSL Units: Ft Refresh

In the past, monitoring regional tide conditions involved navigating to a slew of external websites and gathering observations one site at a time. With the tide monitor, all of this information is conveniently gathered in a table, enabling the forecaster to more easily get a feel of the spatial variability of tide levels. Additionally, a simplified web interface to access CBI's observed and forecast tide graphics is included to save time in operations.

This software aided the issuance of a number of coastal flood advisories in late September, when long period swells and persistent moderate east winds combined with high tide to produce brief periods of minor coastal flooding along the Gulf-facing beaches of the Texas coast. The side-by-side comparisons of a multitude of tide stations allowed us to quickly determine the most at-risk locations and tailor our advisories based on this knowledge. These internal improvements will allow us to provide better service regarding coastal flood events, and keep the public better informed about impacts as they occur.



## Enhanced Coastal Waters Forecast

Mike Buchanan—Science and Operations Officer

On September 30, 2014, the NWS office in Corpus Christi began issuing an enhanced Coastal Waters Forecast (CWF). This enhancement involves including the average height of the highest 10% of all waves. The CWF will continue to provide significant wave height information which is defined as the average height of the highest one-third of all waves. Small craft advisories, gale warnings, and storm warnings will continue to be based upon ongoing and/or forecast significant wave height values.

Here is a snippet of a CWF that was issued by our office on 10/28/14 at 4:18 AM CDT with the additional (bolded) wave information:

.TODAY...SOUTHEAST WIND 10 TO 15 KNOTS. SEAS 3 TO 4 FEET WITH **OCCASIONAL SEAS UP TO 5 FEET.**  
.TONIGHT...SOUTHEAST WIND 10 TO 15 KNOTS BECOMING SOUTH 5 TO 10 KNOTS AFTER MIDNIGHT. SEAS 2 TO 3 FEET.  
.WEDNESDAY...SOUTHEAST WIND UP TO 5 KNOTS SHIFTING EAST AROUND 5 KNOTS IN THE AFTERNOON. SEAS 2 FEET.  
.WEDNESDAY NIGHT...EAST WIND 5 TO 10 KNOTS. SEAS 2 FEET. A SLIGHT CHANCE OF SHOWERS AFTER MIDNIGHT.  
.THURSDAY...NORTHEAST WIND 5 TO 10 KNOTS. SEAS 2 FEET. A SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS.  
.THURSDAY NIGHT...EAST WIND 5 TO 10 KNOTS. SEAS 2 TO 3 FEET.  
.FRIDAY...NORTHEAST WIND 10 TO 15 KNOTS. SEAS 2 TO 3 FEET.  
.FRIDAY NIGHT...EAST WIND 10 TO 15 KNOTS. SEAS 2 TO 3 FEET.  
.SATURDAY...EAST WIND 10 TO 15 KNOTS. SEAS 3 FEET.  
.SATURDAY NIGHT...SOUTHEAST WIND AROUND 15 KNOTS. SEAS 3 TO 4 FEET WITH **OCCASIONAL SEAS UP TO 5 FEET.**

