

March 2024 Climate Summary

Significant Weather Events:

The warm month of February 2024 transitioned into a warm month of March 2024. The departures from normal were not as pronounced this month as the influence from a very warm start was dampened by days that were more or less around climatological averages mid month and towards the end of the month. March 2024 had multiple personalities when it comes to rainfall totals as some locations saw near or below average precipitation, where others saw abnormally wet conditions. Precipitation that did fall was often accompanied by severe weather, with 150 severe weather reports being received by the Storm Prediction Center in the month of March, with hail being the main contributor to this count with 107 reports, followed by wind (35 reports), and tornadoes (8 reports). Contrary to the months prior, March 2024 was lacking in extreme cold or heat, however, the month did come with its share of high winds. Some notable events include:

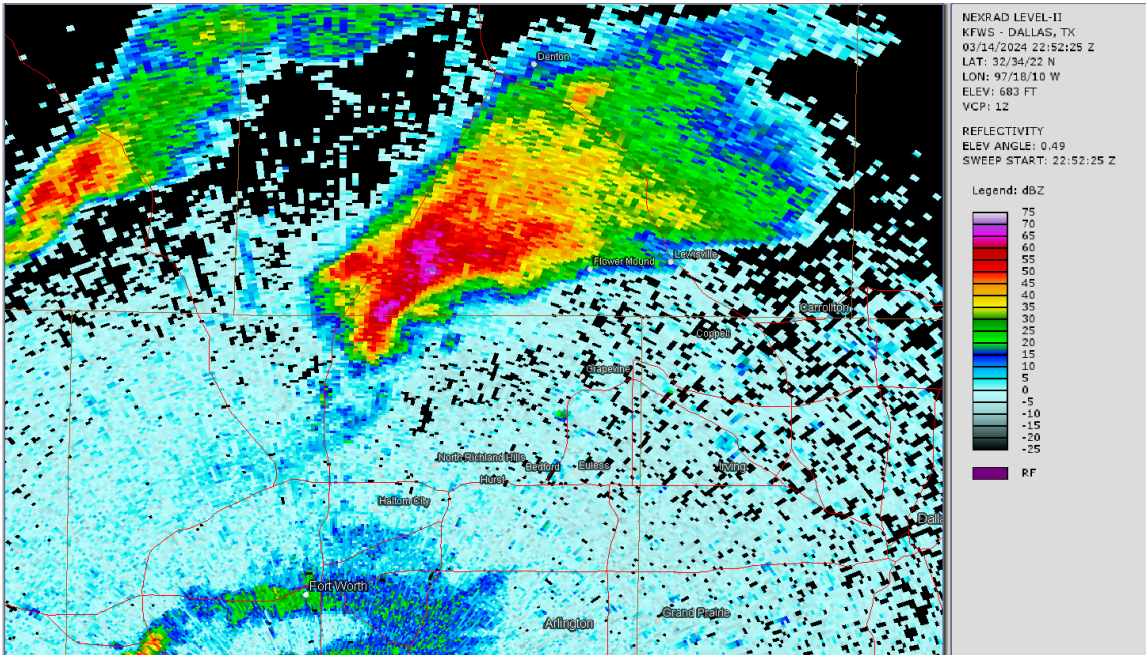
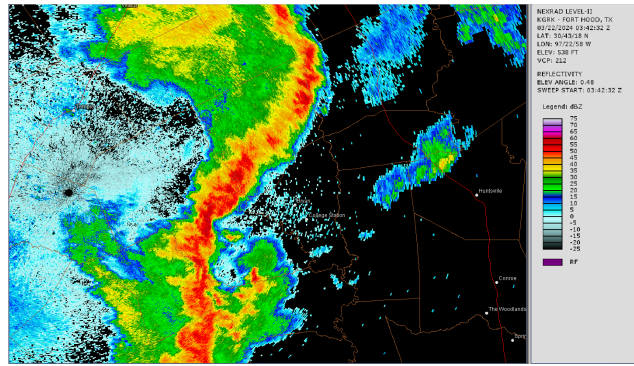
- March 5- A landspout tornado was reported near Forrester, Tx in Ellis County.
 - Landspout tornadoes can form without the presence of a thunderstorm
 - No damage was reported resulting in no rating
 - Only severe weather report for the State on this day
- March 6- A cluster of thunderstorms passed to the south of the Dallas-Fort Worth area, producing strong winds across the Metroplex
 - Winds were mainly sub-severe with gusts between 40-50 mph
 - DFW airport reported a wind gust above severe criteria at 59 mph from the SSW
- March 14-17 - Severe weather took aim at Texas, with 93 total reports across these 4 days. Severe weather targeted North Texas on the 14th, with South Central and Southeast Texas under the gun on the 15th. A few more reports were tallied on the 16th and 17th.
 - March 14 saw numerous reports, mainly of hail across North Texas.
 - The maximum recorded diameter was 3.00" in Denton County, the largest hailstone seen in March 2024.
 - The only tornado report of the event happened on this day, with an EF0 tornado touching down near Frisco, Tx with estimated maximum winds of 85 mph
 - March 15 saw the most reports across the State with a tally of 59. Hail was the main hazard reported, but prolific wind producing storms were also noted
 - The highest *measured* thunderstorm wind gust of the month happened on this day with a reported gust of 77 mph noted in Fort Bend County.
 - March 16 and 17 saw three hail and two wind reports along the Texas Coast.

