

## Storm Data and Unusual Weather Phenomena - October 2020

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-Z026) CHILDRESS, (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-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN

10/01/20 00:00 CST	0	Drought
10/31/20 23:59 CST	0	

Drought conditions remained relatively unchanged through the month. However, most of the month was dry except for the last few days when a significant winter storm affected the region. Exceptional drought (D4) to extreme drought (D3) conditions remained over most of the South Plains and extended into portions of the Rolling Plains by the end of the month. Most of the Rolling Plains ranged from no drought in Stonewall County to moderate drought (D1).

An impactful winter storm affected the entire region from the 25th through late on the 28th. This storm primarily brought beneficial liquid precipitation to the region but also brought extremely cold temperatures for October. Temperatures were on track for an above average month before the winter storm hit. However, temperatures on the order of 25 to 30 degrees below seasonal averages brought down the monthly mean just below average for most areas. Over the course of the four days, mostly freezing rain and sleet impacted the South Plains and Rolling Plains with snowfall in the extreme southwestern Texas Panhandle. The Rolling Plains generally saw a liquid equivalent between one and two inches. Elsewhere, between 0.5 inches to 1.0 inch was observed. The freezing rain and sleet added some moisture to the top two inches of soil in some places, however, this moisture was minimal and quickly dried up. Overall, soil moisture continued to rank in the first percentile.

(TX-Z025) HALL, (TX-Z029) HALE

10/22/20 18:28 CST	0	High Wind (MAX 58 kt)
10/22/20 22:40 CST	0	

On the afternoon into the evening of the 22nd, a short wave aloft initiated scattered thunderstorms over the central South Plains and Rolling Plains. After the thunderstorm activity departed, a weak heat burst occurred in Hale County at the Texas Tech University West Texas mesonet site near Abernathy. Temperatures increased three Fahrenheit degrees along with a peak wind gust of 67 mph. Later in the evening, a strong cold front moved through the region. A severe wind gust of 60 mph was observed at the mesonet near Turkey (Hall County).

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA

10/25/20 18:00 CST	0	Winter Storm
10/28/20 22:00 CST	0	

(TX-Z026) CHILDRESS, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z037) DICKENS, (TX-Z038) KING, (TX-Z043) KENT, (TX-Z044) STONEWALL

10/25/20 20:00 CST	0	Ice Storm
10/28/20 22:00 CST	0	

A significant ice storm affected most of the Rolling Plains along with significant accumulations of ice and snow on the South Plains over a four-day period from the 25th through the 28th. Unseasonably warm temperatures preceded this event. Temperatures rapidly dropped on the 25th behind a strong cold front and continued to steadily drop through the evening and overnight hours. Temperatures fell below the freezing mark across the southern Texas Panhandle on the evening of the 25th. The freezing line advanced southward through the South Plains and Rolling Plains through early Monday morning. As this occurred, an upper level low was moving southward into southwestern United States advecting warm and moist air above the shallow cold air.

Three rounds of wintry precipitation occurred over the four-day period. The first round of precipitation began behind the initial cold surge from late on the 25th through the morning of the 26th due to a passing upper level disturbance overhead. Areas of drizzle and freezing drizzle caused a light glaze to accumulate on exposed surfaces, making bridges and overpasses slick, contributing to numerous vehicle wrecks. Scattered freezing rain and sleet showers accompanied by lightning also developed early on the 26th mostly affecting the eastern South Plains and all of the Rolling Plains. The wintry mix diminished and moved east by the afternoon of the 26th. In addition to the wintry precipitation, record low temperatures were set across the region. On the afternoon of the 26th, a fatal aircraft crash occurred near 37th Street and Ave A in the city of Lubbock (Lubbock County) due to severe aircraft icing. Also on the 26th, a fatal car wreck occurred in Swisher County about seven miles northwest of Kress along Farm to Market Road 928. A male from Plainview was killed in the car wreck while a Tulia male was injured.

The next round of wintry precipitation occurred early in the morning of the 27th. This activity produced more bursts of thundersleet and freezing rain with more widespread lightning, as surface temperatures remained in the 20s. Accumulating ice became more widespread with this activity. A lull in the wintry precipitation occurred during the afternoon of the 27th but did not last long with the

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main upper level storm system affecting the region beginning during the evening. Widespread precipitation activity then spread to areas off the caprock by early in the morning of the 28th. Widespread and heavy icing developed under this precipitation shield creating hazardous travel and downing many tree limbs and power lines. Sleet did begin to change to snow across the western South Plains and southwestern Texas Panhandle as colder air aloft moved overhead. A final band of snowfall developed underneath the wrap-around portion of the upper level low. This brought an additional one to two inches of snowfall in the southwestern Texas Panhandle.

Generally between 0.25 and 0.50 inches of ice accumulated in areas off the caprock. These counties include Childress, Cottle, Motley, King, Dickens, Stonewall, and Kent. The highest snowfall totals were reported in Muleshoe (Bailey County) with 5.0 inches and at Friona (Parmer County) with 4.6 inches. All other areas received total ice, sleet, and snow accumulations between 0.5 inches and 4.0 inches. Additionally, the ice storm caused widespread damage to the Texas Tech University West Texas mesonet sites.



*A sleet and ice cover Jones AT&T Stadium at Texas Tech University on 27 October 2020. The image is courtesy of Texas Tech Football.*