



# Texas Weather Wire



## West Gulf River Forecast Center Workshop

By Nick Hampshire

On March 29, 2016, the Austin/San Antonio Weather Forecast Office hosted 9 hydrologists and meteorologist from the NWS West Gulf River Forecast Center in Fort Worth, TX. The River Forecast Center is responsible for the issuances of all River Flood Warnings across South-Central Texas in addition to other areas. The goal of the meeting was for both offices to collaborate on new ideas and techniques to improve river forecasts. During the meeting, forecasters from our office were brought up to speed on several new endeavors the River Forecast Center has begun. This includes new support the RFC can provide our office during high-impact flooding events to help our offices provide Impact Decision Support Services and efforts to better understand rivers that are prone to rapid rises. We hope to continue discussions through future workshops and sending some of our forecasters to Fort Worth to learn from the hydrologist at the West Gulf River Forecast Center.



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Next is Climate...

## South Central Texas Climate Outlook

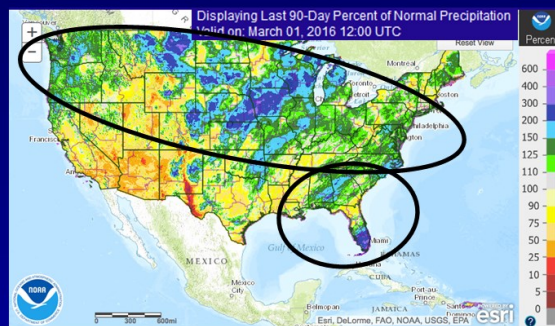
By Larry Hopper

Winter was warmer and drier than normal across South Central Texas despite having one of the three strongest El Niño events on record since 1950. Although El Niño typically tilts the odds towards a wet and cool winter for the region, South Central Texas has drier and/or warmer than normal winters about one third of the time as occurred this winter. Storm tracks and their associated precipitation patterns shifted north with the polar jet as commonly occurs during El Niño, but the subtropical jet actually moved south and east of our area to help contribute to our drier conditions. In addition, Arctic outbreaks were relatively infrequent this winter because the Arctic Oscillation (AO) generally remained in the positive phase aside from the first half of January. Therefore, strong polar high pressure systems that bring colder Arctic air south into Texas did not occur very often, allowing Austin and San Antonio to only have four freezes instead of the 13 and 17 freeze days they normally have, respectively. These warmer and drier conditions prevented snow from occurring anywhere except for a brief dusting on December 27, 2015 for the Western Hill Country, Edwards Plateau, and Del Rio.

Wetter than normal conditions returned to most of South Central Texas during March, which is typically the last month that El Niño has a significant impact on tilting the odds towards wetter than normal conditions for our region. Temperatures during March were still warmer than normal as average temperatures were closer to what we typically see in April. These temperatures combined with strong weather systems may have helped contribute to an active March when four separate events resulted in 36 reports of quarter-sized hail or greater, 15 reports of wind damage or severe wind gusts, and even one tornado in western Williamson County on March 8<sup>th</sup>.

### What Happened to our Wet and Cool Winter?

- 1) El Niño tilts the odds towards a wet and cool winter for us, but we are drier and/or warmer than normal 30-40% of the time!
- 2) Lack of Arctic outbreaks this winter associated with a very persistent positive Arctic Oscillation resulted in fewer freezes
- 3) Storm tracks shifted north with polar jet as expected during El Niño, but subtropical jet moved south and east of our area

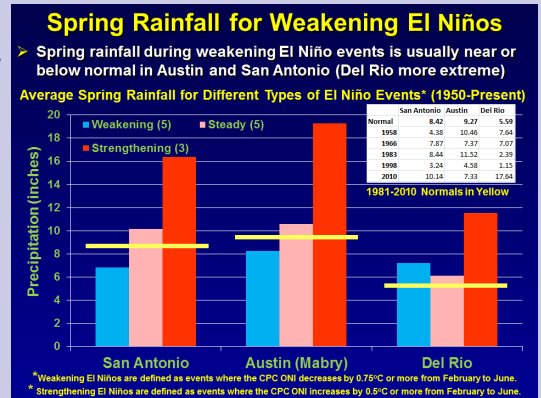


Climate continues...

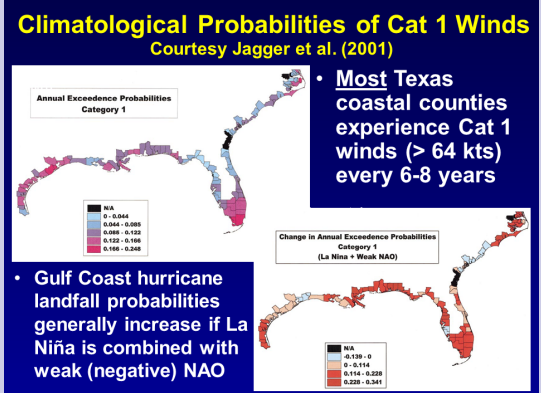
## South Central Texas Climate Outlook

By Larry Hopper

The Climate Prediction Center (CPC) predicts that the odds continue to be tilted towards wetter than normal conditions through at least June, with this strong El Niño expected to weaken to neutral conditions by late spring or early summer. However, local research shows that spring rainfall during rapidly weakening El Niños is usually near or below normal in Austin and San Antonio, while rainfall is typically above normal if the El Niño is rapidly strengthening (like last year) or remaining fairly steady. Considering this preliminary research and that El Niño has less clear linkages to our rainfall during April and May, the next few months still could be slightly drier than normal with the entire spring being near or slightly above normal after including the rainfall we received during March.



