West Texas/Southeastern New Mexico Climate Summary for March 2017

Midland/Odessa Texas

U.S. National Weather Service Midland, TX

@NWSMidland

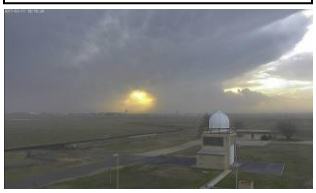
March 2017 Temperature, Precipitation, and Wind Summary

March 1st-15th: March began with cooler than normal temperatures and cloudy conditions across the majority of west Texas and southeastern New Mexico. High temperatures were limited to the 60s and 70s from the 1st-4th as a series of upper-level troughs progressed through the region. The lowest temperatures measured during this timeframe were 23°F in Artesia, NM, and 25°F in Hope, NM on the 2nd, and 25°F in Valentine, TX and Cope Ranch, TX on the 4th. Then temperatures increased 10-15°F above normal around the Permian Basin on the 5th and 6th. Strong winds from the southwest brought dry air and critical fire danger to the area on the 6th and a Red Flag Warning was issued for most of west Texas by the National Weather Service (NWS). A cold front pushed through the area on the 7th and brought with it smoke and haze from existing fires across the Texas and Oklahoma Panhandles. Temperatures on the 7th were mainly in the 60s and 70s across the Permian Basin and warmer in the Rio Grande River valley. After this brief cool down, temperatures were once again well above normal from the 8th-9th. Warmest temperatures on the 8th included: 94°F at Rio Grande Village, TX, 91°F at Castolon, TX, and 87°F at Presidio and Lajitas, TX. A surface low pressure in northern Mexico did bring some moisture to the Rio Grande River valley on the 9th and rain occurred at Presidio (0.14"), Big Bend State Park (0.12"), and Lajitas (0.02"). Then an upper-level storm system approached southeastern New Mexico and west Texas on the 11th. An associated cold front at the surface provided substantial lift and strong to severe thunderstorms developed. A storm over southern Lea County produced hail up to 2.00" in diameter while another storm over Reeves County produced hail up to quarter size at Pecos, TX. Highest rainfall totals were: 1.27" at Pecos, TX, 0.54" at Odessa, TX, 0.45" at Monahans, TX, and 0.36" at Wink, TX. Warm temperatures returned to the region form the 14th-15th with highs mainly in the 70s and 80s across the Permian Basin.

March 16th-31st: March 16th-22nd was extremely warm across west Texas and southeastern New Mexico. A ridge of high pressure built over the region and fostered many new record high temperatures. Midland International Air and Space Port set or tied record high temperatures of 91°F on the 17th, 90°F on the 19th, 94°F on the 20th, 96°F on the 21st, and 91°F on the 22nd. Other notable warm highs during this period were 92°F at Carlsbad, NM and 96°F at Fort Stockton, TX on the 21st, and 103°F in Rio Grande Village on the 22nd. On the 23rd, a Pacific cold front approached the area which prompted the NWS to issue Red Flag and High Wind Warnings. A dryline developed ahead of this cold front and brought very strong winds. The highest wind gusts reported were 83 mph in the Guadalupe Mountains, 72 mph at Mount Locke, 60 mph at Carlsbad, NM, and 57 mph at Midland International Air and Space Port. As the front pushed southward, a thunderstorm accompanied by hail up to quarter size developed after sunset over east Odessa and skirted the north side of Midland. The 24th-27th were breezy days across the region with temperatures near normal as another frontal system crossed the Permian Basin. Fire danger was elevated on the 26th due to very low humidity and gusty winds and in response the NWS issued a Red Flag Warning. A surface low pressure and associated cold front approached from the west on the 28th. A dryline formed along the TX-NM border by early morning and strong winds from the south brought moisture into the region. Thunderstorms developed ahead of the dryline and advanced across west Texas. Some storms were severe and produced hail and even spawned a few small tornadoes in Mitchell, Upton, and Glasscock Counties. Highest rainfall totals included: 2.17" at Snyder, TX, 2.00" at Big Spring, TX, and 1.25" at Colorado City, TX. Winds were very strong behind the cold front and more High Wind and Red Flag Warnings were issued by the NWS. Strongest gusts were: 69 mph at Mt. Fowlkes and Fort Stockton, TX, and 67 mph in Marfa, TX. Temperatures on the 29th were cooler than normal across the region, and a warming trend then occurred from the 30th-31st as temperatures rose well above normal

