

West Texas/Southeastern New Mexico Climate Summary for February 2017



Midland/Odessa
Texas



U.S. National Weather
Service Midland, TX



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February 2017 Precipitation and Temperature Summary

February 1st-15th: The first day of February was 5-10°F above normal across west Texas and southeastern New Mexico. A cold front led to cooler than normal temperatures on the 2nd-3rd. High temperatures were mainly in the 50s and 60s and low temperatures were near or below freezing around the area. After this short cold snap, warm and dry conditions returned to the region on the 4th, with highs generally in the 60s and 70s at most locations along with light winds. From the 5th to the 12th, a persistent upper-level high pressure brought warm and windy conditions, along with numerous days of fire and wind hazards, over west Texas and southeastern New Mexico. Wind speeds increased on the 6th and continued to strengthen until the 8th with some of the highest gusts during this period including: 81mph at Guadalupe Pass, TX, 69mph at Mount Locke, TX, 44mph in Big Spring, TX, and 41mph in Carlsbad, NM. Some of the highest temperatures from the 6th-8th included: 84°F in Fort Stockton, TX, and 82°F both at Midland International Air and Spaceport (MAF) and in Odessa, TX. Owing to unseasonably intense surface high pressure on the 10th-11th, record warmth was reported as temperatures soared over 20°F above normal in some locations, including record highs of 86°F on the 10th and 93°F on the 11th at MAF. Elsewhere, highs mainly in the 80s and 90s were reported across the Permian Basin. On the 12th, temperatures were still very warm ahead of an approaching cold front. Notable high temperatures for this day were 92°F at Rio Grande Village, TX, 92°F in Crane, TX, and 91°F in Big Spring, TX. By the 13th, cool air set in behind the front, while an upper-level low tracked across west Texas, promoting enough instability for showers and thunderstorms. The highest precipitation totals on the 13th were: 0.88" in Gail, TX, 0.79" in Dryden, TX, 0.62" at MAF, and 0.51" in Hobbs, NM. Rainfall continued on the 14th with totals of 0.13" in Dryden, TX and 0.11" in Snyder, TX. Temperatures were below normal from the 13th-15th with highs only in the 40s and 50s and lows in the 20s and 30s with the exception of far southwest Texas and Big Bend National Park, where high temperatures remained in the 60s and 70s.

February 16th-28th: February 16th was calm and mild throughout the region with temperatures near normal. High temperatures ranged from the 50s at higher elevations to the lower 70s across the southern Permian Basin. A couple of upper-level disturbances advanced across west Texas and southeastern New Mexico between the 17th and the 20th. The first disturbance brought only high cloudiness. However, the second disturbance had an associated surface low and frontal system, helping to bring moisture into west Texas. Light rain showers occurred on the 19th, with highest amounts totaling 0.15" at Panther Junction, TX, 0.12" at McCamey, TX, and 0.10" at MAF. During the 20th-24th, much drier, windier, and warmer conditions predominated. Temperatures climbed some 10-15°F above average as winds increased from the west. Notable high temperatures during this stretch of days included: 86°F in Carlsbad, NM and 88°F in Pecos, TX on the 22nd; 86°F at MAF on the 23rd (setting a daily record); and 97°F at Rio Grande Village on the 24th. Along with gusty winds and low relative humidity, conditions favoring rapid fire growth and spread was present around the region. Numerous Red Flag Warnings were issued by National Weather Service offices in west Texas. The windiest conditions during the 20th-24th occurred on the 23rd with strongest gusts of 78mph at Guadalupe Pass, TX, 56mph in Tatum, NM, and 54mph in Artesia, NM. After a brief cool down with temperatures at or below normal on the 25th, temperatures again rose 10-15°F above normal on the 26th-28th. Weather Service offices issued more High Wind and Red Flag Warnings during this period. Winds were strongest on the 28th. Highest measured gusts of 79mph in the Guadalupe Mountains, 67mph in Tatum, NM, and 64mph in Carlsbad, NM were reported. A few wildfires occurred on the last day of February across west Texas and southeastern New Mexico, burning many acres and damaging a few structures.