- March 16 - The largest wildfire in Texas History is finally 100% contained. Unfortunately, the fire claimed the lives of two people: Joyce Blankenship and Cindy Owens. The fire ended up scorching 1,058,482 acres.
- March 21-22 - Another round of Severe weather took aim at Texas with most reports confined to South and Southeast Texas.
 - March 21 saw 25 total storm reports across the State, with 20 hail reports and 5 wind reports. No tornadoes were reported.
 - March 22- A well defined squall line marched to the east across Central and East Texas producing gusty, sub-severe winds.
- March 24 - Texas faced a multi faceted day with severe weather rolling out in the Eastern Panhandle, and the Childress, Wichita Falls area. Behind the pacific cold front responsible for the storms, extremely strong non-thunderstorm winds rocked much of the Texas Panhandle, creating dusty conditions and causing spotty damage.
 - This day saw the most tornado reports (6) of any day of the month
 - A windy day for much of Texas, many stations reported gusts past 40 mph.
 - The Texas Panhandle saw the strongest winds with several reports of gusts over 70 mph. A mesonet near Sundown saw the strongest non-thunderstorm gust at 77 mph





Pontoon boat rolled by the intense wind on Sunday (24 March 2024). The picture is courtesy of the West Canale Volunteer Fire Department member Kevin Hendricks.



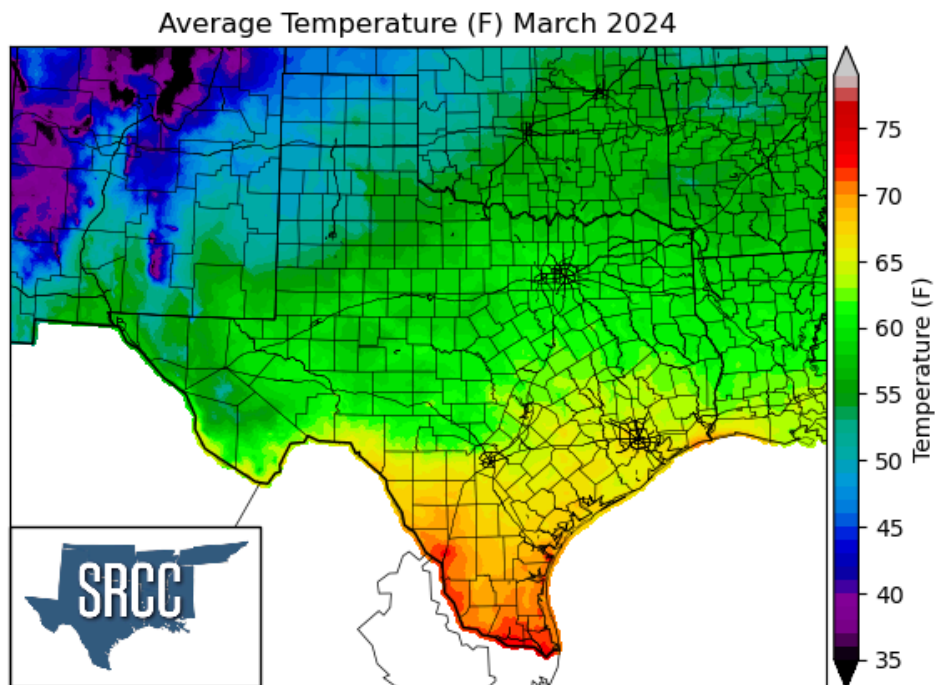
A view of some of the major meteorological events that occurred in March 2024. At top left, a view of the landspout tornado near Forreston, Tx on March 5 (courtesy: Accuweather.com, taken from a video by Randi Stanfield.). At top right, damage from the EF0 tornado near Frisco, Tx on March 14. (courtesy: NWS Fort Worth). At center left, an overturned pontoon boat is left behind after intense winds shook the Texas Panhandle on March 24 (courtesy: National Weather Service and Kevin Hendricks.). At center right, a menacing, well defined squall line enters Brazos County on March 22. This line produced many reported gusts of 30-50 mph across the State. At bottom, the supercell thunderstorm responsible for the largest hailstones seen all month, with 3.00" diameter hail reported in Denton County (Radar images courtesy of NOAA's Weather and Climate Toolkit).