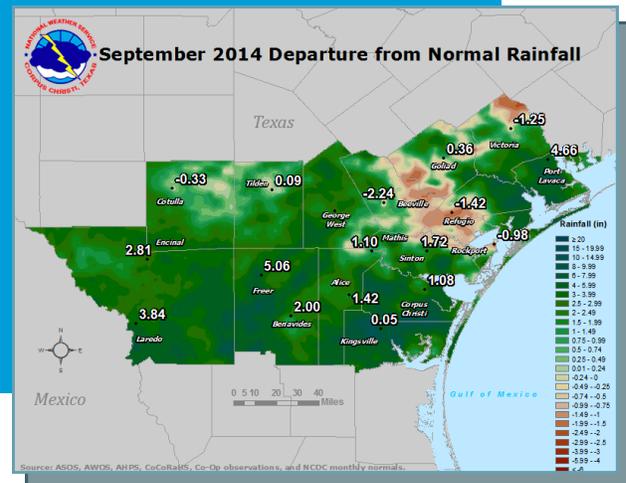
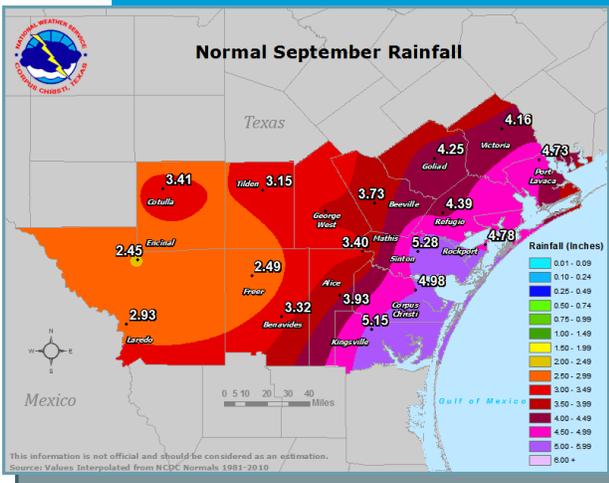
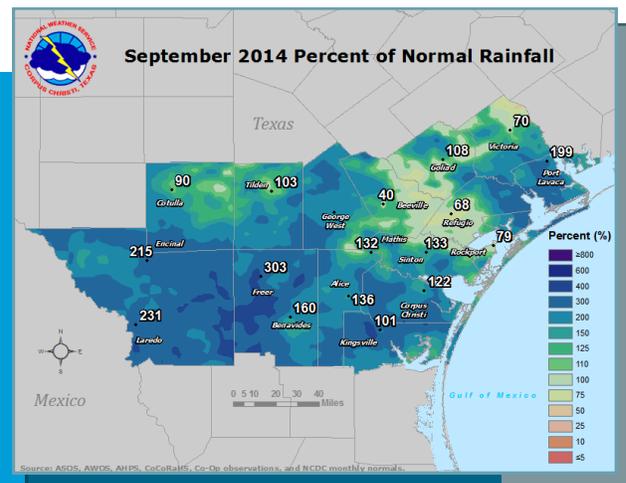
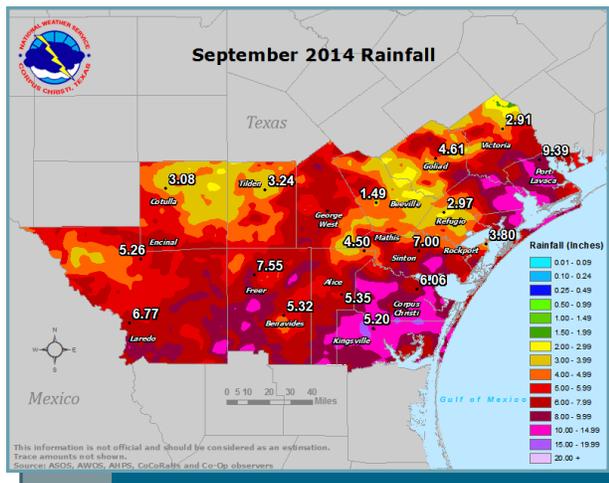
The enhanced wave information will only be displayed when the significant wave heights are 4 feet or higher. The average of the highest 10% of all waves roughly translates into 1.272 times the significant wave height. Comments and/or suggestions on this new CWF enhancement can be recorded at the NWS online customer survey at <http://www.nws.noaa.gov/survey/nws-survey.php?code=SRERD>.



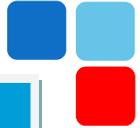
## New Monthly Rainfall Maps for South Texas Available Online

Mike Buchanan—Science and Operations Officer

Back in August of this year, the National Weather Service in Corpus Christi finalized the process to produce high-resolution GIS-based maps of normal monthly rainfall, observed monthly rainfall, departure from normal monthly rainfall, and percent of normal monthly rainfall for South Texas. These maps are an extension of our office’s daily rainfall maps which we first began generating back in October 2011.



