



Austin/San Antonio Weather Forecast Office WEATHER EVENT SUMMARY

Record Sized Hail, Wind, Tornado, Heavy Rainfall Events
South Central Texas

28 April – 1 May 2021





Event Summary

Overview

A large upper-level low pressure system sat mostly stationary across the western United States during the last few days of April. Associated disturbances approached the state on the afternoon of April 28th. A disturbance and the West Texas Dryline combined with ample moisture, instability, and shear in the atmosphere to create several rounds of storms across the Rio Grande Plains and Edwards Plateau during the afternoon and evening of April 28th. These storms moved eastward towards the Interstate 35 corridor through the late evening and during the overnight hours of April 28-29. Some of these storms produce very large hail, damaging winds, and an isolated tornado.

Storms initiated to the west of the Rio Grande around 3 pm on the afternoon of the 28th. The first severe thunderstorm warning for the main storm was issued at 4:29 pm with the cell moving across the south side of Del Rio to Brackettville, producing 2-to-3-inch diameter hail. The main storm, and a secondary storm behind it, continued eastward roughly along Highway 90 into Uvalde County, continuing to produce anywhere between 1.5-to-3-inch diameter hail. As the storms entered Medina County the 2nd storm caught up to the first and a large supercell formed.

Radar indications of a very strong rotating updraft prompted strongly worded Severe Thunderstorm Warnings in addition to Tornado Warnings. The severe supercell continued across Medina County around 7:30 pm producing multiple giant hail reports over 5 inches in diameter, a large swath of straight-line wind damage, with winds up to 110 mph, and an embedded EF-1 tornado southeast of Hondo. The damage was made worse by the fact that the large hail was being driven by the strong winds, resulting in hail and wind damage from Sabinal through D'Hanis, Hondo, and Castroville. A 6.4-inch diameter hailstone was confirmed to have occurred in Hondo, establishing a record for the largest hail stone in the state of Texas!

The circulation weakened as it moved into Bexar County, but hail up to 1.5 inches in diameter occurred and heavy rainfall resulted in flooding. The storm was not over yet as it strengthened again moving out of northeast Bexar County into Comal County, producing additional wind damage and large hail. Storm surveys concluded that the wind damage in northeast Bexar County into southwest Comal County was the result of straight-line winds estimated up to 80 mph. The storm finally weakened, moving into Travis County around 10:45 pm, where the atmosphere was less conducive for strong storms.

The atmosphere remained prime with instability and lift on the evening of the 28th, with several additional rounds of thunderstorms developing. This produced a 2nd and 3rd round of hail and heavy



April 28th – May 1st Severe Weather and Flooding

rainfall for some areas. Storms continued into the early morning hours of the 29th, with a line of storms prompting additional tornado warnings across Medina County between 1 and 2 am.

When all was said and done the observed hail swaths extended from Del Rio to Hondo to San Antonio and north to San Marcos, while other storms dropped hail to the north and south of this corridor. The first round of beneficial rains also dropped between 2 and 4 inches of rain from Uvalde to Kerrville to northwest Bexar County. This left saturated soils across much of the Edwards Plateau, Hill Country, and San Antonio Metro area.

The large upper-level low centered over the Mexico state of Chihuahua slowly advanced eastward while at the surface a frontal boundary was positioned across South-Central Texas into portions of the Coastal Bend, generating additional showers and storms from April 30th into May 1st. Record vertical moisture content values, observed from weather balloons, were in place across the region, contributing to pockets of very heavy rainfall. With soil conditions already saturated from previous storms, flash flooding quickly developed in some areas.