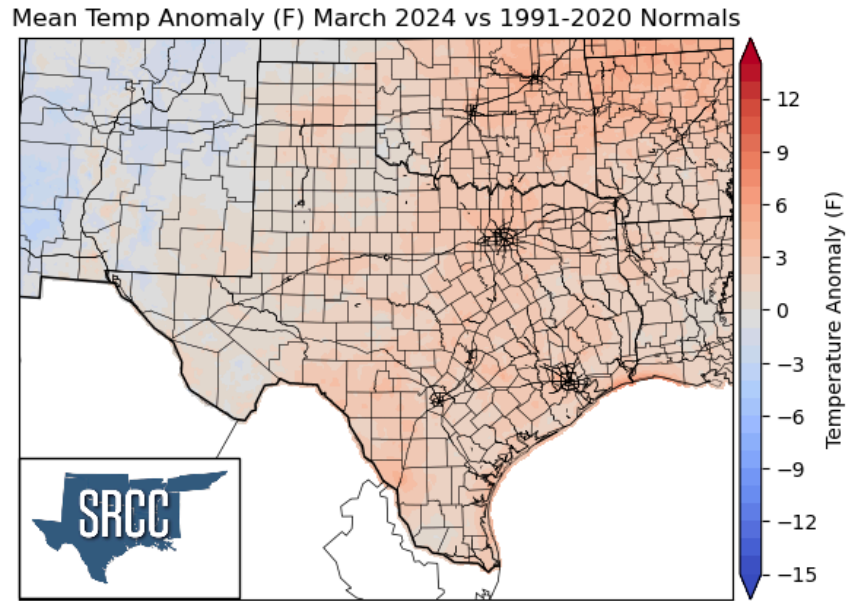
Temperature:

March 2024 continued the anomalously warm trends from February 2024 for the first few days of the month. As the month progressed, temperatures modulated and became more or less average for the remainder of the month. This, coupled with several days of temperatures below climatological normals near the end of the month allowed for March 2024 to end outside of the top 10 list for warmest Marches on record.

The extremes across the State for March 2024 are as follows:

- The coldest monthly average temperature was 46.3°F at the Dalhart 2SE Co-op site located in Hartley county
- The warmest monthly average temperature was 73.8°F at the McAllen Miller International Airport in Hidalgo County and Brownsville South Padre International Airport in Hidalgo County
- The hottest recorded temperature across the State was 99°F at the Laredo International Airport and the Faith Ranch Airport in Webb and Dimmit Counties respectively on March 13, 2024, as well as the Rio Grande Village Co-op station in Brewster County on March 30, 2024.
- The coldest reported temperature across the State was 18°F seen at the Gruver Co-op site in Hansford County and the Muleshoe 19S Airport in Bailey County on March 27, 2024 and March 26, 2024 respectively.



