TEXAS CoCoRaHS OBSERVER

Winter 2025

Vol. 10 - 4

Welcome to The Texas CoCoRaHS Observer Newsletter

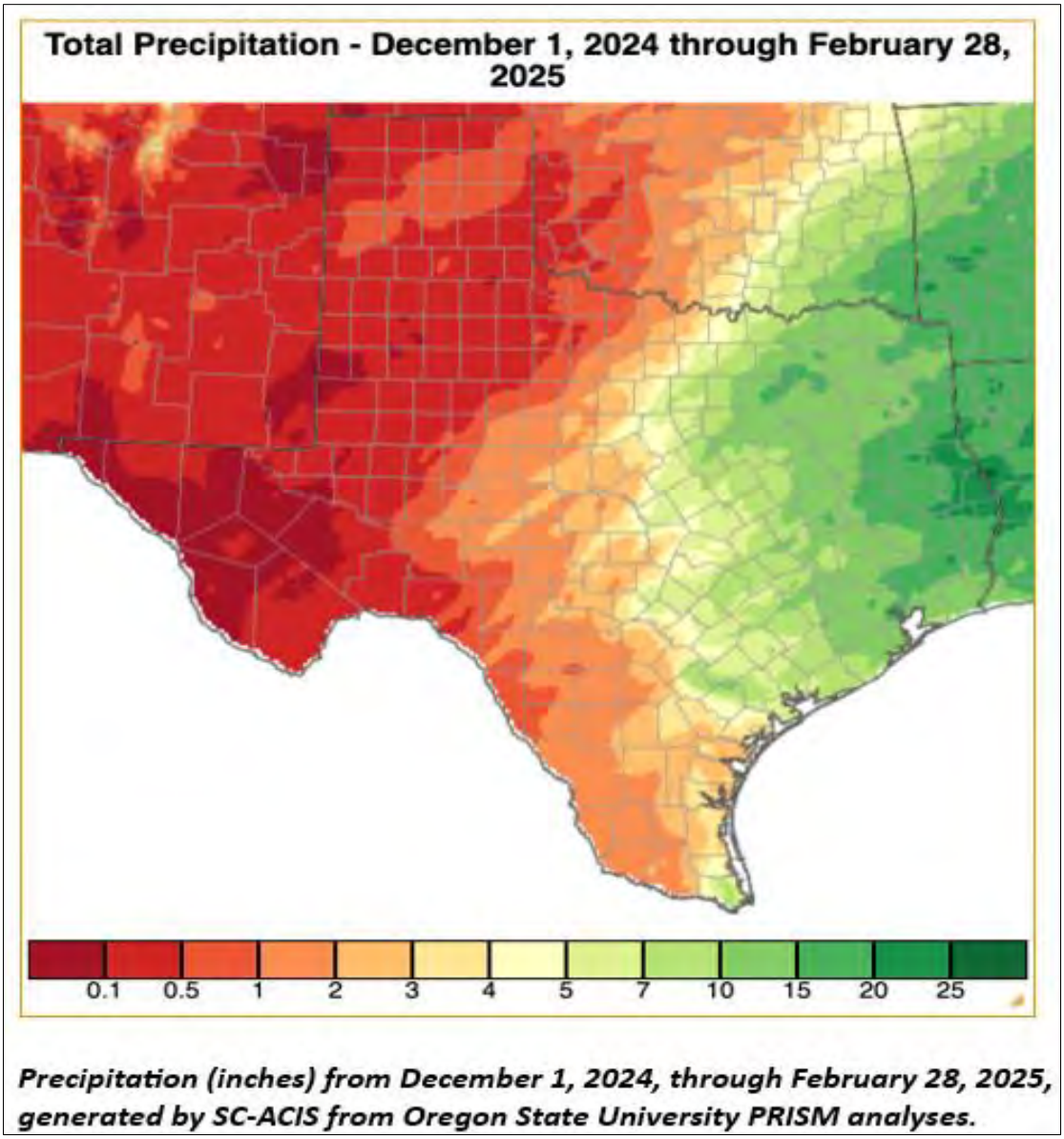
The purpose of this newsletter is to keep observers informed of the latest news, events, training, and happenings related to the CoCoRaHS program here in Texas, as well as news about the latest weather patterns affecting each region of Texas seasonally.

Inside this issue

Texas State Summary *By: John Nielsen-Gammon*	1
West Texas Summary *By: Jim DeBerry*	3
El Paso-Far West TX Summary *By: Conner Dennhardt*	6
Rio Grande Valley Summary *By: Barry Goldsmith*	8
Southeast Texas Summary *By: Ron Havran*	17
East Texas Summary *By: Davyon Hill*	31
Brazos Valley Summary *By: Alison Tarter*	35
Austin/San Antonio Summary *By: Mack Morris*	36
North Texas Summary *By: Greg Story*	42
West Central Texas Summary *By: Joel Dunn*	49
Wichita Falls Summary *By: Charles Kuster*	55
Corpus Christi Summary *By: Juan Carlos Pena Jr.*	57
Spring Weather Outlook *By: Bob Rose*	61
Scheduled CoCoRaHS Webinars	63
Closing & Contact Information	63

Texas Winter Weather Summary

By: John Nielsen-Gammon, Texas State Climatologist, Texas A&M University



Precipitation (inches) from December 1, 2024, through February 28, 2025, generated by SC-ACIS from Oregon State University PRISM analyses.

Continued page 2 >

"Because Every Drop Counts, As Do All Zeros"

Texas Winter Summary (continued)

Winter is usually wet in East Texas and dry in West Texas. This winter's precipitation exaggerated that pattern, with a few western counties barely seeing a drop of rain while the Dallas-Fort Worth Metroplex area experienced some flash flooding. In general, eastern Texas was wetter than normal while central and western Texas were drier than normal for the winter.

The driest conditions over the long term are in the trans-Pecos region of far West Texas and in the southern Edwards Plateau near San Antonio. Many of the lakes in south-central Texas, such as Canyon Lake and Choke Canyon Reservoir, are at their historic low values, and the Edwards Aquifer levels are unusually low.

The trickiest situation, though, is in north-central Texas. Since July 15, Wichita Falls has received 10.75” of precipitation, considerably below the normal value of 15.35”. However, for ranchers in the area, the situation is even worse than that.

Over seven inches of Wichita Falls' rain fell during a single week in early November. Probably most of that water ran off rather than soaking into the ground once the top part of the soil became saturated. So, while that would have been good for stock tanks, it would not have been optimal for kicking off the growth of winter wheat and other cool-season grasses. In the nearly four months between November 8 and March 2, rainfall in Wichita Falls totaled only 1.80”.

There's a concept called "effective precipitation", the amount of rain that can get used by plants, grasses, and crops. The concept is simple: the first few drops of rain get intercepted by vegetation and may never reach the ground, then more water starts reaching the ground and soaking in, but then additional rainfall contributes more to runoff than to soil moisture. If there's a second day of rain, most of it will run off since the top of the soil will already have been wet from the previous day. As things dry out, slowly or quickly depending on the soil type and time of year, the soil becomes ready to accept and absorb additional rain.

Based on that formula, Wichita Falls has received less than two and a half inches of effective precipitation since mid-July. In a normal year, that amount would be about six inches. Weather data at the official Wichita Falls station goes back 120 years, and the effective precipitation total is about the fourth driest over that span.

People in Georgia and the Carolinas have been dealing with a similar situation. The area got drenched during Hurricane Helene, and we've all seen pictures of the excessive runoff that storm produced. But then the weather turned dry, and although it was a "wet" year based on the precipitation totals, it was dry as far as the ground and plants were concerned.

When people talk about "good" rains or "beneficial" rains, they're usually talking about the sort of thing "effective precipitation" is designed to measure rain that is slow and steady, that soaks into the ground and provides water that can be utilized by plants. Admittedly, in West Texas, almost any rain is good, but it remains true that some rains are better than others.

West TX/Southeast NM Weather Summary

December closed out 2024 dry, with no Notable Hydrologic Events, Anemic Rainfall, even Climatologically.

By: James DeBerry, Meteorologist, Hydrology Program Manager, NWS Midland, CoCoRaHS Coordinator

December

Monthly radar rainfall estimates were truly abysmal, ranging from nothing over much of the southern HSA to up to 1/2" in eastern Mitchell County. Indeed, the highest observed rainfall was 0.22" at Colorado City in Mitchell County. The average of precipitation reported across West Texas and Southeast New Mexico was only 0.03".

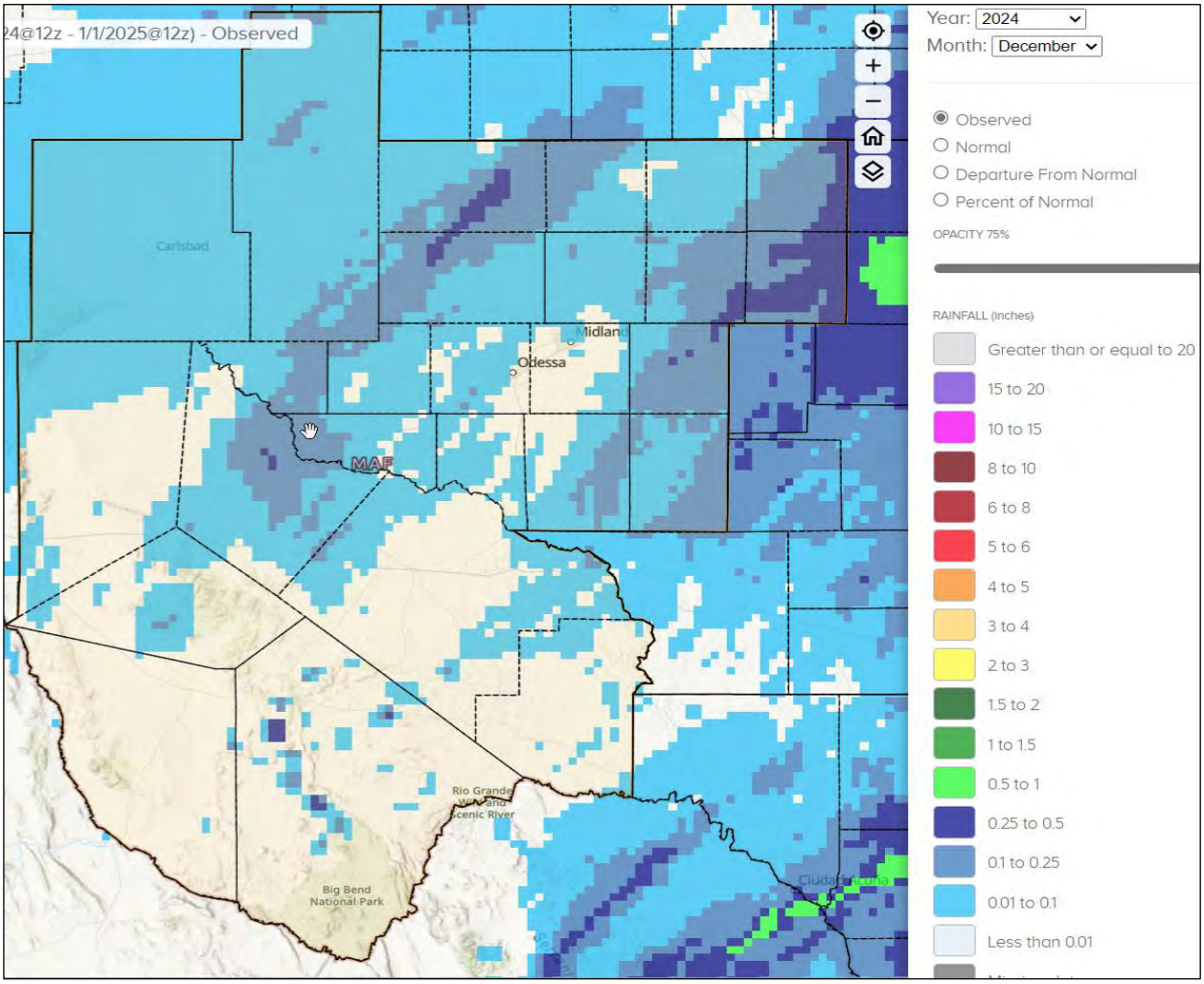


Figure 1: December Precipitation

January

January started off 2025 a little wetter than December 2024, but not by much. No notable hydrologic activity was reported.

Monthly radar rainfall estimates ranged from nothing over the much of Brewster and Presidio Counties to up 1.00" in southeastern Reagan County. The highest observed rainfall was 0.80" at Hope in Eddy County. The average of rainfall reported across West Texas and Southeast New Mexico was a paltry 0.15".

West TX/Southeast NM Weather Summary (continued)

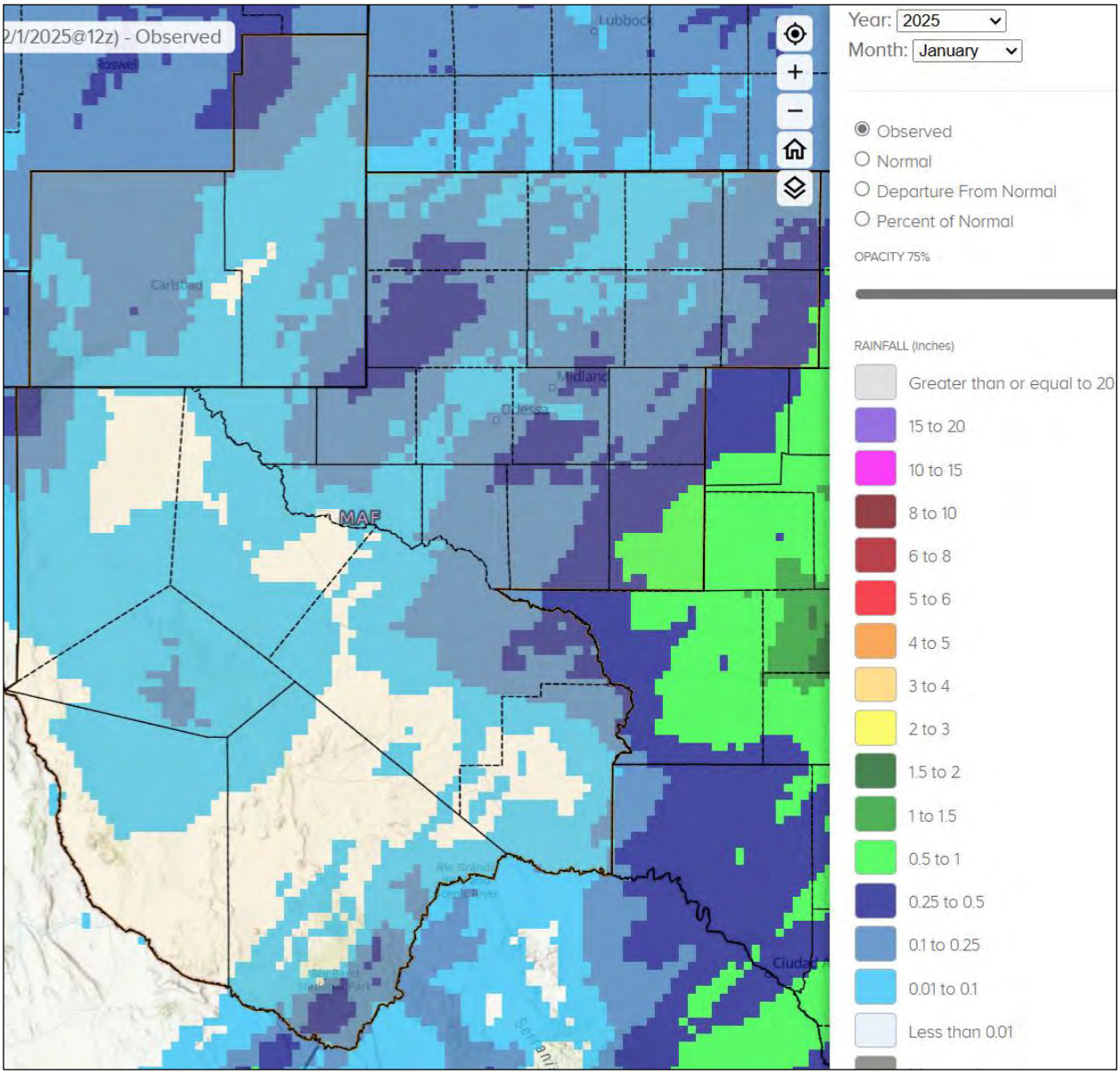


Figure 2: January Precipitation

February

February continued the dry spell. No notable hydrologic activity was reported.

Monthly radar rainfall estimates ranged from nothing most everywhere to up to 0.50” in extreme southeastern Regan and eastern Pecos and Terrell Counties. However, the highest observed rainfall was a whopping 0.07” at Snyder in Scurry County. The average precipitation reported across West Texas and Southeast New Mexico was 0.01”. As of the end of February, area reservoirs averaged 64.1% of conservation capacity.

West TX/Southeast NM Weather Summary (continued)

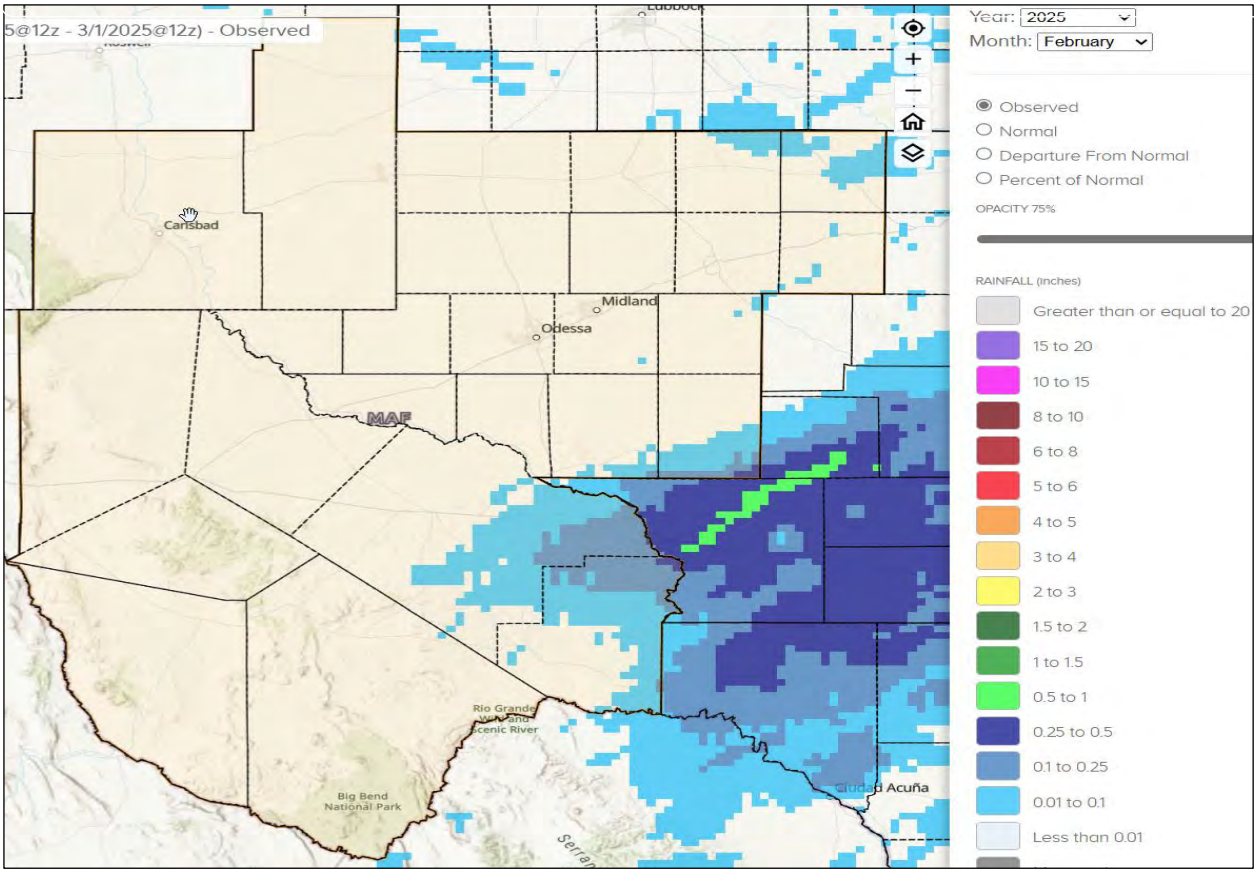


Figure 3: February Precipitation

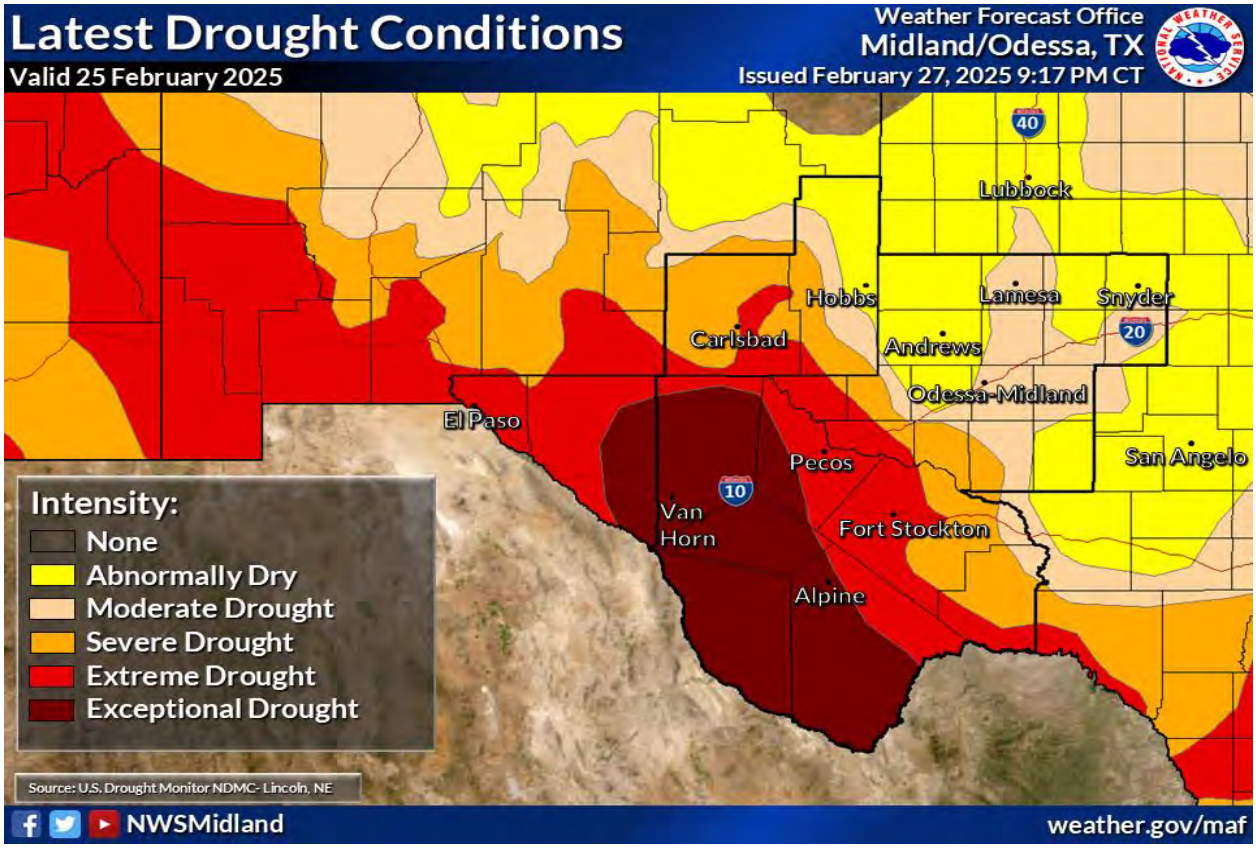


Figure 4: Drought conditions at the end of winter in West Texas and surrounding regions.

Far West Texas/El Paso Regional Summary

Exceptionally Dry Winter for El Paso, Despite Winter Cold Snaps

By: Connor Dennhardt, Lead Meteorologist - National Weather Service El Paso

Traditionally a dry time of year for far west Texas, the 2024-25 winter season was almost record-breaking dry. CoCoRaHS observers in far west Texas were left very bored this winter and rain gauges sat dormant through the entire December-February months. Only 3-4 days with measurable precipitation and seasonal totals of less than **0.10”** across all El Paso and Hudspeth Counties resulted in the 3rd driest winter on record for the El Paso area. The climate site at El Paso International Airport recorded a seasonal precipitation of just **0.07”**. Only two winters have ever been drier: 1903-04 (**0.02”**) and 1963-64 (**0.00”**).

Figure 1: Blowing dust obscures mountain views and limits visibility across El Paso, TX on February 11th, 2025.

Little to no precipitation was observed in December. Light rain was recorded by observers in northeast El Paso the morning of December 7th, with multiple reports of 0.02” Otherwise, no measurable observations were recorded the rest of the month. December finished exceptionally warm, becoming the 3rd warmest December on record for El Paso and marking 2024 as the warmest year in recorded history for the area.

January was unique in being one of the coldest months for the area since 2013. A series of strong cold snaps affected El Paso, with temperature falling more than 20 degrees below daily normals throughout the month. Despite the very cold temperatures, only one day of precipitation occurred with light snow falling on January 9th. Local CoCoRaHS observations noted **0.03-0.06”** of liquid precipitation with a trace or less of snow. Heavier snow fell just north in Las Cruces, NM where snow totals of 2-3” were recorded across the desert floor.

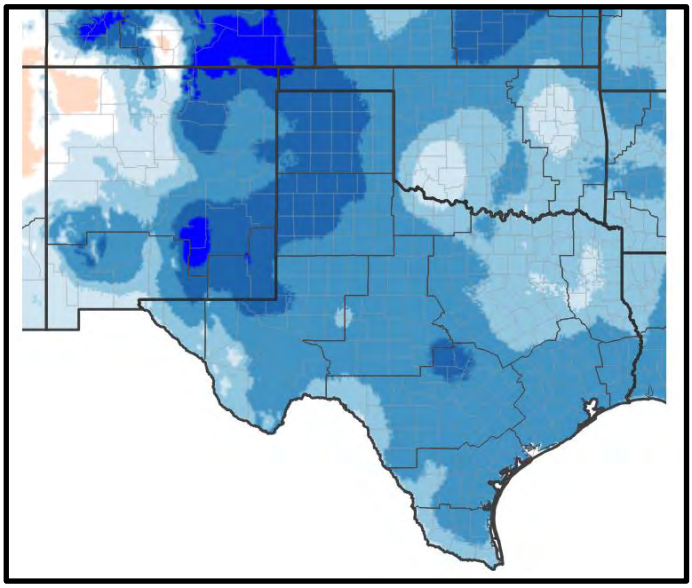


Figure 2: 30-day Temperature Anomalies for January 2025, well below normal for the month. Figure 3: On the right Low clouds and light snow fell at El Paso International Airport on January 10th, 2025.

Far West Texas/El Paso Regional Summary (continued)

February finished almost completely dry area wide once again, with only El Paso International recording measurable precipitation (**0.03”**) and no CoCoRaHS reports above a trace. This was the driest February since 2015.

Season precipitation totals of **0.03-0.09”** were well below normal for the season, and only 5% of the expected seasonal precipitation. With a 30-year climate normal of **1.44”** for El Paso, this is a departure of **1.37”** for the season. El Paso International (KELP) recorded a season total of **0.07”** and NWS El Paso (NWSEP) recorded **0.04”**. Little to no snow fell along the river valleys this year and local basins are running near historical lows for snowpack. Upper Rio Grande basins are doing slightly better, but still below normal for the start of the spring melting season. Drought conditions remain in Extreme (D3 to Exceptional (D4) status. As we enter the spring fire season, expect more dust, very little precipitation, and dangerous wildfire conditions.

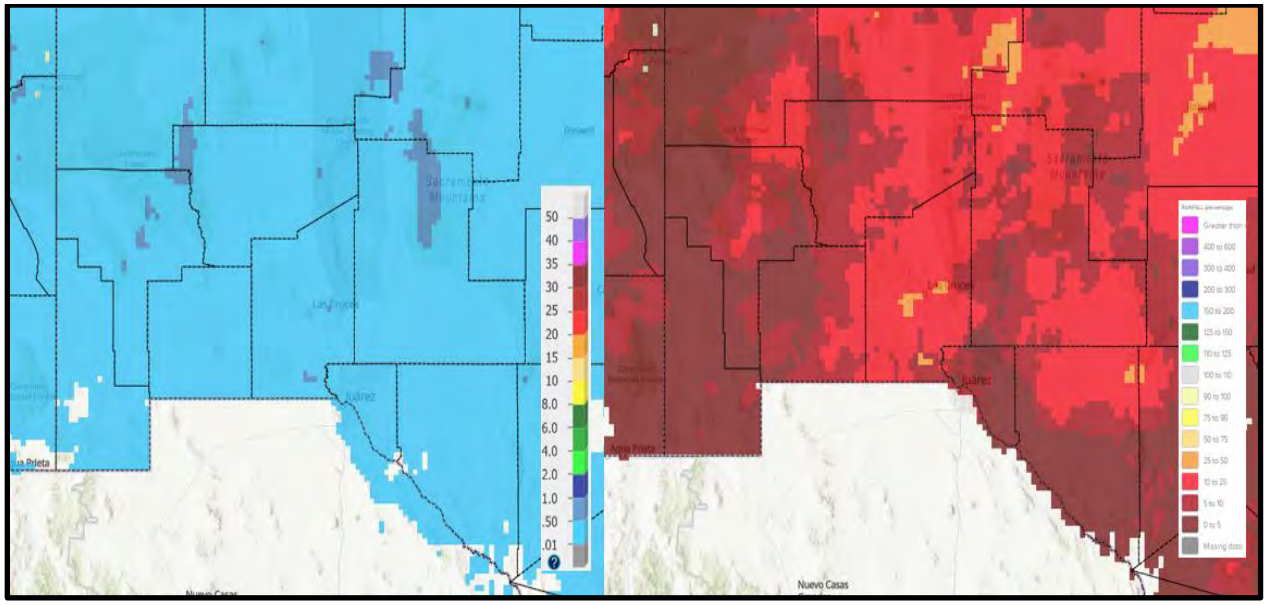


Figure 3: AHPS Observed Precipitation and Percent of Normal for Dec-Feb in far West Texas

The winter season featured 34 active observers in El Paso County, and 1 in Hudspeth County. A total of 1,506 daily reports were submitted, along with 15 multiple-day reports. Only 22 daily reports had measurable precipitation, which means 98% of total reports were **0.00”**. No Significant Weather or Condition Monitoring reports were submitted this season. Thanks again to all our local observers who participated in the 2024-25 winter season!

Lower Rio Grande/Brownsville Regional Summary

Record Warm December is followed by January/February Fronts and an Arctic Express

Wetness for Brownsville, Harlingen, and Raymondville; **Drought** Closes the Season Elsewhere

Sea Turtles along Lower Laguna Madre experience three cold stun events

By: Barry Goldsmith

Warning Coordination Meteorologist

NWS Brownsville/Rio Grande Valley

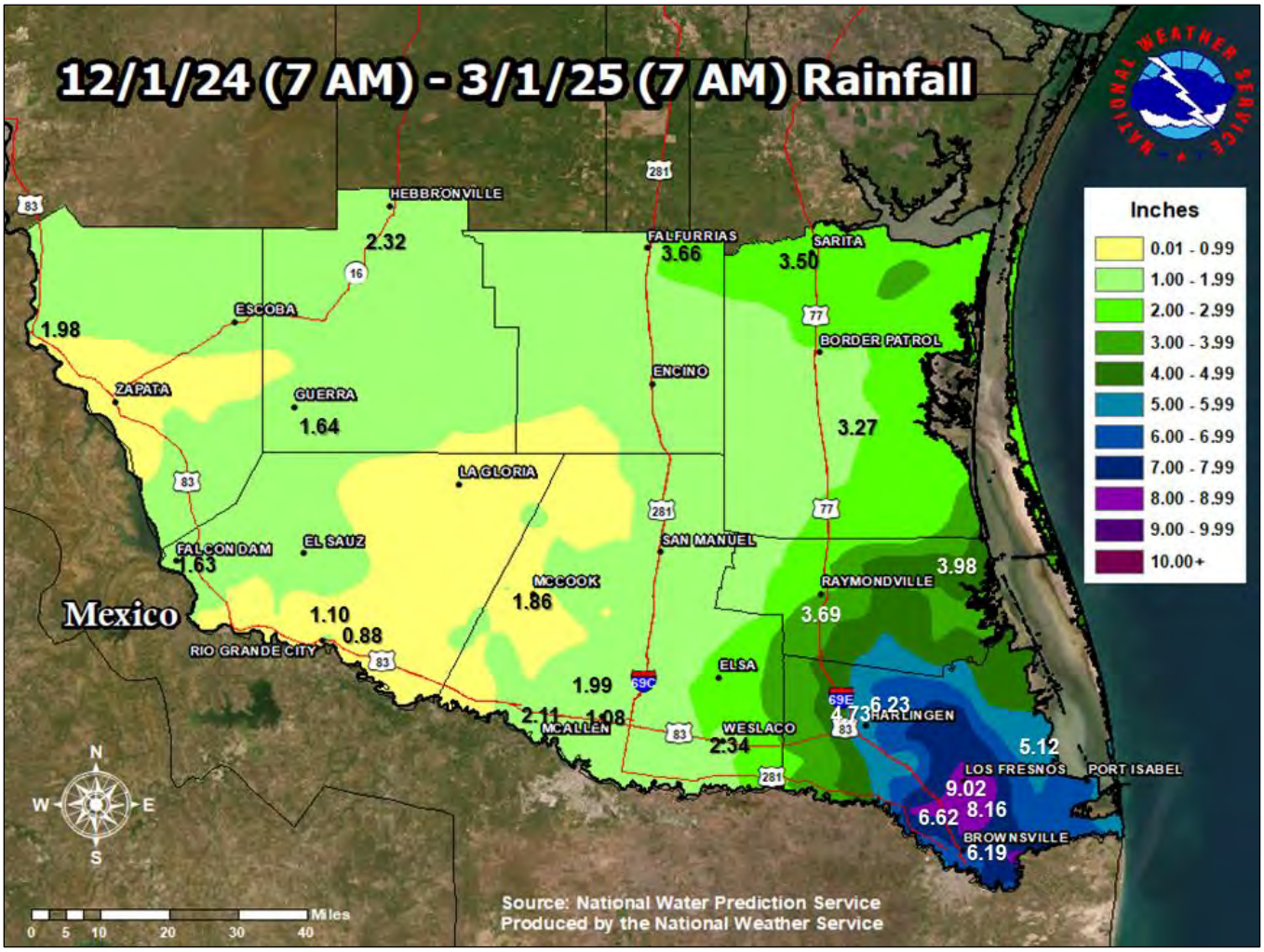


Figure 1. Winter's rainfall hit the "jackpot" once again across Cameron and Willacy County, as the area's interaction with several post-frontal surface low pressure systems/troughs over the Gulf east or just southeast of the US/Mexico border produced the necessary lift to create above-average rainfall there. Farther inland, drier air associated with post-frontal high pressure systems killed off most of the rainfall, with below to much below average rainfall elsewhere.