The normal monthly rainfall maps are derived using the 1981-2010 precipitation normals obtained from the National Climatic Data Center. The observed monthly rainfall maps incorporate radar-estimated rainfall, rain gauge reports, and satellite estimated rainfall data. Quality control of this data is performed. From the normal and observed monthly rainfall data, the departure from normal and percent of normal monthly rainfall can be easily calculated. The maps are usually available by the 1<sup>st</sup> of the month at the following web page: <http://www.srh.noaa.gov/crp/?n=monthlyrainfall>



## A New Way Doppler Radar Scans the Sky

John Metz—Warning Event Coordinator

New software was recently installed to the National Weather Service Doppler Radar in Corpus Christi, called SAILS, which allows for improved scanning of storms across South Texas. (View the following image for a simplified explanation.) SAILS allows for more frequent scans of the lower atmosphere, which are crucial in observing tornado formation. This software has been in operation in Corpus Christi since late June.

The diagram illustrates the SAILS radar scanning process. It features a radar dome on the left and a fan-shaped radar beam extending to the right. The beam is divided into three horizontal sections: 'lowest elevation' at the bottom, 'middle elevation' in the center, and 'highest elevation' at the top. Three numbered steps are shown with arrows: 1. A yellow arrow points upwards from the lowest elevation to the highest elevation. 2. A blue arrow points downwards from the middle elevation to the lowest elevation. 3. A yellow arrow points upwards from the middle elevation to the highest elevation. The background shows a sunset sky. Logos for NOAA and the National Weather Service are in the top right. The text 'www.weather.gov' is at the bottom.

**SAILS**  
Supplemental  
Adaptive  
Intra-Volume  
Low-Level Scan

NOAA  
NATIONAL WEATHER SERVICE

### A New Way Doppler Radar Scans the Sky

**How Should This Help?**

Weak, short-lived tornadoes are the most difficult to predict and detect

Additional low-level radar scans will be crucial in seeing tornado formation

- 1 The radar starts at the lowest elevation and scans up through the sky for about two minutes
- 2 After scanning the middle elevation, the radar goes back to scan the lowest elevation again
- 3 The radar then returns to the middle elevation to scan up to the highest elevation

Total Time to Complete Steps 1-3  
About 5 Minutes

www.weather.gov

### Why is this Important?

When it comes to severe weather, frequent low-level radar scans are crucial to observe the development of tornadoes, which can form in a matter of seconds. Thus, with SAILS the NWS will be able to observe rapidly changing weather phenomenon with a greater degree of precision and issue more timely severe weather warnings. Currently, the WSR-88D radar completes its lowest scan in 3 to 4.5 minutes (during severe weather), depending on the range of the storms from the radar. With SAILS, the radar will now perform this low-level scan every 1.8 to 2.5 minutes, giving us low-level data almost twice as fast as before.

<http://www.weather.gov/gsp/sails>



## EVENTS, OUTREACH, & MORE

### Texas State Aquarium Recognized as a StormReady Supporter

Lara Keys—Journeyman Forecaster

The Texas State Aquarium here in Corpus Christi was recently recognized by the National Weather Service as a StormReady Supporter. As a StormReady Supporter, the Texas State Aquarium has established a severe weather safety plan and actively takes part and promotes severe weather safety awareness activities. StormReady communities and supporters are better prepared to save lives from severe weather through education, planning, and awareness. If your business, school, or other entity wants to promote the principles and guidelines of the StormReady program and become a “Supporter,” visit the website [www.stormready.noaa.gov](http://www.stormready.noaa.gov) for more information on joining the StormReady program and community.



### Community Collaborative Rain, Hail, and Snow Network (CoCoRaHS):

#### Winter Precipitation Reminders



South Texas is nicely tucked away in a tropical location leading to mild winters. But there have been, on occasion, times where residents in South Texas do get to experience frozen precipitation during the winter months.

Here are a few steps to remember when it comes to measuring frozen precipitation for your daily precipitation report:

1. Remove the top and the inner tube before the upcoming event.
2. Add any amount of water into the inner tube and remember the measurement.
3. When it's time to take your CoCoRaHS measurement, add the water from the inner tube to melt the frozen ice or snow.
4. Subtract the earlier measurement of the inner tube from the combined measurement. This will be the amount of your “daily precipitation”.