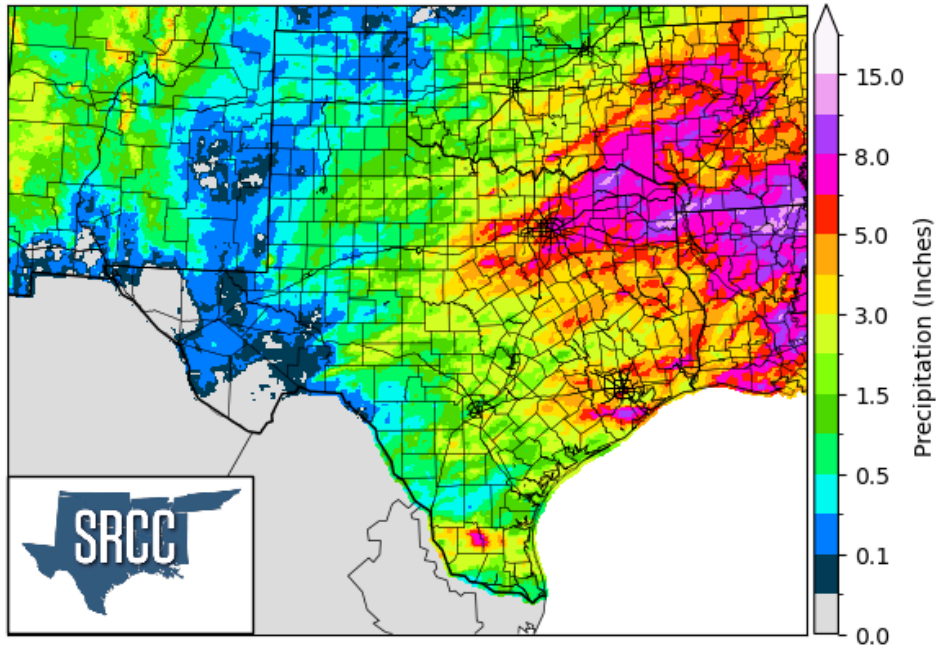


Precipitation:

Precipitation across the State of Texas seemed to obey a gradient where precipitation totals generally increased as you move northeast across the State. Areas in Northeast Texas actually experienced one of their rainiest Marches on record. Thunderstorms that resulted in heavy rainfall sometimes came with their share of severe weather.

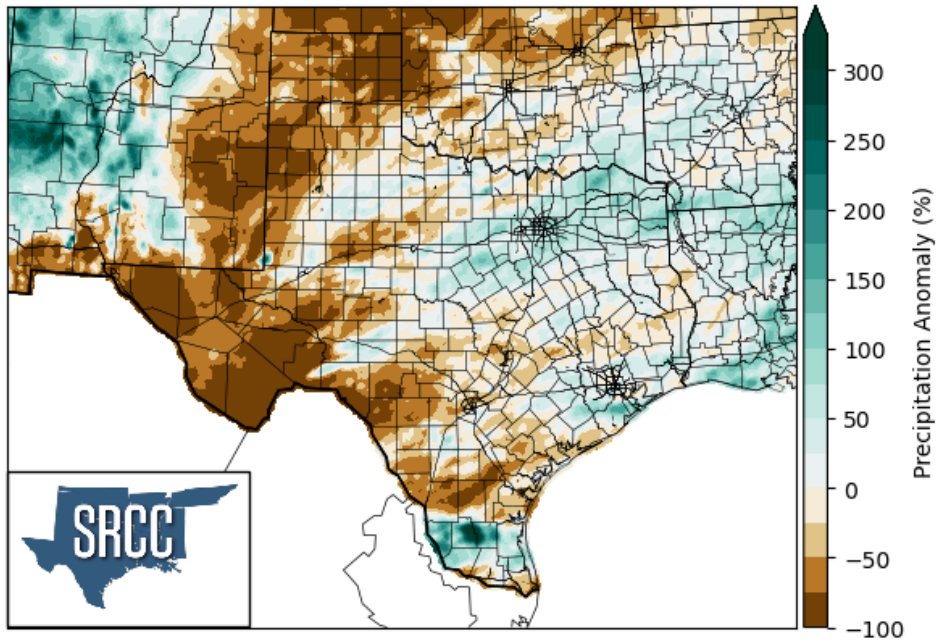
- The highest monthly precipitation total was 12.49” at the Paris 4.2NE CoCoRaHS site in Lamar County
- The lowest monthly precipitation totals were (of the stations that reported all 31 days in March) were at the Castolon, and Rio Grande Village Co-op sites in Brewster County, along with the Fort Stockton Co-Op site in Pecos County