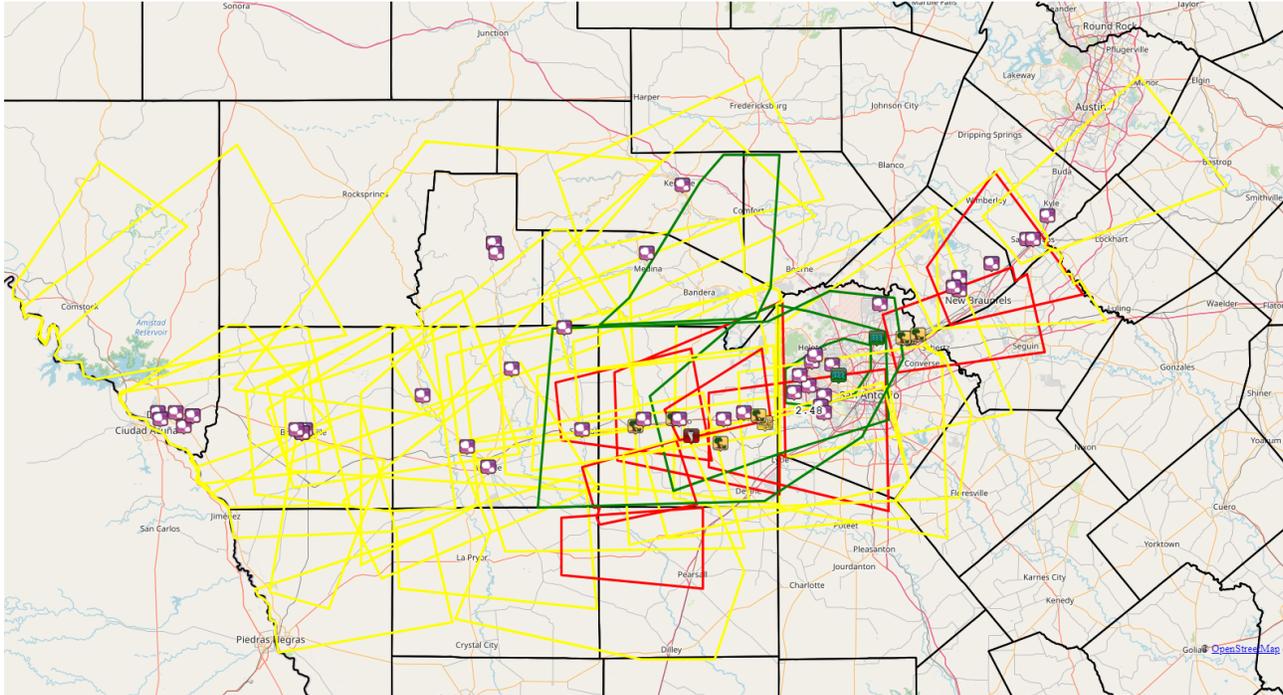
The first round of storms developed during the morning hours of April 30th across the eastern coastal plains neat the cold front. Several inches of rain fell across portions of the coastal plains. However, with this area mainly missing out on the rainfall from the severe event on April 28th, no significant flooding was reported. The next round of storms developed from the afternoon into the evening hours on April 30th, with heavy rainfall associated with the strongest cells producing rainfall rates of 2 to 3 inches per hour at times. Several inches of rain fell on already wet soils across portions of the San Antonio metro area, the I-35 corridor, and across portions of the coastal plains. This resulted in reports of flash flooding, numerous road closures, and several water rescues/evacuations, especially within portions of Bexar County and the San Antonio metro area. The third round of storms and heavy rainfall developed along the Rio Grande and moved northeastward across the region throughout the daytime hours of May 1st. This led to an additional 1 to 3 inches of rainfall across the region with numerous additional reports of flash flooding, including numerous road closures and additional water rescues/evacuations.

In total from April 28th-May 1st much of South-Central Texas received 2 to 6 inches of rain, with localized amounts of up to 8 inches. The heavy rainfall from these events lead to minor to moderate river flooding along portions of the Medina River, San Antonio River, Pedernales River, Cibolo Creek and a one to two category improvement on the U.S. Drought Monitor index.