Foggy sunrise at Midland Intl Airport on Feb 6th



Dust ahead of cold front on Feb 8th



Severe thunderstorm over Spraberry, TX on Feb 13th

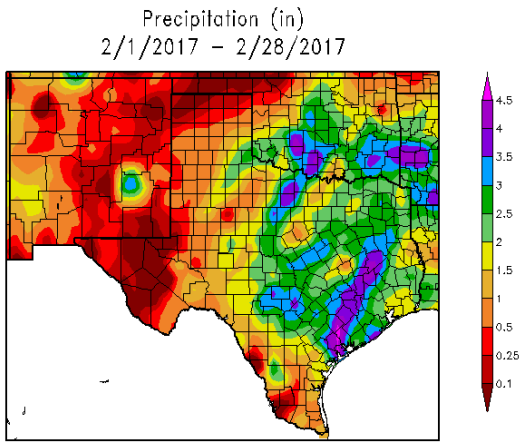


Fire engulfing structures in Artesia, NM on Feb 28th



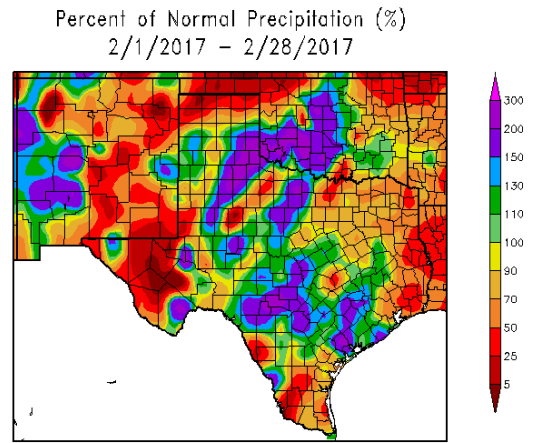
Overtaken truck near Guadalupe Pass on Feb 28th





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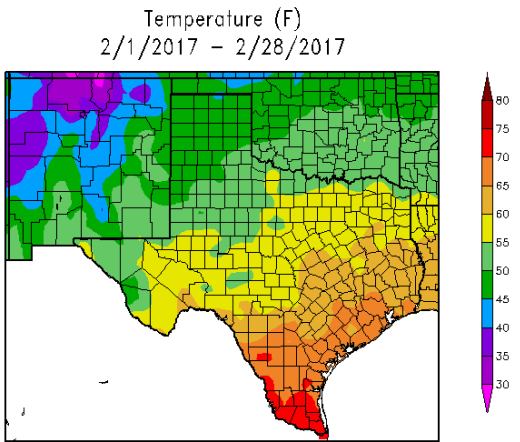
Regional Climate Centers



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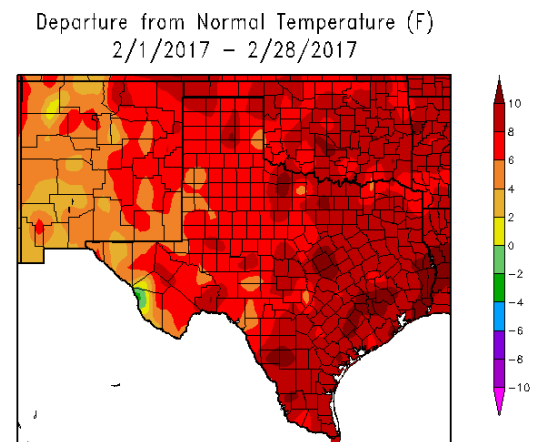
Regional Climate Centers

Precipitation amounts in west Texas and southeastern New Mexico ranged from 0.00” to near 2.00”. The wettest areas were the northeastern Permian Basin, and portions of Brewster, Pecos, and Terrell counties where precipitation was up to 200% above normal. The driest region was along and west of the Pecos River where precipitation was mainly 5-25% below normal.



