

## Storm Data and Unusual Weather Phenomena - March 2022

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-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z038) KING, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA, (TX-Z043) KENT, (TX-Z044) STONEWALL

03/01/22 00:00 CST	0	Drought
03/31/22 22:59 CST	0	

The long term drought struck with a vengeance during the month of March with very little rainfall. This was reflected in the US drought monitor by the end of the month. Exceptional drought (D4) had encompassed much of Childress and Cottle Counties. Extreme drought (D3) expanded over the remainder of the Rolling Plains and onto several counties on the South Plains and extreme southwestern Texas Panhandle. Severe (D2) drought conditions were observed over a smaller portion of the South Plains and extreme south-central Texas Panhandle.

The ongoing drought was strongly tied to a mature moderate strength La Niña over the tropical eastern Pacific Ocean. Effects of the drought were obvious through the month of March. There were numerous strong to high wind events which created widespread blowing dust throughout the South Plains. Additionally, there were numerous small wildfire starts throughout the entire region. However, a strong initial attack from the Texas Forest Service were able to suppress many of these wildfires. Observed fuels continued to be extremely to critically dry with ERC values consistently greater than the 90th percentile. Soil moisture content continued to decline with very few fields having subsoil moisture. Most of the region saw between zero and ten percent of normal precipitation in March. The extreme southern Texas Panhandle saw a rain event which brought much needed rainfall but not enough rain to improve drought conditions.

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z025) HALL, (TX-Z027) BAILEY, (TX-Z029) HALE

03/11/22 05:00 CST	0	Winter Weather
03/11/22 10:00 CST	0	

Colder surface air moved into the region on the morning of the 10th bringing temperatures well below seasonal averages for early March. An elongated positively tilted upper level trough extending from Arizona into the Dakotas tracked across West Texas on the 11th. Early in the morning of the 11th, a narrow band of frontogenesis combined with mid-level moisture to create a quick moving band of precipitation moving from northwest to southeast. Although total snowfall amounts were light across the extreme southwestern Texas Panhandle, snowfall rates around one inch per hour were common within this snow band.

Snowfall reports were from a collection of NWS cooperative weather observers and local law enforcement:

1.5 inches at Friona (Parmer County),  
 1.0 inch at Dimmitt (Castro County),  
 1.0 inch at Hart (Castro County),  
 1.0 inch at Plainview (Hale County), and  
 1.0 inch at Turkey (Hall County).

(TX-Z032) COTTLE, (TX-Z035) LUBBOCK

03/17/22 17:24 CST	0	High Wind (MAX 52 kt)
03/17/22 19:26 CST	0	

A powerful storm system emerging from the four corners over the southern High Plains provided strong winds and widespread blowing dust on the 17th. Gusty and dusty westerly winds developed in the morning across the southern South Plains, ahead of a cold front. Even stronger northwesterly winds followed the cold front, which swept across the South Plains during the afternoon hours. Wind gusts peaked in the 45 to 55 mph range at most spots Thursday afternoon and evening. The robust and persistent wind lofted copious amounts of dust, dropping the visibility below three miles at many locations for a couple of hours. The visibility at Lubbock officially dropped as low as 2.5 miles as the wind gusted to 57 mph.

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

60 mph at Paducah (Cottle County), 58 mph at Slaton (Lubbock County), and 58 mph at Lubbock Preston-Smith International Airport ASOS (Lubbock County).

(TX-Z022) CASTRO, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z028) LAMB, (TX-Z031) MOTLEY, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z037) DICKENS

03/21/22 20:27 CST	0	High Wind (MAX 60 kt)
03/22/22 15:12 CST	0	

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The approach and passage of a large and slow-moving upper level storm system provided a prolonged multi-day event of high winds across the South Plains, Rolling Plains, and extreme southern Texas Panhandle. A strong cold front moved through the area on the afternoon and evening of the 21st which brought intense northerly winds. High based virga showers combined with the strong winds at the surface behind the front to create widespread high wind gusts from the evening of the 21st through the afternoon of the 22nd. The most intense winds were located in the extreme southeastern Texas Panhandle where high winds were observed for several hours both in the evening of the 21st and early morning hours of the 22nd.