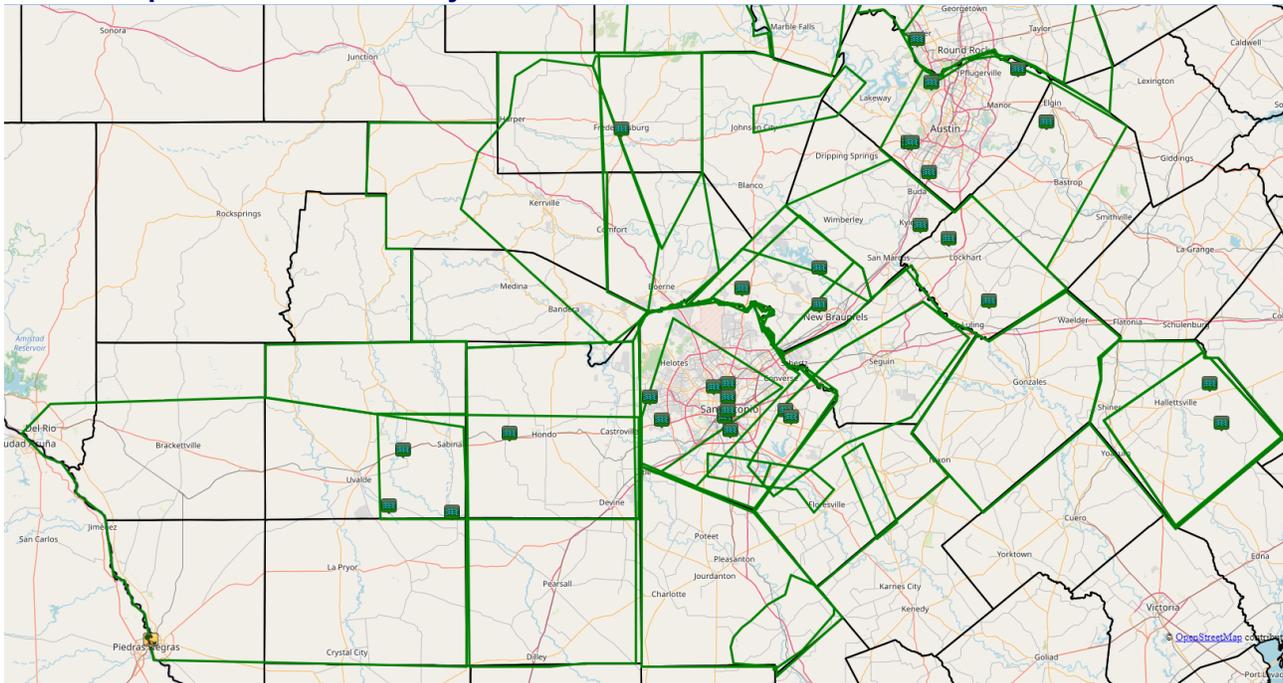


Warning and Storm Report Maps

7AM Wed April 28th – 7AM Thu April 29th



7AM Fri April 30th – 7AM Sat May 1st



Hail Wind Tornado Flood

Yellow Lines: Severe Thunderstorm Warnings

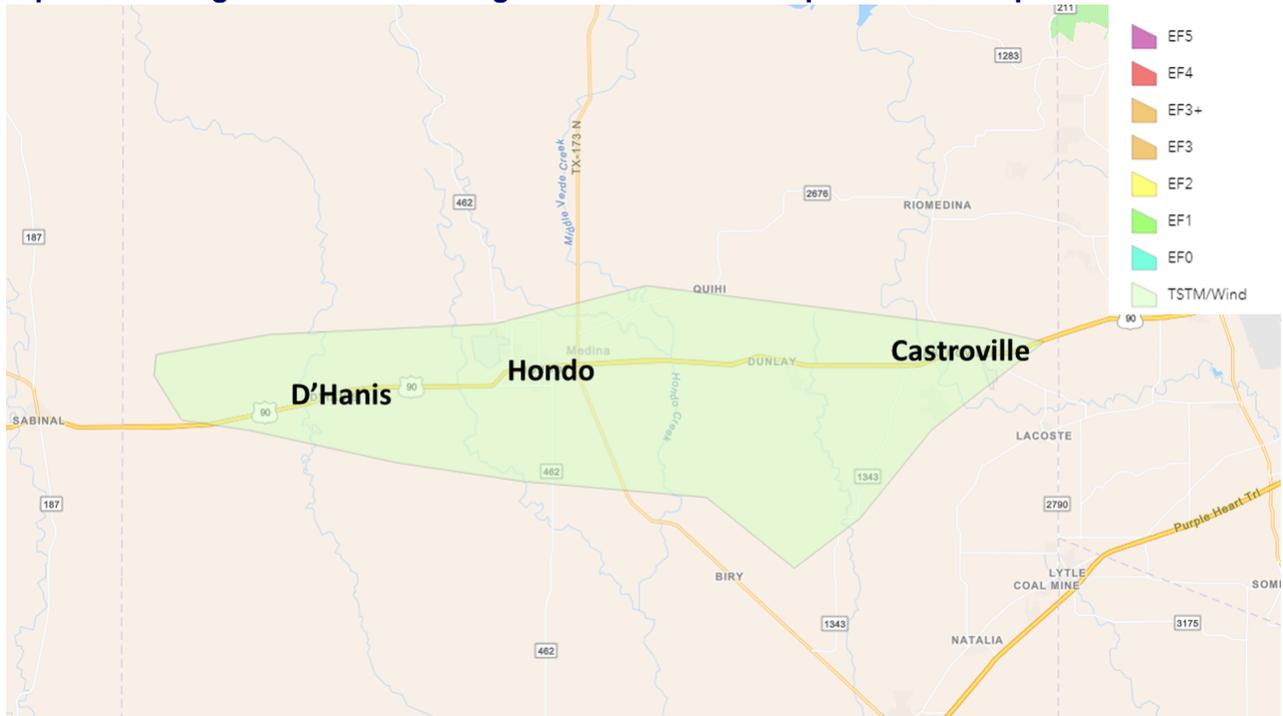
Red Lines: Tornado Warnings

Green Lines: Flash Flood Warnings

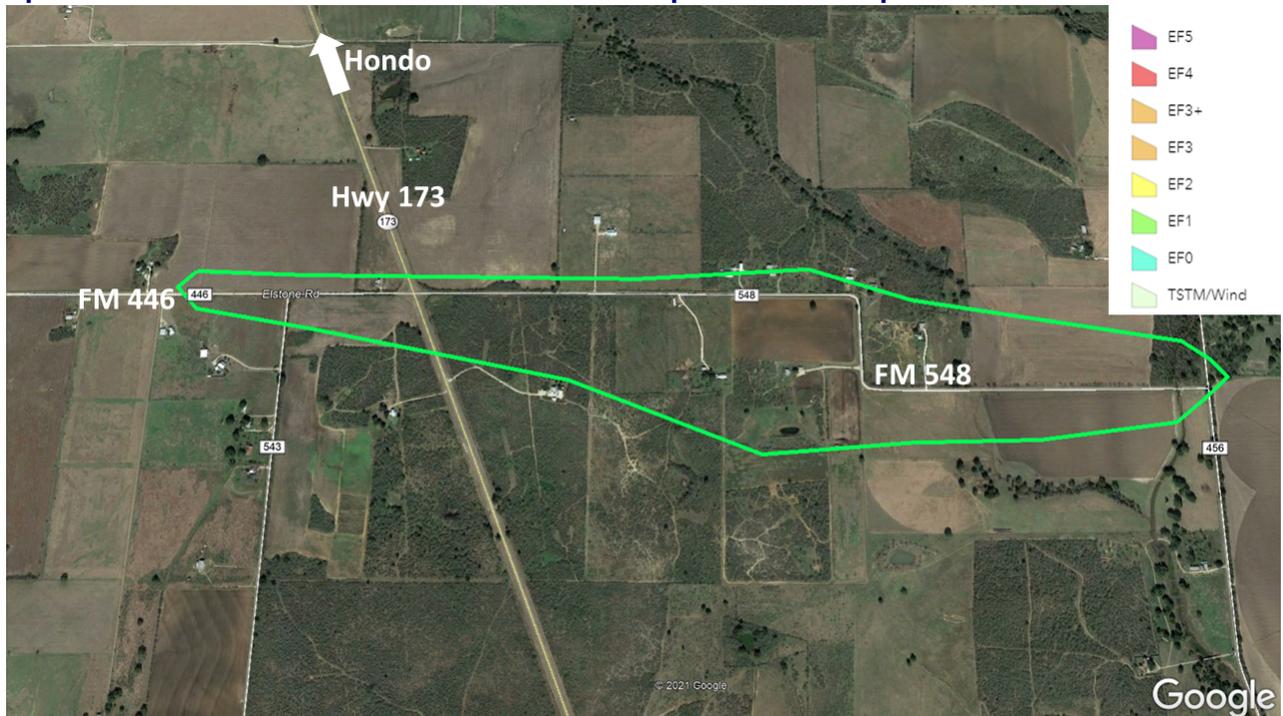


Storm Survey Maps

April 28th Straight Line Wind Damage – Estimated Wind Speeds 80-110mph