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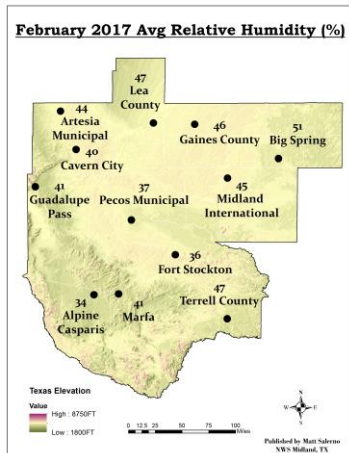
Regional Climate Centers



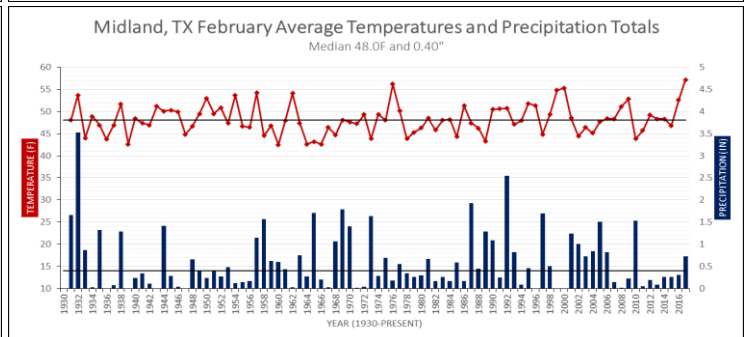
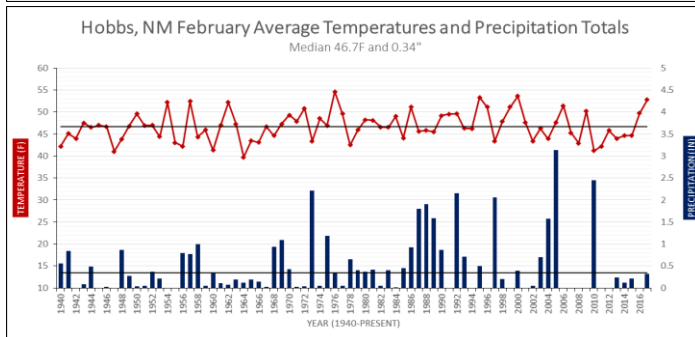
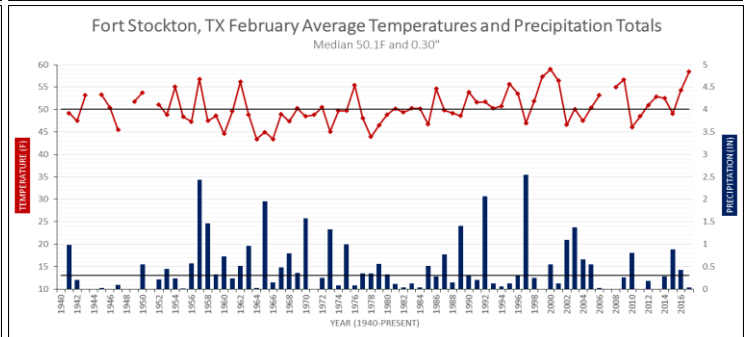
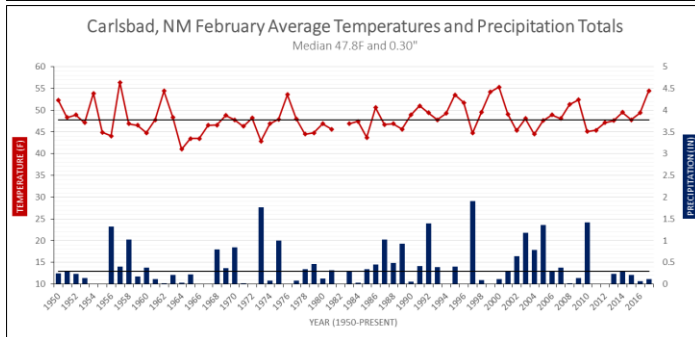
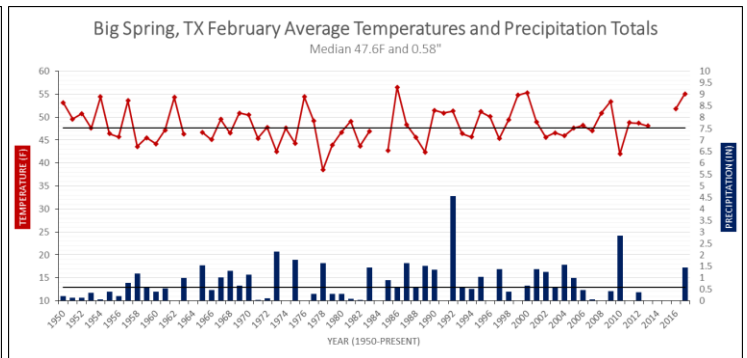
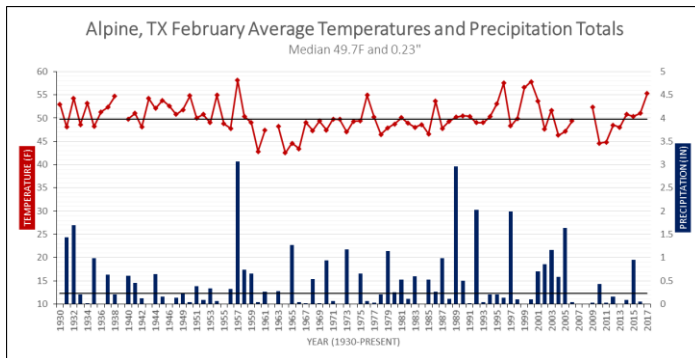
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Regional Climate Centers