Lower Rio Grande/Brownsville Regional Summary (continued)

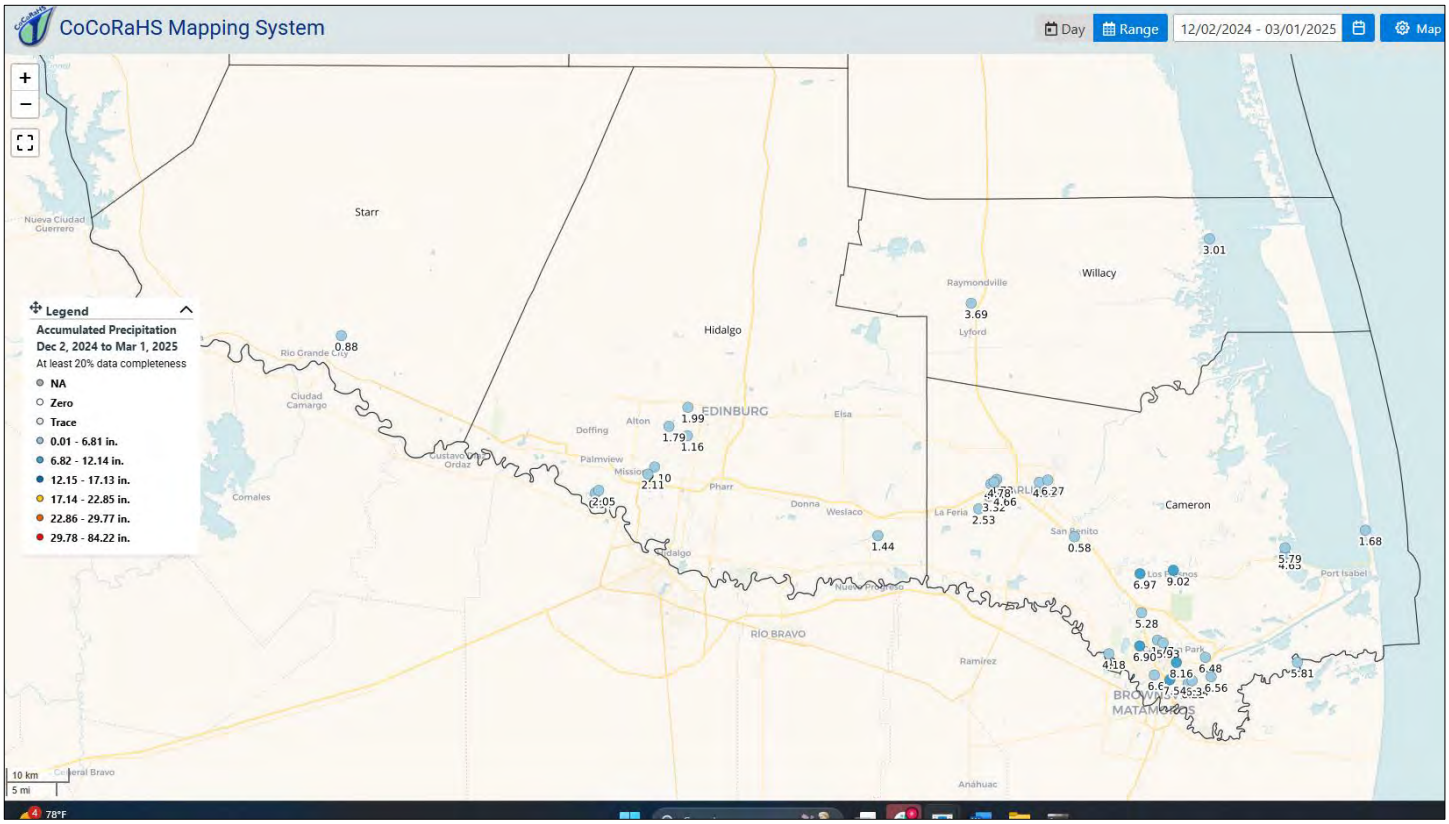


Figure 2: Winners…and losers (again): Above-average rainfall once again fell across the "lower" Valley (Cameron and Willacy), while below average rainfall occurred in the mid/upper Valley (Hidalgo and Starr), for winter 2024/2025. This was the third consecutive season for these trends, which had a direct impact – and sharp gradient – on the drought condition across just 20 to 30 miles by season's end. At the end of February, locations along/east of IH-69E turned green and somewhat lush, while grasses and brush remained brown/yellow in Hidalgo and Starr County following the one hard freeze event on January 22.

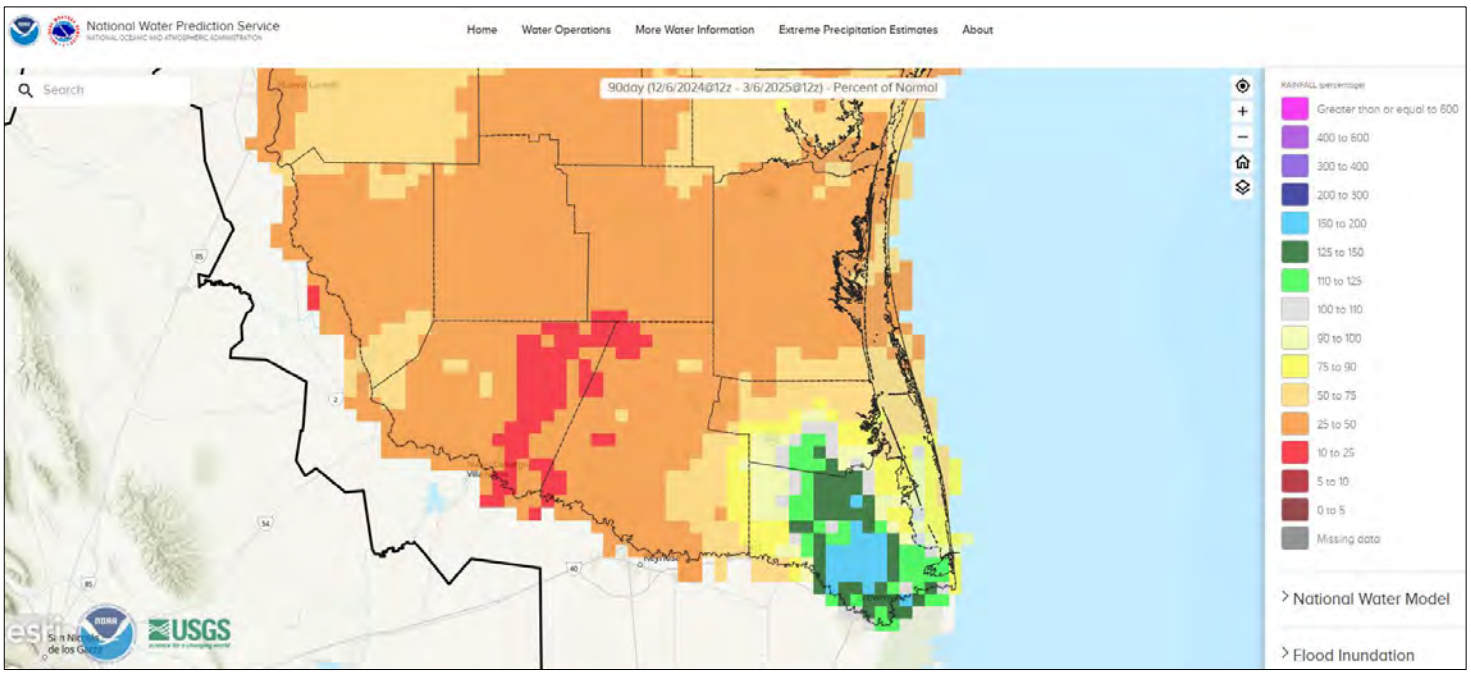


Figure 3: The sharp demarcation of above (100 to 200 percent of average) to below/much below (10 to 50 percent of average) between central Cameron/Willacy and the remainder of the Rio Grande Valley/Deep S. Texas ranch country is very apparent for winter 2024/2025.

Lower Rio Grande/Brownsville Regional Summary (continued)

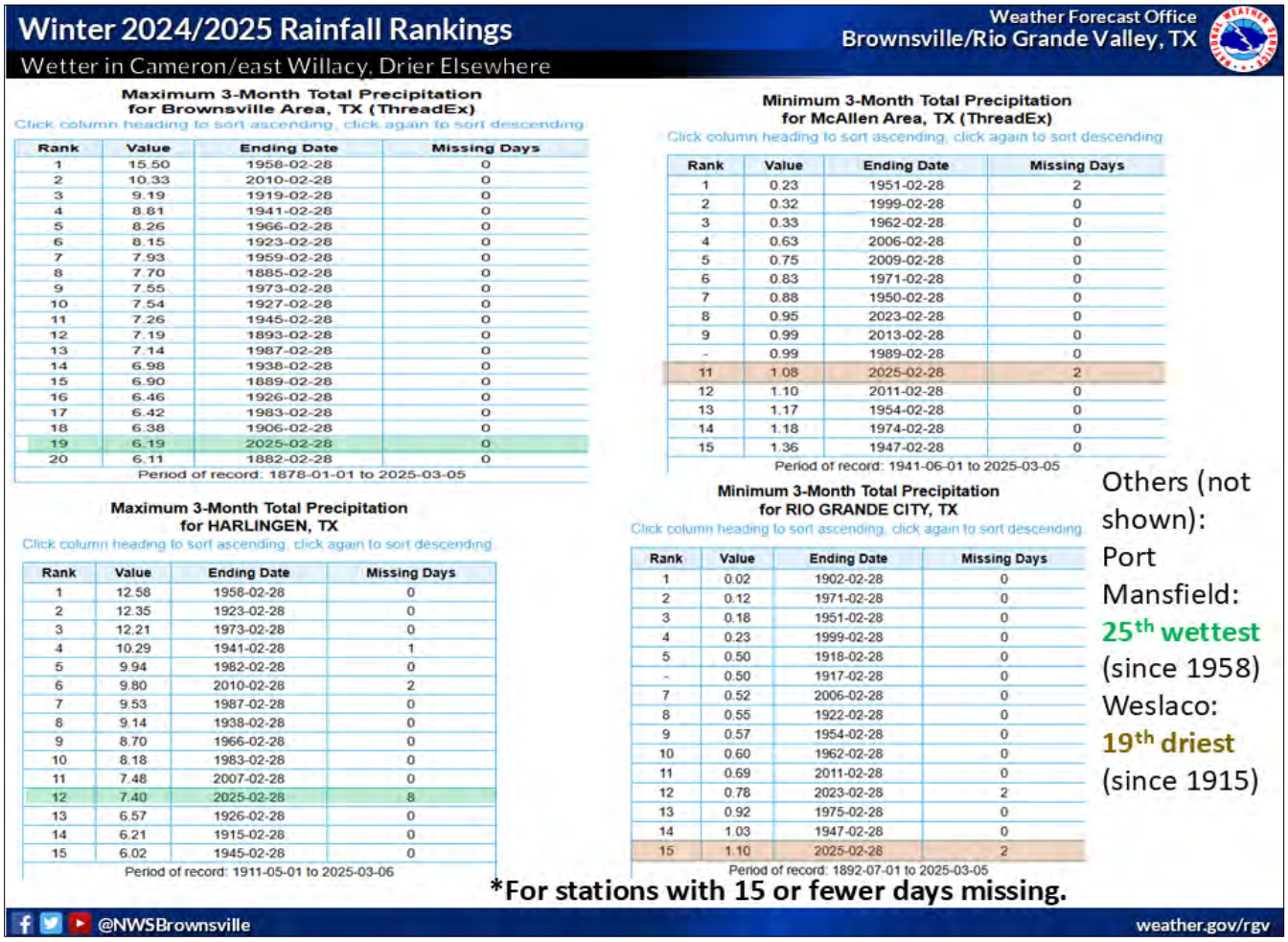


Figure 4. "Winners and Losers", again: Brownsville and Harlingen finished among their top 20 *wettest* winters of all time, and Port Mansfield landed in 25th. Just one and two counties to the west, McAllen finished 11th *driest*, and Rio Grande City 15th driest. A tale of two "Valleys", indeed.

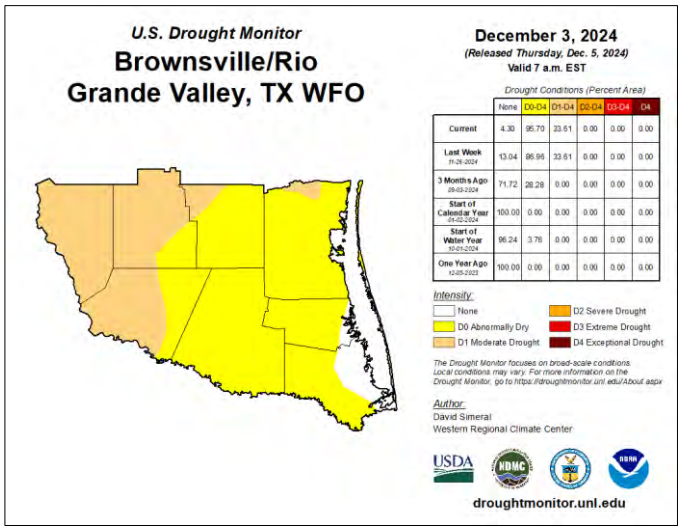


Figure 5. U.S. Drought Monitor showed dryness/drought conditions across most of the region on December 3. Helpful rainfall, mostly in December, removed the dryness in Cameron and part of Willacy County – but lack of rainfall led initially to an expansion of Moderate (D1) Drought across most other areas to begin 2025. Severe (D2) Drought arrived across the Brush Country/Rio Grande Plains to start March, and spring.

Lower Rio Grande/Brownsville Regional Summary (continued)

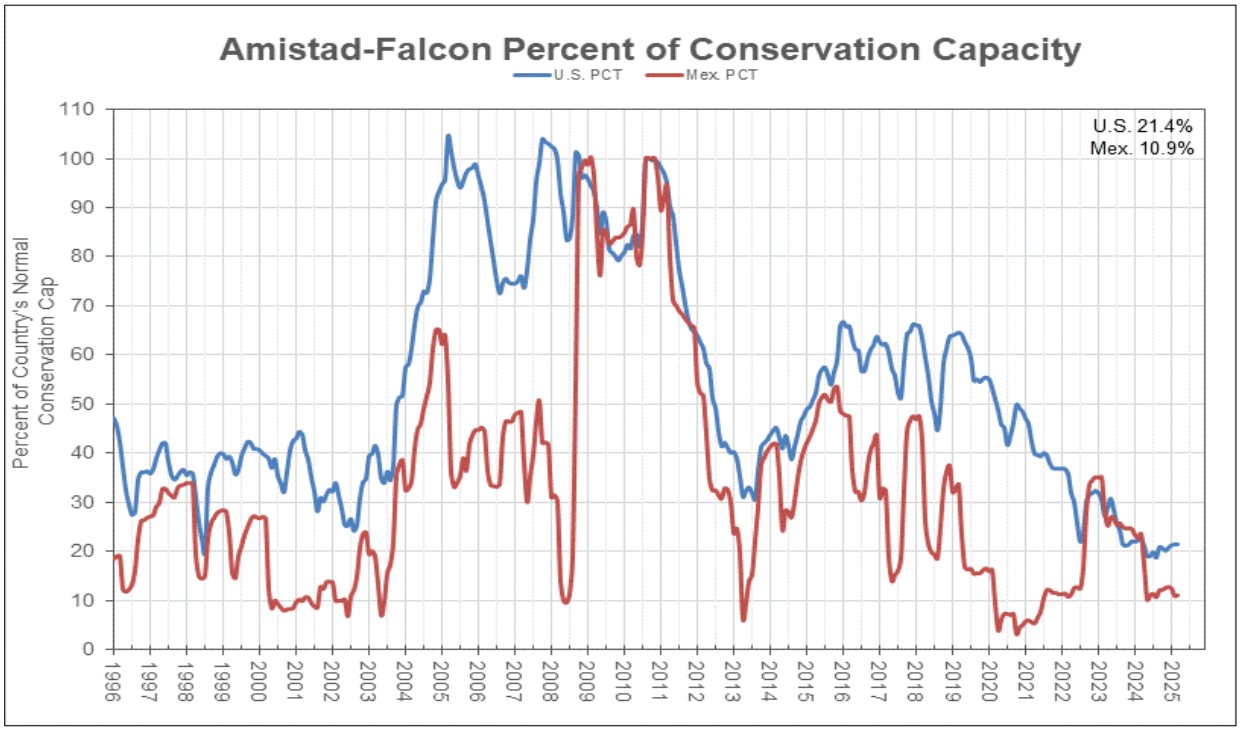


Figure 6. U.S. International Boundary and Water Commission (IBWC) combined percentage of conservation capacity for Amistad and Falcon International Reservoirs, as of the start of March 2025. The combined low values remained near the lowest on record for early March – nearly identical since early December - since each dam was constituted (Falcon in 1954; Amistad in 1971) – as meager inflows remained. Water levels for the Rio San Juan basin (El Cuchillo and Marte Gomez) – set up to maximum storage by Tropical Storm Alberto, a follow-up wave in late June, and additional rains in July – dipped below 100 percent.

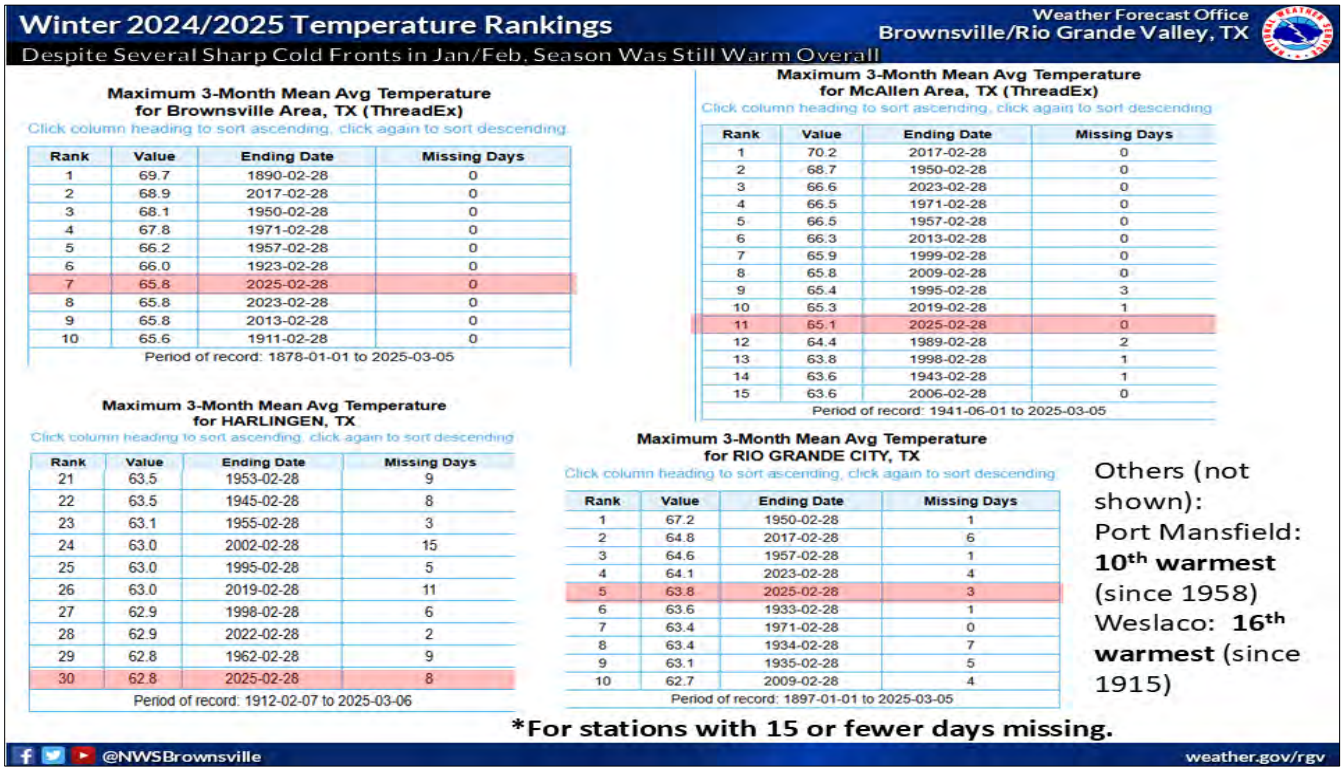


Figure 7: Temperature rankings for December 2024-February 2025. Despite several notable cold snaps in January and February, most available locations ranked among the top decile (10 percent) all-time. The exception was Harlingen, but the 30th ranking (since 1912/1913) may have been related to how minimum temperatures are recorded on consecutive calendar days.

Lower Rio Grande/Brownsville Regional Summary (continued)

Month-by-Month Summary

December closed a record-warmest year (2024) with a near record-warm month (Figure 8), as an anomalous warm pattern at all levels of the atmosphere ensured late October/early November-like temperatures for the month. The dominance of southeasterly low-level flow ensured a sizable number of warm/humid overnights, which contributed to the temperature trends.

A couple of weak cold fronts crossed the region, one on the 6th and another on the 10th. The front on the 6th was notable, as a surface coastal trough set up just off the shoreline into the 7th – and combined with sufficient atmospheric forcing and moisture to produce winter's heaviest rainfall, which favored Cameron and Willacy County as so many events since June 2024 had done. Brownsville/South Padre Island International Airport set a new daily record with 2.04", and Harlingen did likewise (reported on the 7th due to the 7 AM to 7 AM cooperative observation posting), with 2.40". For Cameron and southern Willacy, these values were up to two times the *monthly* average. While Cameron and southern Willacy "feasted" on this welcome rainfall, every other county suffered a "famine" of little to no rainfall – just 30 miles to the west and north. McAllen recorded only 0.29" for the event, and Rio Grande City a paltry 0.12".

This would be a trend that continued through the rest of winter – though there were no other rainfall events of significance. The rainfall accounted for at least one-third of the December 2024-February 2025 total in these areas.

For the month, the heavy rainfall of December 6-7 resulted in top five wet finishes, as follows:

- Brownsville (4.93") finished 5th wettest (records since 1878)
- Harlingen (5.11") finished 3rd wettest (since 1912)
- Port Mansfield (2.09") finished 18th (since 1958)

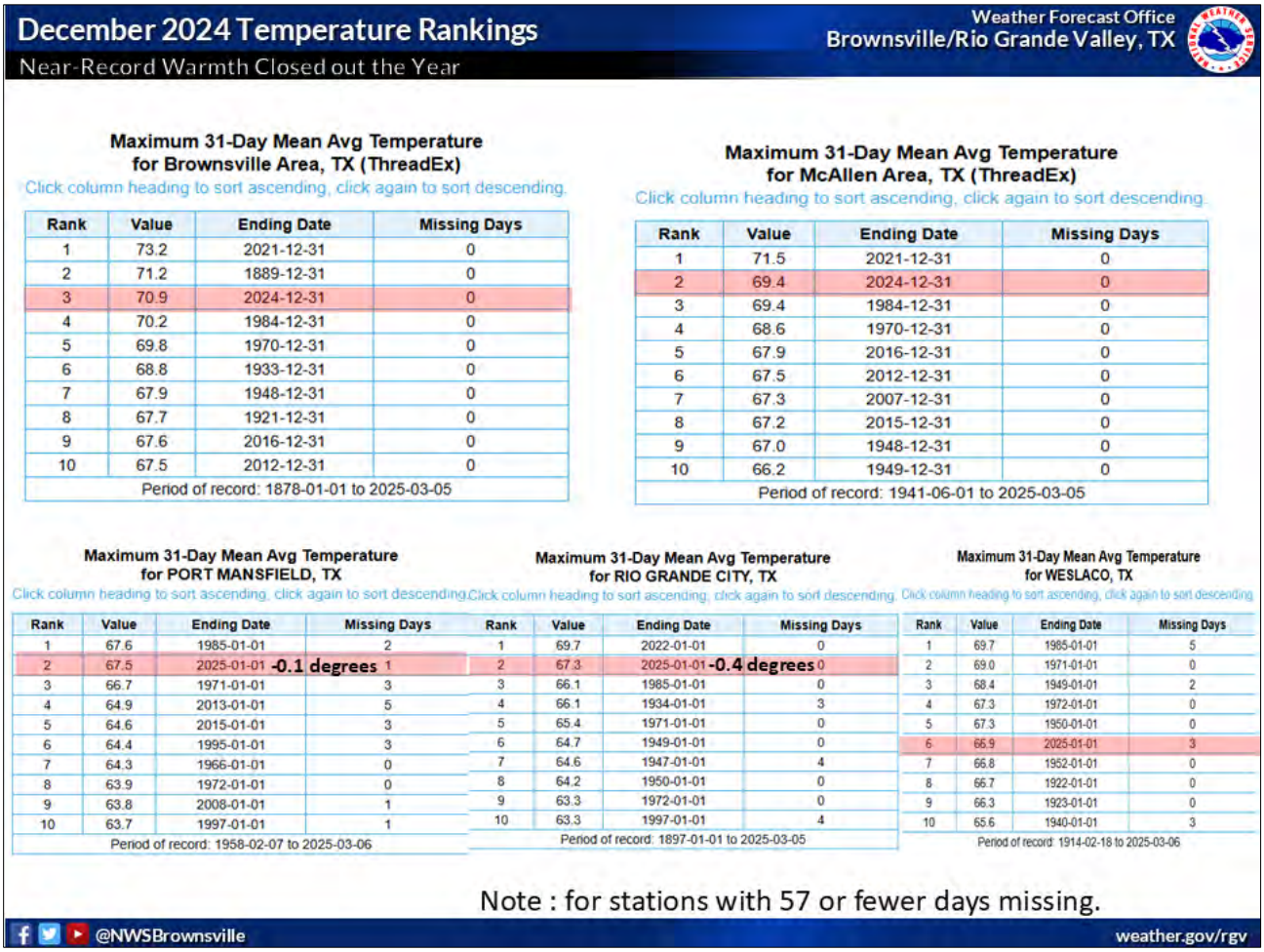


Figure 8: Temperature rankings for December 2024. All available locations ranked among the top ten warmest on record.

Lower Rio Grande/Brownsville Regional Summary (continued)

January picked up where December left off, with the first five days feeling more like late October than the start of a new year, with temperatures for the first five days near all-time records for that window. That all came crashing down with the season's first legitimate **cold** front overnight on the 5th. Strong Canadian high pressure pushed across the southern Great Plains and combined with energy from an upper-level disturbance over the New Mexico and Arizona to enhance a coastal trough just offshore of the international border. Light rain/drizzle accompanied the situation, to the tune of 0.1" to 0.3" across the populated Rio Grande Valley. More importantly, temperatures struggled to escape the 40s between the morning of the 6th and the morning of the 11th – including locations near the coast – which was enough to bring Lower Laguna Madre Bay water temperatures to around 50°F. These conditions were sufficient for the first sea-turtle "cold stun" event here since January 17-20, 2024. At least 190 turtles were rescued between the 8th and 11th.

The early-month chill was just a preview of what would arrive about ten days later, when a true "Arctic Express" event slammed through all of Texas and deep into northern Mexico, beginning late on the 19th and peaking on the 21st through early on the 22nd.

After a steel-gray sky was joined with light rain/drizzle in the mid/upper Valley for part of January 20th, temperatures dropped into the 30s and "feels like" temperatures into the mid to upper 20s with a stiff north wind. In fact, very light icing occurred across the Brush Country region of northwest Brooks through northern Jim Hogg before temperatures sneaked into the mid-30s during the afternoon. The more pronounced round of icing (freezing rain) developed around midnight on the 21st, beginning with colder temperatures across the Brush Country and transitioning into the mid and upper Valley overnight and through mid-morning on the 21st (Figure 10). The coldest wind chills occurred during the early morning of the 21st, when values fell into mid to upper teens across all locations where winds were strongest (Figure 9).

Skies cleared quickly from west to east during the afternoon and early evening, setting the stage for the season's only hard freeze early on the 22nd (Figure 11) with minimum temperatures ranging from the upper teens and lower 20s across the ranchlands and upper Valley, to the mid and upper 20s elsewhere, except low to mid 30s at the Cameron County beaches.

Another round of sea turtle cold stuns ensued with this Arctic Express, as lower Laguna Madre Bay water temperatures plunged into the lower to mid-40s at their coldest. Unfortunately, sustained gale-force winds and very rough waves precluded boaters from conducting rescues on the 21st, so it is unknown how many more turtles could have been recovered – but in the end, around 375 turtles were recovered – and later released (on the 26th) back into the Gulf.

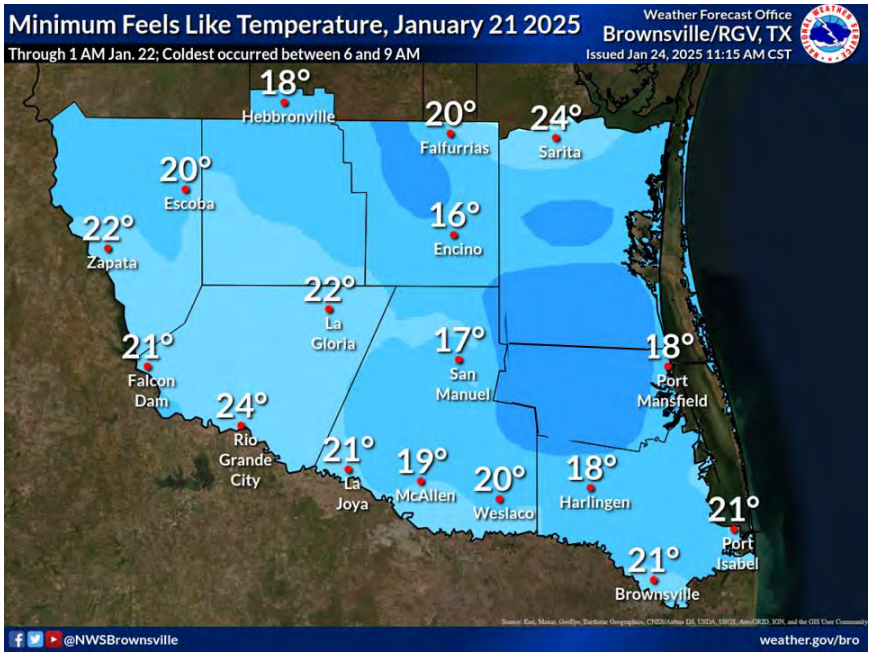


Figure 9. Lowest wind chill (apparent temperature) on January 21, 2025

Lower Rio Grande/Brownsville Regional Summary (continued)

Figure 10. Measured and estimated ice accretion on January 21st, 2025. Accretion of 1/8 inch or higher occurred for all but the lower Texas coast, as well as Cameron County. Most of the accretion was on fences, grass, tree limbs, and vehicles parked outdoors; brining of elevated roads and bridges kept most of them wet except in one instance near La Joya.

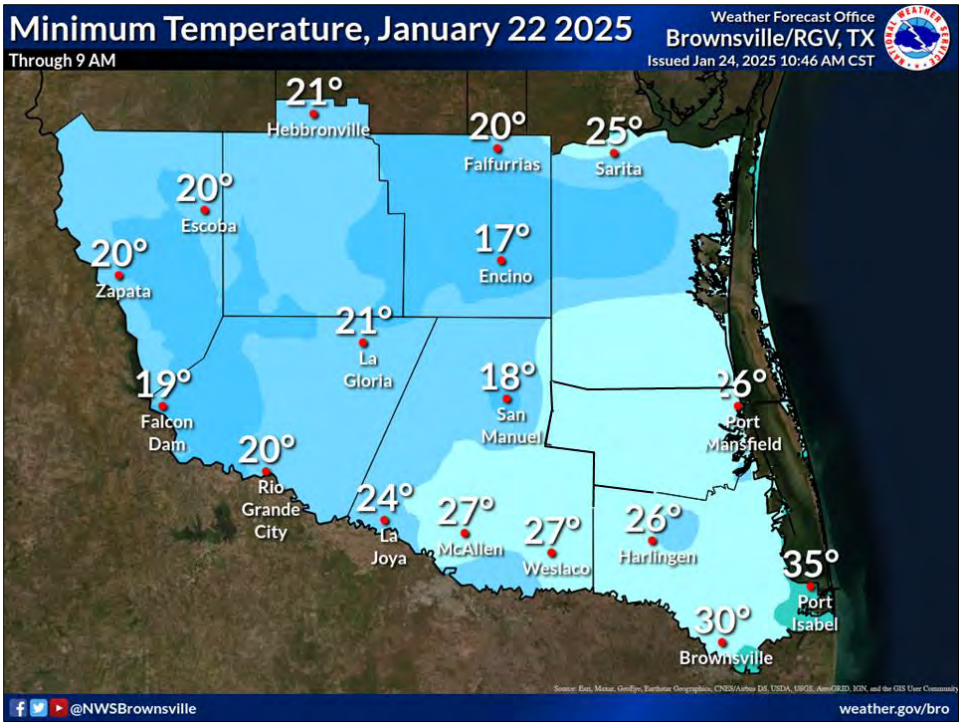


Figure 11. Minimum temperatures on January 22, 2025.

