



Texas Weather Wire



Decision Support Services Roadshow Training

By Jason Runyen

The National Weather Service (NWS) defines Impact-based Decision Support Services (IDSS) as a provision of relevant information and interpretative services to enable core partners' decisions when weather, water, or climate has a direct impact on the protection of lives and livelihoods.

Operationally, IDSS means our forecasters will require an expanded understanding of the weather-related decisions users must make.. Training is a key component of being able to achieve this and delivering IDSS in a highly effective manner.

On December 7th and 8th forecasters at NWS Austin / San Antonio participated in an interactive training exercise called the Decision Support Services (DSS) Road Show. "One of the goals of the DSS Roadshow is to facilitate discussions on where the DSS program currently is for the office, and develop goals for the coming years as they relate to DSS", said Jennifer McNatt, facilitator of the Roadshow from NWS Southern Region Headquarters.



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Story Continues...

DSS Continues...

Several topics were covered over the two days, including best practices on how to provide weather support effectively to key decision makers. Topics also included Risk Communication, Messaging, Social Media, creating effective graphics and briefings, Hazardous Material Incident support, State of Texas support, and conducting media interviews.

One of the highlights of the training was an interactive exercise lasting several hours. The exercise covered a simulated heavy rainfall threat expected across the region that was to lead to high impact flash flooding and river flooding. Jennifer McNatt went on to say, "The use of exercises within the Roadshow not only works to develop individual DSS skills, but teamwork as well, since this is such a critical component to DSS."

During the exercise, NWS Austin / San Antonio forecasters were separated into different locations to simulate providing weather support onsite at a city Emergency Operations Center, at the weather forecast office, and in the field conducting media interviews. Unlike other internal exercises, this simulation also involved bringing in actual emergency management and media partners to the office to play their roles. Several other injects were simulated in the exercise, such as phone calls from school superintendents, first responders, and the general public.

"The use of exercises within the Roadshow not only works to develop individual DSS skills, but teamwork as well, since this is such a critical component to DSS"



Nick Hampshire, Senior Forecaster at NWS Austin / San Antonio, said "The DSS Roadshow was an invaluable training opportunity for the forecasters to not only learn new techniques to benefit our core partners but to expand on the things we currently do well. The best part about the two day course was a real-time simulation where Emergency Management and media partners were invited to participate. Not only were relationships built upon, but each side was able to learn more about each other's needs of critical weather information."

South Central Texas Climate Outlook

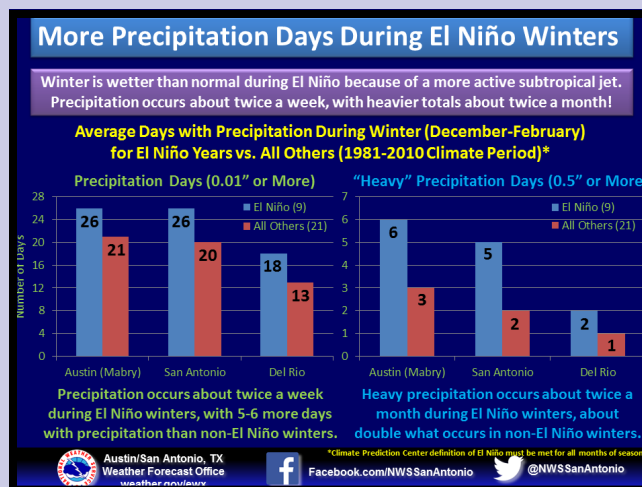
By Larry Hopper

“Wetter and slightly cooler than normal conditions are forecast to continue through at least April according to the Climate Prediction Center ”

Weather and climate extremes highlighted 2015 as Austin-Bergstrom set a new annual precipitation record of 58.29 inches, breaking the old record of 55.74 inches set in 1957. In addition, Austin Camp Mabry had their second wettest year on record (and wettest since 1919) with 59.96 inches, while San Antonio and Del Rio experienced their nine and twelfth wettest years, respectively. A five year drought across Texas ended after the state had its wettest month ever in May before a dry summer and early fall allowed a short-term “flash drought” to develop over half of Texas by mid-October. Fires east of Bastrop near Smithville burned over 4500 acres in mid-October before ending with the wettest five-day period in Texas history on October 22-26, 2015. Finally, yet another historical flash flood event along the I-35 corridor occurred on October 30 when over 18 inches of rain fell near Buda and Austin-Bergstrom received 12.49 inches of rain, shattering their old daily rainfall record of 8.70 inches from November 23, 1974.

Wetter and slightly cooler than normal conditions are forecast to continue through at least April according to the Climate Prediction Center (CPC), with relatively high confidence for this winter. Local research shows that precipitation occurs about twice a week during El Niño winters, with 5-6 more precipitation days than normal winters. In addition, more than half an inch of precipitation occurs twice a month during El Niño winters, about double what occurs in non-El Niño winters. The October-December Oceanic Niño Index of 2.3°C tied the highest value observed during the 1997-98 El Niño episode, meaning the current El Niño will at least be one of the strongest two events since 1950. These warmer tropical waters in the East Pacific will continue to cool down over the next several months, allowing the current strong El Niño conditions to gradually weaken through winter and spring before transitioning to neutral conditions by late spring or summer. Four of the five strongest El Niño events observed since 1950 have transitioned to La Niña by the next fall, so this will be monitored in the coming months.

