

Storm Data and Unusual Weather Phenomena - February 2022

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

(TX-Z021) PARMER, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z038) KING

02/01/22 00:00 CST	0	Drought
02/28/22 23:59 CST	0	

Extreme drought (D3) conditions remained nearly unchanged during the month of February. Parmer County in the extreme southwestern Texas Panhandle was added to D3 drought conditions. Moderate (D1) to Severe (D2) drought conditions were observed elsewhere across the remainder of the region.

These drought conditions were strongly tied to a mature moderate strength La Niña over the tropical eastern Pacific Ocean. Several drier than average months have led to these conditions. The latest three month precipitation amounts continued to range from 5% to 25% of normal. A minor winter weather event occurred around February 4-5 which brought mostly light snowfall to the region. Heavy snowfall was observed in the southern Rolling Plains with light snowfall elsewhere. February also saw a few days of extremely cold temperatures around this same time frame with some locations observing their coldest temperatures in nearly 30 years. However, the months of December, January, and February are the peak of the dry season. There are few agricultural impacts this time of year with most of the area cotton already harvested. However, winter wheat has been very poor to this date. Furthermore, livestock was being fed supplemental feed due to poor native grasslands.

(TX-Z031) MOTLEY, (TX-Z038) KING, (TX-Z043) KENT, (TX-Z044) STONEWALL

02/02/22 06:00 CST	0	Winter Storm
02/03/22 21:00 CST	0	

(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-Z032) COTTLE, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA

02/02/22 08:00 CST	0	Winter Weather
02/03/22 21:00 CST	0	

A broad fetch of Pacific moisture streamed over much of Texas ahead of a broad mid-upper level trough gradually approaching via the Rockies. Precipitation developed on the second as the moisture was lifted up and over invading cold air. Where temperatures were "warm" enough, rain changed to freezing rain, then sleet across parts of the Rolling Plains and points south and east from there during the day on the second. Farther west, where the cold air was more entrenched, areas of snow developed and spread northeastward across parts of the South Plains and Texas Panhandle. By the evening of the second, it was cold enough that snow was the dominate mode across all of the South Plains and Rolling Plains. Areas of snow continued, off and on, through the morning of the third. Temperatures continued to fall, bottoming out in the single digits and early teens early Thursday, which when combined with northerly winds sustained near 20 mph, made it feel like 0 to -15 degrees or colder. In addition to the cold, a band of light to moderate snow developed across the southwest Texas Panhandle and northwest South Plains on the morning of the third, then slowly spread southeastward through the afternoon hours, bringing additional light accumulations. The snow finally tapered off on the evening of the third, but not before dropping widespread one to three inch totals. The heaviest sleet and snow (including a glaze of ice early on) impacted the southern Rolling Plains, where three to five inches were common.

Highest snowfall amounts per County are listed below from NWS Cooperative weather observers:

- 5.1 inches at Matador (Motley County),
- 4.0 inches at Jayton (Kent County),
- 4.0 inches at Guthrie (King County),
- 3.5 inches at Floydada (Floyd County),
- 3.1 inches at Childress (Childress County),
- 3.0 inches at Paducah 15S (Cottle County),
- 3.0 inches at Dimmitt (Castro County),
- 2.8 inches at Aspermont (Stonewall County),
- 2.7 inches at Abernathy (Hale County),
- 2.5 inches at Turkey (Hall County),
- 2.5 inches at Tahoka (Lynn County),
- 2.1 inches at Spur (Dickens County),
- 2.0 inches at Silverton (Briscoe County),
- 2.0 inches at White River Lake (Crosby County),
- 2.0 inches at Denver City (Yoakum County),
- 1.9 inches at Slaton (Lubbock County),
- 1.8 inches at Tulia (Swisher County),

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1.5 inches at Post (Garza County),
 1.4 inches at Olton (Lamb County), and
 1.3 inches at Levelland (Hockley County).

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z025) HALL, (TX-Z027) BAILEY, (TX-Z028) LAMB

02/12/22 02:00 CST	0	Winter Weather
02/12/22 09:00 CST	0	

A cold front pushed through the region early on the 11th which brought the necessary colder temperatures for wintry precipitation. An upper level short wave trough moved from Colorado into the Texas Panhandle early in the morning of the 12th. As this wave moved over the area, it provided enough lift to develop wintry precipitation over the southern Texas Panhandle. Early on in the event on the 12th, the lower atmosphere was relatively dry, therefore the onset of precipitation was delayed until saturation occurred. However, only light accumulations of snow were noted with values generally around one inch.

Snowfall totals below are from NWS cooperative weather observers:

1.5 inches at Dimmitt (Castro County), 1.0 inch at Muleshoe (Bailey County), Friona (Parmer County), Vigo Park (Swisher County), Turkey (Hall County), and Olton (Lamb County).

(TX-Z023) SWISHER, (TX-Z034) HOCKLEY

02/16/22 19:10 CST	0	High Wind (MAX 50 kt)
02/16/22 20:24 CST	0	

Widespread high based rain showers developed in advance of a strong upper level storm system on the afternoon of the 16th. Some isolated thunder showers mixed in with the rain showers but updrafts were too weak for longer lived thunder activity. Lower levels of the atmosphere were generally dry which allowed most precipitation to evaporate before reaching the surface. As a result, strong winds were able to reach the surface and generate severe wind gusts.

Severe wind gusts were reported by the Texas Tech University West Texas mesonet are below:

58 mph at Anton (Hockley County) and Tulia (Swisher County).

(TX-Z023) SWISHER, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z028) LAMB, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z044) STONEWALL

02/21/22 12:23 CST	0	High Wind (MAX 59 kt)
02/21/22 17:59 CST	0	

A potent short wave trough approaching from the west was able to provide abundant mid and high level moisture overhead. Strong winds aloft were able to mix down to the surface during the afternoon despite the cloud cover. As the short wave passed overhead late in the afternoon, scattered virga showers developed under weak instability. Momentum transfer to the surface from the virga showers combined with the already strong surface winds to create isolated wind gusts across the South Plains and Rolling Plains.

High wind reports below are from the Texas Tech University West Texas mesonet:

68 mph at Floydada (Floyd County),
 64 mph at Olton (Lamb County),
 60 mph at Roaring Springs (Motley County),
 60 mph at Aspermont (Stonewall County),
 60 mph at Childress (ASOS, Childress County),
 59 mph at Vigo Park (Swisher County),
 58 mph at Turkey (Hall County), and
 58 mph at Amherst (Lamb County).

(TX-Z032) COTTLE, (TX-Z037) DICKENS, (TX-Z041) LYNN, (TX-Z044) STONEWALL

02/23/22 03:00 CST	0	Winter Weather
02/23/22 06:30 CST	0	

A weak short wave approached the region early in the morning of the 23rd above a shallow but very cold near surface layer. A non-zero amount of instability was present in the atmosphere with an elevated mixed layer above the cold air dome. Moist air surged northward above the cold air and combined with lift from the short wave, created thunderstorms. However, the cold air near the surface froze the precipitation into sleet before reaching the surface. Several locations saw sleet accumulate over the course of an hour or two. Sleet accumulations generally ranged from 1 to 1.5 inches.

Sleet accumulations were reported by local law enforcement and NWS cooperative weather observers:

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1.5 inches at Tahoka (Lynn County), 1.0 inch at Dickens (Dickens County), 1.0 inch at Paducah (Cottle County), and 0.8 inches at Aspermont (Stonewall County).				