

Storm Data and Unusual Weather Phenomena - February 2021

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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TEXAS, South Panhandle

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN

02/01/21 00:00 CST		0	Drought
02/28/21 23:59 CST		0	

Drought conditions during the month of February slightly worsened despite some modest moisture coming to the region during the middle of the month. Exceptional drought (D4) to extreme drought (D3) continued for most areas on the caprock and the extreme southwestern Texas Panhandle. An expansion of D3 drought covered a portion of the western Rolling Plains and south-central Texas Panhandle. A historic arctic cold weather outbreak occurred from the 11th through the 19th of February which also brought some significant snowfall to the region. There was some benefit as some of this modest moisture melted and percolated into the upper soil layer. However, the persistent dryness over the previous seven to nine months has remained and actually resulted in a slight worsening of long term drought conditions.

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z038) KING, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA, (TX-Z043) KENT, (TX-Z044) STONEWALL

02/14/21 02:00 CST		0	Winter Storm
02/15/21 11:00 CST		0	

For a few days in mid-February, the South Plains saw some of the coldest air it had observed in a decade. The polar vortex was displaced by a strong ridge of high pressure at the north pole. This allowed the polar vortex to dip down into south-central Canada. Cold air initially began to creep into the region from the northeast beginning the previous week on the ninth. The coldest air came on Valentine's Day into the 15th resulting in very cold wind chills across the entire region. Along with the cold air, a bout of heavy snow began early in the morning of the 14th lasting until early on the 15th. Temperatures rose enough and winds became light enough during the day on the 15th to keep wind chills above -15F. The intense and long-duration cold resulted in significant impacts locally. In addition to keeping roads hazardous, cold weather caused numerous pipes to freeze and burst causing significant property damage. The power grids were also stretched beyond their limit, but blackouts were relatively short-lived and localized around Lubbock. Lubbock Preston Smith International Airport officially dropped below 32F on the evening of the 11th and didn't warm back up above freezing until the 19th resulting in 186 consecutive hours below freezing. Numerous daily record minimum temperatures and record minimum highs were set during this period. The coldest temperature recorded in Lubbock was 0F, which was the lowest temperature recorded in Lubbock since December 1989.

Reported snowfall accumulations from NWS cooperative weather observers follow:

6.5 inches at Friona (Parmer County), 5.8 inches at Muleshoe (Bailey County), 5.0 inches at Happy (Swisher County), 5.0 inches at Guthrie (King County), 5.0 inches at Slaton (Lubbock County), 4.5 inches at Paducah 15S (Cottle County), 4.3 inches at Estelline (Hall County), 4.0 inches at Turkey (Hall County), Paducah 10S (Cottle County), Aspermont (Stonewall County), Jayton (Kent County), Tahoka (Lynn County), Levelland (Hockley County), Dickens (Dickens County), and Roaring Springs (Motley County), 3.8 inches at Floydada 9SE (Floyd County), 3.5 inches at Morton (Cochran County), Plains (Yoakum County), and Hart (Castro County), 3.0 inches at Lake Alan Henry (Garza County), Silverton (Briscoe County), and 2.5 inches at Littlefield (Lamb County).

A list of sub-zero temperatures (F) recorded by the Texas Tech University West Texas Mesonet and National Weather Service cooperative observers during the arctic outbreak follows:

-16 at Friona (Parmer County), -12 at Tulia, Vigo Park, and Happy (Swisher County), -11 at Hart (Castro County), -8 at Silverton (Briscoe County) and Hackberry (Cottle County), -7 at Lake Alan Henry (Garza County), New Home (Lynn County) and Childress (Childress County), -6 at Earth (Lamb County), South Plains (Floyd County), Northfield (Motley County), Roaring Springs (Motley County), Paducah (Cottle County), Jayton (Kent County), Aspermont (Stonewall County), and Olton (Lamb County), -5 at Plainview (Hale County), and Memphis (Hall County), -4 at Abernathy (Hale County), White River Lake (Crosby County), Spur (Dickens County), and Floydada (Floyd County), -3 at Muleshoe (Bailey County), and Post (Garza County), -2 at Amherst (Lamb County), Slaton (Lubbock County), and Tahoka (Lynn County), -1 at Wolfforth (Lubbock County), and Plains (Yoakum County).

A list of observed wind chill values below the -15 degrees (F) local warning criteria per the Texas Tech University West Texas Mesonet follows:

-30 at Friona (Parmer County), -28 at Tulia (Swisher County), -26 at Silverton (Briscoe County), -24 at Hart (Castro County), Aiken and Plainview (Hale County), and South Plains (Floyd County), -23 at Turkey and Memphis (Hall County), and Paducah (Cottle County), -22 at Olton (Lamb County), -21 at Childress (Childress County), and McAdoo (Dickens County), -20 at Roaring Springs (Motley County), and

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Ralls (Crosby County), -19 at Levelland (Hockley County), -18 at Lubbock (Lubbock County), Tahoka (Lynn County), Post (Garza County), and Aspermont (Stonewall County), -17 at Guthrie (King County), -16 at Muleshoe (Bailey County), Sundown (Cochran County), Denver City (Yoakum County), Brownfield (Terry County), and Jayton (Kent County).

(TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z039) YOAKUM, (TX-Z044) STONEWALL

02/16/21 06:00 CST	0	Winter Weather
02/16/21 22:00 CST	0	

A quick moving upper level short wave trough moved from the Four Corners region to northeastern New Mexico during the day and evening of the 16th. Atmospheric temperatures continued to support wintry type precipitation from an arctic outbreak and allowed many areas to accumulate a few inches of snowfall before the end of the day.

Snowfall reports from NWS cooperative weather observers follow:

3.5 inches at Childress (Childress County), 3.0 inches at Denver City (Yoakum County), 3.0 inches at Memphis (Hall County), 2.5 inches at Silverton (Briscoe County), 2.3 inches at Levelland (Hockley County), 2.0 inches at Dimmitt (Castro County), Hart (Castro County), Tulia (Swisher County), Matador (Motley County), Crosbyton (Crosby County), and Plains (Yoakum County), 1.8 inches at Shallowater (Lubbock County), 1.5 inches at Aspermont (Stonewall County), Floydada (Floyd County), Paducah 15S (Cottle County), Plainview (Hale County), Woodrow (Lubbock County), and 1.2 inches at Lubbock Preston Smith International Airport.