(Image 1) Shows Stats of more Precipitation During El Niño Winters



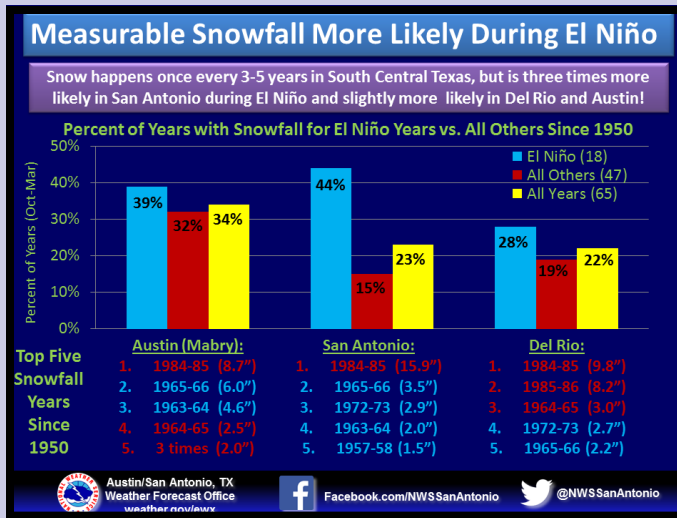
Climate Continues Next...

South Central Texas Climate Outlook Continues...

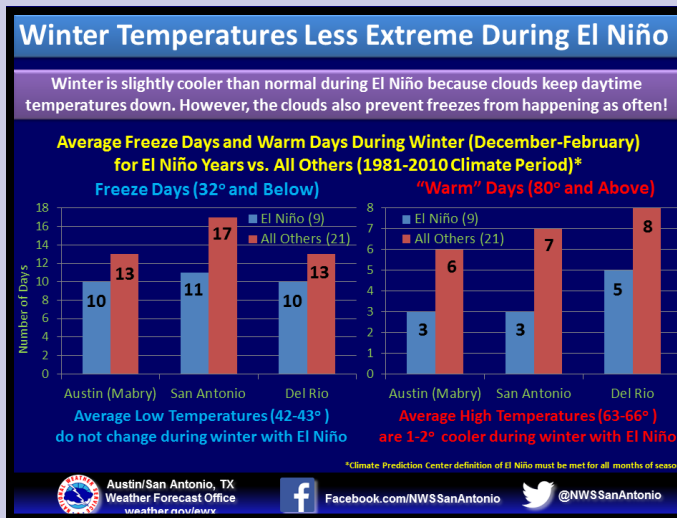
Finally, South Central Texas typically experiences snow every 3-5 years, but the odds of receiving measurable snowfall are three times greater in San Antonio and slightly more likely in Del Rio and Austin during El Niño! Although the greatest snowfall event in the region during January 1985 occurred with La Niña conditions, the next four heaviest snowfall events all occurred during El Niño conditions in February. Therefore, climate records suggest there may be an enhanced chance of snowfall this winter, particularly during February. However, historical records suggest these chances are still below 50% and local research shows that temperatures are typically less extreme during El Niño winters due to clouds preventing freezes from happening as often overnight. Nevertheless, cold outbreaks associated with negative phases of the Arctic Oscillation (AO) and North Atlantic Oscillation (NAO) combined with an active subtropical jet pattern could still give the region some snow later this winter!

“Snowfall are three times greater in San Antonio and slightly more likely in Del Rio and Austin during El Niño”

(Image 2) Shows Stats of measurable Snow During El Niño Winters



(Image 3) Shows Stats of Temperatures less Extreme During El Niño Winters



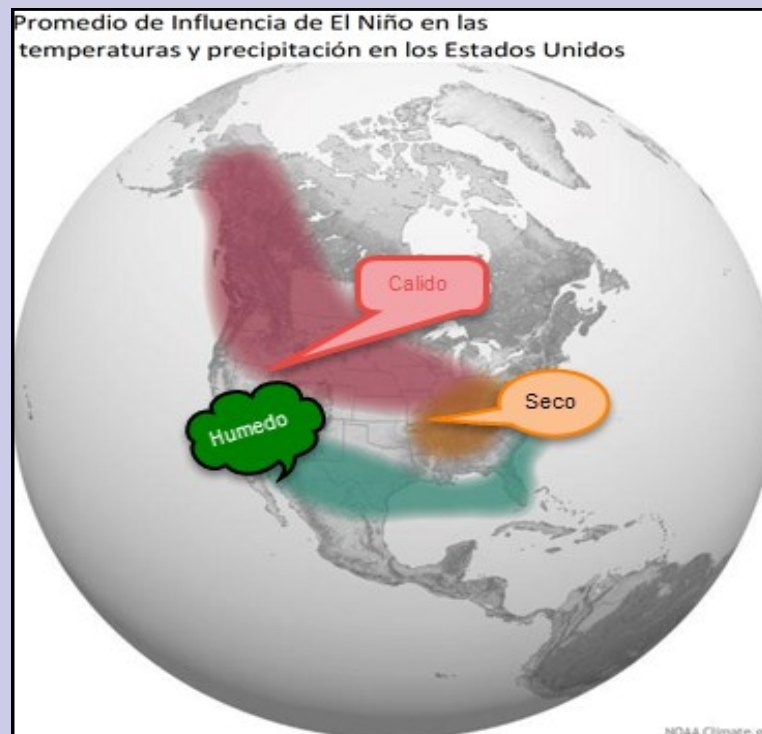
El Niño is Next...