Large wildfire in Texas Panhandle on March 6th

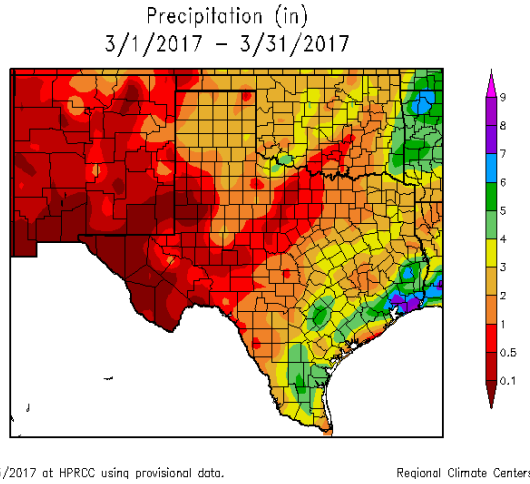
Severe thunderstorm over Monahans, TX on March 11th

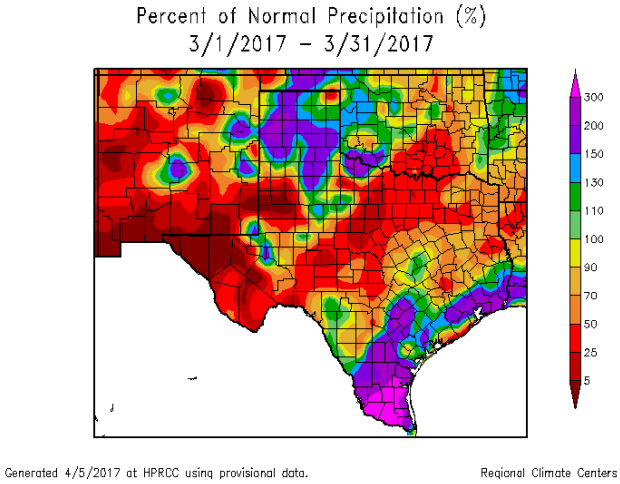


Hail damage to vehicle windshield near Monument, NM on March 11

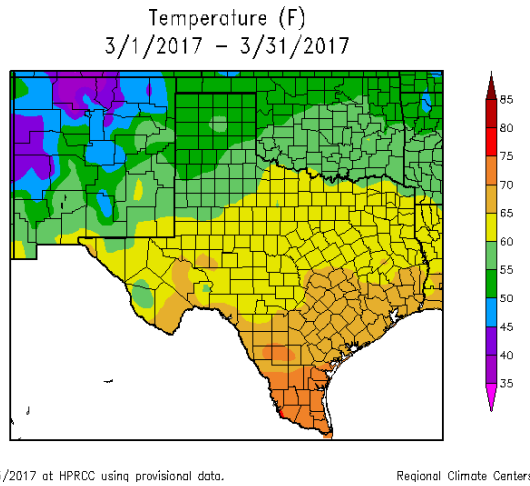
Gustnado moving through Midland, TX on March 28th

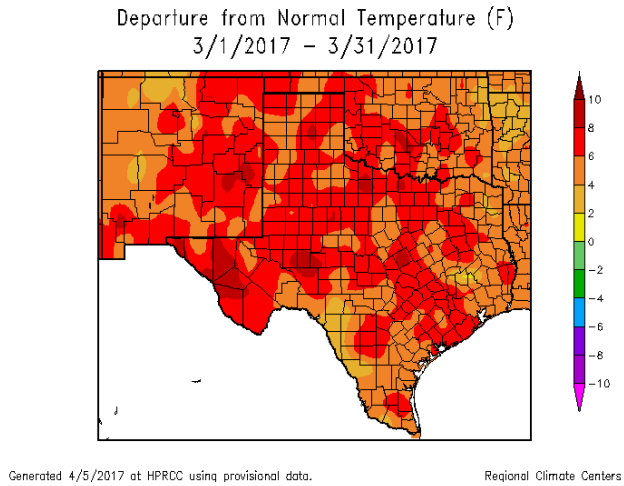
Small tornado near Midkiff, TX on March 28th