Additional steps are included on the CoCoRaHS website on how to measure snow depth using a flat surface and a ruler, and how to measure ice accretion off any object such as a twig: [http://www.cocorahs.org/Content.aspx?page=training\\_slideshows](http://www.cocorahs.org/Content.aspx?page=training_slideshows)

If you are interested in becoming a volunteer observer with the CoCoRaHS network, you can sign-up at the following link: <http://www.cocorahs.org/application.aspx>

Christina Barron—Forecaster

## Sea Camp 2014

Christina Barron—Journeyman Forecaster

The NWS Corpus Christi participated this past summer with the educational program hosted by the Texas State Aquarium entitled "SEACAMP". This year we focused on teaching the kids the science behind hurricanes. Ranging from hurricane formation to hurricane safety, our hands-on activities kept the kids involved in understanding the importance of safety while living here in hurricane-prone South Texas. Some of the activities the kids did were build a hurricane out of shaving cream and measure and calculate wind speeds using a hand-held kestrel instrument. An eye-opener was the storm surge model we presented to show just how water level rises and pushes inland as a hurricane approaches. The kids also participated in a "rain-gauge" relay race where they split into two groups (Tropical Storm vs. Hurricane) to understand that a tropical storm can bring as much rain and do as much damage as a hurricane such as Tropical Storm Allison in 2001.



## STAFF SPOTLIGHT



### NEW METEOROLOGIST-IN-CHARGE

Tom Johnstone is the new Meteorologist In Charge (MIC) at the National Weather Service (NWS) in Corpus Christi. Tom comes to us from the NWS office in Nashville, TN where he had served as Warning Coordination Meteorologist since 2009. Tom has been an NWS employee for more than 22 years, and in addition to Nashville has served at offices in South Carolina, Kentucky, Ohio and Maryland.

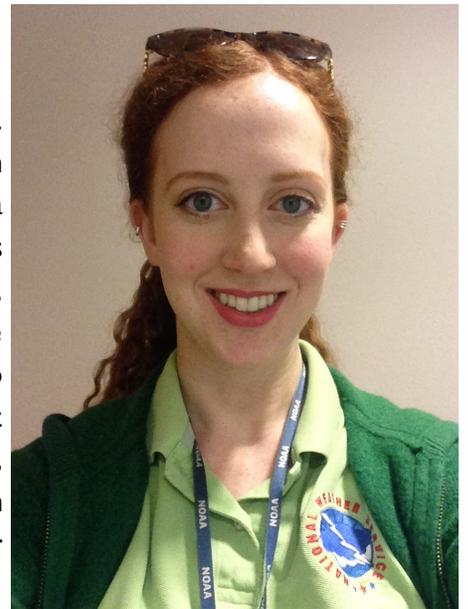
Tom is originally from Cincinnati, Ohio and became interested in weather as a child when a tornado struck near his home during the April 3rd 1974 "super Outbreak" of tornadoes. Tom is a 1991 graduate of Ohio State University where he studied Meteorology. Outside of work he enjoys golf, travel, and spending time with his wife Gerri and ten year old daughter Katie.



## STAFF SPOTLIGHT CONTINUED

### NEW JOURNEYMAN FORECASTER

Lara Keys is the new Journeyman Forecaster at NWS Corpus Christi. Prior to her promotion, Lara joined WFO Corpus Christi as an Intern Meteorologist back in the summer of 2011. During her time here, Lara has been heavily involved with the Geographic Information Systems (GIS) team, Outreach, and more. Originally from northwest Louisiana, Lara attended the University of Louisiana at Monroe, earning a degree in Atmospheric Sciences. During this time, she had the opportunity to serve in the Student Career Experience Program (SCEP) as a student worker at the National Weather Service office in Shreveport, LA, from 2008-2011. Lara continues to enjoy the weather and people in South Texas. During her free time she can often be found with her nose in a book, watching movies, and baking cakes.