Accumulated Precipitation (Inches) March 2024



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Precip. Anomaly (%) March 2024 vs 1991-2020 Normals

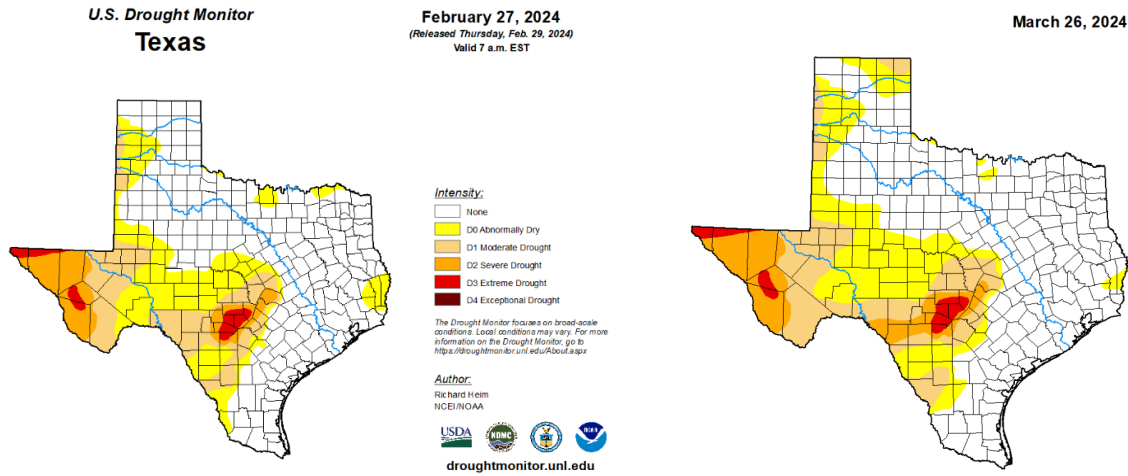


Drought:

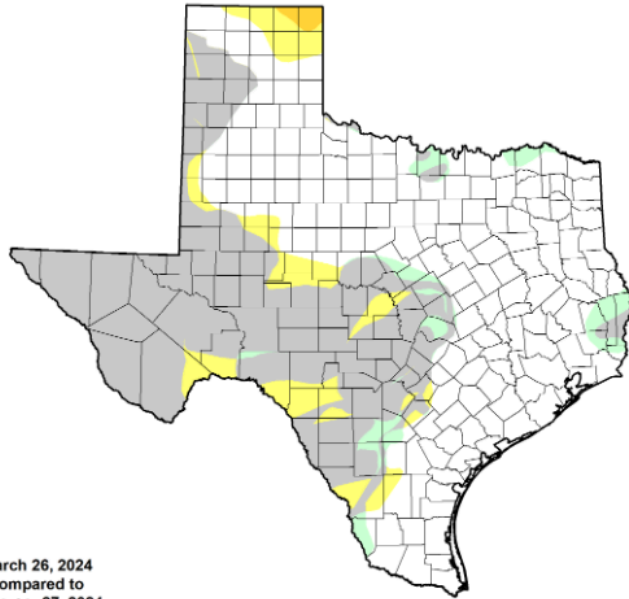
The month of March saw drought conditions mainly stay consistent across Texas. Though areas of significant precipitation were observed across the State, these areas were in regions with little or no drought so no major improvements were seen. In areas of significant drought, March was not particularly rainy keeping drought classification relatively steady. The drought classifications

as well as the change in the coverage of each drought classification through the month of February are summarized in the table below:

Drought category	End of February (February 27, 2024)	End of February (March 26, 2024)	Change
Abnormally dry or greater	42.7%	44.3%	+1.6%
Moderate drought or greater	22.7%	24.5%	+1.8%
Severe drought or greater	8.9%	9.9%	+1.0%
Extreme drought or greater	2.0%	2.0%	0.0%
Exceptional drought	0.0%	0.0%	0.0%



U.S. Drought Monitor Class Change - Texas
4 Week



March 26, 2024
compared to
February 27, 2024



- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

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