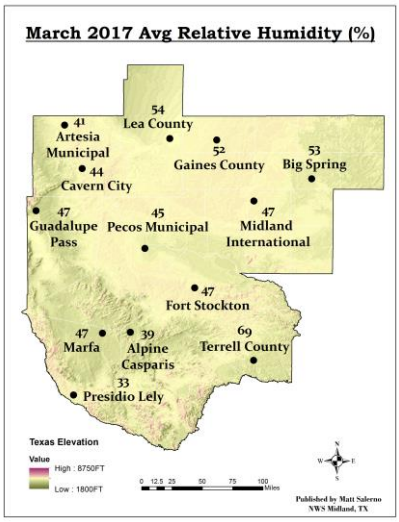


Precipitation amounts in west Texas and southeastern New Mexico ranged from 0.00" to just over 2.00". The wettest areas included Crane, Ector, Glasscock, Scurry and Winkler Counties where precipitation was up to 200% above normal. The driest regions were lower Trans-Pecos and southeastern New Mexico where precipitation was less than 5% below normal.

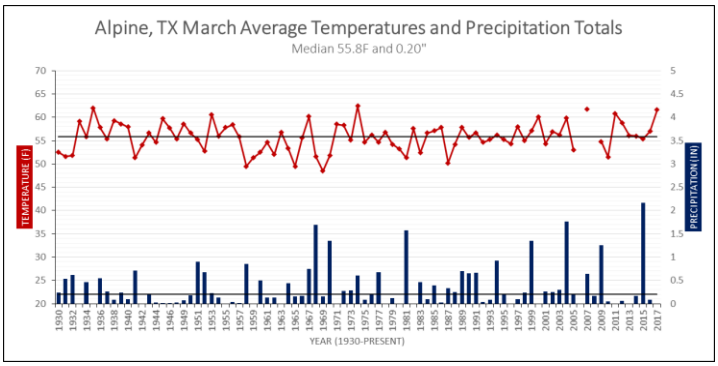


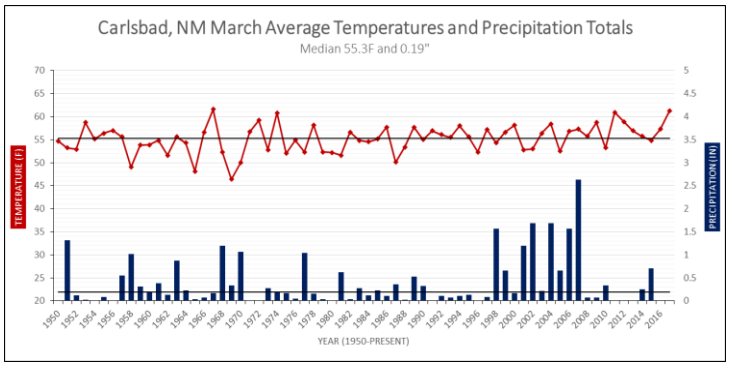


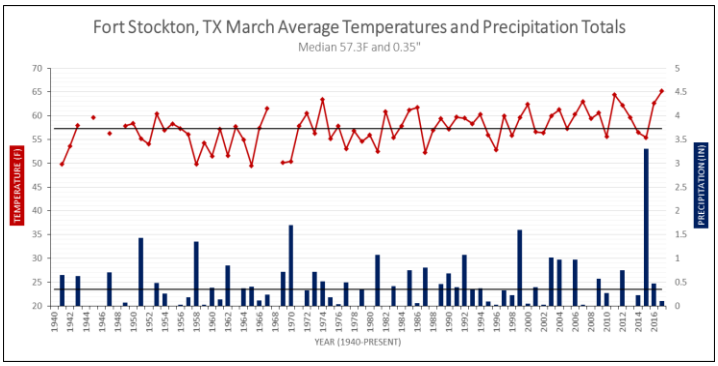
Average temperatures ranged from about 51°F in the Guadalupe Mountains to over 70°F along the Rio Grande River valley. The majority of west Texas was 6-8°F above normal and portions of Culberson, Jeff Davis, Presidio, Reagan and Upton Counties were 8-10°F above normal. Throughout the region, no below average monthly temperatures were present.