High wind gusts below are from the Texas Tech University West Texas mesonet and ASOS:

69 mph at Turkey (Hall County),  
 66 mph at Childress Municipal Airport ASOS (Childress County),  
 66 mph at Caprock Canyons State Park (Briscoe County),  
 65 mph at Silverton (Briscoe county),  
 65 mph at Memphis (Hall County),  
 62 mph at Lesley (Hall County),  
 62 mph at Lubbock Preston Smith International Airport ASOS (Lubbock County),  
 61 mph at Levelland (Hockley County),  
 60 mph at Childress (Childress County),  
 59 mph at McAdoo (Dickens County),  
 59 mph at Hart (Castro County),  
 58 mph at Roaring Springs (Motley County), and  
 58 mph at Olton (Lamb County).

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(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z028) LAMB, (TX-Z034) HOCKLEY, (TX-Z036) CROSBY	03/23/22 13:36 CST	0	High Wind (MAX 56 kt)
	03/23/22 15:18 CST	0	

The approach and passage of a large and slow-moving upper level storm system provided a prolonged multi-day event of high winds across the South Plains, Rolling Plains, and extreme southern Texas Panhandle from the 21st through the 23rd. Scattered high-based showers moved over the area on the 23rd as a final upper level impulse streamed overhead. These sprinkles and showers provided very little in the way of moisture at ground level, but did help enhance the wind, producing gusts near and over 60 mph at several sites on the Caprock.

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

65 mph at Olton (Lamb County),  
 60 mph at Tulia (Swisher County),  
 60 mph at Happy (Swisher County),  
 59 mph at White River Lake (Crosby County),  
 59 mph at Friona (Parmer County),  
 58 mph at Anton (Hockley County), and  
 58 mph at Hart (Castro County).

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(TX-Z022) CASTRO	03/29/22 00:02 CST	0	High Wind (MAX 60 kt)
	03/29/22 00:03 CST	0	

An approaching upper level storm system brought widespread high winds to the region on the afternoon and evening of the 29th. However, in the early morning hours of the 29th, isolated showers developed ahead of this system. One of these high based rain showers developed a heat burst at a Texas Tech University mesonet near Hart. The mesonet recorded a maximum wind gust of 69 mph at 1202 CST along with a five degree Fahrenheit temperature increase. Additionally, the surface dew point rose about four degrees Fahrenheit due to the extremely dry air at the surface.

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(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z026) CHILDRESS, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z030) FLOYD, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z039) YOAKUM	03/29/22 11:25 CST	0	High Wind (MAX 60 kt)
	03/30/22 08:53 CST	0	

The approach and passage of a large and intense storm system brought another round of wind and dust to the South Plains and Rolling Plains on the 29th. The winds increased beginning early in the afternoon as the system ejected from the central and southern Rockies into the High Plains. Southwesterly to westerly winds gusting to 55 mph and higher spread eastward over much of the Caprock during the afternoon and evening hours. The strongest winds, in excess of 65 mph, affected the western South Plains into the south-central Texas Panhandle, generally peaking between 1300 CST and 1800 CST. Copious amounts of blowing dust were lifted by the winds and

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spread northeastward across the region. On the back side of the system on the morning of the 30th, virga showers generated one additional high wind report at Childress.

Wind gusts below were reported by the Texas Tech University West Texas mesonet:

69 mph at Morton (Cochran County),  
68 mph at Tulia (Swisher County),  
65 mph at Olton (Lamb County),  
65 mph at Levelland (Hockley County),  
63 mph at Silverton (Briscoe County),  
63 mph at Anton (Hockley County),  
61 mph at Childress Municipal Airport (Childress County),  
60 mph at Lubbock Preston Smith International Airport ASOS (Lubbock County),  
59 mph at Amherst (Lamb County),  
59 mph at Plainview (Hale County),  
58 mph at Abernathy (Hale County), and  
58 mph at Dimmitt (Castro County).

Maximum sustained winds below are from the Texas Tech University West Texas mesonet:

48 mph at Lesley (Hall County),  
43 mph at Turkey (Hall County),  
42 mph at South Plains (Floyd County),  
42 mph at Plains (Yoakum County),  
42 mph at Denver City (Yoakum County), and  
42 mph at Friona (Parmer County).