April 28th EF1 Tornado – Estimated Peak Wind Speeds 80-110mph



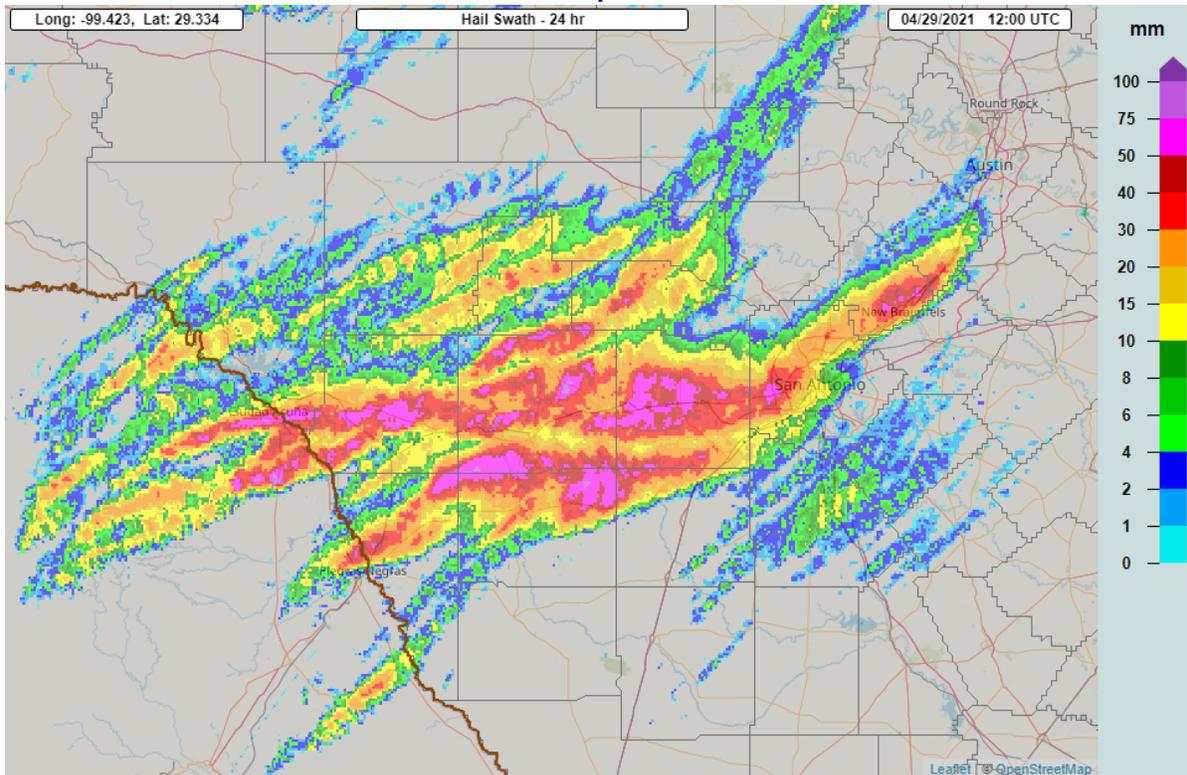


Storm Survey Maps (continued)

April 28th Straight Line Wind Damage – Estimated Wind Speeds 60-80mph



Radar Estimated Hail Swath Map





Record Size Hailstone for Texas!

Hondo, TX Hailstone - April 28th, 2021

Measured 6.4 Inches in Diameter and 1.26 Pounds in Weight

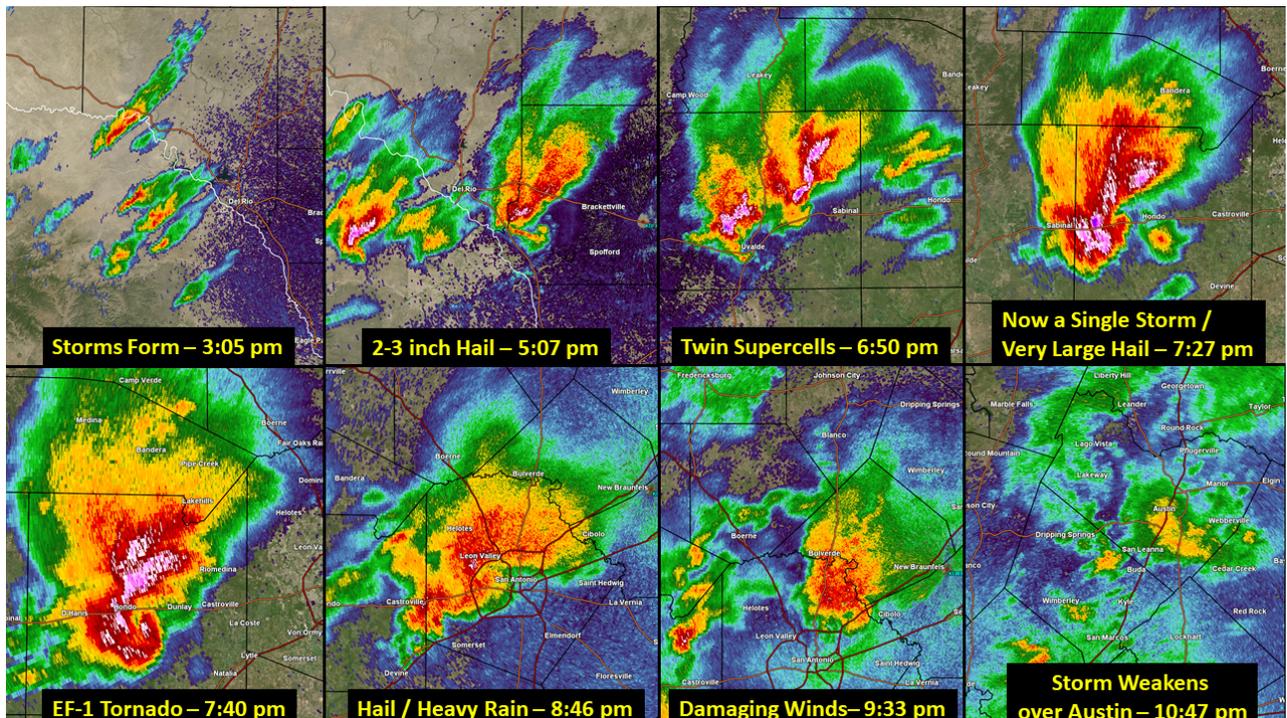
Weather Forecast Office
Austin/San Antonio

Radarm Imagery of Supercell that Produced the Giant Hail	Hailstone Just After it Was Found in Hondo	Insurance Institute for Business & Home Safety Scanning & Measuring the Hailstone
<h3>Largest Hailstone on Record in the State of Texas!</h3>		
<div style="font-size: small;"> NWSSanAntonio </div> <div style="font-size: small; text-align: right;"> weather.gov/ewx </div>		