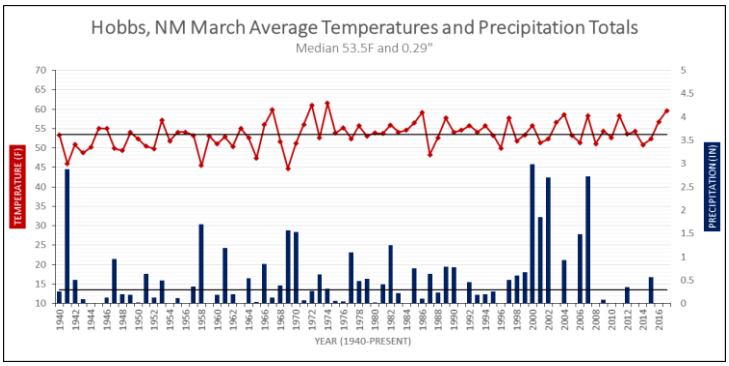


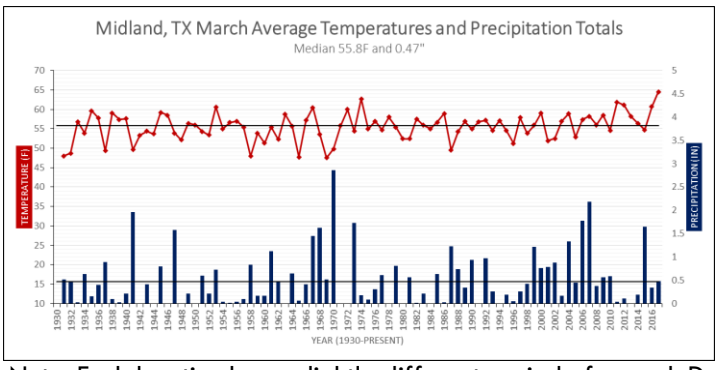
Average wind speeds ranged from 6mph at Pecos to 21mph at Guadalupe Pass. The strongest wind gusts occurred in the Guadalupe Mountains, Fort Stockton, and Marfa. Average relative humidity values ranged from 33-69%.

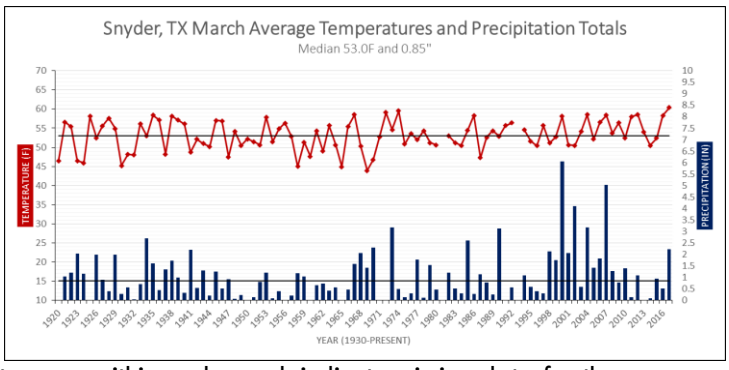












Note: Each location has a slightly different period of record. Data gaps within each graph indicate missing data for those years.

March 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	61.6	+5.8	4th Warmest	Trace	-0.36	T-10th Driest
Carlsbad Airport	61.2	+6.7	2nd Warmest	0.00	-0.37	T-1st Driest
Fort Stockton COOP	65.2	+7.9	1st Warmest	0.10	-0.33	27th Driest
Hobbs COOP	59.6	+6.4	5th Warmest	0.00	-0.52	T-1st Driest
Midland International	64.5	+9.0	1st Warmest	0.48	-0.04	T-36th Wettest
Snyder COOP	60.4	+7.3	2nd Warmest	2.22	+1.16	11th Wettest

The graphs above show March temperature and precipitation records for six individual weather stations at select cities. March included record breaking warmth for many locations in west Texas and southeastern New Mexico. A ridge of high pressure and strong, dry westerly winds were prevalent throughout the month which led to many 90°F + days across the Permian Basin. All six cities noted above recorded their top five warmest March with both Midland and Fort Stockton number one in their periods of record. Midland International Air and Space Port was 9.0°F above normal and the other cities were at least 5°F over normal for the month. Precipitation totals at the six cities ranged from 0.00" to 2.22". The hit and miss nature of the storms can be distinguished by comparing Snyder, one of the wettest spots in west Texas this March, to Alpine, Carlsbad, and Hobbs, which all received little to no rain. In summary, March was extremely warm and dry overall with a few places receiving above normal rainfall.