Average temperatures ranged from around 45°F in the Guadalupe Mountains to over 60°F in Big Bend National Park. The majority of west Texas was 6-8°F above normal with the warmest temperature departures in Ector, Midland, Pecos, and Terrell counties. The coolest spots in the region included portions of Jeff Davis and Presidio counties with near-normal temperatures.



Average wind speeds were between 9 and 11mph with the exception of 24mph at Guadalupe Pass. The strongest wind gusts occurred in the Guadalupe Mountains and southeastern New Mexico. Average relative humidity values ranged from 34-51%.



Note: Each location has a slightly different period of record. Data gaps within each graph indicates missing data for those years.

January Temperature and Precipitation	Avg Temp (°F)	Departure from Avg (°F)	Temp Ranking (Period of Record)	Precip (In.)	Departure from Avg (In.)	Precip Ranking (Period of Record)
Alpine COOP	55.3	+5.3	5 th Warmest	0.00	-0.44	T-1 st Driest
Big Spring COOP	55.1	+6.9	3 rd Warmest	1.46	+0.72	10 th Wettest
Carlsbad	54.5	+6.5	4 th Warmest	0.12	-0.39	T-26 th Driest
Fort Stockton COOP	58.4	+8.0	2 nd Warmest	0.03	-0.47	T-13 th Driest
Hobbs COOP	52.8	+6.2	4 th Warmest	0.32	-0.14	42 nd Wettest
Midland International	57.2	+8.7	1 st Warmest	0.72	+0.01	T-27 th Wettest

The graphs above illustrate February temperature and precipitation records for six individual weather stations at select cities. A persistent dry and windy weather pattern promoted very warm temperatures during the month across west Texas and southeastern New Mexico. All six locations experienced their top five warmest February on record, and MAF set a record for having the warmest February since 1930. The °F warmth was due to abnormally warm high temperatures for the majority of the month, including the earliest the mercury reached 90°F in a year at MAF since 1930. Precipitation totals at these six cities ranged from 0.00" to 1.46". Precipitation was mainly below normal with the exception of Big Spring and Midland with each site receiving near to above normal totals. Most of the rainfall occurred over a 1-2 day period while the remainder of the month was dry. Some locations in west Texas including Alpine received no rainfall in February.