The pair of cold/very cold snaps in the heart of January turned the early month record warm start to a cooler than average final, with temperatures generally running between 2 and 4°F below the 1991-2020 average. A warm close to the month ensured that it would not rank among the top twenty coldest on record.

Lower Rio Grande/Brownsville Regional Summary (continued)

February re-ramped up the warmth and made the January 20-22 "Arctic Express" a distant memory; very warm to even hot and humid conditions along with the increasing sun angle turned freeze-cured grasses green in the Cameron/Willacy area, with spring's initial buds appearing on many trees by the 10th. This included a rapid early bloom of citrus groves. By the 12th, the following records were broken or neared for this window across the Valley:

- Brownsville (since 1878): 75.9°F, 1.9° above the prior record (2017).
- McAllen (since 1942): 77.6°F, 1.3°F above the prior record (1957)
- Harlingen (since 1912): 74.7°F, 0.4°F below the prior record (1957)
- Rio Grande City (since 1897, but mostly since 1928): 75.7°F, 0.5°F above the prior record (1957)
- Weslaco (since 1915): 75.3°F, 0.8°F above the prior record (1957)
- Port Mansfield (since 1958): 71.0°F, 1.1°F below the prior record (2017).

And then…the pattern shifted (again), and cooler – then colder – weather returned. The first front brought three days of misty chill (February 13-14) with daytime temperatures largely in the 50s to lower 60s. This shift began the period of "roller coaster" temperatures, which would prevail through month's end. After a quick surge back into the 80s, a second weak front briefly took temperatures back into the 60s through the 18th. And then, the bottom fell out for the second time this winter.

Though not as sharply cold as the Arctic Express, the season's second significant cold snap plunged temperatures back into the upper 30s to lower 40s before daybreak on the 19th, and these readings would continue almost unchanged for the next 72 hours, before partial sunshine returned by the afternoon of the 23rd and put the end to the season's cold snaps. The situation – a strong ridge of high pressure that originated in northwest Canada before diving southeast across the Great Plains and Mississippi Valley, then joined by a three-day coastal trough east of the U.S./Mexico border – was somewhat like the January 6-11 event, only a few degrees colder. On the morning of February 20th, a light freeze was noted in Jim Hogg, northern Zapata, and northern Brooks County – and temperatures nudged to the freezing point across the remainder of Brooks and Jim Hogg, northern Starr, northwest Cameron, much of Hidalgo, western Willacy, and much of Kenedy – with a second light freeze across northern Jim Hogg on the morning of the 21st.

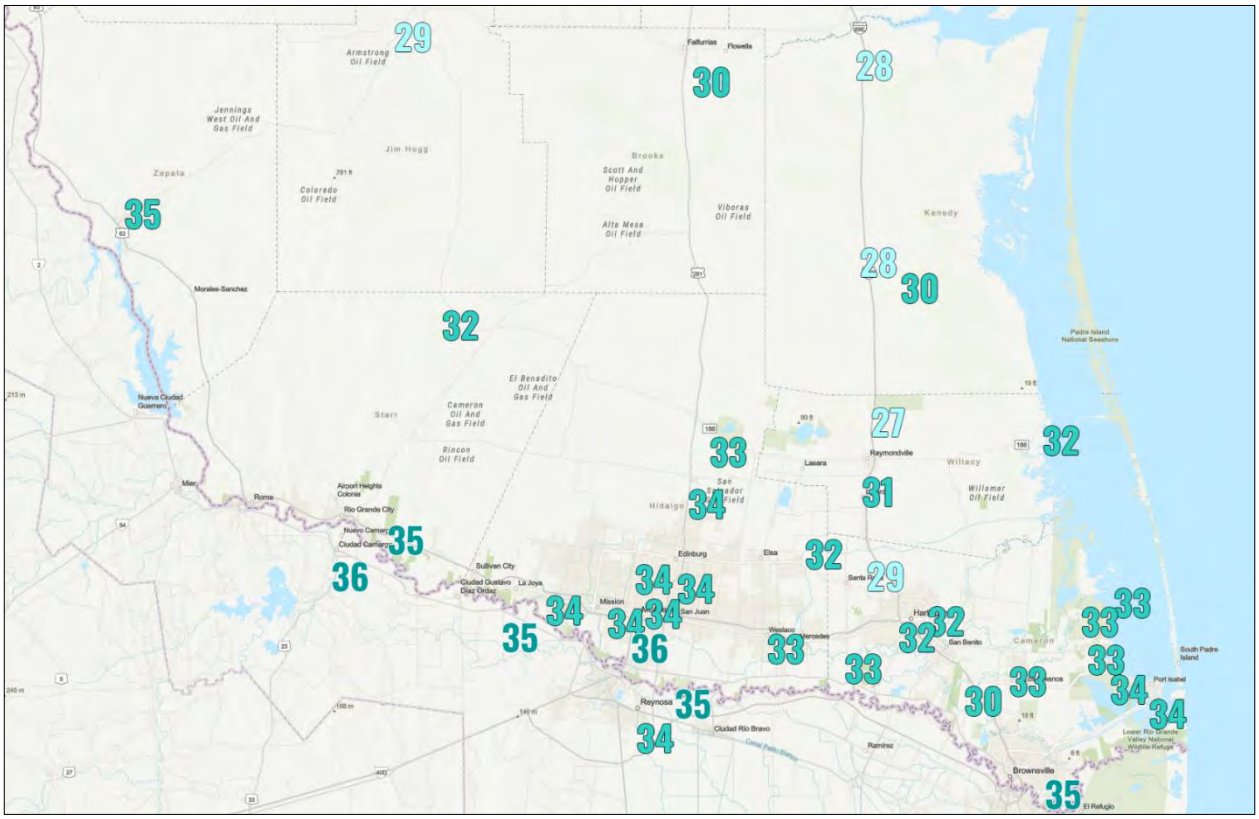


Figure 12. Observed and estimated minimum temperatures on February 20th, 2025. Slightly higher temperatures were observed on the morning of February 21st, 2025.

Lower Rio Grande/Brownsville Regional Summary (continued)

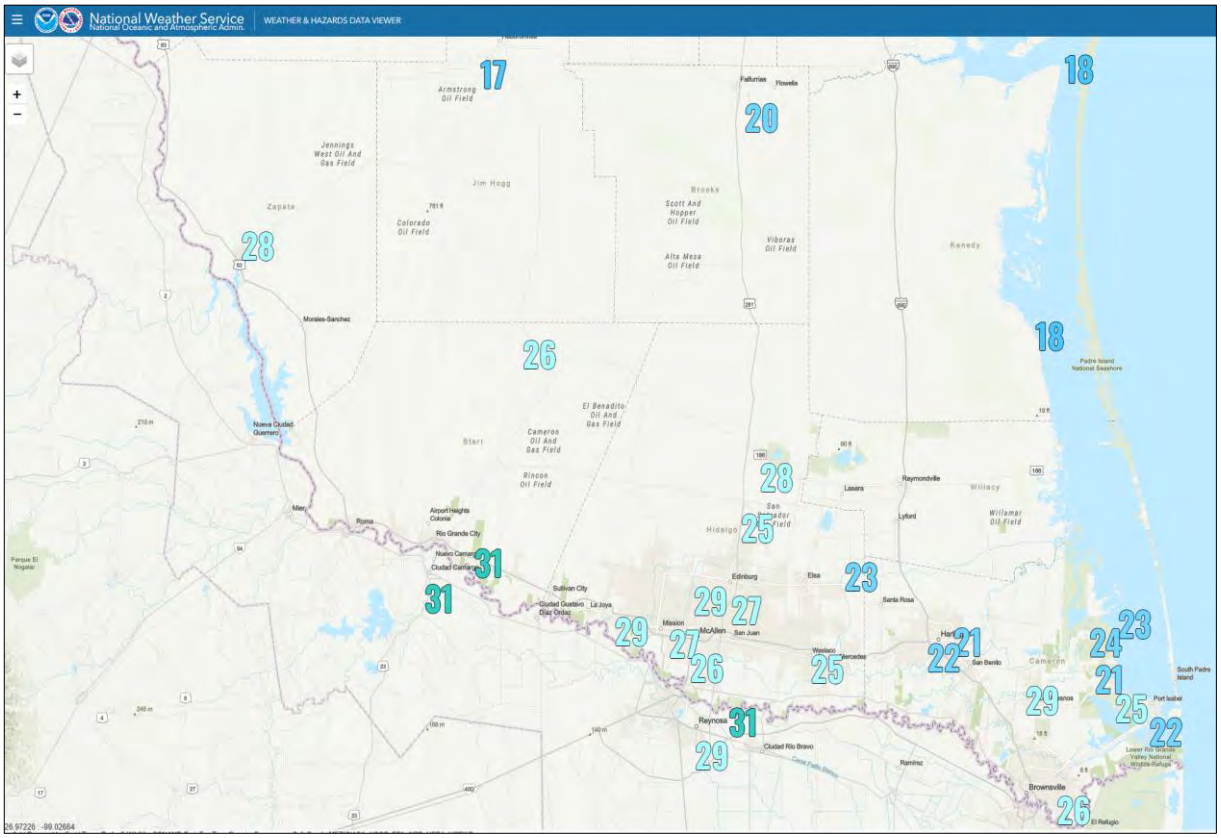


Figure 13. Observed and estimated wind chill (apparent) temperature at 8 AM on February 20th, 2025. Slightly higher, but still similar, wind chill temperatures were felt on the mornings of the 21st and 22nd, with upper 20s to lower 30s values persistent from the 19th through the 22nd.

The persistence of temperatures in the upper 30s to lower 40s for 72 hours once again brought lower Laguna Madre water temperatures to or just below 50°F for several periods on the 21st – 22nd, and a third round of sea turtle cold-stun occurred in just six weeks, this time with 200 known rescues. A new cold record was set for the calendar-day window (Feb. 20-22).

Temperature recovered to or just above seasonal levels to close out the month. The roller-coaster of record to near-record heat followed by the record late month cold largely cancelled each other out – and the month finished right around the 1991-2020 average at all locations. This just proved the point that the only thing "normal" about the weather for February was the week-to-week mood changes…all ending up right around the most recent 30-year average!

Overall, when comparing the seasonal forecasts for "warmer and drier than average", the forecast verified almost perfectly. The sole exception was in Cameron and southern Willacy, where December's rain and a bit more in January and February locked in an above-average winter season. Still, residents of the Valley will remember winter 2024/2025 as the season that "couldn't make up its mind". From near record heat of December to a warm start in January – quickly followed by a cold outbreak and an Arctic Express – then a record-breaking warm start to February before a final late-month temperature plunge – December 2024-February 2025 was – in a word – fickle.

All this said, we were able to describe this fickleness in our seasonal outlooks, where we gave a peak of 40% chance that at least one "Arctic Express" would arrive between December 20th and February 15th. Sure enough, that's exactly what happened…and we were not surprised to see several sharp cold fronts along the way, denting the otherwise mild to warm winter overall.

Southeast Texas Regional Summary

Good rains in places for December and January followed by Dry February for the Region
Very Warm December/Cold January/Average February Temperatures

By: Ron Havran, Southeast Texas Regional Coordinator, HCFCD

December

Temperatures were very warm with readings being 5-6 degrees above normal over all of Southeast Texas. See page 23 for temperature data at selected official stations. Texas had its second warmest December on record. Rainfall was near normal to slightly above normal over the northern half of Southeast Texas and Golden Triangle. The southern and southwestern parts of the region were below normal. See figures 1 and 2 on page 18 for radar estimated rainfall data. See figure 3 for CoCoRaHS total rainfall map for December on page 18.

January

Temperatures in January were very cold over all Southeast Texas in January. After a warm start to the month cold conditions set in for most of January with temperatures 4 to 5 degrees below average. Texas had its 26th coldest January on record. Precipitation was near average over most of Southeast Texas for the month with a few slightly drier areas. See figures 4 and 5 on page 19.

With the cold conditions in place from a strong artic airmass at the surface on the 20th through the 22nd, a surface low developed on the frontal boundary in the Gulf of Mexico and moved northeast across SE Texas and continued into Louisiana and eastward producing moderate snowfall totals and blizzard conditions in the Golden Triangle. This storm was named the 2025 Gulf Coast Blizzard. See pages 25 – 30 for a report on this storm with snowfall totals and pictures.

February

Conditions in February were near normal temperatures in most places with a few stations having a little warmer readings. Rainfall was in short supply in most areas with the only exception being an area in the middle of SE Texas which had a couple of heavy thunderstorm cells developing and moving over the same place on the 11th and 18th. Most of this rain fell outside of official climate data station locations. This is where the CoCoRaHS observer precipitation data fills in those gaps of coverage and verifies radar data with ground truth measured data by you. Thanks to each CoCoRaHS observer for taking your time each morning to measure precipitation at your location and send in the report.

Southeast Texas Regional Summary (continued)

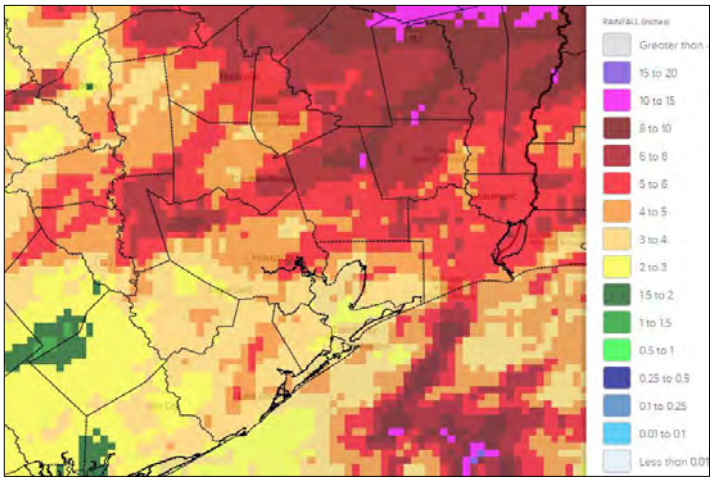


Figure 1: December Precipitation in SE Texas

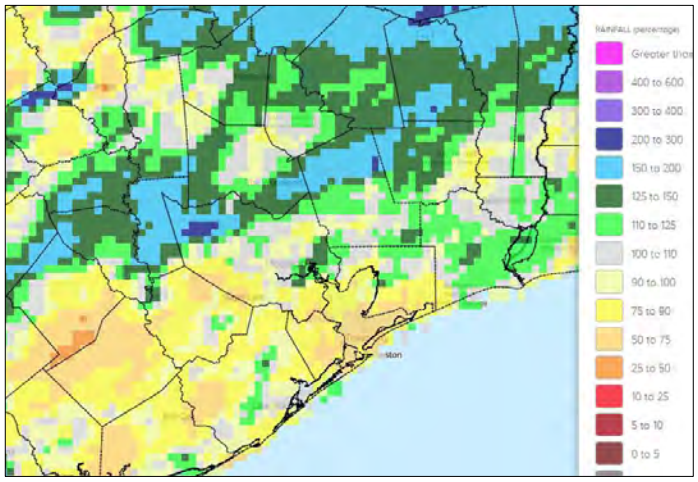


Figure 2: December Percent of Normal Precipitation in SE Texas

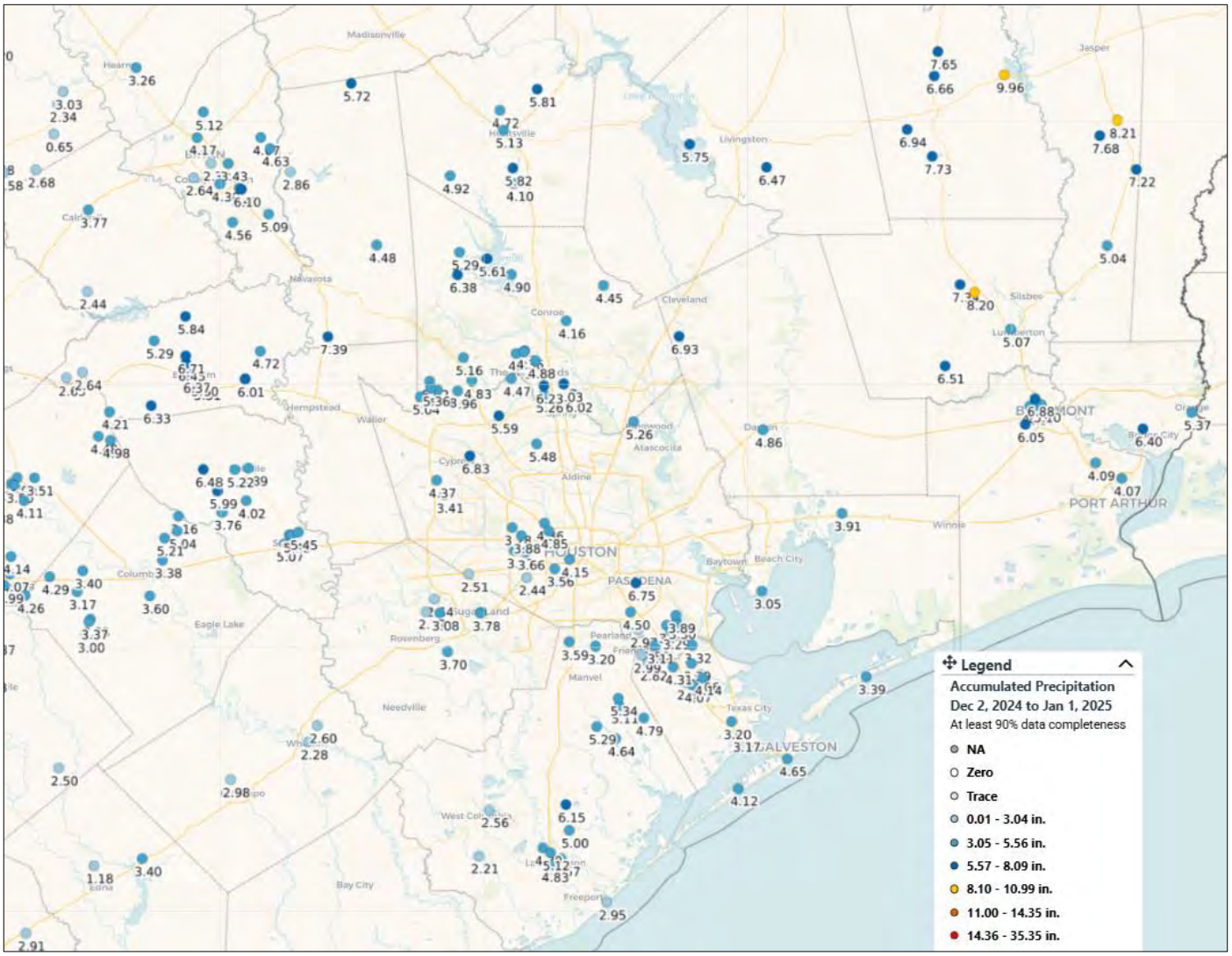


Figure 3: CoCoRaHS Recorded Precipitation Data for December 2025

Southeast Texas Regional Summary (continued)

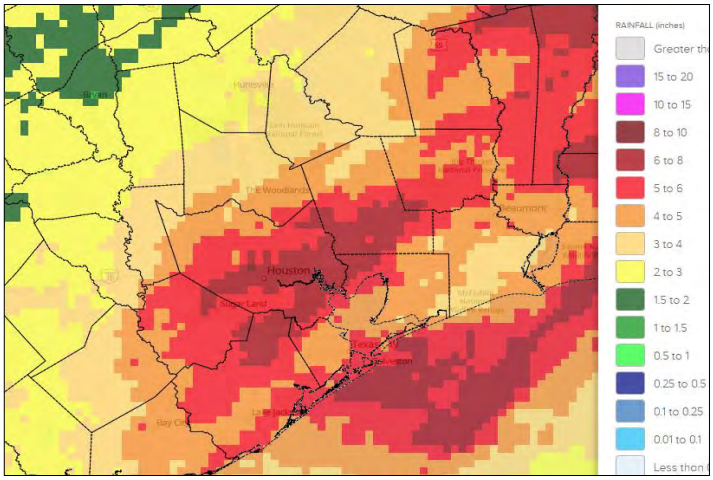


Figure 4: January Precipitation in SE Texas

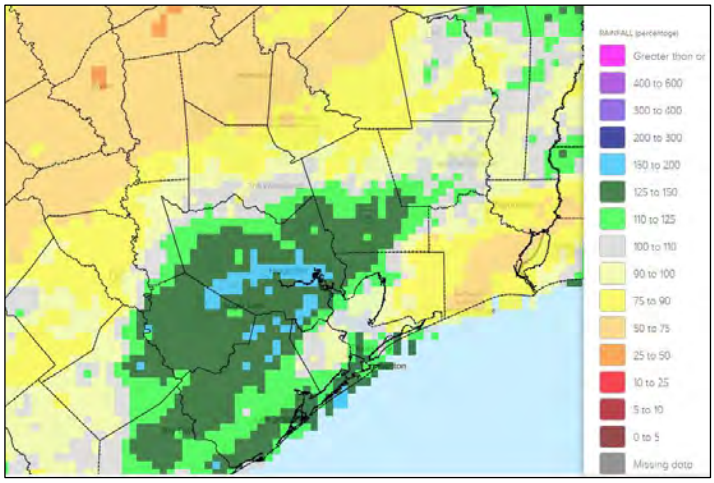


Figure 5: January Percent of Normal Precipitation in SE Texas

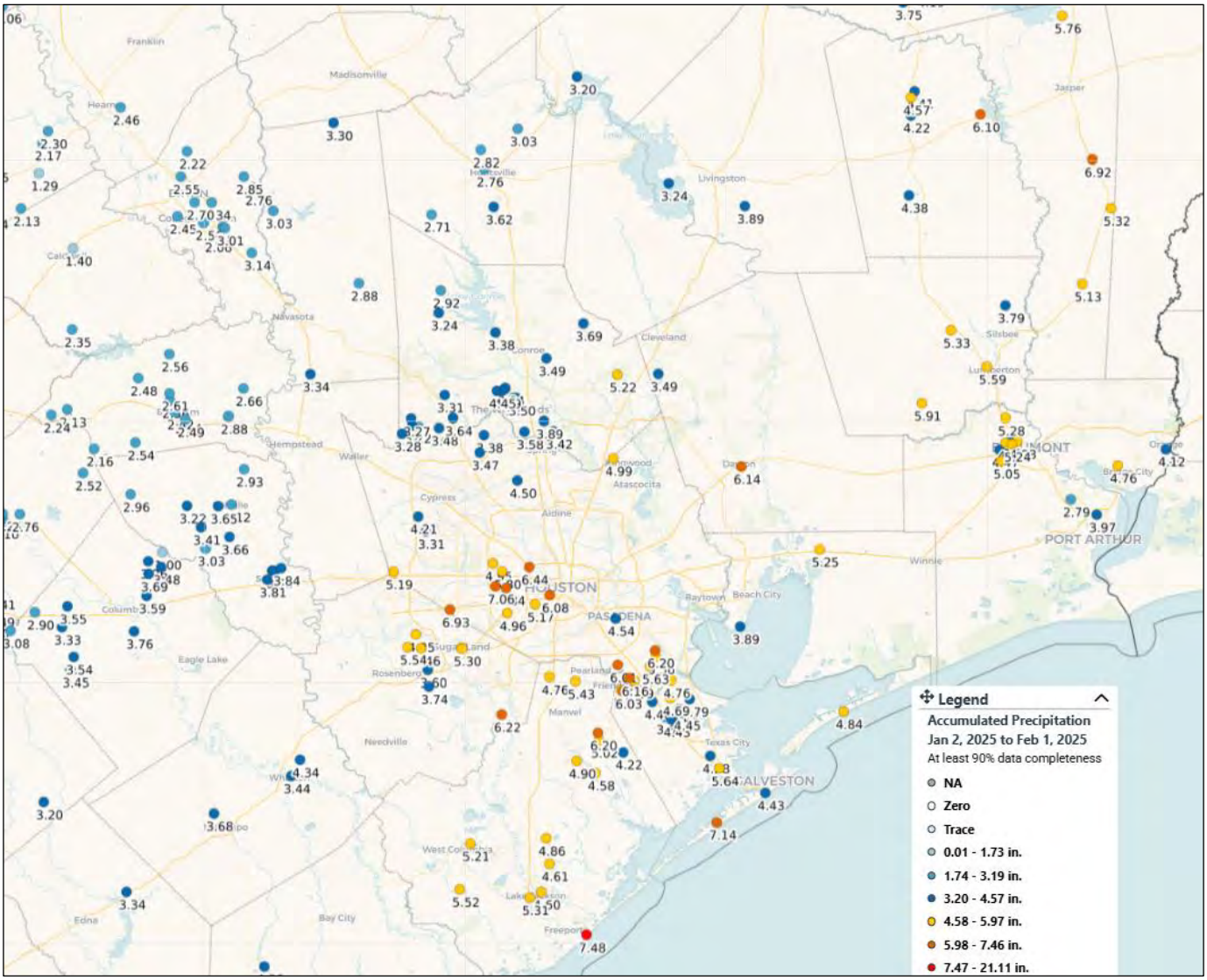


Figure 6: CoCoRaHS Recorded Precipitation Data for January 2025

Southeast Texas Regional Summary (continued)

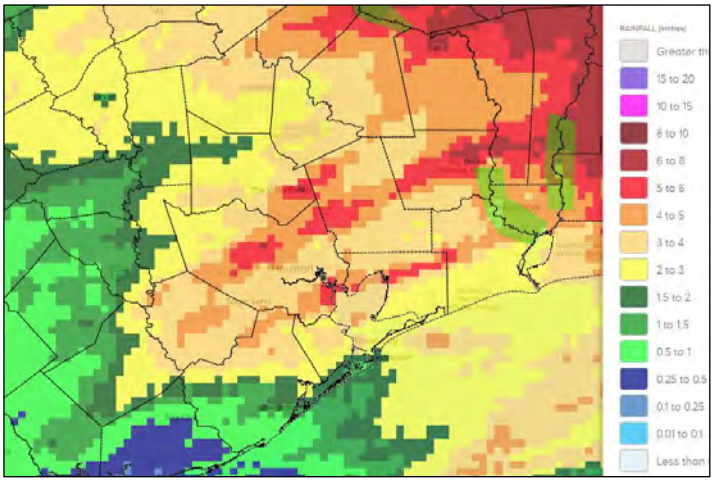


Figure 7: February Precipitation in SE Texas

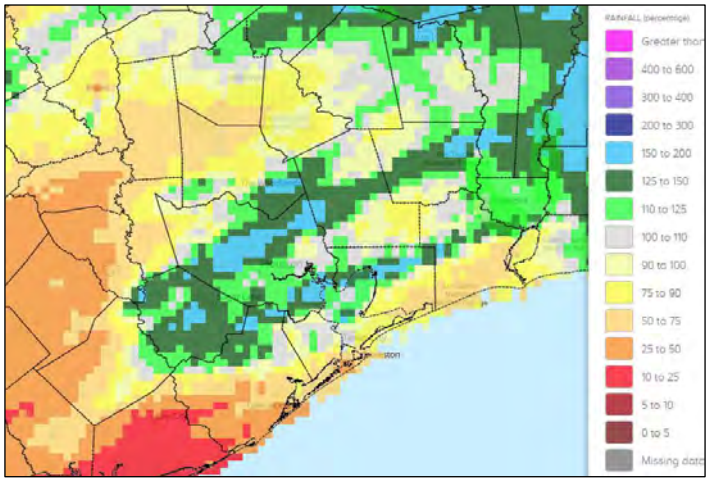


Figure 8: February Percent of Normal Precipitation in SE Texas

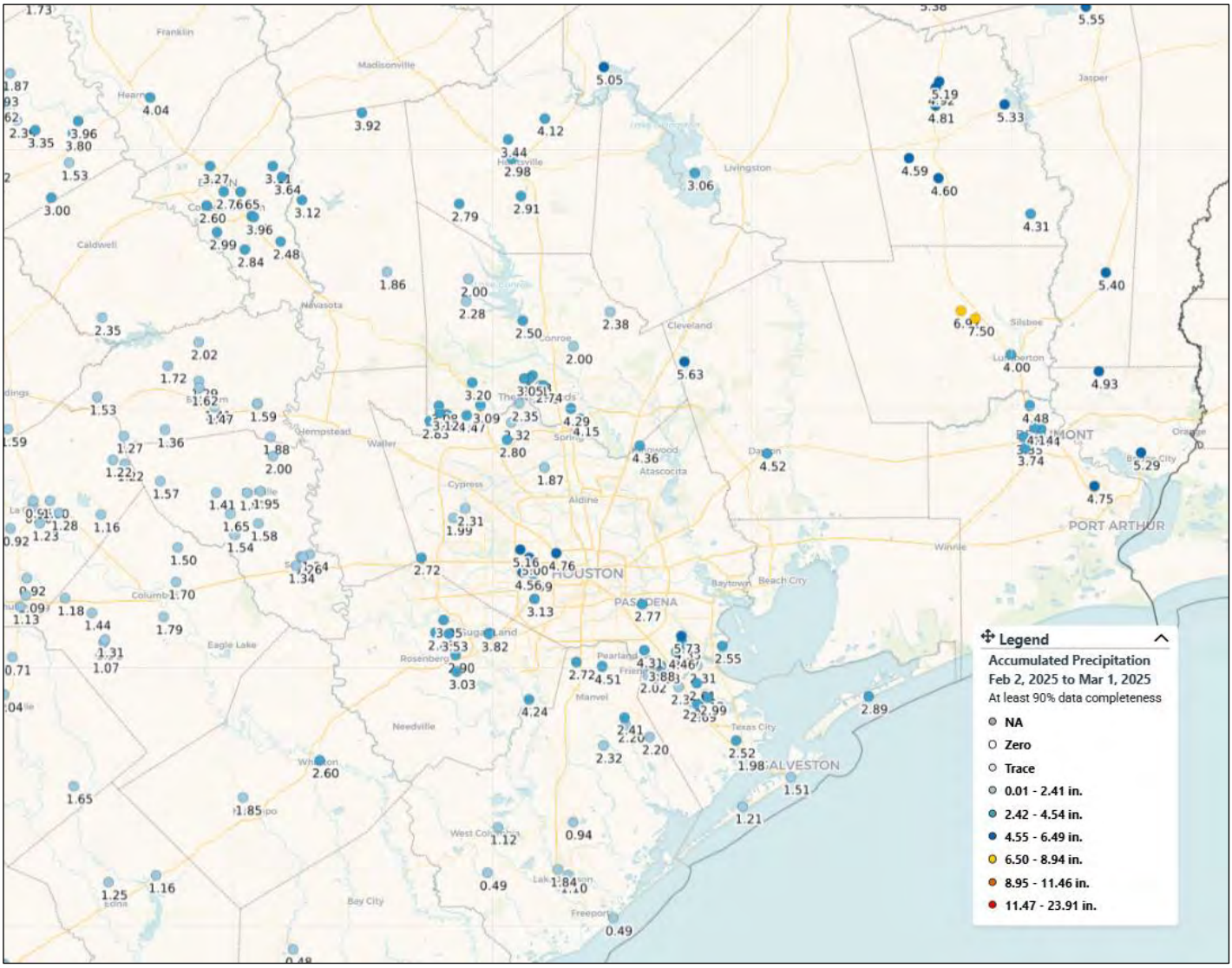


Figure 9: CoCoRaHS Recorded Precipitation Data for February 2025

Southeast Texas Regional Summary (continued)

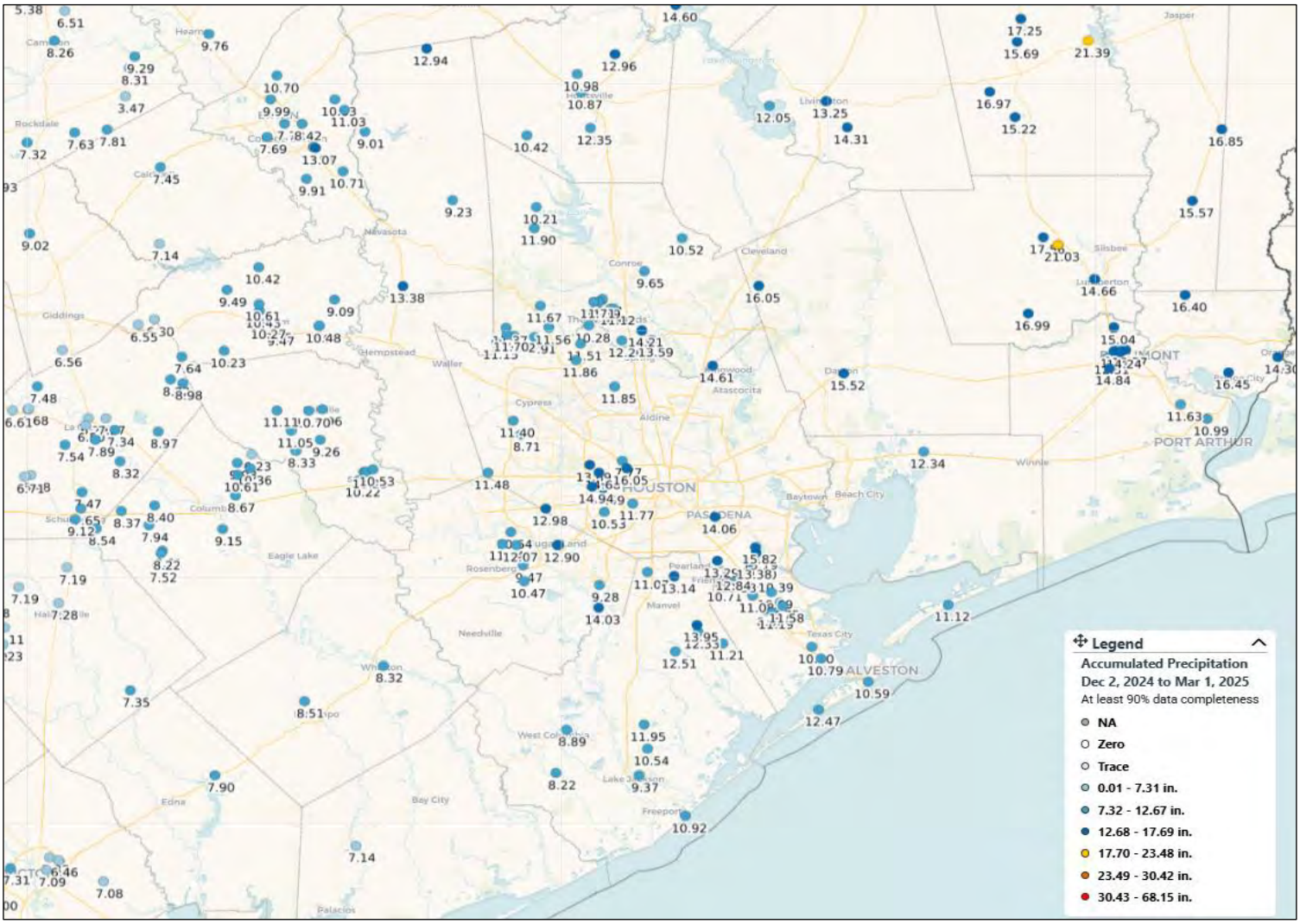


Figure 10: CoCoRaHS Observer measured 90-day Precipitation totals for December – February.