[Link to Additional Information on this Hailstone:](#)

www.ncdc.noaa.gov/monitoring-content/extremes/scec/reports/20210624-Texas-Hailstone.pdf

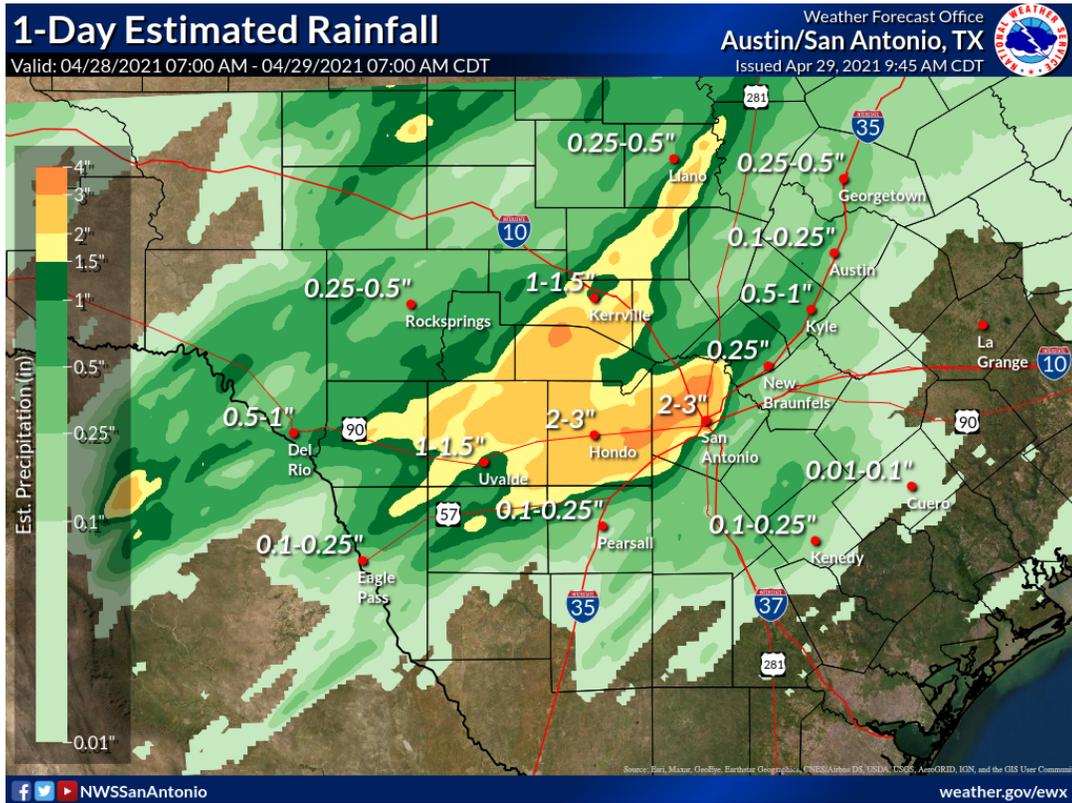
Radar Imagery - April 28th Supercell



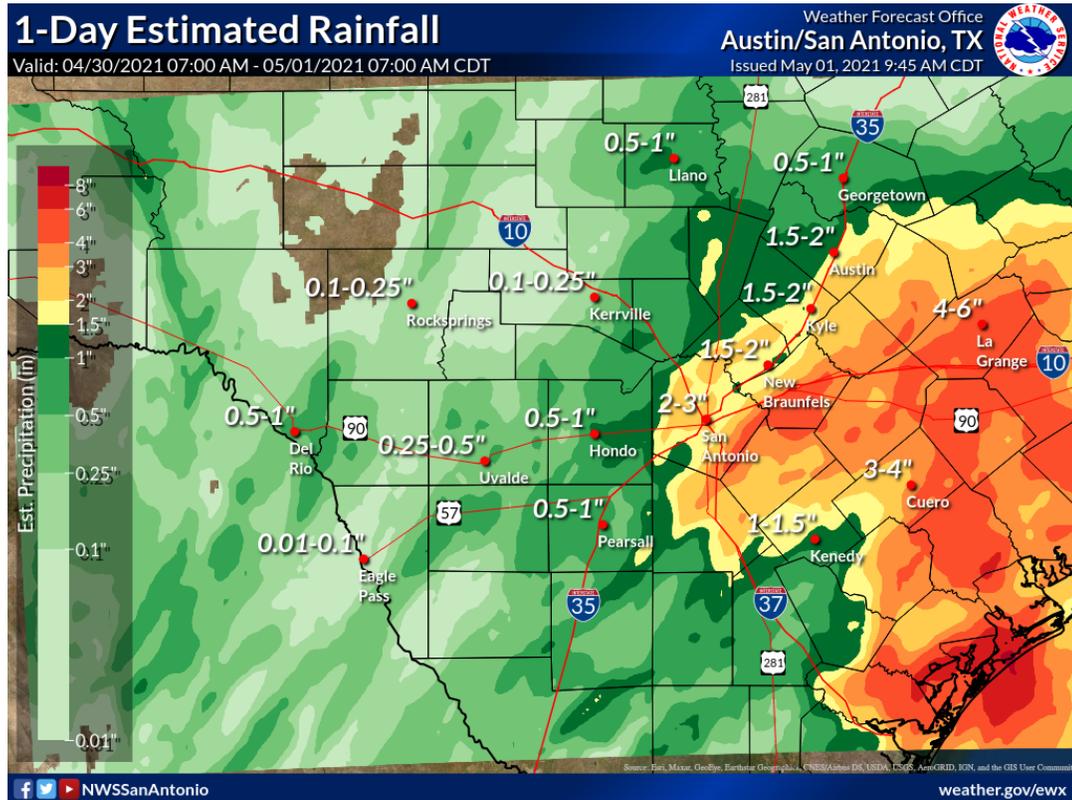


Rainfall Maps

7AM Wed April 28th – 7AM Thu April 29th