Many models are suggesting that not only will our current El Niño conditions rapidly weaken and become neutral, but also that at least weak La Niña conditions may develop with cooler than normal sea surface temperatures over the East Pacific. Therefore, CPC is predicting that there is a 40% chance that La Niña conditions will develop by August and a 50% chance they will develop by September just in time for the peak of hurricane season.

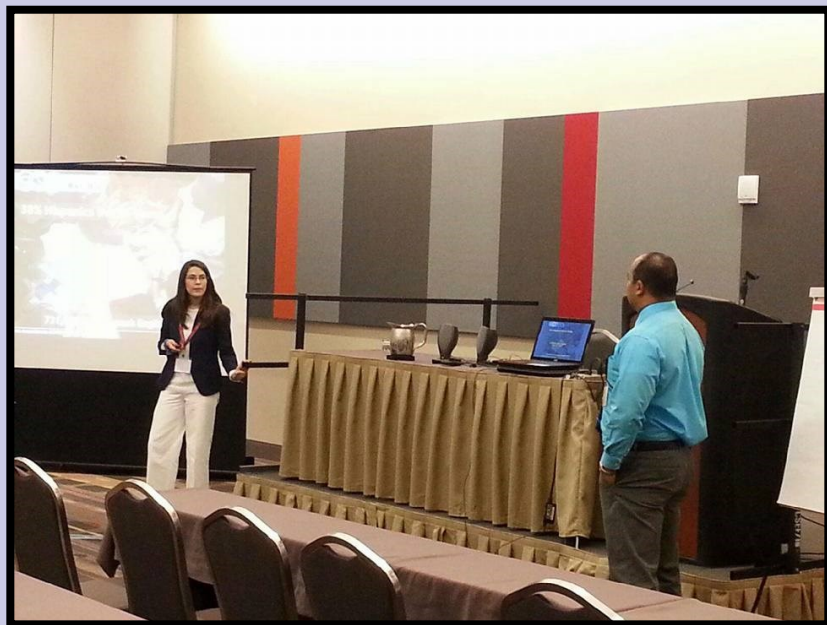


According to Dr. Thomas Jagger of Florida State University, the chances of counties along the Texas Gulf Coast experiencing hurricane-force winds increase when La Niña conditions are combined with the negative phase of the North Atlantic Oscillation (NAO). Although the NAO has generally remained positive over the last several months similar to the AO, a reversal in these fortunes combined with a La Niña could put the Texas Gulf Coast counties that typically experience hurricane-force winds every 6-8 years at greater risk for a hurricane landfall this year.

Hablamos Español is next...

By Orlando Bermúdez

The Hispanic population is one of the fastest growing in the nation and especially in state of Texas. About 38% Hispanics live in Texas with more than one half million do not speak English at all. Also, some of the highest vehicle and pedestrian border crossings are in Texas (El Paso, Brownville and McAllen). Native Spanish speakers will listen to radio or local television in their native language. However, weather information in Spanish is limited for this fast-growing community. However, a group of talented National Weather Service forecasters with Hispanic background has come together to help the Hispanic community while facilitating weather training to the community, emergency managers and local media partners. On April 7, 2016, during the Texas Department of Emergency Management Conference in San Antonio, Texas, Maria Torres and Orlando Bermúdez conducted a presentation named, “Hablamos del Tiempo en Español, Texas”. During the presentation they talked about the necessity of building trust with the community to take action during high impact events. Maria and Orlando shared with the audience different types of ongoing projects to help out the Hispanic community in Texas. Some of these projects are the newly Spanish transmitters installed in the Brownsville area, which translate all weather watches and warnings into Spanish for the Rio Grande Valley. The use of social media platforms such as Facebook and Twitter to send weather messages and safety tips to the community in English and Spanish when hazardous weather is forthcoming. Training and certifying Spanish local media partners as Skywarn spotters. The list goes on with the main goal of build trust amongst the Hispanic community to better serve them in their native language when weather strikes.





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### National Weather Service Mission Statement

“The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other governmental agencies, the private sector, the public, and the global community.”



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*Thank you for reading our newsletter!*

- *Are we expecting an active tropical season this summer?*

*Answers to this question and more will be included in the summer edition of the Texas Weather Wire.*