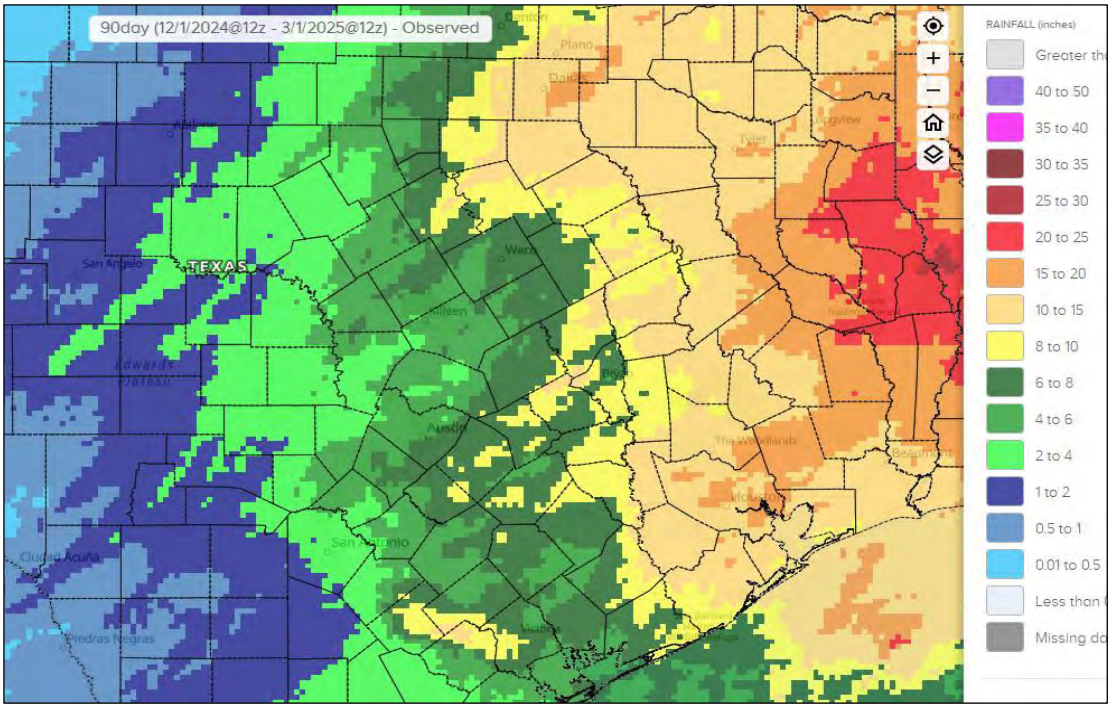


Figure 11: 90-Day Radar Estimated Winter Season Precipitation for SE Texas.

Southeast Texas Regional Summary (continued)

Winter 2025 CoCoRaHS SE Texas Houston/Galveston Section Rainfall

CoCoRaHS Station measured county rainfall averages in inches per month

County	December	January	February	Winter Total
	AVG.	AVG.	AVG.	Dec. - Feb.
Austin	5.11	3.38	1.57	10.06
Brazoria	4.29	5.08	1.81	11.18
Chambers	3.99	5.02	2.98	11.99
Colorado	4.06	3.39	1.51	8.96
Fort Bend	3.24	4.68	3.21	11.13
Galveston	3.55	4.65	2.31	10.51
Harris	4.13	4.87	3.25	12.25
Jackson	2.39	3.39	1.20	6.98
Liberty	6.58	4.68	4.57	15.83
Matagorda	2.30	4.30	0.82	7.42
Montgomery	4.67	3.43	2.79	10.89
Polk	4.81	3.84	3.61	12.26
San Jacinto	3.23	3.32	3.50	10.05
Wharton	2.42	3.68	2.30	8.40
Region Totals	3.91	4.12	2.53	10.57

Color indicates highest avg. rainfall total for a county in a month

Color indicates lowest avg. rainfall total for a county in a month

Note: Counties without a significant # of observers reporting are not listed on the chart.

Table 1: Houston/Galveston Section Observer Winter Precipitation by county

Winter 2025 CoCoRaHS SE Texas Golden Triangle Section Rainfall

CoCoRaHS Station measured county rainfall averages in inches per month

County	December	January	February	Winter Total
	AVG.	AVG.	AVG.	Dec. - Feb.
Hardin	6.11	4.74	5.65	16.50
Jasper	6.90	5.62	4.81	17.33
Jefferson	5.05	4.17	4.04	13.26
Orange	5.84	4.72	5.08	15.64
Tyler	7.59	4.77	4.52	16.88
Region Totals	6.30	4.80	4.82	15.92

Color indicates highest avg. rainfall total for a county in a month

Color indicates lowest avg. rainfall total for a county in a month

Note: Counties without a significant # of observers reporting are not listed on the chart.

Table 2: Golden Triangle Section Observer Winter Precipitation by county

Southeast Texas Regional Summary (continued)

Houston/Galveston Temperature & Rainfall Data for 2025 Winter Season

	December Climate						
Site Location (record start)	Hi	Lo	Mean	Departure	Rain	Normal	Departure
Bush Airport (1888)	71.0	51.2	61.1	5.7	3.65	4.03	-0.38
Hobby Airport (1930)	71.6	53.5	62.6	5.7	3.20	4.34	-1.14
Galveston (1871)	69.9	57.2	63.5	5.0	2.60	4.23	-1.63
Sugar Land (2000)	72.3	51.8	62.0	5.5	2.34	3.76	-1.42
	January Climate						
Site Location (record start)	Hi	Lo	Mean	Departure	Rain	Normal	Departure
Bush Airport (1888)	58.2	40.5	49.4	-4.4	4.23	3.76	0.47
Hobby Airport (1930)	59.5	42.1	50.8	-4.2	4.71	4.09	0.62
Galveston (1871)	57.8	45.3	51.6	-4.4	4.89	4.30	0.59
Sugar Land (2000)	59.2	40.2	49.7	-5.1	3.12	3.63	-0.51
	February Climate						
Site Location (record start)	Hi	Lo	Mean	Departure	Rain	Normal	Departure
Bush Airport (1888)	69.6	50.6	60.1	2.4	4.10	2.97	1.13
Hobby Airport (1930)	68.6	52.3	60.4	1.6	3.58	2.85	0.73
Galveston (1871)	66.8	53.4	60.1	0.8	0.89	2.14	-1.25
Sugar Land (2000)	70.1	50.9	60.5	1.7	1.61	2.83	-1.22

Table 3: Houston Galveston Section Climate Data for Winter 2025

Golden Triangle Temperature & Rainfall Data for 2025 Winter Season

	December Climate						
Site Location	Hi	Lo	Mean	Departure	Rain	Normal	Departure
Beaumont Port Arthur	70.4	50.5	60.5	4.9	4.91	4.98	-0.07
Beaumont Research Center	68.0	47.6	57.8	3.6	2.27	5.04	2.77
Orange 9N	66.2	45.8	56.0	3.8	6.36	5.26	1.10
	January Climate						
Site Location	Hi	Lo	Mean	Departure	Rain	Normal	Departure
Beaumont Port Arthur	58.3	39.9	49.1	-4.6	4.12	5.32	-1.20
Beaumont Research Center	57.7	38.2	48.0	-4.1	2.15	4.77	2.62
Orange 9N	56.1	36.7	46.4	-4.1	3.94	5.65	-1.71
	February Climate						
Site Location	Hi	Lo	Mean	Departure	Rain	Normal	Departure
Beaumont Port Arthur	69.4	50.3	59.9	2.4	4.68	3.89	1.59
Beaumont Research Center	66.6	47.3	56.9	1.0	0.55	3.62	-3.07
Orange 9N	66.1	45.7	55.9	1.9	3.85	4.18	-0.33

Table 4: Golden Triangle Section Climate Data for Winter 2025

Southeast Texas Regional Summary (continued)

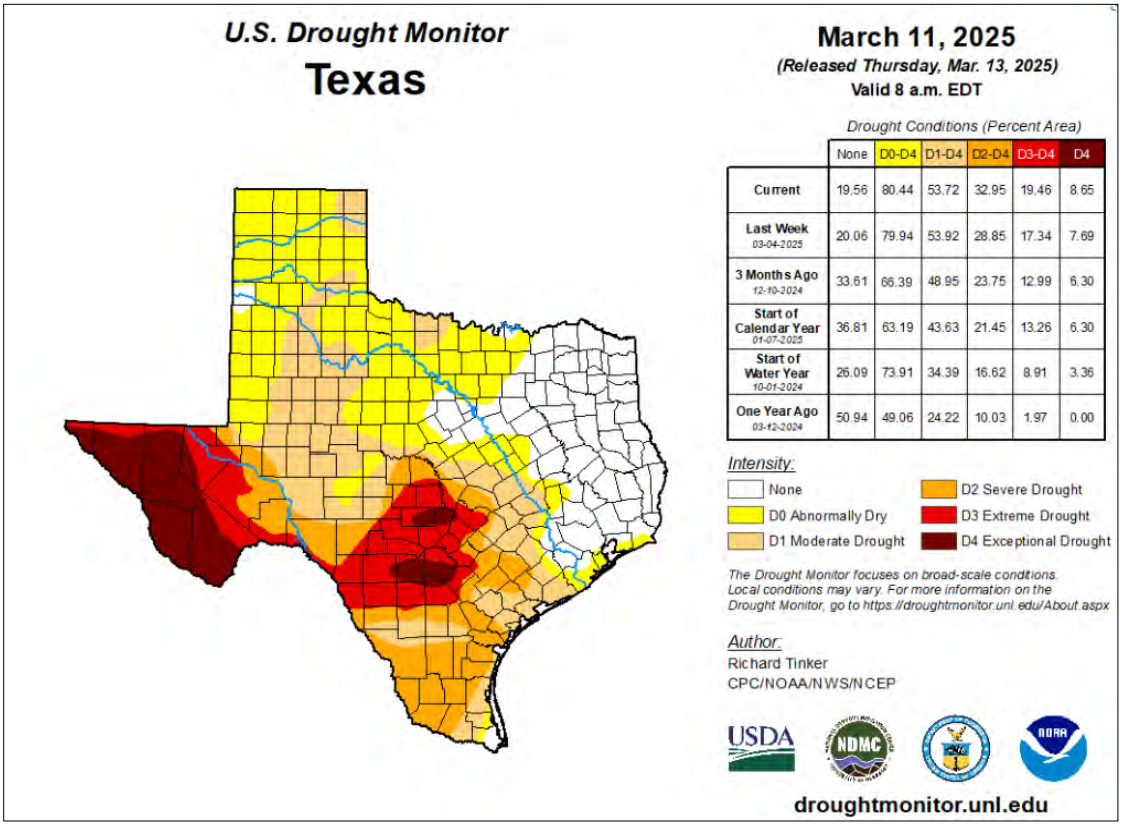


Figure 12: U.S. Drought Monitor Summary for end of Winter Season

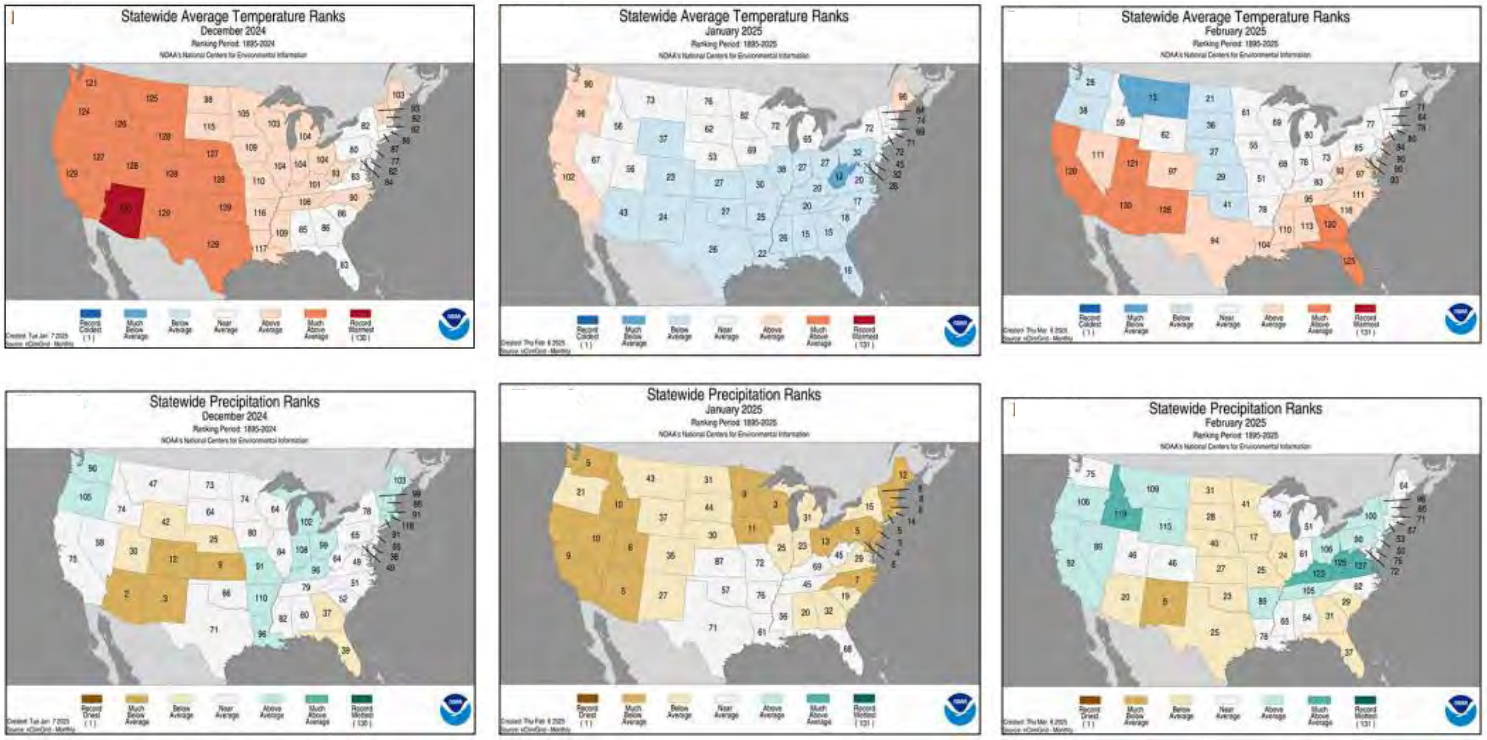


Figure 13: Monthly Temperature and Precipitation maps for each state. Texas had its 2nd warmest December and 26th coldest January on record. Texas had its 25th driest February on record. Records go back to 1895.

Southeast Texas Regional Summary (continued)

Southeast Texas gets Historic Snowfall Event in January

The 2025 Gulf Coast blizzard was an unusually strong winter storm and blizzard impacting much of the Gulf Coast of the United States between January 20 and January 22, 2025. It brought snowfall to regions of the Gulf Coast that rarely receive wintry precipitation. This was the first recorded blizzard on the Gulf Coast and the most significant winter storm in the region since 1895. The storm originated from an area of low pressure that developed in the western Gulf of Mexico along an Arctic cold front on January 20. It moved eastward and dropped large amounts of winter precipitation along the coastline and on inland coastal counties in Southeast Texas. During the height of the storm on January 21, a blizzard warning was issued for the coastlines of Louisiana and Texas, farther south than any such warning had previously been issued. Snow accumulations ranged from 1–8 inches across Southeast Texas. CoCoRaHS snowfall reports are listed below.

Snowfall reports for January 21 – 22, 2025.

Houston/Galveston Area All totals are in inches to the nearest tenth of an inch **Golden Triangle Area**

Mont Belvieu 1.8 NNE: *4.2*
West University Place 0.4 WNW: *4.1*
Beach City 4.8 SSW: *3.3*
Richmond 4.6 SE: *3.3*
Dickinson 1.7 N: *3.2*
Brazoria 4.2 NW: *3.1*
Hedwig Village 1.1 NNW: *3.0*
Magnolia 5.3 SSW: *3.0*
Sugar Land 1.1 WSW: *2.8*
League City 1.4 W: *2.5*
Friendswood 0.6 NW: *2.5*
Friendswood 2.6 NNE: *2.0*
Angelton 1.3 E: *2.0*
LaMarque 3.9 SE: *2.0*
Mission Bend 0.8 N: *2.0*
Montgomery 4.0 N: *2.0*
Stagecoach 2.4 WNW: *2.0*
Conroe 10.4 ENE: *2.0*
Sealy 0.3 WNW: *1.8*
San Felipe 1 W: *1.7*
New Ulm 7.2 S: *1.7*
The Woodlands 2.8 SSE: *1.7*
Kingwood 2.4 W: *1.7*
Bellville 7.8 SSW: *1.6*
Spring 4.2 N: *1.6*
The Woodlands 4.6 NNW: *1.5*
Montgomery 0.4 N: *1.5*
Bellville 1.9 W: *1.4*
Conroe 4.7 WNW: *1.0*
Columbus 9.5 NE: 0.8
Ganado 1.5 W: 0.7

Bridge City 1.3 NW: *7.9*
Beaumont 4.8 NNW: *6.4*
Vidor 7.2 N: 5.6
Beaumont 0.8 NNE: *5.4*
Nederland 0.5 SSE: *5.0*
Beaumont 1.2 NW: *4.4*
Kirbyville 6.9 NNW: *4.4*
Port Arthur 7.0 N: *3.9*
Kirbyville 6.5 NNW: *3.0*
Lumberton 1.2 WNW: *3.0*
Woodville 7.2 S: *2.3*
Kirbyville 1.5 SE: *2.0*
Kountze 2.4 W: *1.9*
Browndell 3.4 SW *1.7*

Southeast Texas Regional Summary (continued)

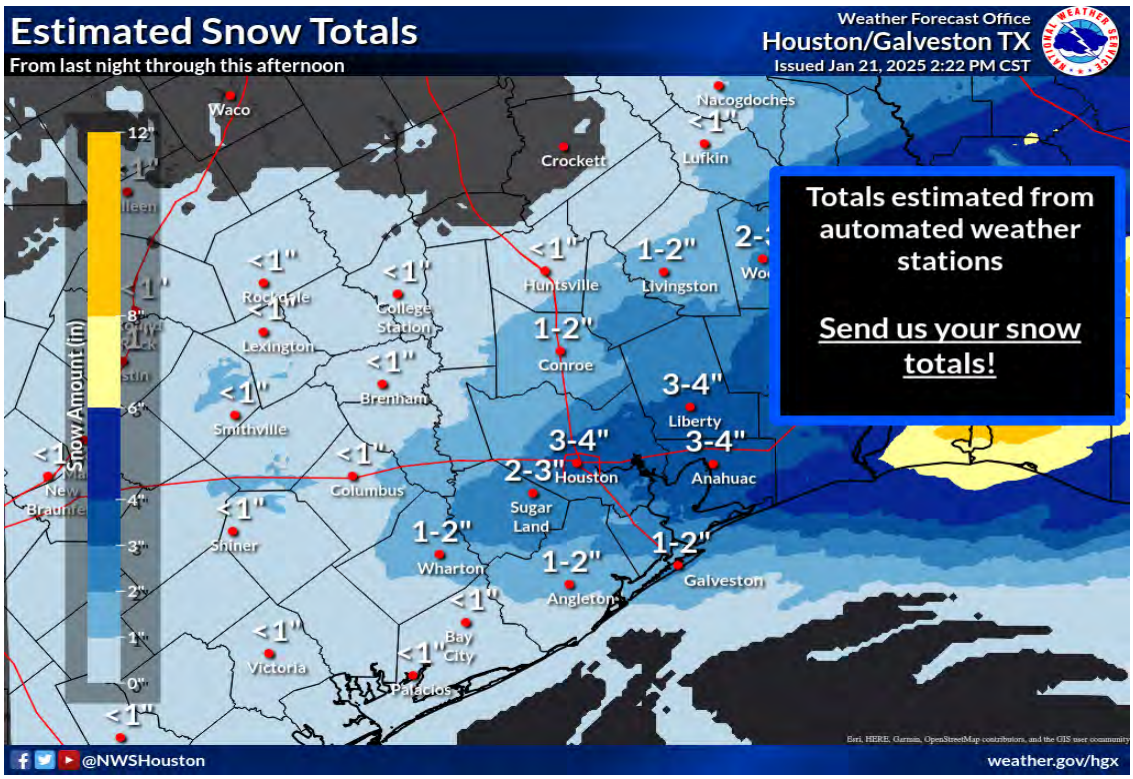


Figure 13: Snowfall totals estimated across the Houston/Galveston area.

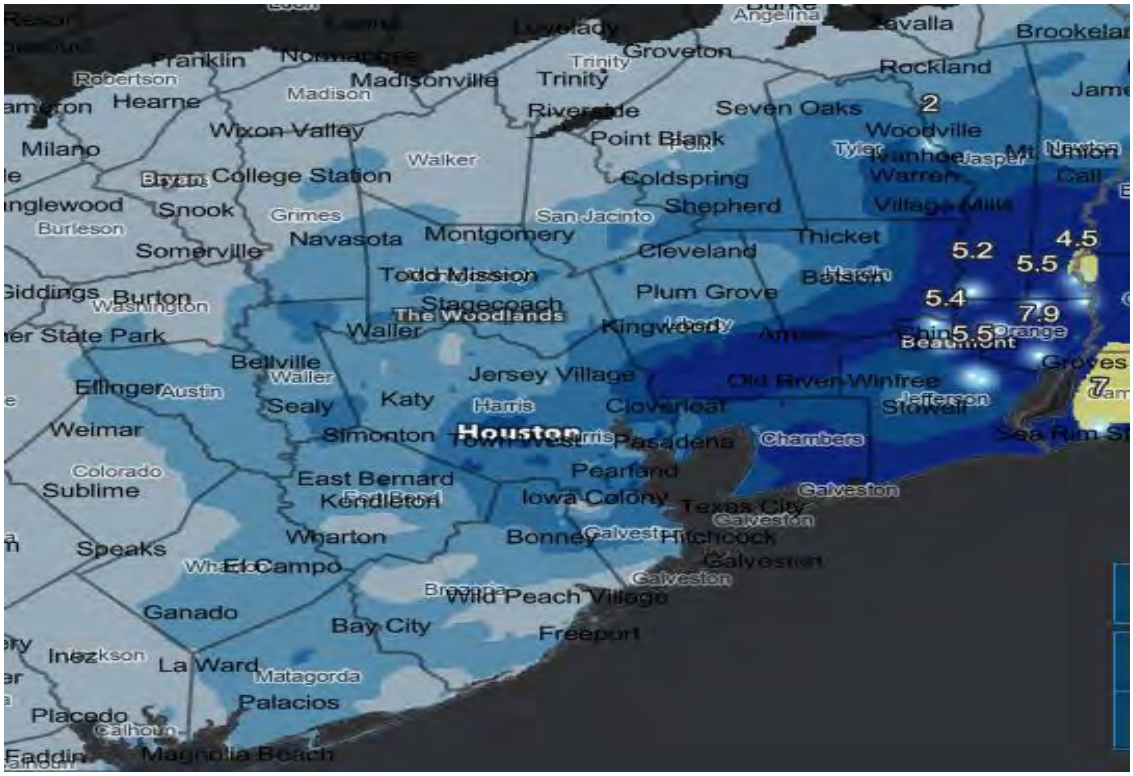
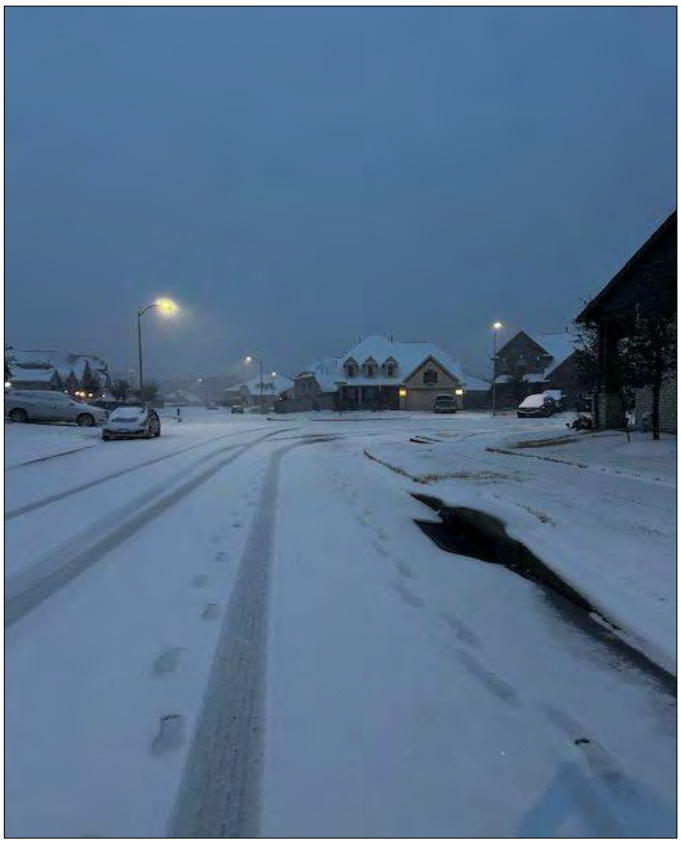


Figure 14: Snowfall estimated totals across the Golden Triangle and observed amounts.

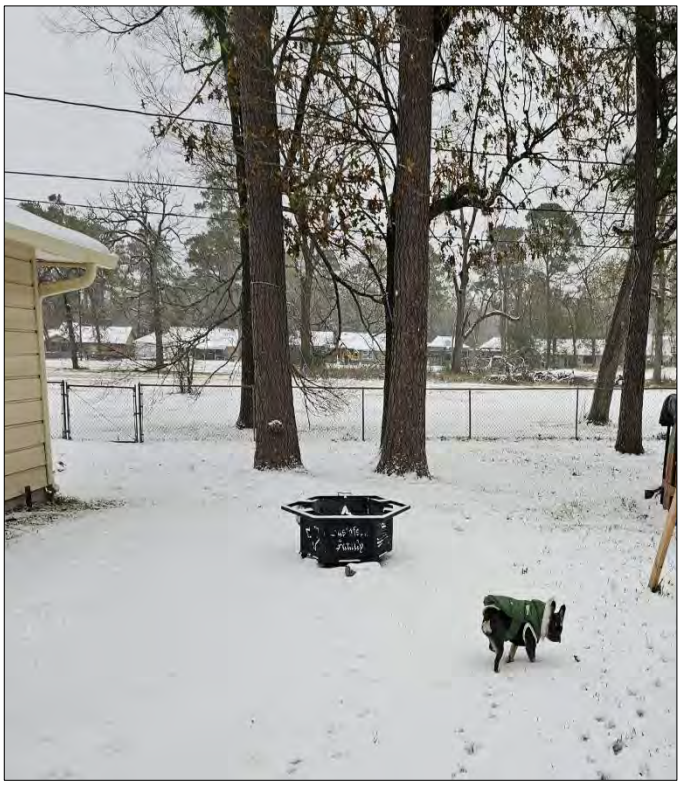
Pictures on the following pages of snowfall across Southeast Texas.

Southeast Texas Regional Summary (continued)

Snow in Channelview, TX - Carrie Bahraini



Snow in Crosby – Kenia Polanco



Kingwood Snow – Sherrie G

Snow in Galveston – Alex Porretto

Southeast Texas Regional Summary (continued)

Snow in Katy

Snow in Woodville

Southeast Texas Regional Summary (continued)

Snow in Richmond TX – Matt Boyd Family

Snow in Pasadena TX – Garcia Family

Southeast Texas Regional Summary (continued)

Sun setting on a snowy day across Lake Charles.

Palms blanketed in snow.

East Texas Regional Summary

Active Winter Weather Pattern with Snow on Several Days

By: Davyon Hill (Lead Meteorologist/National Weather Service-Shreveport)

An active weather pattern continued into the start of the meteorological winter, bringing above average and much needed rainfall for the month of December. The first few days of the month saw dry weather, but widespread rainfall moved into the region on the 4th, as a surface low developed along the Texas Gulf Coast. Most of our CoCoRaHS sites recorded 1" to 2" of rainfall, however, several sites south of Interstate 20 reported totals from 3" to 5". The National Weather Service reported a record rainfall of 1.53" at Lufkin's Angelina County Airport, breaking the previous record of 1.45" set in 1913. A series of frontal boundaries brought additional rain to the region during the middle of the month, but most of these events saw rainfall totals less than an inch. As we moved into the last week of the month, rainfall amounts started to increase. On Christmas Eve, a frontal boundary stalled over the region. Widespread 1" to 2" totals accompanied this boundary, especially across areas along and south of the Interstate 20 corridor. That same boundary eventually moved out of the region giving us a dry Christmas, but it returned back into the area the next day as a warm front, resulting in another widespread 1" to 2" of rainfall along with some isolated severe weather. Quarter size hail was reported by the National Weather Service near the Martinsville community in Nacogdoches County. On the 28th, more strong thunderstorms and heavy rain developed across East Texas, as another frontal boundary stalled over the region. Many of the CoCoRaHS sites along and north of Interstate 20 reported 2" to 3" of rainfall. The National Weather Service reported several rainfall records at their East Texas climate locations on that day. Overall, rainfall amounts ranged from 6" to 11" across the East Texas CoCoRaHS sites for the month of December, with the highest amounts generally south of the Interstate 20 corridor. This essentially cleared the area of drought going into 2025.

RECORD EVENT REPORT
NATIONAL WEATHER SERVICE SHREVEPORT LA
305 AM CST SUN DEC 29 2024

...RAINFALL RECORDS BROKEN AT SEVERAL LOCATIONS ON DECEMBER 28TH...

LOCATION	OLD RECORD	NEW RECORD	YEARS OF DATA
TEXARKANA	1.42 IN 1969	2.16 IN 2024	RECORDS SINCE 1930
TYLER TX	1.91 IN 2003	2.51 IN 2024	RECORDS SINCE 1883
LONGVIEW TX	1.58 IN 1937	1.69 IN 2024	RECORDS SINCE 1902

Fig.1: Record Rainfall Report
Dec. 28, 2024
Image Courtesy of NWS Shreveport

Like the month of December, the first few days of January 2025 started out with dry conditions. However, a strong cold front moved into the region on the 5th. The region saw widespread rainfall, but more importantly, a blast of arctic temperatures. These cold temperatures lingered for several days afterwards, setting the stage for the first winter weather event of the cold season across the region, as a disturbance moved over the cold airmass. Most of the impactful accumulating wintry precipitation occurred along and north of the Interstate 30 corridor of Northeast Texas, with the public reporting up to a half of foot of snow in parts of Red River County. However, some very light freezing rain amounts were observed on elevated objects across the remainder of the region. Dry conditions return for most of the middle portions of the month, along with warmer conditions. But, another arctic airmass moved into the region on the 19th. Behind this airmass, a surface low developed along the Texas Gulf Coast near the Mexico border. A large area of precipitation moved northward into our East Texas counties, generally south of Interstate 20. This precipitation fell in the form of light snow, with total amounts between a Trace and 0.5". Dry weather return for several days in wake of this system, but like December, the weather pattern became active over the last week of the month, as series of frontal boundaries and low-pressure systems moved over the region. Total precipitation amounts generally ranged from about 4" to 5" over the region, which is about an inch above the National Weather Service climatology for the month of January across East Texas.