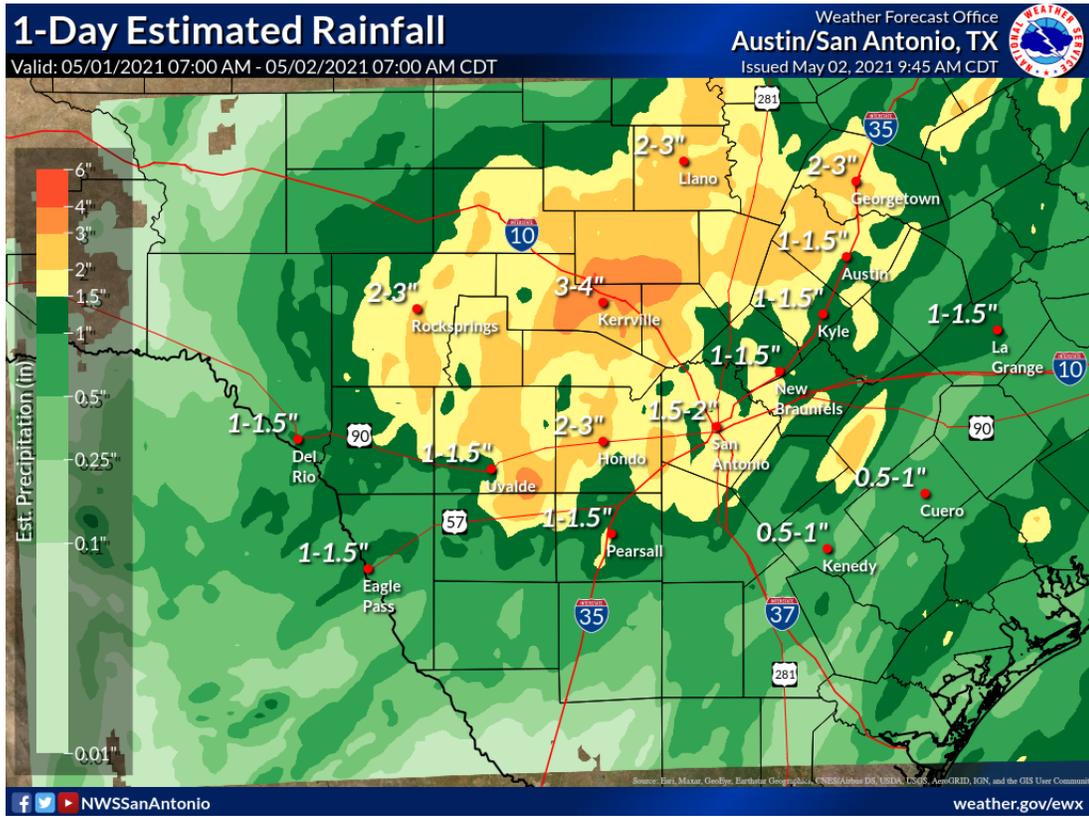
7AM Fri April 30th – 7AM Sat May 1st



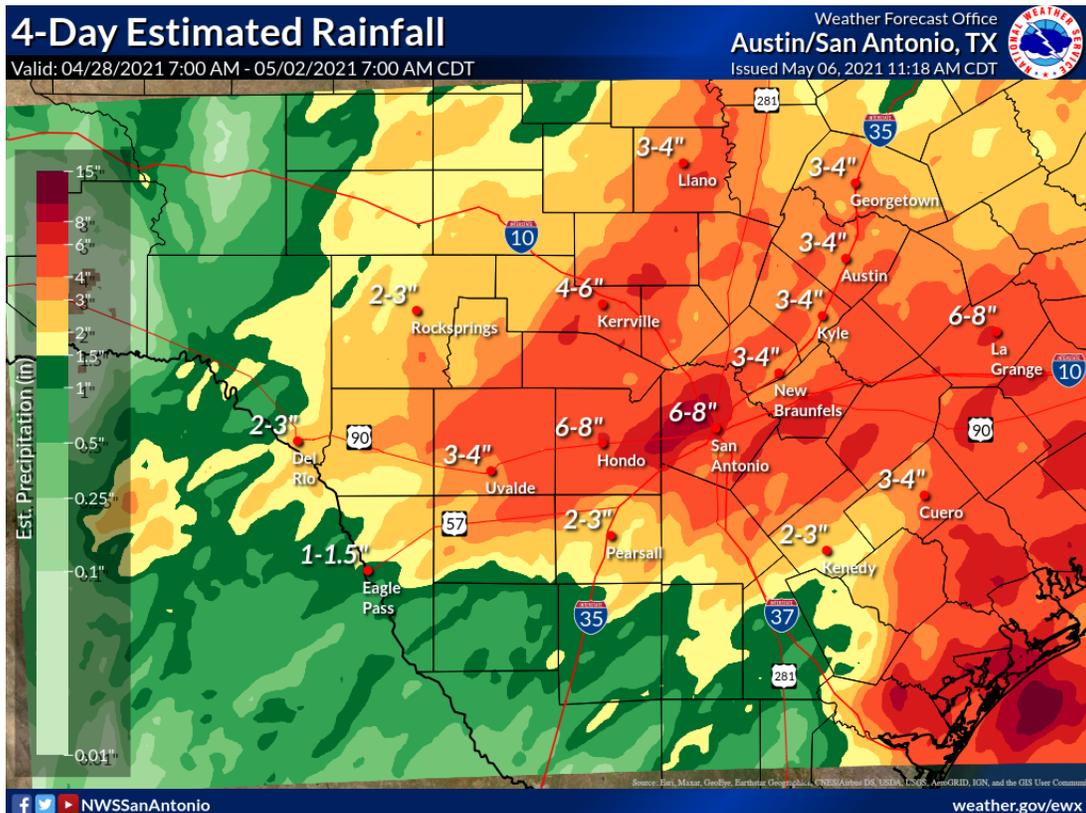


Rainfall Maps (continued)

7AM Sat May 1st – 7AM Sun May 2nd



Total Rainfall Accumulation from 7AM Wed April 28th – 7AM Sun May 2nd





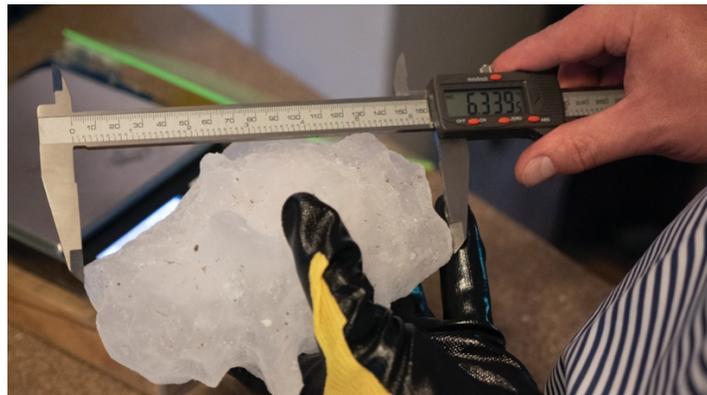
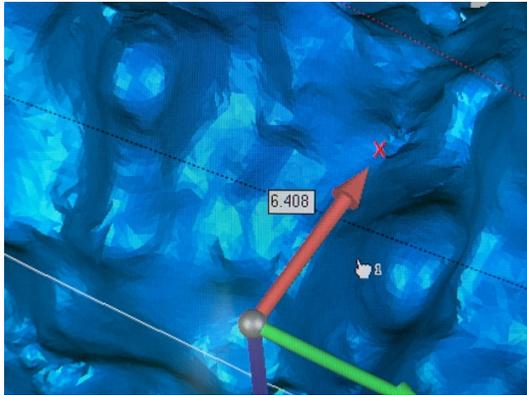
Pictures

NWS Survey of Straight-Line and Tornadic Wind Damage in Medina County



Pictures (continued)

Texas Record Sized Hailstone in Hondo being Measured



Pictures (continued)

Largest Texas Hailstone Just After it was Found in Hondo



Hail Damage from D'Hanis to Hondo