El Niño (Spanish)

Por Orlando Bermúdez

El Niño se encuentra con nosotros y según los pronosticadores del Centro de Predicción Climática de la NOAA, este fenómeno atmosférico está creando grandes noticias. ¿Pero por qué?. El fenómeno del Niño se refleja sobre los patrones climáticos del mundo y aquí les muestro algunos cambios climáticos relacionados con él.

*Sabia Usted...
El término "El Niño" originalmente se aplicó a un débil calentamiento en la temperatura superficial del mar a lo largo de las costas de Perú y Ecuador, que se observaba cercano del periodo Navideño (de ahí el nombre del "El Niño" asociado a El Niño Jesús)*



(Image 4) Muestra la Influencia de El Niño en el Promedio de Temperaturas y Precipitación en los

Cuando El Niño se desarrolla, este puede iniciar una reacción en cadena en la atmósfera que influye las condiciones atmosféricas en lugares más alejados de la zona ecuatorial tropical del Océano Pacífico, incluyendo los Estados Unidos. Esto significa ciertos cambios en el clima normal, o promedio a largo plazo en la temperatura o precipitación, para algunas partes de los Estados Unidos. El clima es como las mareas. Al igual que las mareas suben y bajan, nuestro clima se calienta durante el verano y se enfría durante el invierno. El Niño sería como cambiar el nivel de esas mareas en algunos lugares. Tal vez vienen un poco más altas o más adelantadas, logrando mojar esas pertenencias que llevaste a la orilla de la playa antes de recogerlas.

El Niño Continúa...

El Niño (Spanish)

El mapa de arriba resalta las áreas de los Estados Unidos que experimentan condiciones de temperatura o precipitación que pueden ser diferente de lo normal cuando El Niño está presente. Impactos de El Niño son más notables durante el final del otoño hasta principios de los meses de primavera. Durante finales de la primavera y el verano, los patrones climáticos podrían no verse afectados en lo absoluto.

Posible Impactos Donde Usted Vive

Algunos de los patrones que se observan a menudo durante eventos fuertes de El Niño en los Estados Unidos incluyen:

- **Temperaturas sobre el promedio en partes de Alaska, el Pacífico Noroeste, la Región Intermontañosa, los Planos del Norte y el Medio Oeste Norte.**
- **Lluvia por debajo del promedio en las Montañas Rocosas del norte y los valles de Ohio y Tennessee.**
- **Lluvia por encima del promedio en el sur de California, Arizona, Nuevo México, Texas y Florida.**

La principal influencia de El Niño en el verano de Estados Unidos tiende a ser huracanes:

- **Más ciclones tropicales en el Pacífico**
- **Menos ciclones tropicales en el Atlántico**

No todos los eventos de El Niño causan las mismas condiciones climáticas, sin embargo, la intensidad del evento de El Niño puede tener un impacto justo en lo cálido, frío, húmedo, o seco que las áreas afectadas pueden experimentar. Desde el verano de 2015, el actual evento de El Niño se ha fortalecido, con un fuerte evento favorecido actualmente durante el invierno, según el último informe del Centro de Predicción del Climática.

En casos en los que ocurre un fuerte El Niño, pueden haber grandes impactos a las comunidades y la economía estadounidense. Fuertes El Niño se asocian a menudo con fuertes lluvias de invierno a través de California, lo que podría traer la humedad tan necesaria a una región devastada por la sequía. Incluso si cae precipitación sobre lo normal a través de California, una temporada de lluvia y nieve sobre lo normal es muy poco probable que borre cuatro años de sequía.

Mientras tanto, fuertes lluvias en la mitad sur de los Estados Unidos podrían dar lugar a inundaciones causando daños extensos a ciudades y comunidades, vidas y medios de subsistencia. Además, El Niño podría elevar el riesgo de tiempo severo en el sureste durante el invierno. Por otro lado, las temperaturas por encima del promedio a finales de otoño a invierno a través del norte de los Estados Unidos podría significar un invierno más templado y reducir los costos de energía. Es importante entender que un fuerte El Niño sólo favorece estos impactos, pero no garantiza que van a suceder.

“Desde el verano de 2015, el actual evento de El Niño se ha fortalecido ”

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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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Austin/San Antonio National Weather Service Home Page

<http://www.weather.gov/austin>

Thank you for reading our newsletter!

- *Are we expecting to see a stormy 2016 spring season?*

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

Have a great winter !