East Texas Regional Summary (continued)

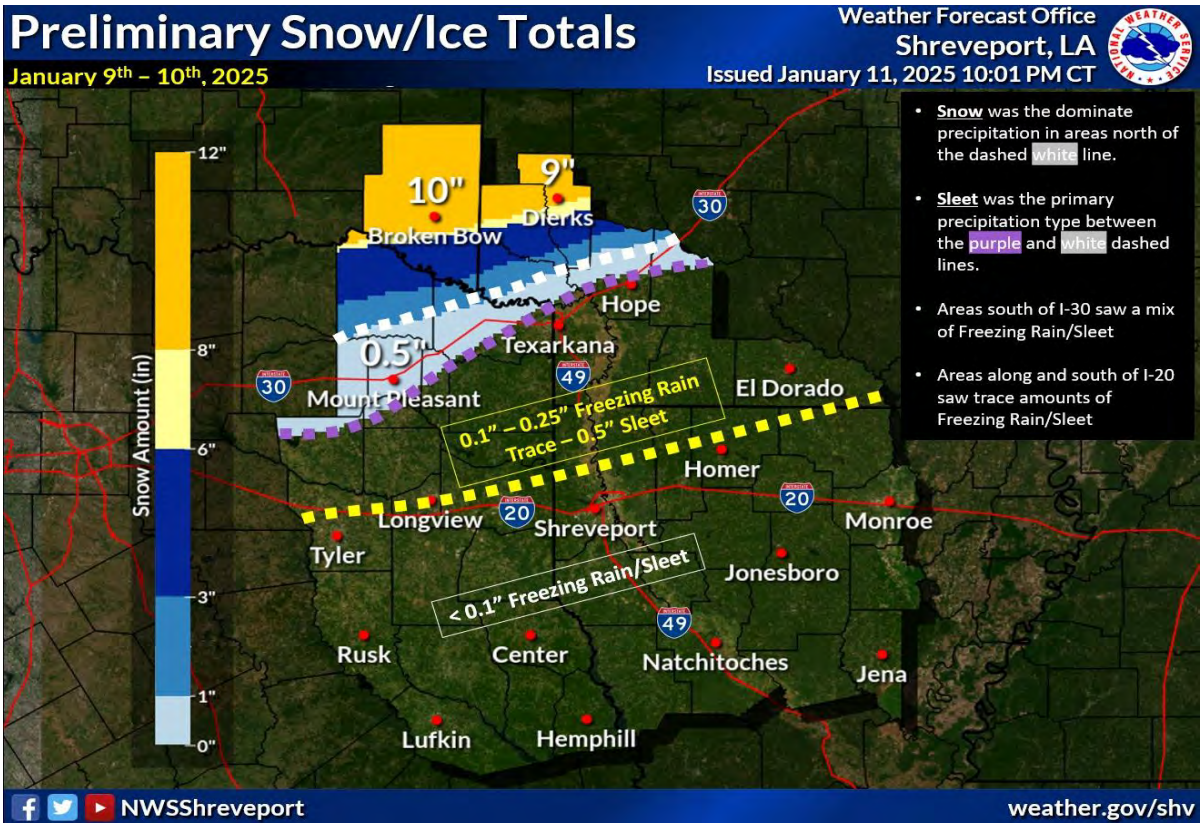


Fig.2: Snow/Ice Totals
Jan. 9th – 10th, 2025
Image Courtesy of NWS Shreveport

Fig.3: Snow in Clarksville, TX (Red River County)
Jan. 10, 2025
Image Courtesy of Clarksville ISD

East Texas Regional Summary (continued)

Fig.4: Snow in San Augustine County, TX
Jan. 21, 2025
Image Courtesy of Astrid Tapia

The final month of winter 2024-2025 generally started out with above normal temperatures and dry conditions, with the National Weather Service reporting several record warm temperatures during this period. In fact, Texarkana reached 90 degrees on February 8th, which is the warmest temperature every recorded in the month of February at Texarkana. A series of fronts and disturbances brought widespread rainfall back into the area on the 11th and 12th of the month, with the National Weather Service reporting a record 4.18" on the 12th at Lufkin's Angelina County Airport. This beat the previous record of 3.32" in 1997. Periods of widespread lighter rainfall fell across the region in wake of this event, as several more frontal boundaries moved over the area. By the 18th a stronger cold front brought the return of arctic air to the region, along with some light snow on the 19th. Most of light snow was observed at CoCoRaHS sites along and north of Interstate 20, with amounts generally ranging from a Trace to 0.3". Another surface low brought widespread rainfall to the region on the 22nd and 23rd, but dry and much warmer conditions settled across the area for the remainder of the month. Overall, winter 2024-2025 brought much needed rainfall to the region, which eliminated the drought conditions at the beginning of the season.

East Texas Regional Summary (continued)

Fig.5: Snow in Titus County, TX
Feb. 19, 2025
Image Courtesy of Lainie Hinton

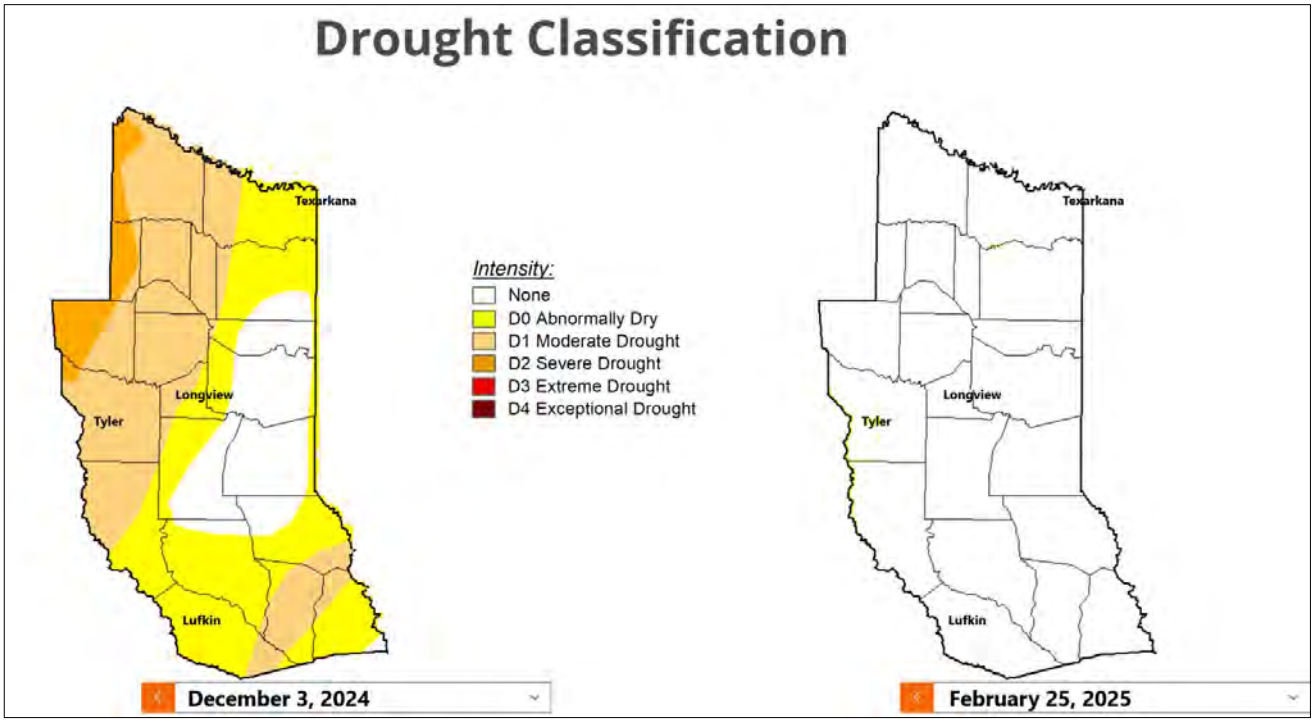
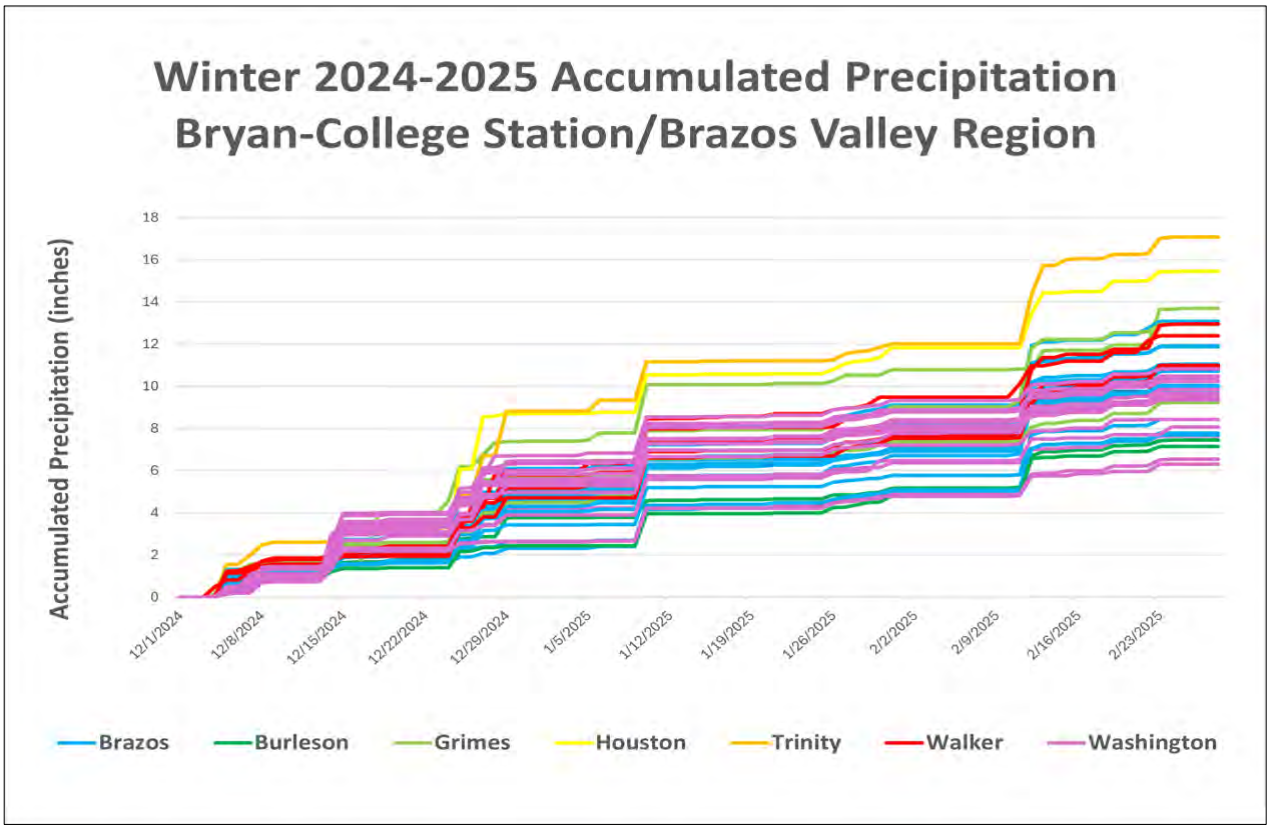


Fig.6: Drought Monitor
Dec. 3rd, 2024 – Feb. 25th, 2025
Image Courtesy of National Drought Mitigation Center

Brazos Valley Summary



Winter 2024-2025 Precipitation Summary

Bryan-College Station/Brazos Valley Region, Texas

Alison Tarter, Research Specialist, Office of Texas State Climatologist, Texas A&M University

Summary:

This winter was mild and wet. Average temperatures flip-flopped between cooler-than-normal and warmer-than-normal on a monthly and weekly basis. Periods of warm temperatures and lacking rainfall made drought a concern in the west, impacting Burleson, Brazos, and Washington counties the most. CoCoRaHS observers in the region who captured all the rain events reported between 6.31" and 17.07", while normal ranges from 9" toward the west to 12" toward the east. It was especially dry in January, and a station in Walker County went 13 days without rainfall then. A return of frequent rainfall in February brought relief to the region.

Observer Statistics:

There were no CoCoRaHS observer reports in Madison Counties. Thirteen stations within the Brazos Valley region reported precipitation values all 90 days within the winter period and another 9 stations missed fewer than 10 days of recorded values (79 or more). In total, there were 43 CoCoRaHS observers with a sufficient number of single and multi-day observations to provide a seasonal total precipitation amount.

Season Statistics:

Wettest day: 3.57", December 25th, Houston County

Wettest seasonal total: 17.07", Trinity County

Driest seasonal total: 6.31", Washington County

Soggy Socks Award (longest spell of daily reports with measurable rain): 8, January 26th- February 2nd, Washington County

Dusty Soles Award (longest spell of daily reports without measurable rain): 13, January 30th- February 11th, Walker County

Austin/San Antonio Regional Summary

A mild winter in South-Central Texas and a roller coaster of Temperatures in January and February

By: Mack Morris, Meteorologist at NWS Austin/San Antonio

Winter 2024-2025 was near normal for most locations with regard to temperatures, but the devil is in the details as it was a very up and down, rollercoaster ride of a winter for South-Central Texas. Temperatures sometimes varied as much as 60 degrees in a 2-3 day time period, particularly in January and February. Our long term drought continued and in fact, with a dry fall and below normal winter in terms of precipitation, the drought worsened once again, with widespread Extreme drought conditions now observed over a majority of the region.

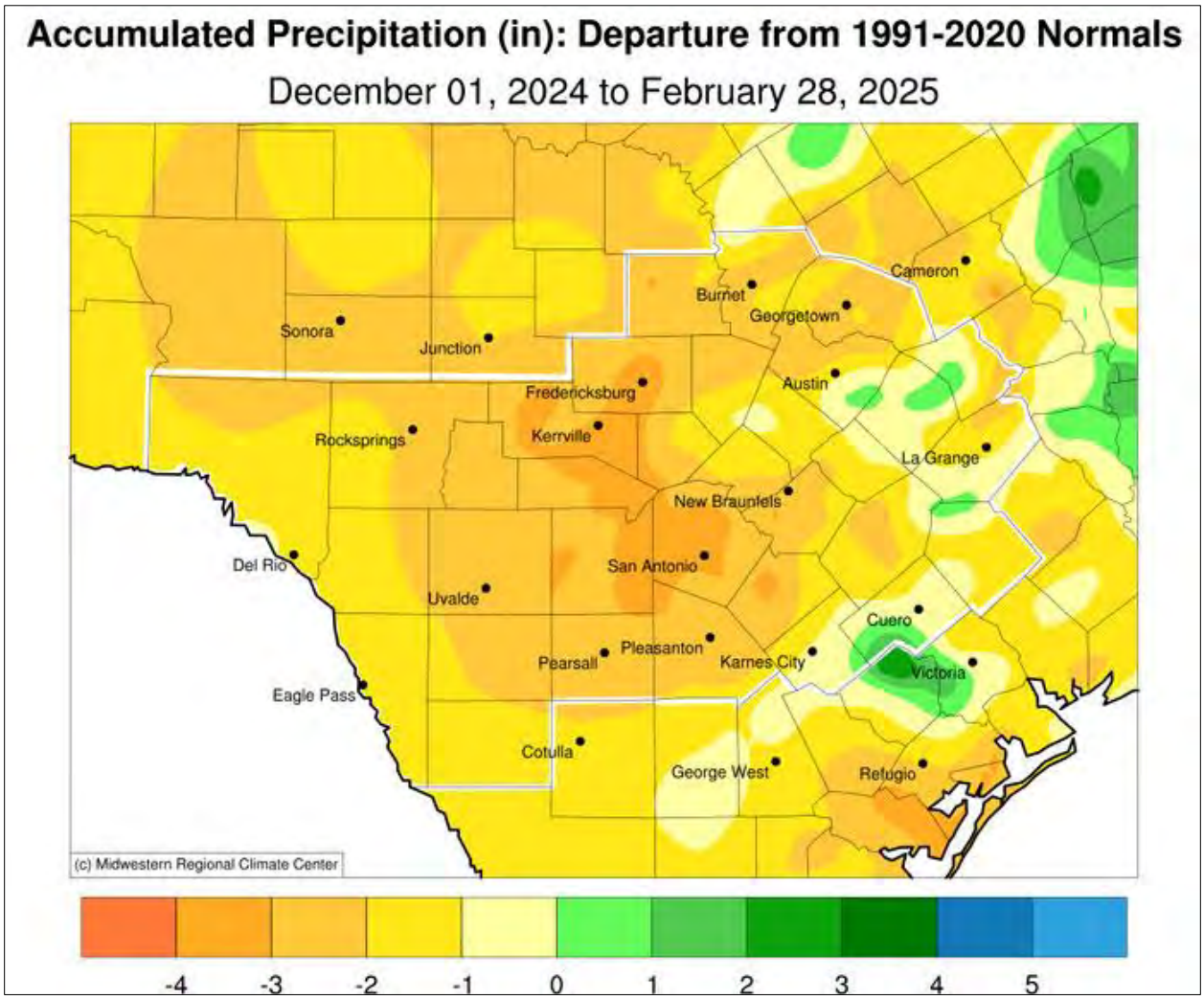


Figure 1: Precipitation departure from normal Dec 1st-Feb 28th

December 2024

The month of December got off to a mild start with temperatures in the 60s and lower 70s for the first several days. The first of several cold fronts arrived December 3rd, bringing with it some cooler temperatures and needed rainfall. Many CoCoRaHS observers within South-Central Texas saw between 0.1 and 0.25", particularly along the I-35 Corridor and into parts of the Hill Country. While the rainfall wasn't significant, it was welcomed after a rather dry fall season across South-Central Texas. For several days leading up to the next front, some needed rainfall occurred, with several

Austin/San Antonio Regional Summary (continued)

CoCoRaHS observers in Comal, Hays, and Bastrop Counties picking up 0.75-1” of rainfall on the 6th of December. December 7th was yet another day of beneficial rainfall, albeit, not significant. Several CoCoRaHS observers noted over an inch of rainfall, including one in eastern New Braunfels, another east of Lockhart, and yet another in Smithville. Both Bastrop and Fayette Counties saw the most significant rain for the day, with most places seeing between 0.5-1” of rainfall. Despite the rainfall seen during portions of the winter months, it would ultimately be yet another drier than normal winter with departures in the 1-4” range as seen below.

On December 9th, a rapid warmup occurred across all of South-Central Texas, with temperatures soaring into the upper 70s to middle 80s. This warmup would be brief, as yet another cold front, this time stronger, would put an end to the unseasonably warm conditions. Unfortunately, this front would be a dry one with no measurable rainfall noted behind it. The first widespread freeze of the season occurred on the morning of the 12th, effectively ending the growing season across South-Central Texas. Many locations dipped as low as mid to upper 20s. After some additional light rainfall December 13th, temperatures soared yet again into the 80s for many locations the 14th-17th.

Significant rainfall, along with severe weather occurred on Christmas Eve, mainly over the Coastal Plains, with observers south and west of Nordheim reporting between 4-6” of rain! CoCoRaHS in Gonzales County also hit the jackpot as far as rainfall goes, picking up a whopping 3-4”. Additionally, severe storms produced big time hail, with locations near Falls City and Muldoon seeing golf ball to nearly baseball size hail on Christmas Eve.

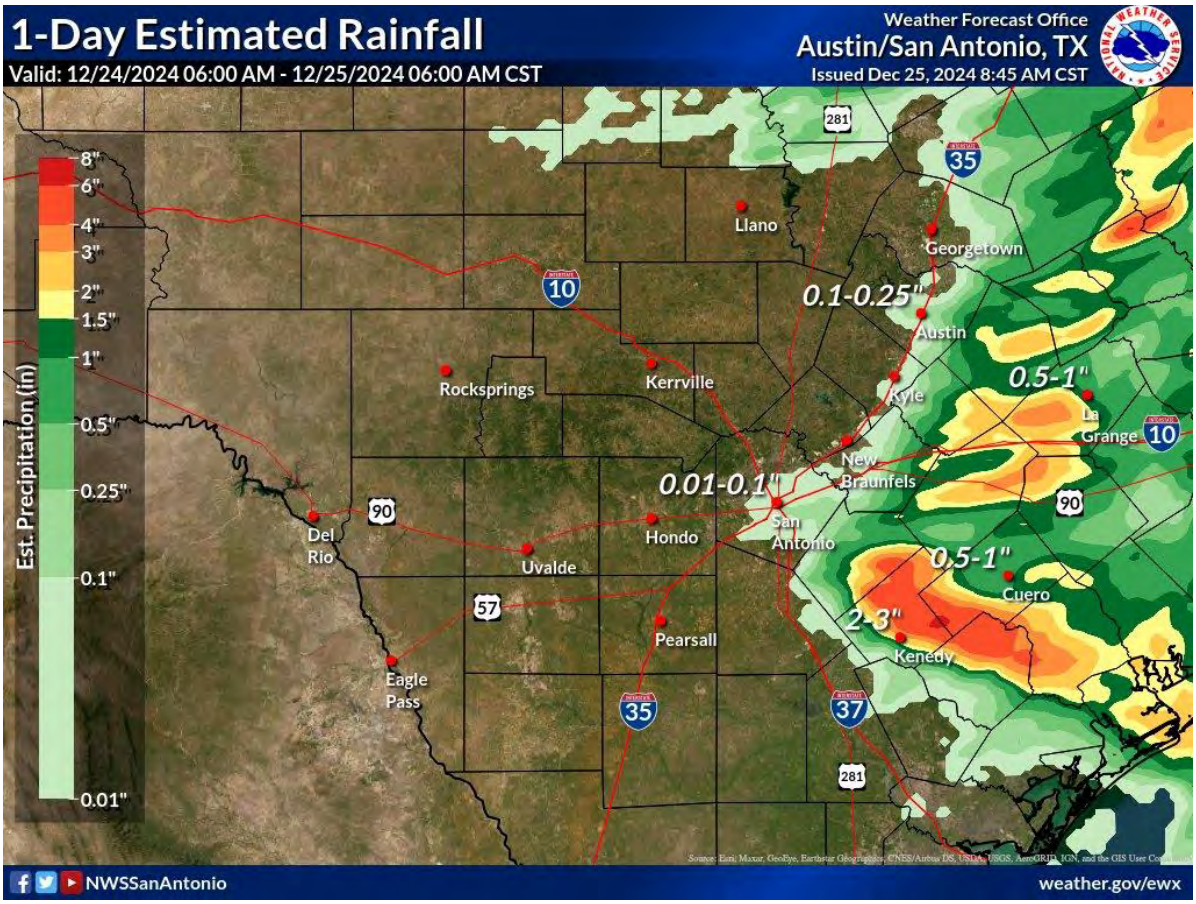


Figure 2: Observed Rainfall from December 24th-25th

Austin/San Antonio Regional Summary (continued)

January 2025

The most significant cold front of the season arrived on January 6th, with temperatures going from the 70s for highs on the 5th to 40s on the 6th. Several colder days in a row were noted, with most locations struggling to get out of the 40s for nearly a week, with temperatures finally getting back above the 40s on the 11th. In between, a rather widespread beneficial, albeit very cold, rain occurred across all of South-Central Texas. Virtually all locations east of the Rio Grande Plains received greater than 1" of rainfall, with some observers in the Coastal Plains seeing 2-3" out of this event. For several days before the event, concerns for wintry precipitation were high, but ultimately the wintry precipitation remained north over the Dallas/Fort Worth NWS service area. Our first measurable snow in nearly 4 years though would arrive the following week.

After several days of near seasonable temperatures in mid-January, the bottom would drop out with an even stronger cold front plowing through South-Central Texas January 19th. Temperatures would fall from the 60s for highs to the 30s and 40s for highs the 19th through 21st. Snow was observed by many CoCoRaHS sites the night of the 20th into the morning of the 21st. The heaviest totals occurred along and east of I-35. Observers in Fayette, Lavaca, and Gonzales Counties reported liquid equivalent of 0.2-0.3", with from 1-2" of snow. San Antonio International, Austin Bergstrom, and Austin Camp Mabry climate sites received their first snowfall since the February 2021 winter weather event.

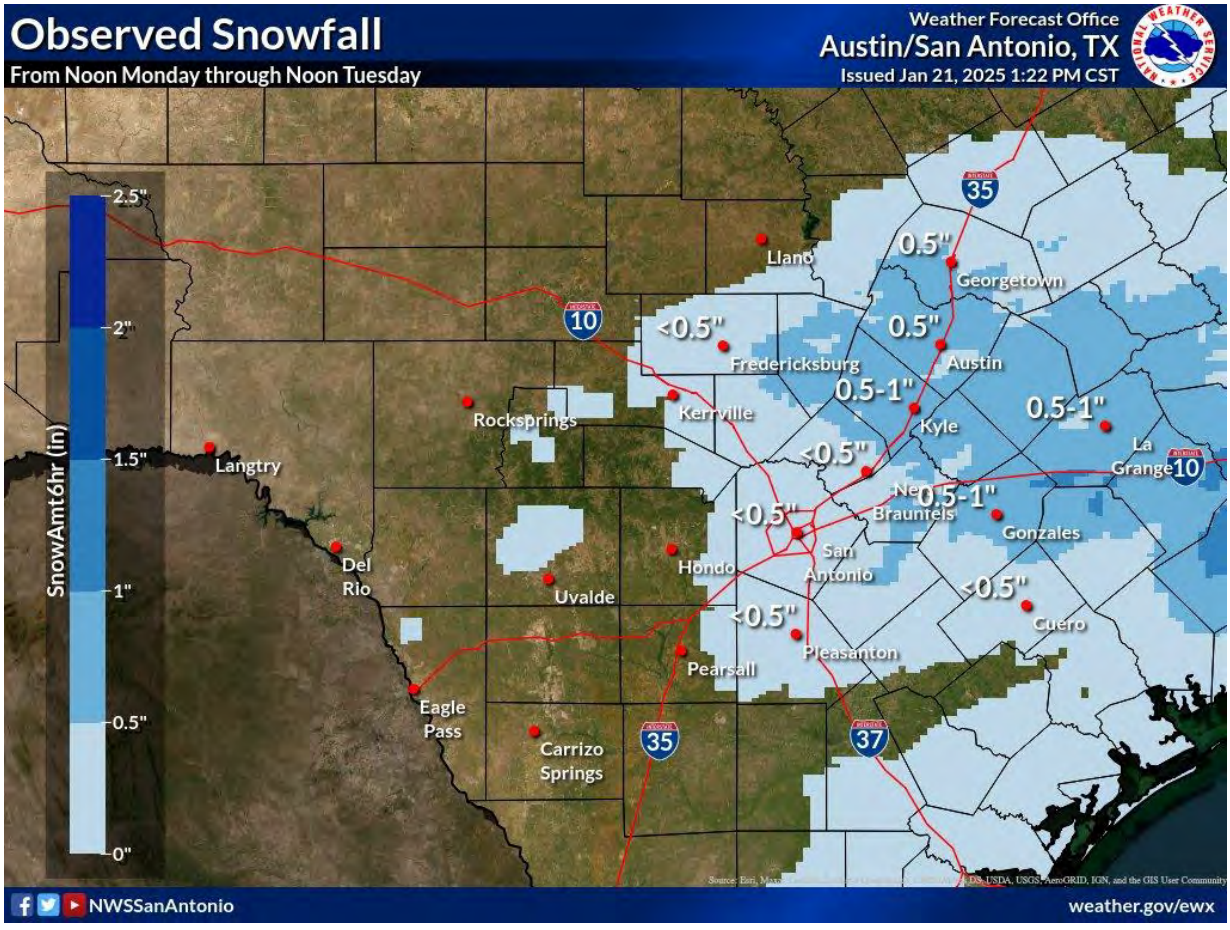


Figure 3: Observed Snowfall from January 20th-21st Event

Austin/San Antonio Regional Summary (continued)

It wouldn't take long to melt the snow though, as temperatures finally warmed back into the 50s by the 22nd, but not before several very cold nights in the teens and lower 20s for South-Central Texas. Temperatures eventually rebounded back to more seasonable levels but still below normal, in the 50s and lower 60s over the following week. The last round of precipitation for the month of January occurred on the 29th with between 0.5-2" of rainfall from the I-35 Corridor and points westward into the Hill Country. The biggest winners were in eastern Llano and western Burnet County where CoCoRaHS observers saw from 2-3" of rainfall.

February 2025

The month of February was a bit of a rollercoaster ride for South-Central Texas, with temperatures well above normal for the first 8 days of the month, concluding with highs ranging from the mid-80s to the lower 90s on the 8th. A strong cold front arrived on the 9th, bringing much cooler air to the region but little to no rain was seen. This frontal boundary was unable to move much further south of the region and ultimately stalled out over the I-35 Corridor on the 11th. This resulted in significant rainfall for some locations with strong isentropic lift along this boundary. CoCoRaHS observers in Comal, Hays, Travis, Bastrop, and Lee Counties were the big winners, with some locations receiving as much as 3"+ of rainfall. Several observers in and around Hays and Driftwood received over 3" of rainfall. South Austin was the biggest winner in terms of metropolitan areas, with many observers reporting from 2-3" of rainfall. Additionally, observers in western and northwestern Bastrop around Elgin and to the southeast of Manor picked up 3"+ of rainfall. Quarter size hail was even reported near Mustang Ridge and 4 miles southwest of Garfield in eastern Travis County. Austin Bergstrom had 3.3" of rain, which was their third wettest February day on record, breaking the daily record from 1977 of 1.85".

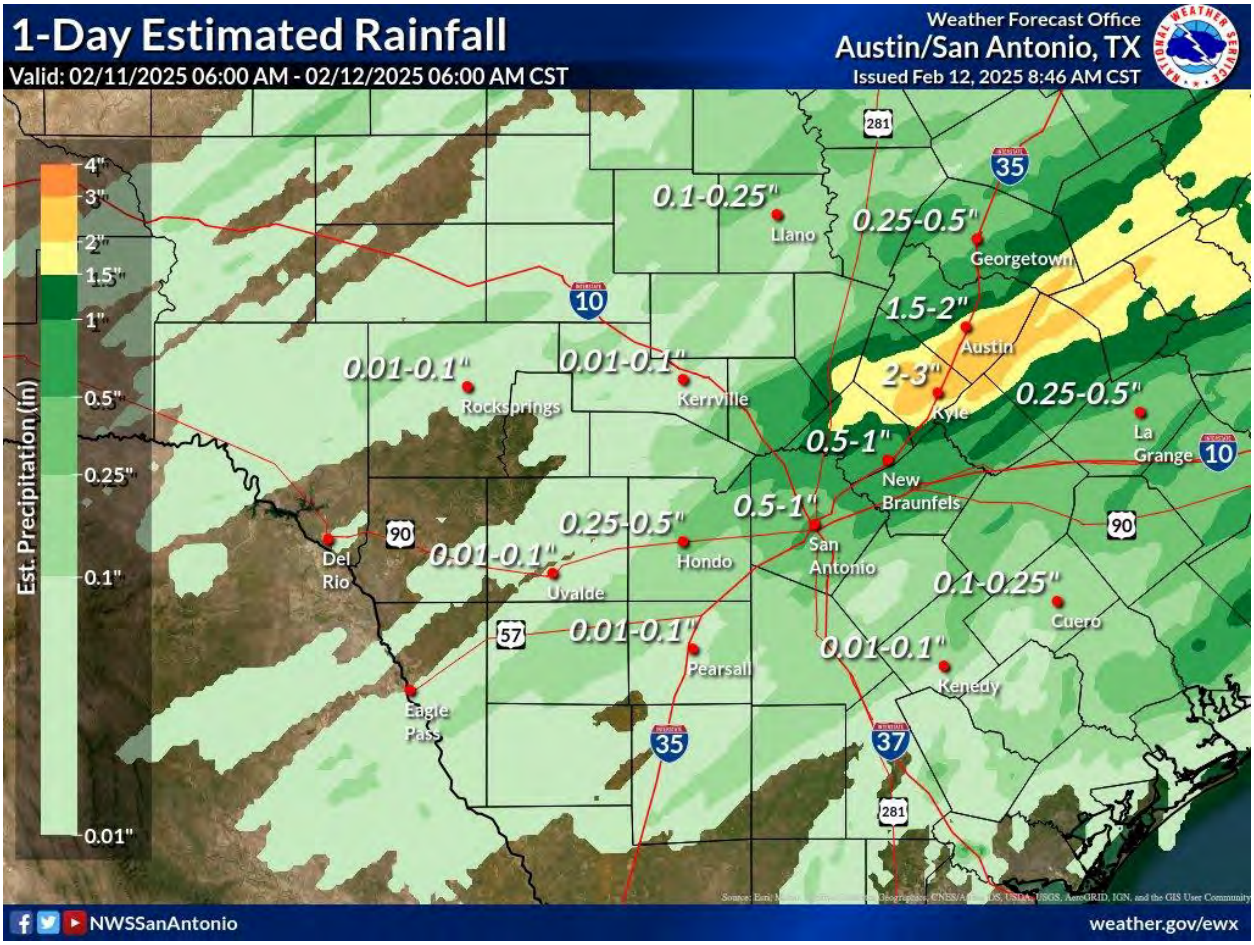


Figure 4: Observed Rainfall from February 11th-12th Event

Austin/San Antonio Regional Summary (continued)

Temperatures remained on the cooler side for several days before yet another cold front came through the region on the 12th. This would send temperatures back into the 40s for highs on 13th and 14th of the month. The rollercoaster ride was in full motion, as most of us went right back up into the lower 70s on the 15th, followed by highs in the upper 50s on the 16th. From there, the back and forth continued even further, with highs in the upper 60s to mid-70s on the 17-18th. On February 18th, the bottom dropped out and we took the ride from the top of the coaster to the very bottom, with highs going from the 70s to the 30s on the 19th. On the morning of February 19th, we had widespread wind chills in the single digits and some locations in the Hill Country even dipped to as low as 0 to -3 degrees. This resulted in the first use of the Extreme Cold Warning for the Hill Country, and then later for most areas outside of the southwestern CWA for wind chills ranging from -3 to 10 degrees.