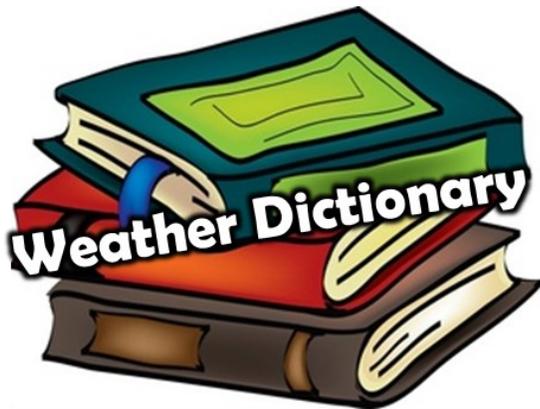
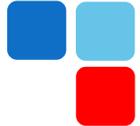
### NEW ELECTRONIC TECHNICIAN

Bryan Ramos is the new Electronic Technician at WFO Corpus Christi. He transferred from WFO Brownsville, TX back in September 2014. Bryan has been with the National Weather Service for over 9 years. He began his weather service career in June of 2005. Prior to working with the National Weather Service he was a Contract Weather Maintenance Technician for the Air Force 3<sup>rd</sup> Weather SQ. at Fort Hood, TX for 12 years. He also was in the U.S. Navy for 8 years from 1985 thru 1993.

Bryan is originally from San Antonio, TX. In his spare time he enjoys spending time with his wife at the beach and saltwater fishing.

### DID YOU KNOW?

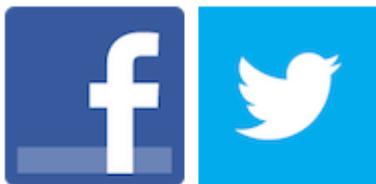
By 500 PM on the evening of January 28th, 1951, an Arctic cold front moved through Corpus Christi. The temperature dropped 30 degrees in 7 hours behind the front. The cold wave that ensued for several days thereafter was one of the coldest ever for Corpus Christi. It remained at or below freezing for **96** consecutive hours which is an all-time record for Corpus Christi! This was the coldest 6-day consecutive stretch (ending February 3rd) in history! Five record lows observed for Corpus Christi during this Arctic outbreak still stand today.



- **ARCTIC FRONT** – is the boundary or front separating deep, cold arctic air from shallower, relatively less cold polar air.
- **TROPICAL CYCLONE** – is a type of low pressure system which generally forms in the tropics. The cyclone is accompanied by thunderstorms, and a circulation of winds near the Earth's surface, which is clockwise in the Southern hemisphere and counter-clockwise in the Northern hemisphere. Tropical cyclones are classified into three main groups: tropical depressions, tropical storms, and hurricanes (the name depends on the region, i.e. typhoon).
- **EL NIÑO (EN)** – is characterized by a large scale

weakening of the trade winds and warming of the surface layers in the eastern and central equatorial Pacific Ocean. El Niño events occur irregularly at intervals of 2-7 years, although the average is about once every 3-4 years. They typically last 12-18 months. During El Niño, unusually high atmospheric sea level pressures develop in the western tropical Pacific and Indian Ocean regions, and unusually low sea level pressures develop in the southeastern tropical Pacific.

- **COCORAHS** – is an acronym for the Community Collaborative Rain, Hail and Snow Network. CoCoRaHS is a unique, non-profit, community-based network of volunteers of all ages and backgrounds working together to measure and map precipitation (rain, hail and snow).



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<http://www.srh.noaa.gov/crp/>

References:

- <http://w1.weather.gov/glossary/index.php?letter=a>
- [http://encyclopedia.kids.net.au/page/tr/Tropical\\_cyclone](http://encyclopedia.kids.net.au/page/tr/Tropical_cyclone)
- [http://www.pmel.noaa.gov/tao/proj\\_over/ensodefs.html](http://www.pmel.noaa.gov/tao/proj_over/ensodefs.html)
- <http://www.cocorahs.org/Content.aspx?page=aboutus>



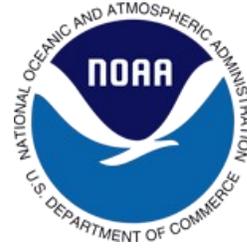
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# National Weather Service Corpus Christi, TX