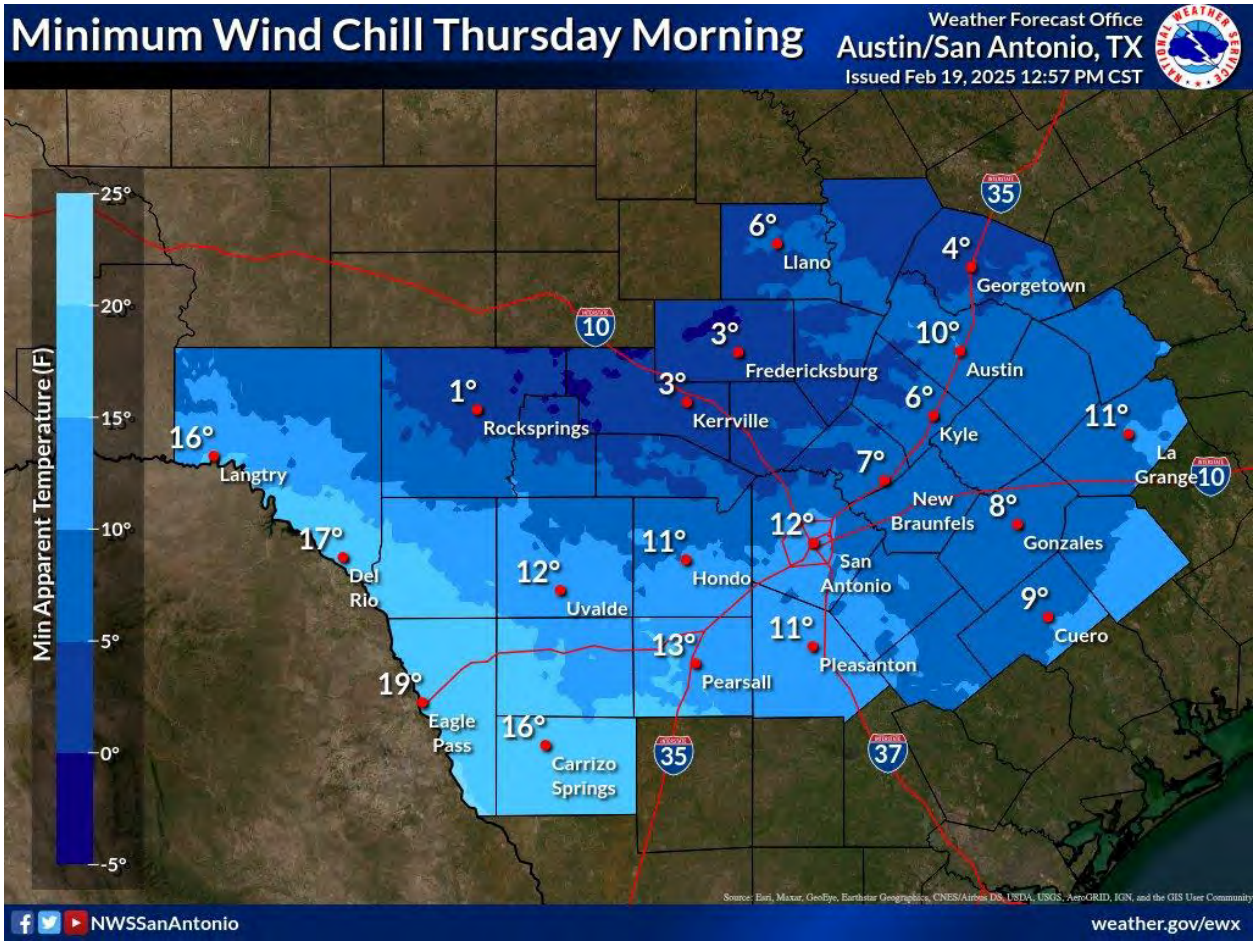


Figure 5: Forecast Wind Chill Values for Feb 19th

One final event occurred on the 22nd of February, where a brief round of freezing rain impacted locations from San Antonio northward into the southern Austin metro. Additional impacts were seen over the western Coastal Plains and southern Hill Country. On the morning of the 22nd, before temperatures rose above freezing, several CoCoRaHS observers in Comal and Bexar Counties reported a light glaze of ice on vehicles, fences, and on their gauges. Temperatures hovered right around the freezing mark or just below it long enough for up to 0.1” of freezing rain accumulation from this brief wintry weather event.

Austin/San Antonio Regional Summary (continued)

Figure 6: Freezing rain accumulation at NWS Austin/San Antonio - Feb 19th

This ultimately would be winter's last hurrah, as temperatures would warm substantially over the last 4-5 days of February. Winter 2024-2025 will go down as a mild winter overall, but thankfully, not as warm as the last couple of winter seasons in our region. Unfortunately, drought persisted with widespread extreme drought returning to the region this winter. It is not expected to improve over the coming months despite entering what is typically our wettest 3 month period of the year.

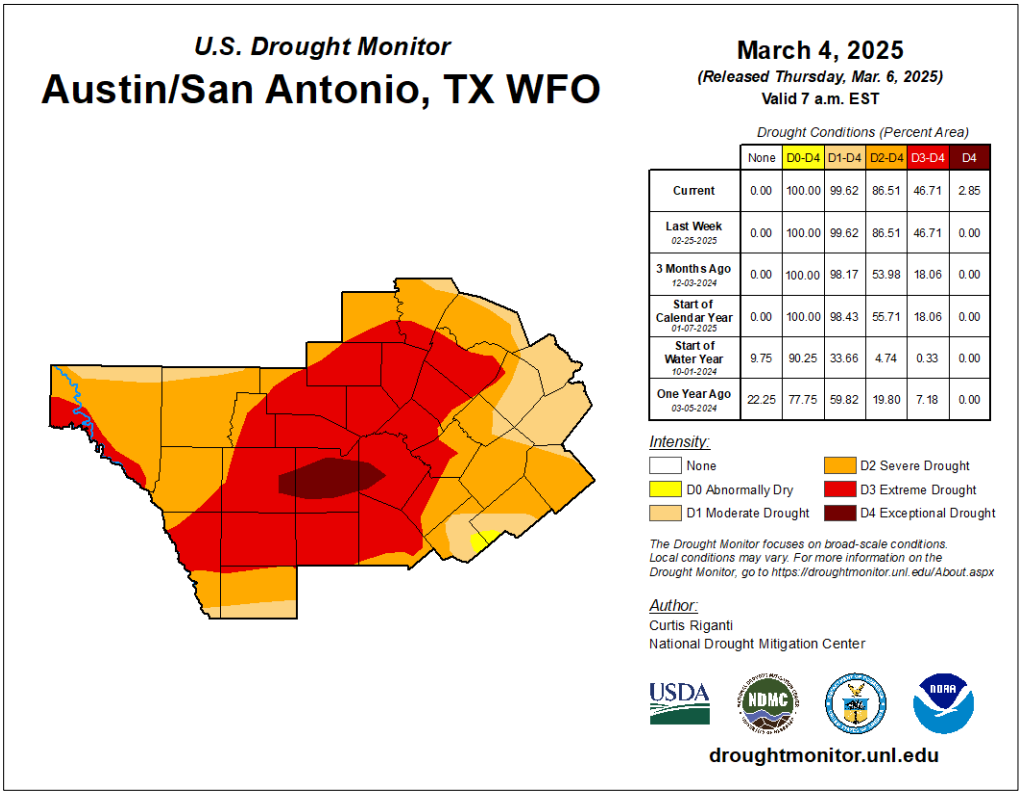


Figure 7: Drought Monitor valid March 4th 2025

North Texas Regional Summary

Plentiful rains in December and January with February being much drier

By: Greg Story, North Texas CoCoRaHS Regional Coordinator

Hello to all CoCoRaHS observers and a special welcome to those of you who are new to CoCoRaHS!

In December it was wet over about the eastern third of the state with above normal precipitation. Meanwhile, it was very dry over the western third of Texas with much below normal precipitation. In January above normal precipitation was observed from central into Northeast Texas, as well as along the Gulf coast. Meanwhile, dry weather with below normal precipitation was noted over much of West Texas, especially the southwest. In February it was dry over much of Texas, especially the southern and western portions. The only location which saw above normal precipitation was the extreme eastern and southeast parts.

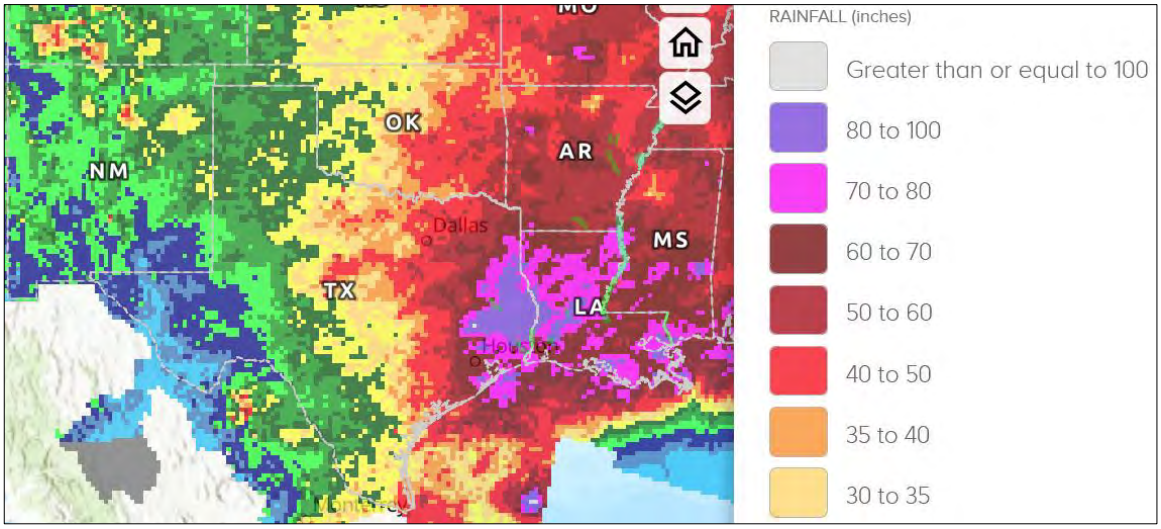


Figure 1: Observed precipitation map for calendar year 2024. It was an extremely wet year for eastern Texas.

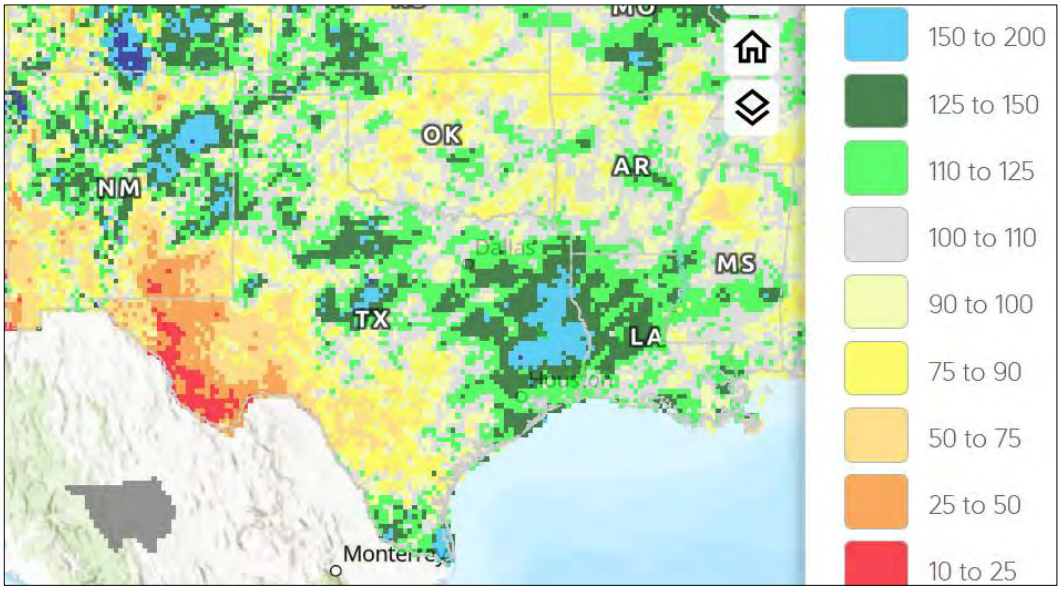


Figure 2: Percent of normal precipitation map for 2024. While it was extremely wet in the east, it was quite dry over south central and Southwest Texas.

For the calendar year 2024 at DFW airport had 40.34” of precipitation. The normal amount of precipitation for a year in DFW is 37.01” which is +3.33” above normal for the year. In 2024 at Waco there was 37.50” of precipitation. The normal amount for the year in Waco is 36.40” which is +1.10” above normal for the year.

North Texas Regional Summary (continued)

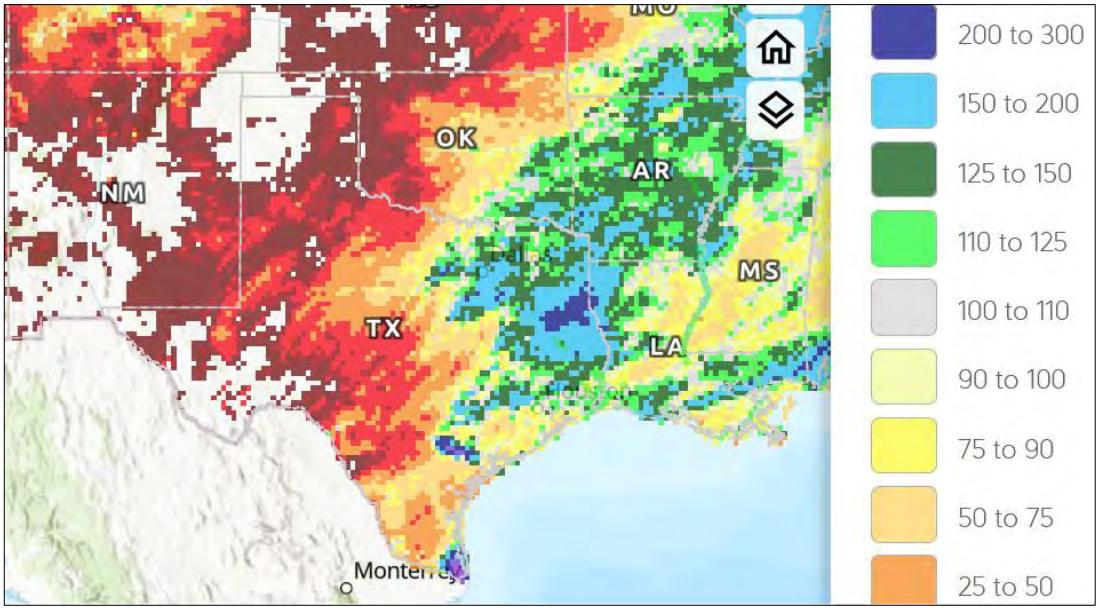


Figure 3: Percent of normal precipitation map for December 2024. In December it was wet over about the eastern third of the state with above normal precipitation. Meanwhile, it was very dry over the western third of Texas with much below normal precipitation.

At DFW airport in December 2024 there was 4.59” of rainfall. The normal amount of precipitation in December is 2.84” so they were +1.75” above normal for the month. In Waco for December 2024 there was 2.23” of rainfall. The normal amount of precipitation for December is 2.87” which is -0.64” below normal for the month.

For each month, I will highlight the more significant weather events. I know I am giving you a lot of information, and it is my intent for you to pick your “favorite” storm or to look at a particular date each month to see what happened. Which days did you report your heaviest precipitation amounts? You can read about those days here and compare what you observed against the maximum amounts.

There were about five storm systems which affected our weather in December. Here are the highlights of the weather for the month.

December 3 - 4:
A wave of low pressure developed off the lower Texas Gulf coast late on the 3rd, and this low advanced northeastward into the 4th. Rain began to develop across Central and East Texas later on the 3rd into the morning of the 4th, but the heaviest rain was initially confined to Deep South Texas. There was 2.01" west northwest of Brownsville and 1.93" at Harlingen. The rain and embedded thunderstorms became more widespread during the day on the 4th and gradually worked its way eastward. The rain moved out of the state by midnight of the 4th. In North Texas the rainfall amounts were all under 1". But over east Central and Southeast Texas the rainfall was heavier. There was 4.43" east southeast of Zavalla and 4.23" at Center.

December 6 - 8:
An upper atmospheric low pressure system formed just southwest of Texas on the 6th, and this upper low moved eastward on the 7th. Some widespread light rain began to develop over Southwest Texas late on the 6th, and the rain area spread eastward on the 7th. Prior to dawn on the 7th the rainfall amounts over North Texas were less than a third of an inch. But the maximum rainfall amounts in Texas were heaviest over the Deep South with 4.85" just northeast of Los Fresnos and 4.70" east of Rancho Viejo. Then during the day on the 7th the heaviest rainfall amounts in North Texas were 1.47" west northwest of Saginaw and 1.29" over north Fort Worth northwest of Watauga. Elsewhere in the state there was 1.34" east northeast of Lockhart. The rain gradually shifted eastward on the 8th and moved east and south of Texas by midnight. The rainfall on the 8th was fairly light, with 0.70" reported northeast of Marlin and 0.63" at Jonesville.

North Texas Regional Summary (continued)

December 13 - 16:
A series of upper air disturbances passed to the north of Texas through this period. As each one passed it produced some showers and isolated thunderstorms. The first one brought some rain and drizzle on the 13th, which continued over east Texas into the 14th. The heaviest rain in North Texas on the 13th was west of Canton with 0.94". But elsewhere in the state rain was 1.60" north northeast of Bellville and 1.55" east of Brenham. On the 14th in North Texas the maximum rainfall amount was north of Quitman with 0.91". But elsewhere in Texas there was 2.05" northwest of Bellville and 1.75" at Brenham. The rain was lighter and more scattered from Central into Northeast Texas on the 15th. The rainfall amounts were all under 1", with 0.98" being reported from Henderson and 0.46" northeast of Harwood. On the 16th a weak cold front moved across North Texas which helped to generate some showers and thunderstorms, especially during the afternoon and evening. The rain was locally heavy in the DFW metroplex where the heaviest rainfall was 3.48" southwest of Grapevine and 2.04" northeast of North Richland Hills. The rain moved out of the state by around midnight on the 16th.

December 17 – 18:
A fairly strong cold front moved from northwest to southeast across Texas. Showers and thunderstorms first developed over extreme North Texas on the 17th, and this area of rain expanded early on the 18th across especially northern and eastern Texas. Prior to dawn on the 18th the heaviest rainfall was at Arthur City with 0.95" and north of Gainesville with 0.58". Elsewhere in the state there was 0.53" at Brownsville. The frontal boundary and the rain cleared southern and eastern Texas late on the 18th. The maximum residual rainfall amounts were 0.87" north of Pleasanton and 0.64" east of Chireno.

December 24 – 28:
A series of upper air disturbances moved across the central and southern plain states during this period. The first disturbance pushed a weak cold front across Texas, starting early on the 24th and continuing into the 25th. The rainfall amounts increased as the 24th wore on, with very heavy amounts initially across North Texas, then shifting to Central and Southeast Texas. The maximum amounts in North Texas on the 24th were at Covington with 2.53", west of Lavon (at Lake Lavon) with 2.28" and at Dallas (White Rock Creek) with 2.20". Elsewhere in Texas there was 5.65" north northwest of Goliad and 5.60" west southwest of Nordheim. The rain moved out of Texas by noon on the 25th. Residual rainfall amounts on the 25th were 0.34” or less. The next stronger upper disturbance started producing light precipitation over northwest Texas early on the 26th. But after sunrise more widespread and stronger thunderstorms developed across Central and East Texas. In North Texas the heaviest rain was northeast of Paris with 2.25”, east northeast of Waxahachie with 1.92”, and southwest of Dallas where they measured 1.90”. Elsewhere in Texas rain was 4.73” south of Spurger and 3.68” southeast of Warren. Most of the rain moved out of the state late on the 26th. A final upper air disturbance began to approach Texas late on the 27th. Some light precipitation began across northwest Texas late on the 27th. Then more showers and thunderstorms developed around dawn on the 28th across Northern and Central Texas. The largest rainfall amounts on the 27th into the early morning of the 28th were 1.00” west southwest of Cedar Hill and also west southwest of Maypearl. The showers and thunderstorms continued moving steadily eastward on the 28th and moved out of the state by evening. Severe weather occurred across southeast Texas. The maximum rainfall amounts on the 28th were southwest of Rice with 4.69” and at Corsicana with 3.37”.

North Texas Regional Summary (continued)

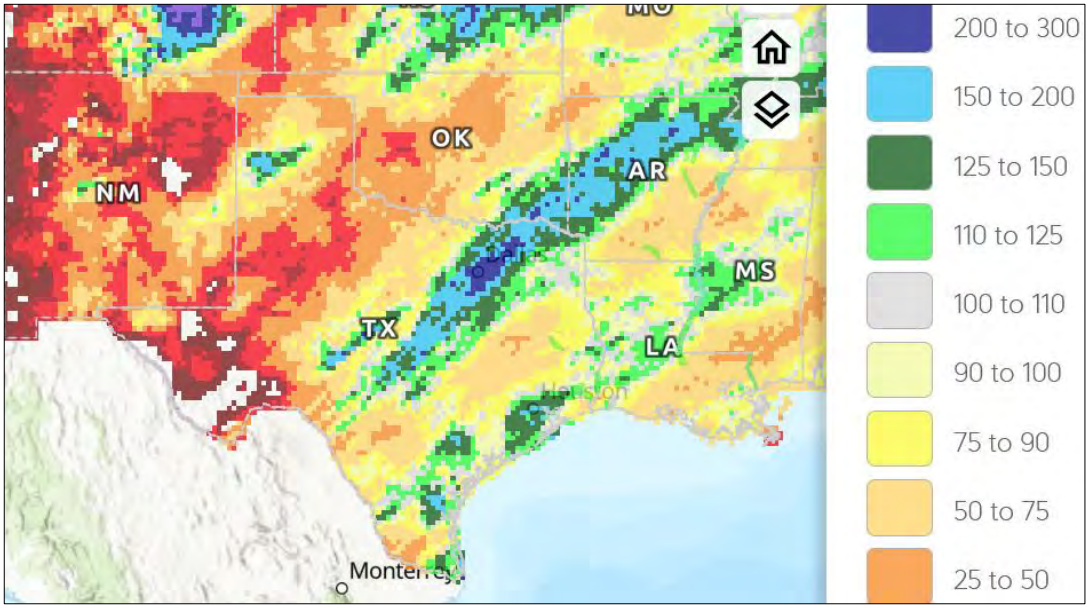


Figure 4: January 2025 percent of normal precipitation map. In January above normal precipitation was observed from Central into Northeast Texas, as well as along the Gulf coast. Meanwhile, dry weather with below normal precipitation was noted over much of West Texas, especially the southwest part.

At DFW airport in January 2025 there was 5.69” of precipitation. This included 2.6” of snow. The normal amount of precipitation in January is 2.53” which is +3.16” above normal for the month. This was the third wettest January of record for DFW. In Waco for January 2025, there was 2.68” of precipitation. This included a Trace of snow. The normal amount of precipitation for January is 2.59” this is close to normal at +0.09” for the month.

There were five storm systems which affected our weather in January. Here are the highlights of the weather for the month.

January 5:
A very strong cold front moved through Texas on the 5th. Some rainfall developed over parts of North Texas prior to dawn, with the area south southeast of Athens receiving 0.28". Showers and thunderstorms developed further throughout the 5th, with some severe thunderstorms noted over extreme Northeast Texas. The rainfall moved out of the state by evening. The maximum rainfall reports in Texas were 1.58" southeast of Warren and 1.30" at Marshall.

January 8 - 10:
A deep low pressure system developed over northwest Mexico on the 8th, and this low began to move eastward. Light precipitation began falling over southwest Texas on the 8th, but expanded greatly on the 9th especially across northern and central Texas. Locally heavy snow occurred with rain and sleet across North Texas. Prior to dawn on the 9th the maximum precipitation amounts were 0.58" northeast of Water Valley and 0.54" west southwest of San Angelo. As the upper low moved east widespread precipitation occurred across most of Texas by the afternoon of the 9th. While a rain/snow mixture occurred across North Texas, locally heavy rain fell over Southeast Texas on the 9th. In North Texas the maximum precipitation amounts (snow water equivalent) were northeast of Lavon with 2.24" and northwest of Josephine with 2.18". The heaviest snow was measured just south of the Red River where 7 to 11" fell. The highest totals were southwest of Knollwood with 11" and 9" of snow in Muenster. Elsewhere in Texas there was 4.72" of rain west southwest of Galveston and 3.51" at Freeport. The heaviest rain left Texas and moved east early on the 10th, but as the upper level low pushed away from the state some "wrap around" light snow fell over North Texas the morning. This precipitation moved out of the state the afternoon of the 10th. Residual precipitation amounts on the 10th were very light.

North Texas Regional Summary (continued)

January 20 – 21:
Following a strong cold front on the 19th which put cold air in place over Texas, a strong upper level disturbance moved across the Gulf coast on the 20th and 21st. A rather rare snowfall occurred across south Texas and along the Gulf coast, starting the afternoon of the 20th. Some light snow got as close to DFW as Waxahachie and Cleburne. But up to 9" of snow fell near Bridge City and 6" of snow was measured just south southeast of Pine Forest in Southeast Texas. The largest snow water equivalent amounts of precipitation on the 20th were 0.65" at Brenham and 0.64" at Buena Vista (Laguna Atascosa). The precipitation moved out of the state in the early afternoon of the 21st. The residual heaviest snow water equivalent amounts from the 21st were 0.65" northwest of Bridge City and 0.61" at Port Mansfield.

January 25 – 26:
A cold front moved across Texas on the 25th and 26th. There were some showers ahead of the front, especially over Southeast Texas. Late on the 25th into the morning of the 26th, the rainfall amounts were light. The highest totals were 0.49" southwest of Weimar and 0.42" southwest of Brenham. Then showers and thunderstorms gained intensity the afternoon and evening of the 26th. The maximum rainfall amounts were 3.09" at Sheldon by Lake Houston and 3.08" west northwest of Houston.

January 28 – 30:
A deep upper atmospheric low pressure system formed over the southwestern U.S. on the 28th. This low then moved northeast over the central plain states by the 30th. Some light rain developed late on the 28th across portions of Texas. Prior to dawn on the 29th the heaviest rainfall measured was only 0.32" west southwest of Austin and 0.28" north of Hutto. The rainfall areal coverage and intensity increased late on the 29th, with locally heavy rain noted over North Texas. A record rainfall of 2.80" was set at the Dallas/Fort Worth airport on the 29th. This broke the old record of 0.93" set in 1999. The biggest rainfall amounts for the 29th were 6.31" at Fairview, 6.09" south southeast of Plano and 5.82" north of Mesquite. The DFW airport set another daily rainfall record for the 30th. There was 1.33", which broke the daily precipitation record for the 30th which was previously 1.24" in 1982. This was also the second consecutive calendar day with a daily precipitation record for Dallas/Fort Worth, the first back-to-back precipitation records since August 21-22, 2022. The rainfall moved steadily eastward on the 30th and moved out of the state by around midnight. The largest rainfall reports on the 30th were 2.38" at Athens, 2.26" at Hawkins, and 2.24" west southwest of Mexia.

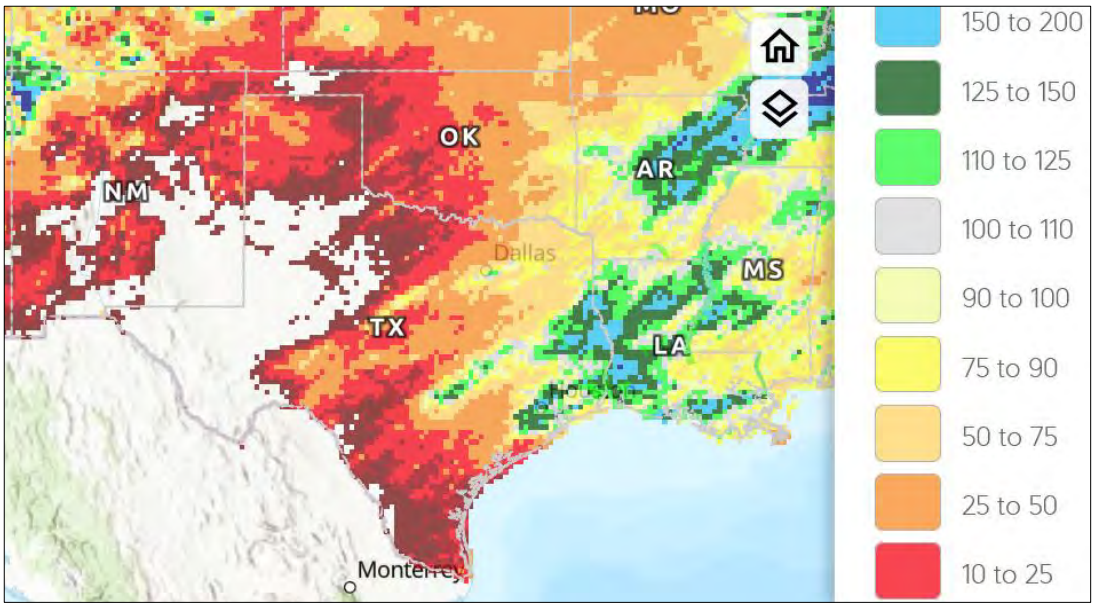


Figure 5: Percent of normal precipitation map for February 2025. In February it was dry over much of Texas, especially the southern and western portions. The only location which saw above normal precipitation was the extreme eastern and southeast parts.

At DFW airport in February 2025 there was 1.35” of precipitation. This included a Trace of snow. The normal amount of precipitation in February is 2.76” which is -1.41” below normal for the month. In Waco for February 2025, there was 1.01” of precipitation. This included a Trace of snow. The normal amount of precipitation in February is 2.68” which is -1.67” below normal for the month.

North Texas Regional Summary (continued)

There were four significant storm systems which affected our weather in February. Here are the highlights of the weather for the month:

February 10 - 12:
A couple of upper air disturbances moved across Texas from the 10th through the 12th. The first one began to generate some rainfall on the 10th, which expanded in areal coverage late on the 10th into the 11th. The heaviest rainfall on the 10th was 1.46" south southeast of Mesquite and 1.38" southwest of Dallas. The rain continued over especially the southeast half of the state during the day on the 11th. But by the evening of the 11th a new area of showers and thunderstorms spread across the state, with some locally heavy rain noted across central Texas. The heaviest rainfall in North Texas on the 11th was northwest of Rising Star with 1.40", south southeast of Mesquite with 1.38", and near Grand Prairie with 1.27". But elsewhere in Texas rain was 3.57" at Lufkin and 3.50" northwest of Rockland. The rain moved into east Texas the morning of the 12th.

February 14 - 15:
A cold front moved through Texas on the 15th. There was some rain along and ahead of the front late on the 14th into the 15th. Most of the rainfall amounts were light. Prior to dawn on the 15th the heaviest rainfall was 0.70" south southwest of Jasper and south southeast of Georgetown. Then on the 15th they picked up 0.99" northwest of Rockland and 0.90" north of Quitman.

February 18:
An arctic cold front moved through Texas on the 18th. Showers and a few thunderstorms developed along and ahead of the front, especially across east central and Southeast Texas. Some frozen precipitation was noted across the northern and western portions of our region, with a couple inches of snow reported along the Red River around Denison. The maximum rainfall amounts from the 18th were 4.14" south of Kountze and 2.42" near Houston.

February 22 – 23:
An upper air disturbance moved across Southeast Texas on the 22nd and 23rd which produced some showers and a few thunderstorms. The heaviest rainfall amounts on the 22nd were 3.11" east northeast of Bon Wier and 3.00" west of Nederland. The rain moved out of Texas on the 23rd, but still brought 0.91" to Carthage and 0.55" to Deweyville.

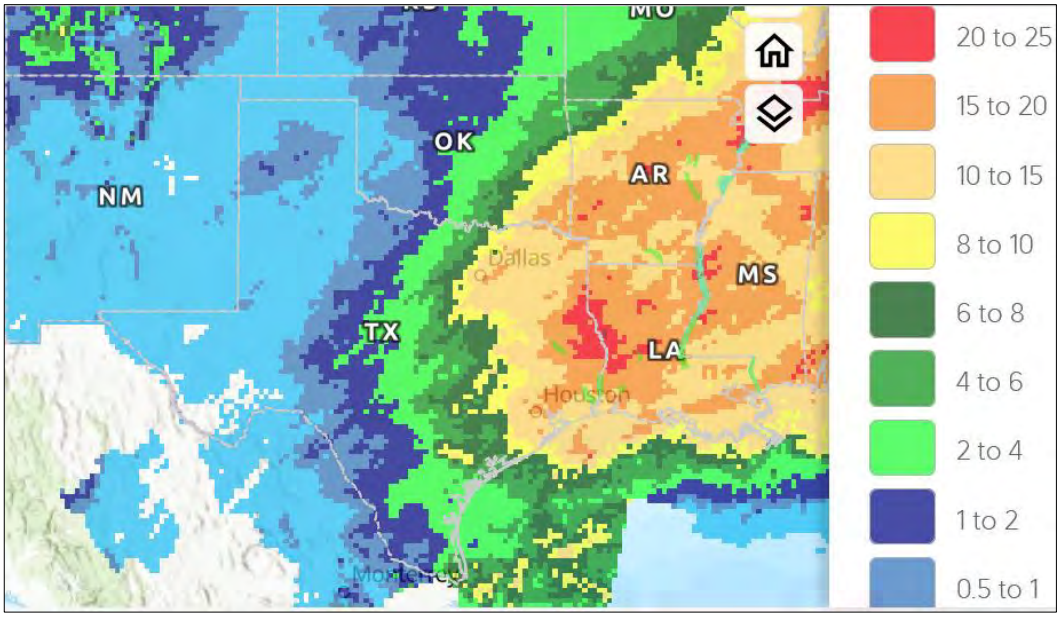


Figure 6: Winter season observed precipitation map for 2024-25. The red, brown, and tan colors indicate the higher precipitation totals, while the light green, navy and light blue colors show the lightest amounts. Note that parts of east central Texas exceeded 20" for the season.

North Texas Regional Summary (continued)

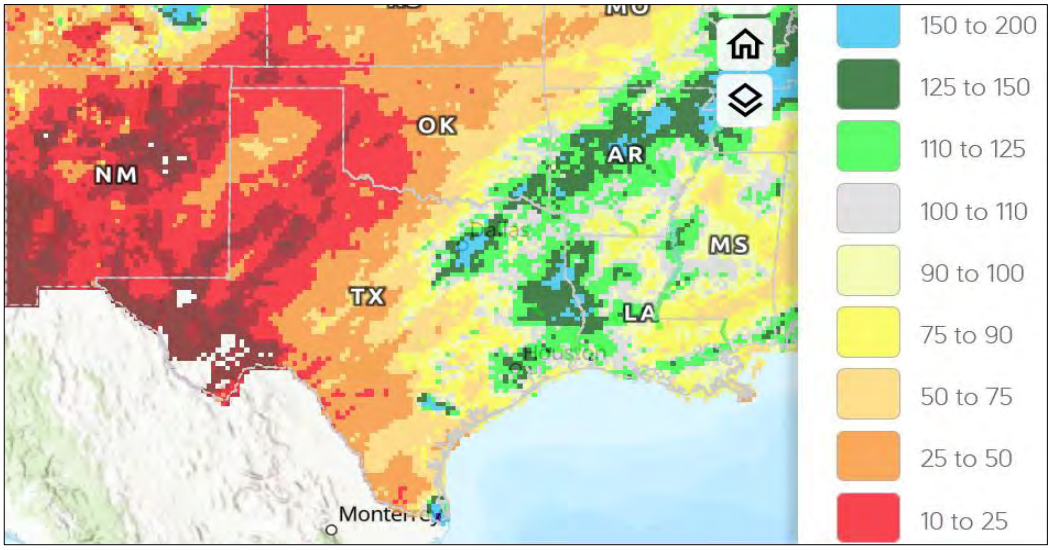


Figure 7: Percent of Normal Precipitation map for winter 2024-25. It was a wet winter for northern and eastern Texas, but it was severely dry over west central and southwest Texas.

For the winter season (December through February) DFW airport received 11.63" of precipitation. The normal amount of precipitation in winter is 8.13" so DFW was +3.50" above normal for the season. This included 2.6" of snow. In Waco for the winter season there was 5.92" of precipitation. The normal amount of precipitation in winter is 8.14" which is -2.22" below normal for the season. This included a Trace of snow, which was a little below normal for winter.

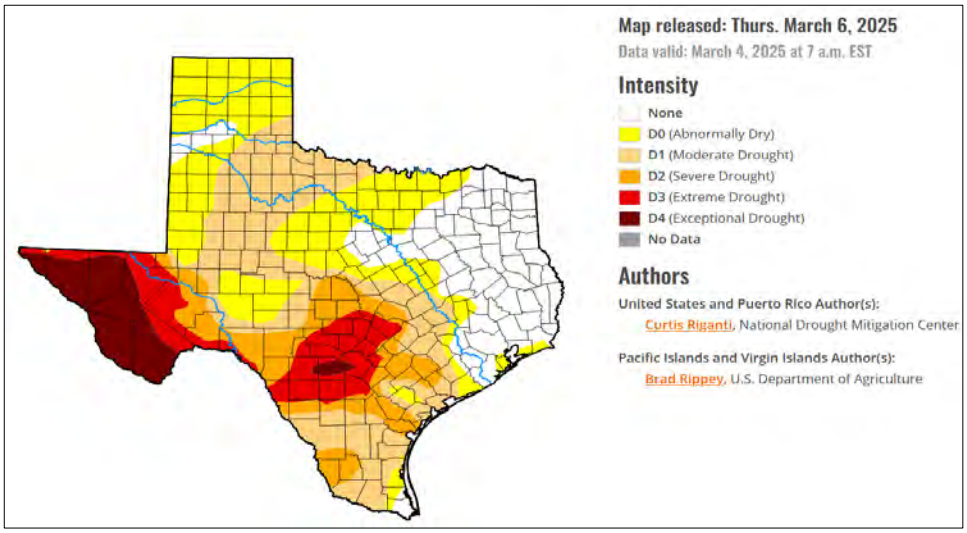


Figure 8: Drought Monitor for Texas as of March 6. The results of the wet weather of the past three months show up well with moist soil moisture conditions over most of East Texas. Dry weather from this winter also shows up well over western Texas and parts of the Hill Country.

Thanks again for your dedication in making all your weather observations! I'd like to share a few reminders in closing. First, we know there will be days you may not be home to report your 24-hour observation. Upon your return, you can make a multi-day accumulation report. A link on the CoCoRaHS reporting page you can use for this purpose. Second, all CoCoRaHS data is quality controlled each day. The intent is for us to recognize reporting errors that may occur. So, one of us may contact you one day in case we have any question about one of your reports. If you have difficulty making your observations or have questions on how to report them, please feel free to contact me or your county coordinator. Third, be confident in knowing your rainfall reports are looked at and used every day. As one example, CoCoRaHS data is incorporated by the National Weather Service at the West Gulf River Forecast Center for use in their soil moisture accounting flood forecasting models. The more rainfall reports that our collected, the better the chances are of determining the highest rainfall totals during rainfall events. And when it doesn't rain, your zero reports make it easier to determine the exact location of and magnitude of drought. We appreciate it when you report zero rain daily for dry days.

Thanks to all of you, and have a great spring season! Greg Story

Abilene/San Angelo Regional Summary

Temperatures swings and Below Normal Rainfall this winter

By: Joel Dunn, Observation Program Lead NWS Abilene/San Angelo, CoCoRaHS Regional Coordinator

December Weather Summary

The month of December in West Central Texas was marked by warmer-than-normal temperatures and below-average precipitation. Rainfall primarily occurred in the first half of the month, leaving much of the region dry as the month progressed. Despite a few beneficial rain events early on, the total precipitation for December fell short of normal by approximately 0.5" to 1" across the area. This deficit, combined with persistent warmth, contributed to a drier-than-average December for the region.

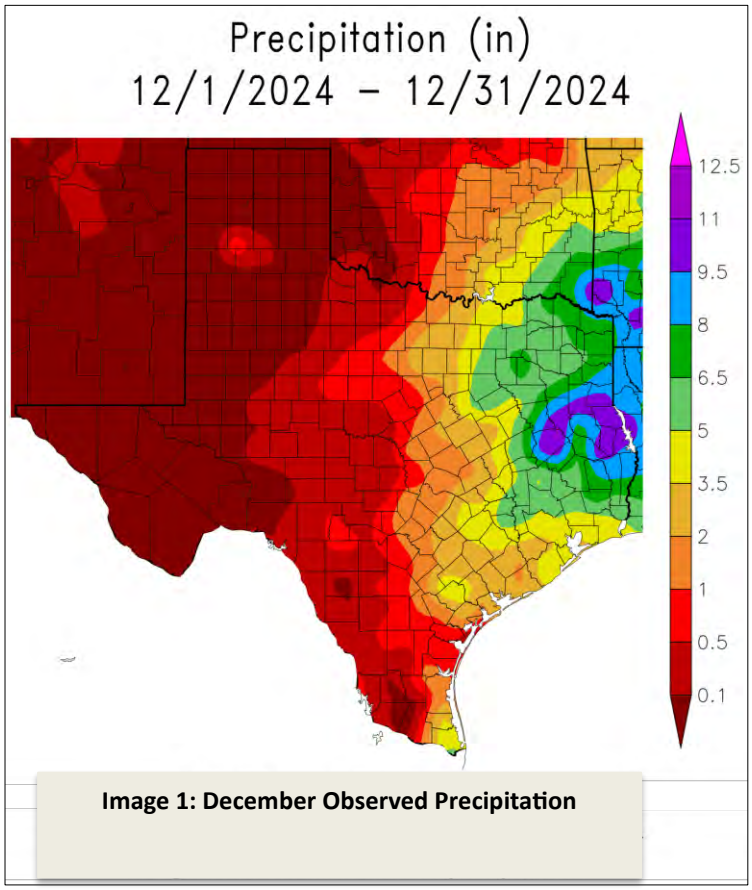


Image 1: December Observed Precipitation

Temperatures were notably above normal throughout the month, averaging around 5 degrees warmer than the seasonal norm. Several stretches of unseasonably warm days occurred, with some daily high temperatures soaring 10 to 20 degrees above normal. This was especially pronounced during the Christmas holiday when the region experienced weather that felt more like early autumn than winter. Many locations enjoyed clear skies and mild temperatures, creating ideal conditions for holiday travelers and outdoor activities.

City	December Rainfall	Departure from Normal
Abilene	0.68"	-0.58"
San Angelo	0.24"	-0.65"
Junction	0.16"	-0.87"

Table 1 - December observer rainfall and departure from normal

The warmth experienced throughout December was particularly remarkable, as it persisted for extended periods without significant cold air intrusions. Although there were a few brief cool-downs behind passing cold fronts, these periods of cooler weather were short-lived. Afternoon highs frequently reached into the 70s and even low 80s in some areas. The lack of prolonged cold air further contributed to the unusual warmth of the month.

Abilene/San Angelo Regional Summary (continued)

One of the most noteworthy impacts of the warm and dry December was the elevated fire danger that developed toward the end of the year. With limited rainfall and a persistent lack of moisture, vegetation began to dry out, creating favorable conditions for the spread of wildfires. This concern was particularly pronounced during the final days of the month when warm temperatures, low humidity, and gusty winds increased the fire risk across much of the region.

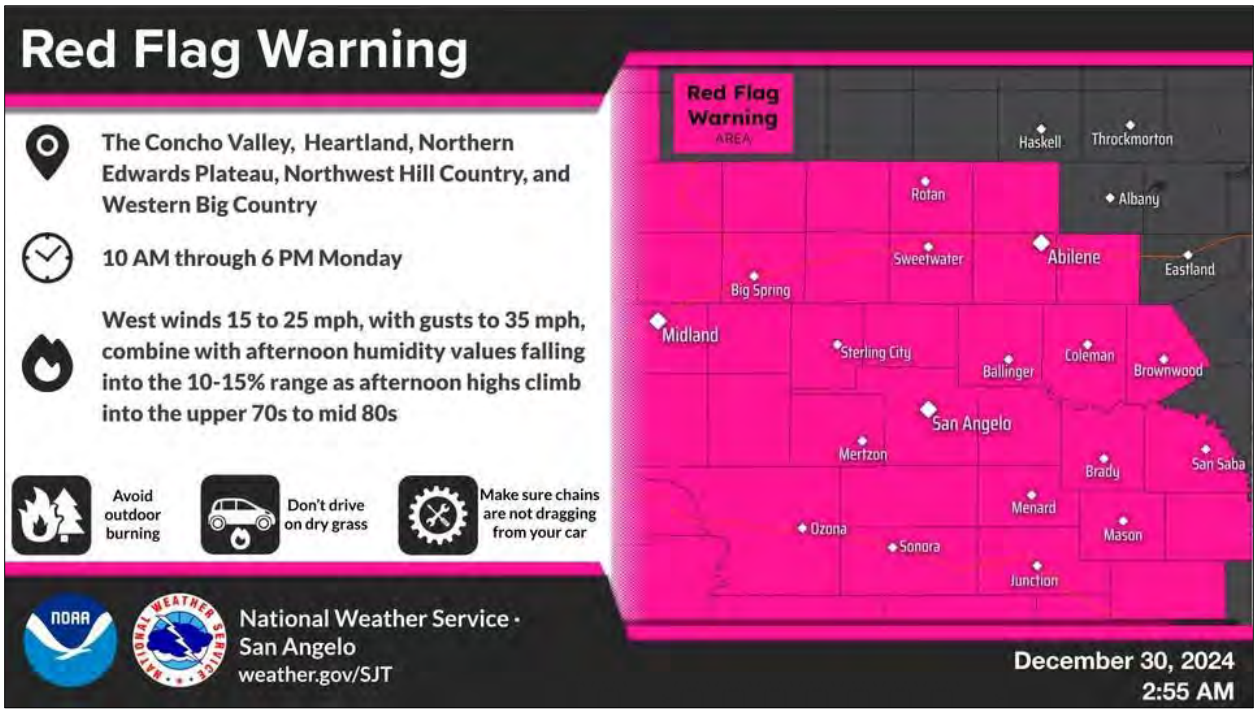


Image 2 - Social Media post regarding the Red Flag Warning issued on December 30th, 2024

As the region transitioned into the New Year, the combination of ongoing dryness and warm temperatures set the stage for increased fire weather concerns. Residents were urged to remain cautious with outdoor burning and be mindful of fire hazards as the dry conditions persisted. Looking ahead, many hoped that the New Year would bring increased precipitation and a return to more seasonable weather patterns across West Central Texas.

Abilene/San Angelo Regional Summary (continued)

January Weather Summary

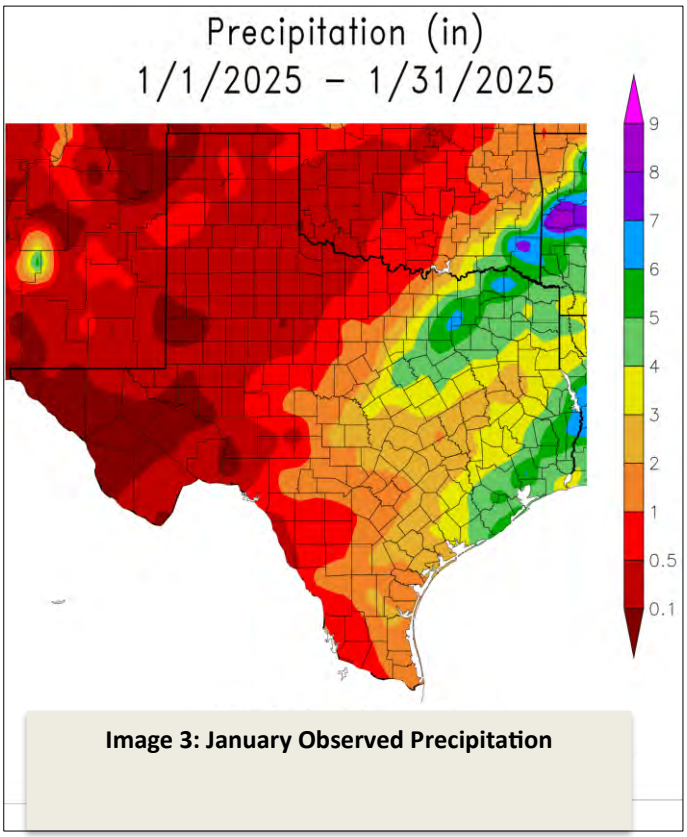


Image 3: January Observed Precipitation

The month of January brought a noticeable shift from the unseasonably warm and dry conditions experienced in December, as West Central Texas encountered multiple cold fronts and several strong arctic intrusions. These cold air masses resulted in below-average temperatures for much of the month, setting a stark contrast to the warmth that closed out the previous year. Persistent north winds and repeated frontal passages kept temperatures cooler than normal, with brief warm-ups quickly interrupted by another round of cold air.

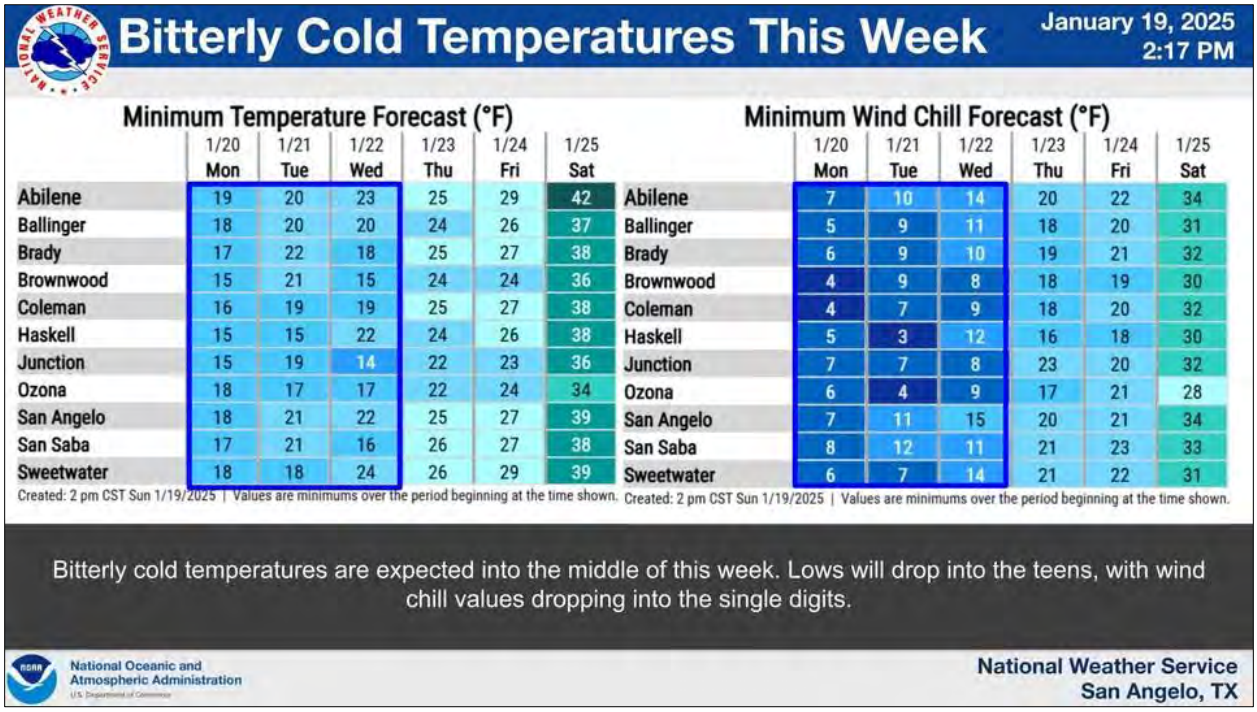
A major cold snap during the first few days of January was particularly impactful, plunging temperatures more than 10 degrees below normal across much of the region. Daytime highs struggled to climb out of the 30s and 40s, while overnight lows dropped well below freezing. The bitterly cold air mass was accompanied by a surge of moisture, allowing for wintry precipitation across portions of the Big Country, though flurries were observed south of Instate 20.

Along and north of Interstate 20, the combination of cold air and available moisture led to pockets of snowfall accumulations of around one inch or less. The snow provided a brief winter wonderland for residents in these areas. South of Interstate 20, the moisture primarily fell in liquid form as temperatures remained just above freezing. Freezing rain was observed though mainly on elevated surfaces and was gone by late afternoon. Though not enough to alleviate long-term dryness, the early January rainfall was a welcomed start to the month.

Following the cold snap and associated precipitation, moisture quickly became scarce across West Central Texas. Despite multiple frontal passages throughout the remainder of January, most of these systems lacked sufficient moisture to produce meaningful precipitation. As a result, the second half of the month remained predominantly dry, limiting any additional rainfall or snowfall accumulation across the region.

The persistent cold air throughout January kept daytime high temperatures generally below seasonal norms, with occasional warm-ups quickly halted by another passing cold front. The repeated intrusion of cold air masses kept January's overall temperature trend below normal for most locations.

Abilene/San Angelo Regional Summary (continued)



	1/20 Mon	1/21 Tue	1/22 Wed	1/23 Thu	1/24 Fri	1/25 Sat
Abilene	19	20	23	25	29	42
Ballinger	18	20	20	24	26	37
Brady	17	22	18	25	27	38
Brownwood	15	21	15	24	24	36
Coleman	16	19	19	25	27	38
Haskell	15	15	22	24	26	38
Junction	15	19	14	22	23	36
Ozona	18	17	17	22	24	34
San Angelo	18	21	22	25	27	39
San Saba	17	21	16	26	27	38
Sweetwater	18	18	24	26	29	39

	1/20 Mon	1/21 Tue	1/22 Wed	1/23 Thu	1/24 Fri	1/25 Sat
Abilene	7	10	14	20	22	34
Ballinger	5	9	11	18	20	31
Brady	6	9	10	19	21	32
Brownwood	4	9	8	18	19	30
Coleman	4	7	9	18	20	32
Haskell	5	3	12	16	18	30
Junction	7	7	8	23	20	32
Ozona	6	4	9	17	21	28
San Angelo	7	11	15	20	21	34
San Saba	8	12	11	21	23	33
Sweetwater	6	7	14	21	22	31

Image 4 - Social Media post from January 19, 2025 showing the forecasted bitterly cold temperatures

By the end of the month, precipitation totals remained below average across areas north of Interstate 10. Despite the early-month snowfall and rainfall, most locations only reported from half an inch to an inch of precipitation, falling short of normal monthly rainfall amounts. The lack of follow-up precipitation throughout the latter half of the month resulted in overall drier-than-normal conditions for January.

City	January Rainfall	Departure from Normal
Abilene	0.89”	-0.21”
San Angelo	0.72”	-0.20”
Junction	0.91”	0.02”

Table 2 - January observer rainfall and departure from normal

Abilene/San Angelo Regional Summary (continued)

February Weather Summary

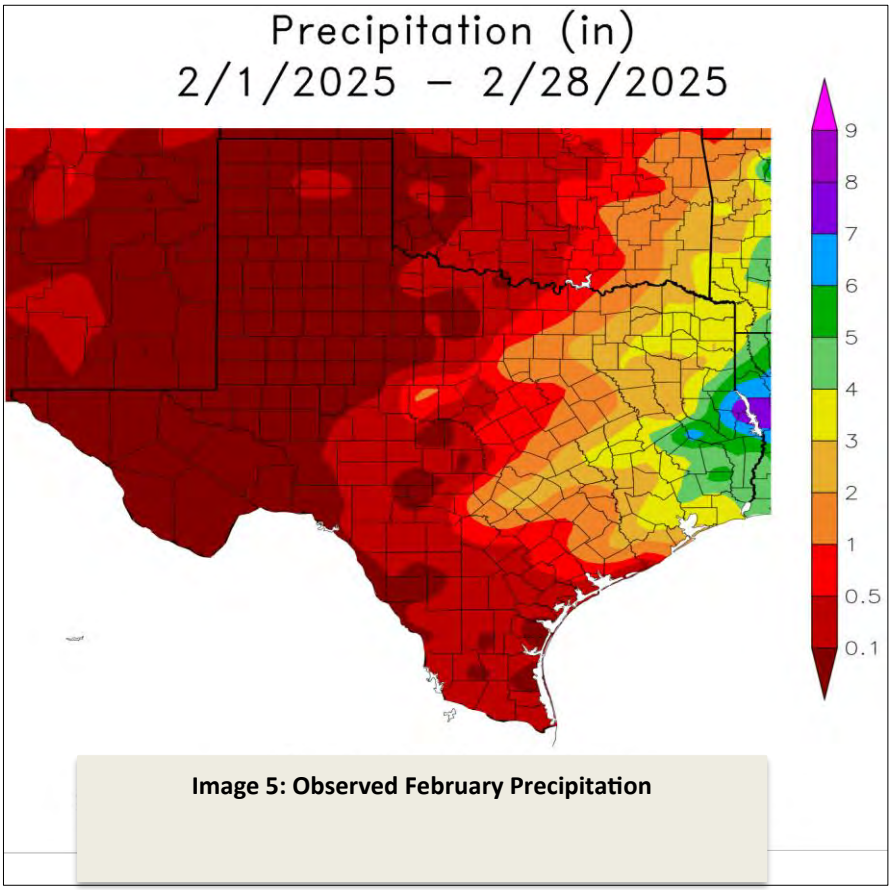


Image 5: Observed February Precipitation

The month of February brought a dramatic swing in weather conditions across West Central Texas, with wide fluctuations in temperatures and little precipitation. The month began with unseasonably warm conditions, as afternoon highs consistently reached the upper 70s to mid-80s across the region. The warmth peaked on February 8th, when both San Angelo and Junction recorded their first 90-degree day of the year — though not unheard of, it's an occurrence more typical of mid-spring than late-winter. This early heat set the tone for what would be a month filled with weather extremes.

One of the most notable weather events occurred on February 19th, when an arctic cold front surged through the region, bringing gusty north winds and a dramatic temperature drop. In a matter of hours, daytime highs plummeted from the 70s and 80s to near or below freezing. Combined with strong winds, wind chill values fell into the single digits and even below zero in some areas, creating harsh winter conditions. This abrupt reversal from warmth to bitter cold served as a stark reminder that winter was not over.

Abilene/San Angelo Regional Summary (continued)

The arctic air mass lingered for a short time before quickly giving way to another period of unseasonable warmth. By the final week of the month, temperatures once again soared well above normal. San Angelo even experienced its second 90-degree day of the year, highlighting the dramatic temperature fluctuations that February had to offer. This rapid warm-up provided a brief spring-like feel as the month neared its end.

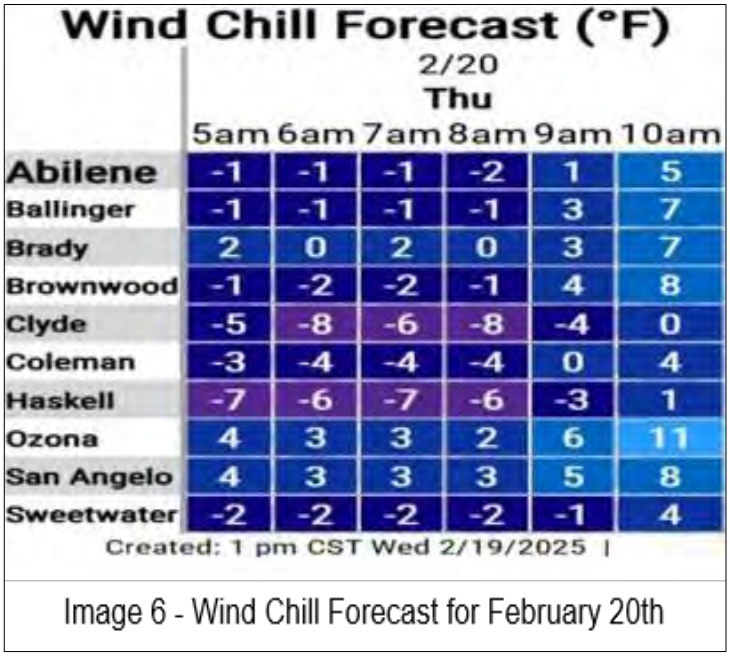


Image 6 - Wind Chill Forecast for February 20th

While temperatures were wildly variable, precipitation was largely absent throughout February. Despite the arrival of several cold fronts, little to no measurable precipitation accompanied them. This severe lack of rainfall resulted in all of West Central Texas ending the month drier than normal. The continued dry pattern did little to improve already low soil moisture levels, leaving the region hoping for a wetter start to spring.

The stark temperature contrasts also placed stress on local vegetation. Warm periods encouraged early spring growth, only to be sharply disrupted by harsh freezes and low wind chills. This cycle of warmth and cold resulted in mixed impacts for local agriculture and outdoor landscapes. Additionally, the lack of precipitation did little to alleviate ongoing dry conditions, further intensifying fire weather concerns across the region.

City	February Rainfall	Departure from Normal
Abilene	0.01”	-1.28”
San Angelo	0.27”	-0.93”
Junction	0.06”	-1.06”

Table 3 - February observed rainfall and departure from normal

As West Central Texas moved into March, the hope for increased precipitation remained high. With soil moisture already low and vegetation drying out, the need for widespread rainfall became increasingly critical. While February delivered plenty of temperature extremes, it did little to ease drought conditions across the region, leaving residents hopeful for a shift toward a wetter pattern in the coming months.

Wichita Falls Regional Summary

Rounds of Precipitation Bring Drought Relief during Warm Winter

By: Charles Kuster
National Severe Storms Laboratory, Wichita Falls CoCoRaHS Regional Coordinator

Our region experienced below normal precipitation and near normal temperatures this winter (Figure 1). In total, our region saw 77 dry days (all CoCoRaHS stations reported less than 0.05") and 13 wet days (at least one CoCoRaHS station reported 0.05" or more). For comparison, our region saw 72 dry days and 19 wet days last winter. The drier than normal conditions this winter did allow for drought conditions to intensify across our area, with nearly the entire area now experiencing moderate drought according to the U.S. Drought Monitor (Figure 2).

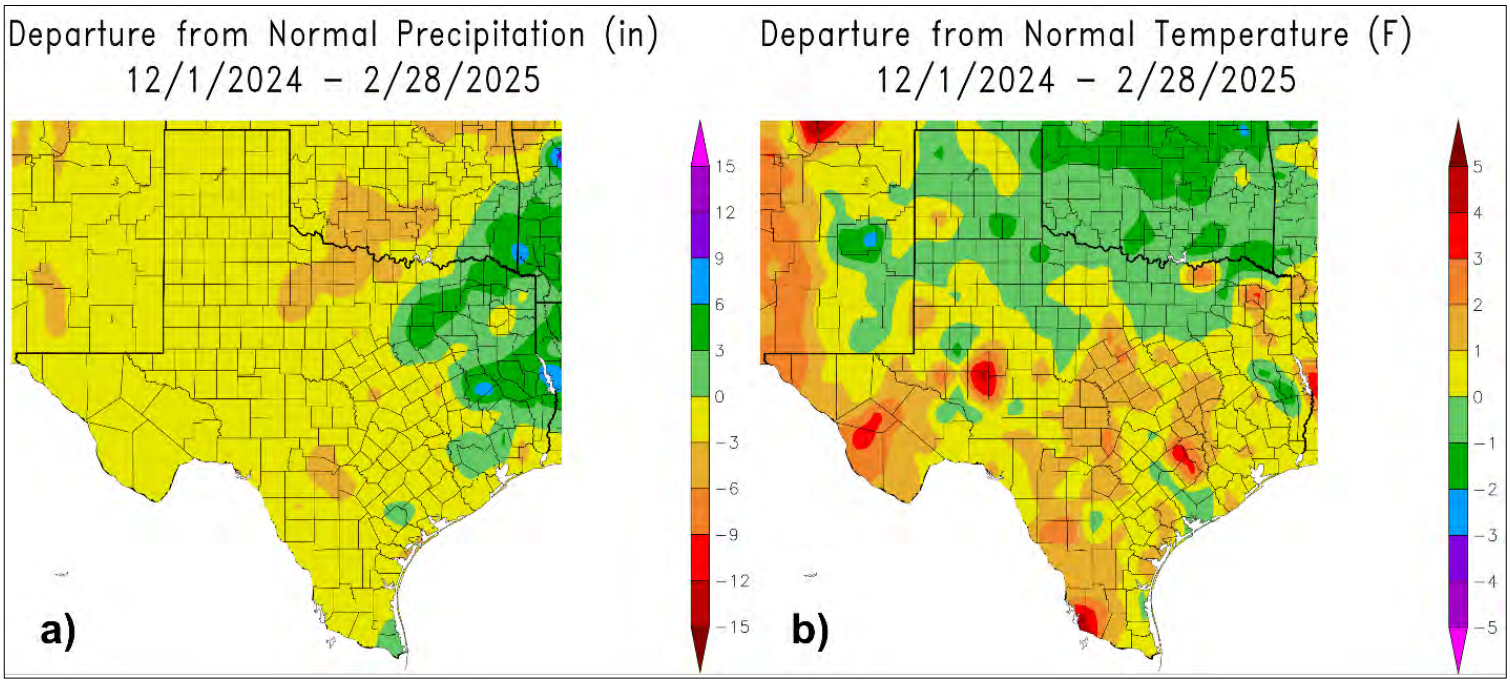


Figure 1. Departure from normal a) precipitation and b) temperature for the beginning of December 2024 through the end of February 2025. Warm colors indicate below normal precipitation (a) and above normal temperatures (b), while cool colors indicate above normal precipitation (a) and below normal temperatures (b).

Wichita Falls Regional Summary (continued)

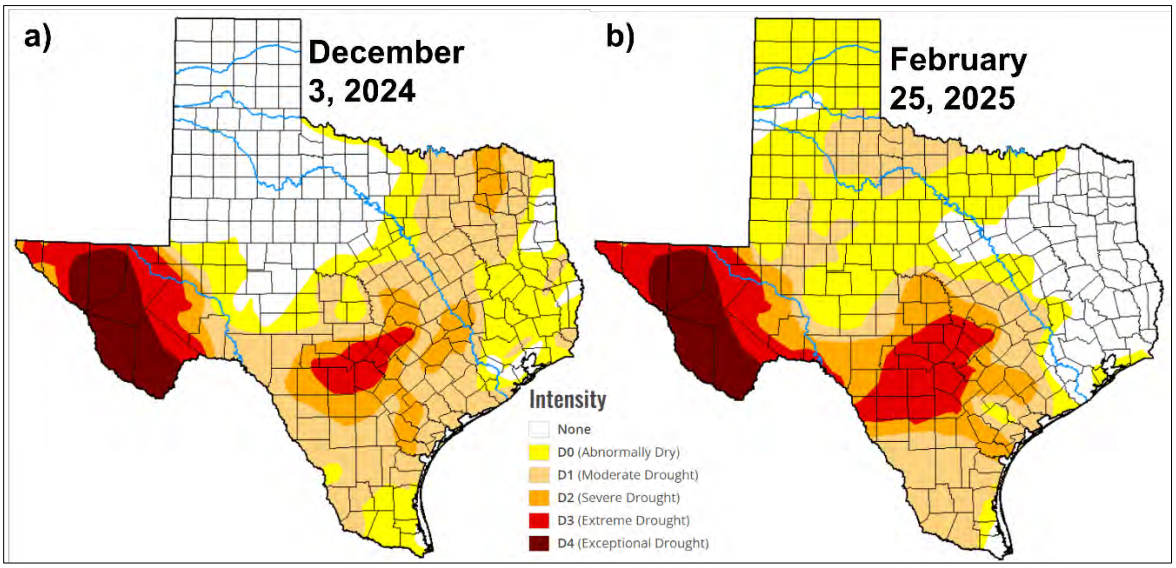


Figure 2. Change in the U.S. Drought Monitor (available at https://droughtmonitor.unl.edu/) from near the beginning of the winter (left) to near the end of the winter (right).

One interesting precipitation event in our area occurred on January 8 and 9. Multiple CoCoRaHS stations reported snow, especially across the eastern third of our region (Figure 3). Snowfall over 1.0” was common and a couple CoCoRaHS stations reported 48-hour snowfall totals as high as 3.0”. Now, with the arrival of meteorological spring and the higher chances for thunderstorms, remember that you can submit hail reports to CoCoRaHS if you experience hail of any size at your location.

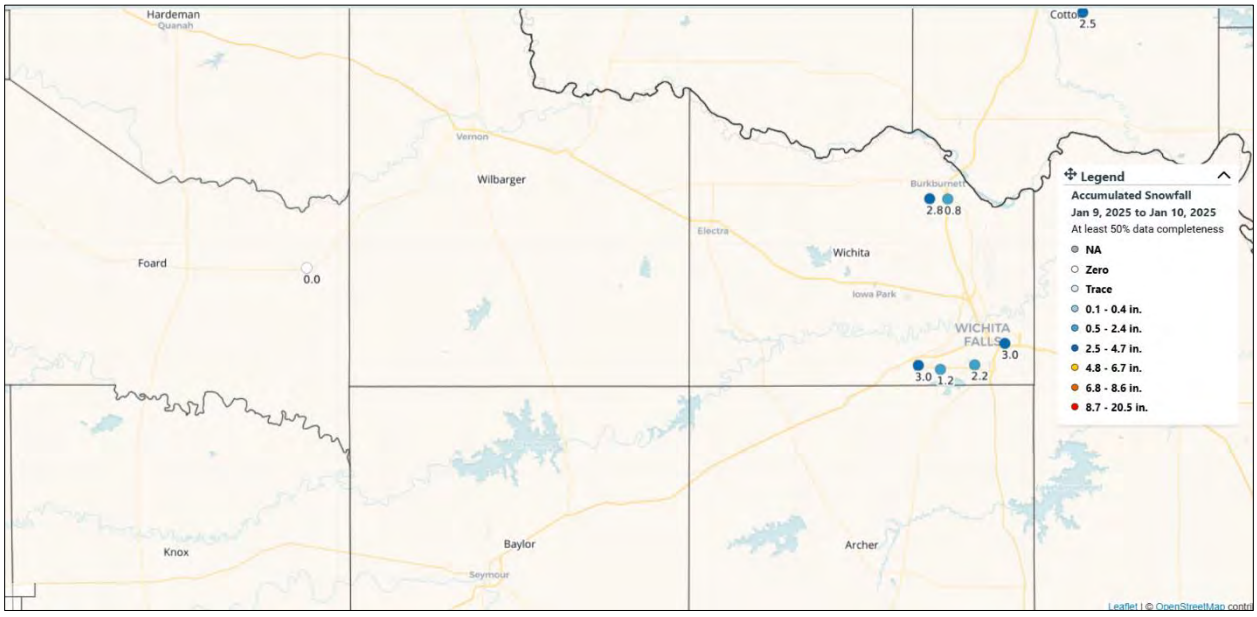


Figure 3. CoCoRaHS snowfall observations for the 48-hour period ending at 7am on January 10, 2025.

Corpus Christi Regional Summary

Winter Yielded Abnormally Dry Conditions

By: Juan Carlos Peña Jr., Lead Meteorologist, National Weather Service Corpus Christi

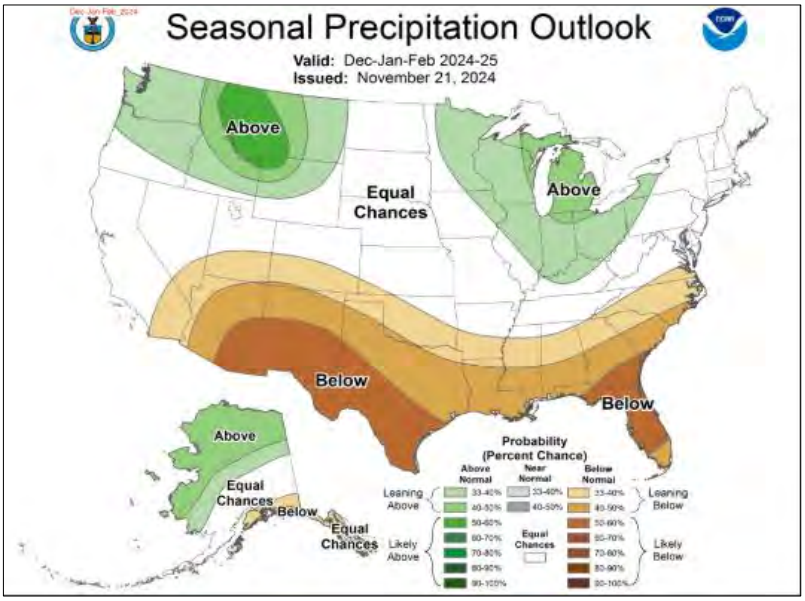


Figure 1: Winter Season Precipitation Outlook

Going into the winter season, the Climate Prediction Center (CPC) had all of South Texas in a high chance for below normal rainfall (Figure 1). That came to fruition to kick off the season in the month of December, as minimal rainfall was observed across the region. Observers saw generally less than an inch excluding the "fortunate" bunch in the Victoria Crossroads (Figure 2). Observers saw anywhere between 2 "to 3" in that area for the month. The rainfall was attributed to a series of passing disturbances spread out through the month. Despite this, observers in the Victoria Crossroads only saw a 0.30" above their expected rainfall total for the month (Figure 3). Other portions of the region such as the Coastal Bend saw well below their expected rainfall total for the month with -1.31". Due to the lack of rainfall, continued moderate to severe drought conditions persisted across South Texas for the month of December (Fig. 4)

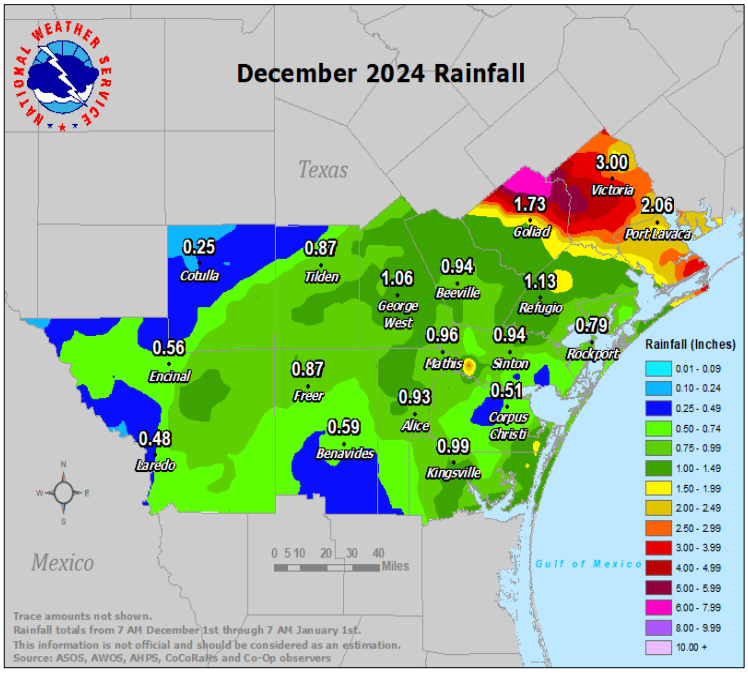


Figure 2: December 2024 Estimated Rainfall Totals

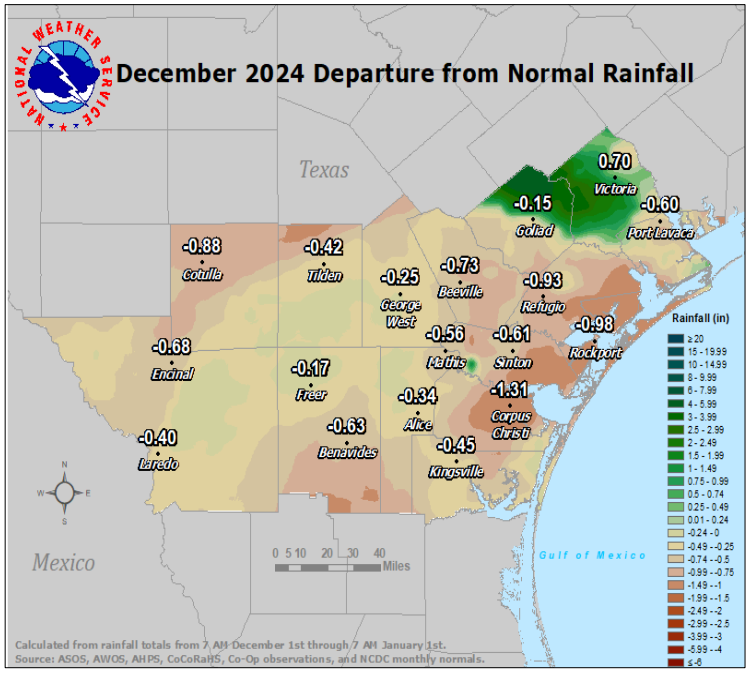


Figure 3: December 2024 Estimated Departure from Normal Rainfall

Corpus Christi Regional Summary (continued)

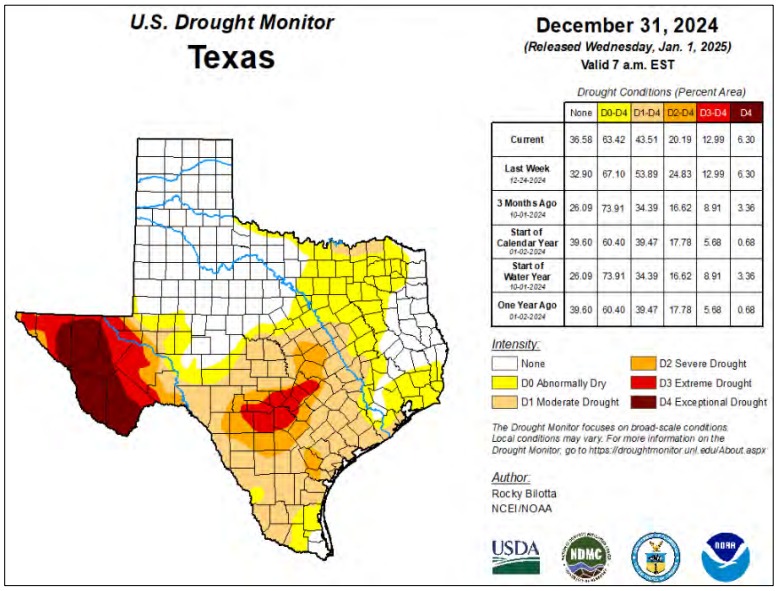


Figure 4: U.S. Drought Monitor Summary for the month of December

The New Year didn't bring much change in tendencies in regards to the rainfall. While there was an improvement based on the past couple of months, the area observed right at or just below the normal amount of rainfall for the month of January. The brunt of the rainfall fell in the Victoria Crossroads and portions of the Coastal Plains on the 9th where observers saw about 2 to 3" (Figure 5). Areas back out west in the Brush Country and Rio Grande Plains only saw up to 1.50" for the month. Rainfall totals were right around normal for the month which was welcomed after December (Figure 6). Although the region didn't see enough rainfall to see widespread relief, the influx of rainfall to the east allowed for some drought relief (Figure 7). Regardless, majority of the area remains in abnormally dry to severe drought conditions.

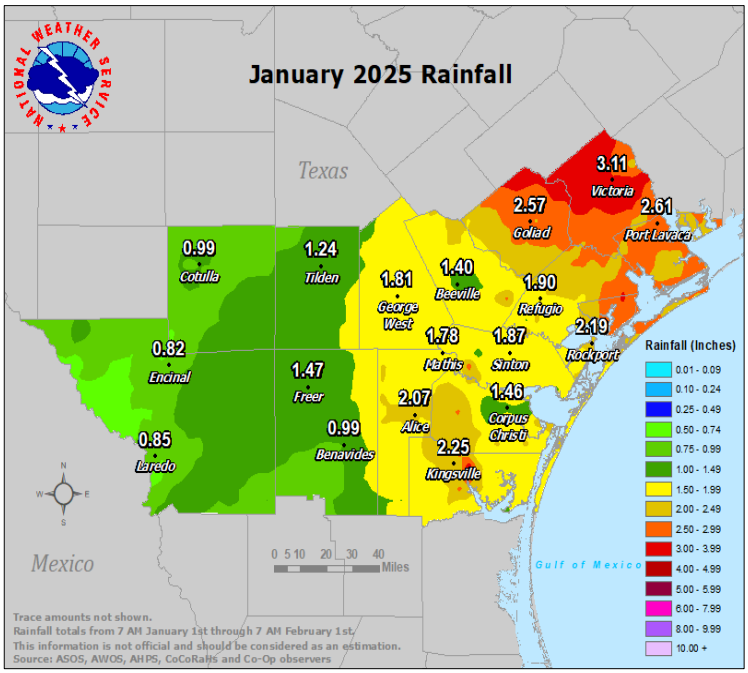


Figure 5: January 2025 Estimated Rainfall Totals

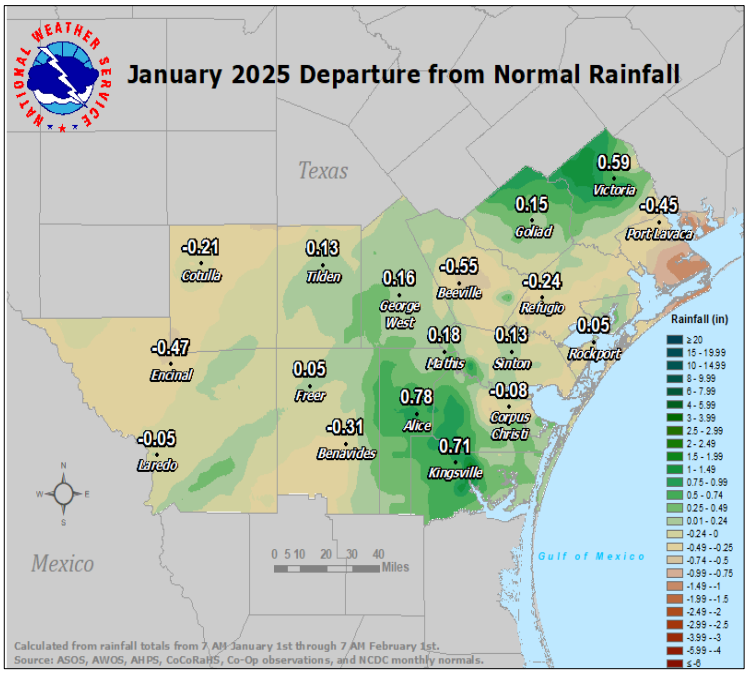


Figure 6: January 2025 Estimated Departure from Normal Rainfall

Corpus Christi Regional Summary

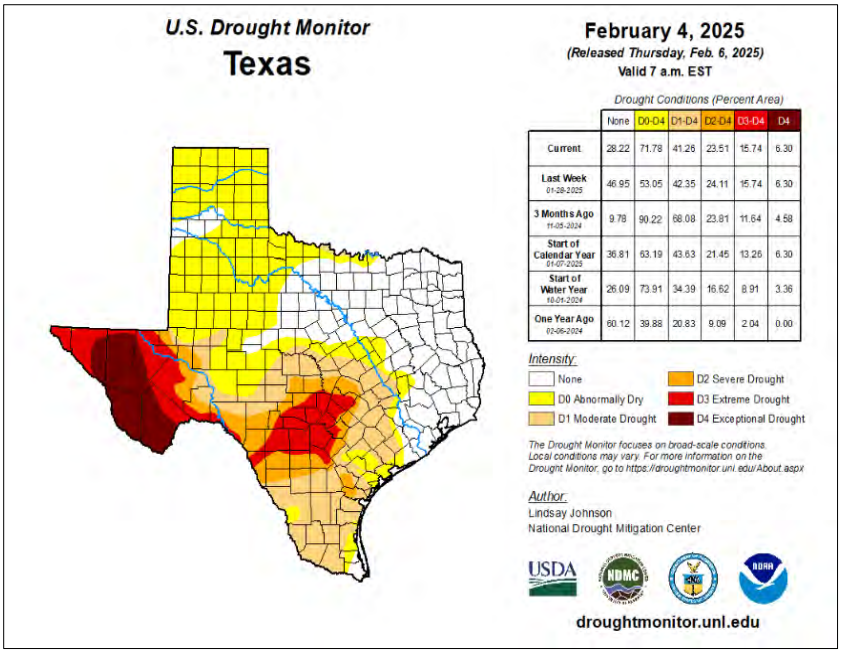


Figure 7: U.S. Drought Monitor Summary for the month of January

February was an extremely dry month for South Texas. Most of the region barely got 10 percent of their normal rainfall (more than 90% less rainfall than normal for the month) with the only exception being across the Victoria Crossroads where observers reported 20-40% of their normal rainfall. This was due to a lack of cold front tracking across the region and limited moisture. Observers across the Victoria Crossroads only reported between 0.25-0.75" of rain for the month while observers across the rest of South Texas generally reported less than a 0.10" for the entire month. The lack of rainfall across the region resulted in February being the 6th driest on record for the Corpus Christi area dating back to 1900 while Laredo checks in tied for its 17 driest February and the Victoria region being the 33rd driest February dating back to 1900.

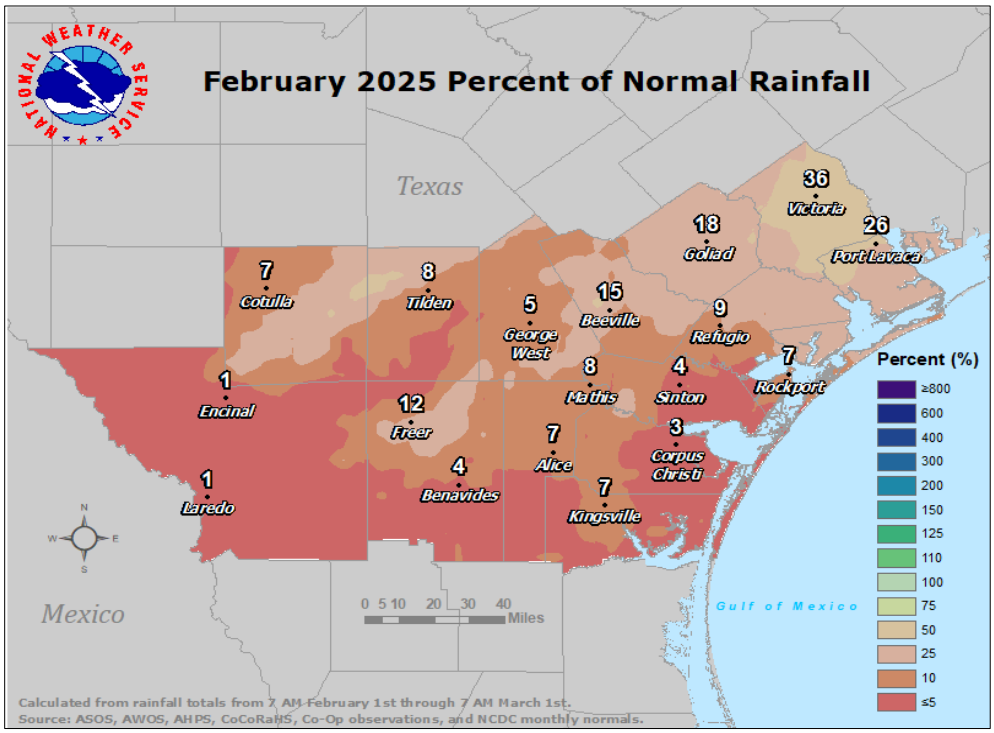


Figure 8: February 2025 Estimated Percent of Normal Rainfall

Corpus Christi Regional Summary (continued)

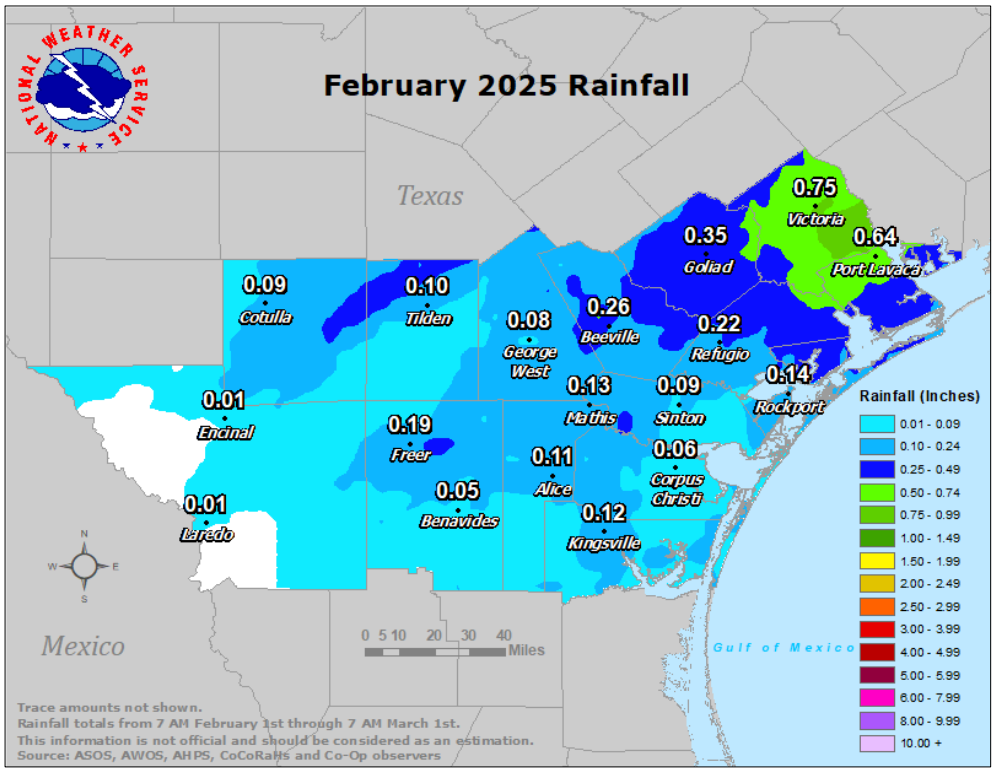


Figure 9: February 2025 Estimated Rainfall Totals

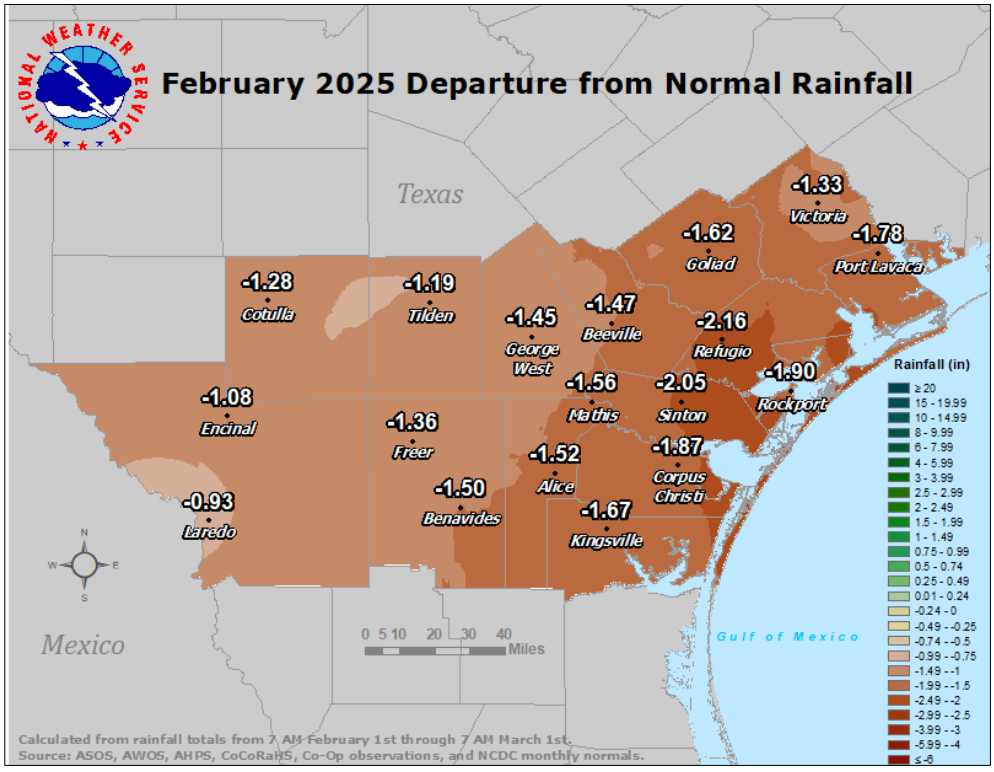


Figure 10: February 2025 Estimated Departure from Normal Rainfall

Spring Weather Outlook

Above Normal Temperatures with better chances for near Normal Rainfall

By: Bob Rose, Meteorologist, Lower Colorado River Authority

Spring brings the return of longer days and warmer temperatures. Spring is also typically the wettest and stormiest season of the year across Texas. The clash between cool and warm air, vigorous storm systems, and advancing Gulf moisture can often produce periods of moderate to heavy rain and strong to severe storms. Spring is generally the wettest and stormiest season of the year for most locations, with May being the wettest month.

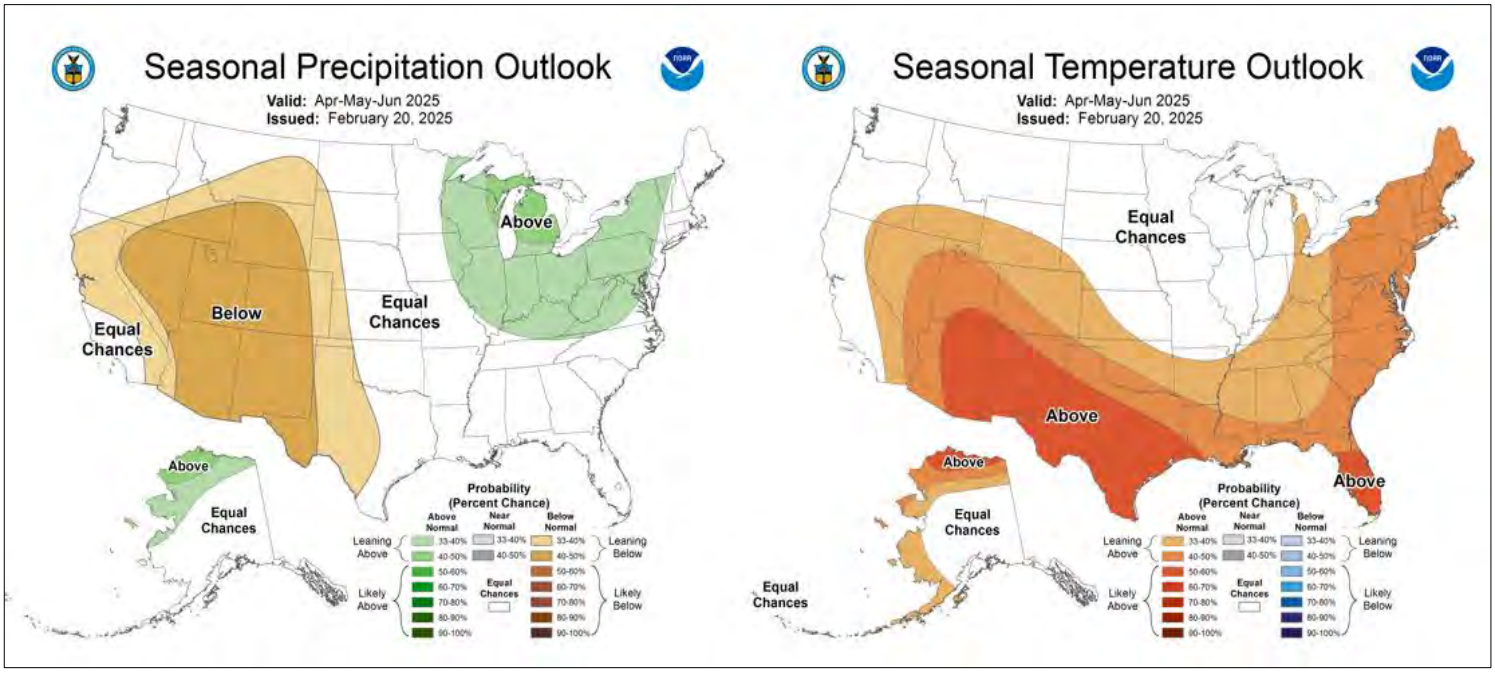
One of the biggest influences on Texas weather since last fall has been a large belt of water in the central and eastern tropical Pacific that has been cooler than the surrounding waters. It is believed these cool waters, in combination with other features in the Pacific, impacted the Jet Stream through the fall and winter months in a way that helped to cause a pattern of below normal rainfall across Texas. By late December, these waters cooled sufficiently to meet the threshold to be declared a weak La Niña.

National Weather Service forecasts call for La Niña to end this spring, but that belt of slightly cooler than normal water is predicted to remain in place through late spring. Unfortunately, most forecast solutions indicate these cooler waters will continue to impact the jet stream in a way that will keep many of the typical spring storm systems moving to the north of Texas—especially April into early May. This will likely result in a pattern of below normal rain across the entire state. Forecasts suggest the pattern for below normal rain may ease up some across the eastern half of the state May through June, while the pattern of below normal rainfall will continue across the western half. While a few periods of rain and thunderstorms can be expected from time to time, the projected spring setup doesn't appear favorable for frequent storms and the development of widespread, heavy rain.

With fewer storms and less rain than normal predicted this spring, drier soils can be expected. These drier soils will warm up rather efficiently under the strong spring sun and should lead to warmer than normal temperatures. In addition, occasional storm systems passing to the north of Texas are expected to pull hot air eastward out of the deserts of Mexico. In these situations, this may cause temperatures to really heat up. Don't be surprised if a few summer-like readings begin to show up in May.

The National Weather Service's April through June rainfall outlook shows increased odds rain will average below normal across the western half of the state. No clear trend for rainfall is indicated for the eastern half, including the Lower Rio Grande Valley. Here, above-, below-, or near-normal rainfall is forecast. There's little disagreement on the on the temperature outlook as readings are forecast to average above normal at all locations.

Spring Weather Outlook (continued)



NOAA's Climate Prediction Center Precipitation and Temperature outlook for April/May/June, based on a CPC release from February 20, 2025.

The National Weather Service's April through June rainfall outlook shows increased odds rain will average below normal across the western half of the state. No clear trend for rainfall is indicated for the eastern half, including the Lower Rio Grande Valley. Here, above-, below-, or near-normal rainfall is forecast. There's little disagreement on the on the temperature outlook as readings are forecast to average above normal at all locations.

Keep in mind, these are general conditions that can be expected through June. There will be exceptions from time to time, with periods of rain, storms and even some brief cooldowns. But overall, be prepared for a warm and less rainy spring and an early start to summer-like weather.

Scheduled CoCoRaHS Webinars & Information

Webinar #93 - Thursday, Summer 2025

What is a '100-year rainstorm'? And how many CoCoRaHS volunteers have observed one?"

Russ Schumacher
Colorado Climate Center/CoCoRaHS
Colorado State Univ.
Fort Collins, CO

You might have heard in the media about a "100-year" (or even a "1000-year") rainstorm. Although these concepts are backed by statistics and can be quite useful, they are also very prone to misunderstanding and confusion. In this presentation, we'll explore what a "100-year storm" means (and doesn't mean), and how to interpret these estimates. We'll also look through the CoCoRaHS database to highlight instances where CoCoRaHS volunteers observed storms this extreme, and how those observations have helped advance the scientific understanding of heavy precipitation.

Russ Schumacher is Associate Professor in the Department of Atmospheric Science at Colorado State University, where he conducts research and teaches courses on the topics of mesoscale meteorology, weather systems, convective storms, and weather prediction. He received his B.S. with majors in meteorology and humanities from Valparaiso University in Indiana in 2001, and his M.S. in 2003 and Ph.D. in 2008 from the Department of Atmospheric Science at Colorado State University. Russ received an Advanced Study Program Postdoctoral Fellowship from the National Center for Atmospheric Research, and spent 2008-2009 at NCAR in Boulder. From 2009-2011, Russ was assistant professor in the Department of Atmospheric Sciences at Texas A&M University. He joined the CSU faculty in August 2011. He received the CAREER award from the National Science Foundation in 2010, and was selected as Outstanding Professor of the Year by the students of the department in 2012. He currently serves as Editor of the journal Monthly Weather Review. In addition to his work in atmospheric science, Russ is known for a successful run on the quiz show "Jeopardy!" winning the 2004 Tournament of Champions and reaching the semifinals of the "Battle of the Decades" tournament in 2014.

Texas CoCoRaHS Observer

The official newsletter of Texas CoCoRaHS

Newsletter Editor: **Ron Havran,** Regional Coordinator - Houston/Galveston Region
Assistant State Coordinator cocorahs.hou.galv@gmail.com

Texas CoCoRaHS: **Bill Runyon,** Texas State Coordinator
texas@cocorahs.org

Texas CoCoRaHS @Texas CoCoRaHS

Questions, Comments, and Suggestions about this newsletter are welcomed at the above email addresses.