

Storm Data and Unusual Weather Phenomena - January 2021

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

(TX-Z026) CHILDRESS, (TX-Z041) LYNN, (TX-Z042) GARZA				
	01/01/21 00:00 CST		0	Winter Storm
	01/01/21 06:00 CST		0	

(TX-Z030) FLOYD, (TX-Z031) MOTLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z038) KING, (TX-Z043) KENT, (TX-Z044) STONEWALL				
	01/01/21 00:00 CST		0	Winter Weather
	01/01/21 05:00 CST		0	

A strong upper level low which brought thunderstorms and snow to the region on the 29th and 30th of December finally moved northeastward out of northern Mexico on the 31st. Following the precipitation on the 30th, a notable dry layer aloft moved overhead delaying the start of precipitation on the 31st until the afternoon and evening hours. Most areas on the South Plains were unable to moisten up enough to experience accumulating snowfall. Although this dry air reduced the amount of precipitation that made it to the ground, it promoted evaporative cooling, which allowed temperatures to quickly drop to and below freezing. This kept most of the precipitation in the form of snow and sleet. The snow quickly diminished from southwest to northeast early in the morning on 1 January. A widespread area of snowfall of two to three inches fell over the Rolling Plains and portions of the eastern South Plains. A narrow snow band developed over Garza County which produced up to 8.5 inches of snowfall. Note that this event began on 31 December and ended on 1 January.

Snowfall reports are from NWS cooperative weather observers, social media, and law enforcement:

8.5 inches at Post (Garza County), 6.0 inches at Lake Alan Henry (Garza County), 4.5 inches at Childress (Childress County), 4.0 inches at Tahoka (Lynn County), 3.5 inches at Slaton (Lubbock County), 3.5 inches at Jayton (Kent County), 3.0 inches at Matador (Motley County), 3.0 inches at Crosbyton (Crosby County), 2.5 inches at Dickens (Dickens County), 2.0 inches at Floydada (Floyd County), 1.6 inches at Aspermont (Stonewall County), and 1.0 inches at Guthrie (King County).

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN				
	01/01/21 00:00 CST		0	Drought
	01/31/21 23:59 CST		0	

Drought conditions made another slight improvement through the month of January with several significant precipitation events. Drought levels made improvements over all of the South Plains, Rolling Plains, and extreme southern Texas Panhandle. Exceptional drought (D4) was reduced from the western South Plains just to the extreme southwestern Texas Panhandle. Extreme drought (D3) conditions remained over a majority of the South Plains. Most of the Rolling Plains remained in abnormally dry (D0) to moderate drought (D1).

A number of significant precipitation events occurred during the month of January. A strong upper level storm system dived into northern Mexico which initially brought a line of thunderstorms to the eastern South Plains and Rolling Plains on the 29th. This strong upper level storm system moved out over central Texas producing widespread snowfall that began on December 31st and came to an end on January 1st across the Rolling Plains and portions of the eastern South Plains. Widespread snowfall of two to four inches was observed with isolated amounts up to 8.5 inches. The next winter storm occurred from the 9th into the 10th. The southern South Plains and southern Rolling Plains saw the most snow from this system with 11 inches at Denver City. Much of the South Plains and Rolling Plains saw widespread 4-7 inches of snowfall from this storm while the extreme southern Texas Panhandle observed 1-3 inches. A third precipitation event occurred on the 24th. A broken line of thunderstorms including one severe storm moved across the region dumping from one half inch to 1.5 inches of rainfall.

(TX-Z024) BRISCOE, (TX-Z025) HALL, (TX-Z030) FLOYD, (TX-Z031) MOTLEY, (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				
	01/09/21 22:00 CST		0	Winter Storm
	01/10/21 19:00 CST		0	

(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z023) SWISHER, (TX-Z026) CHILDRESS, (TX-Z027) BAILEY, (TX-Z028) LAMB, (TX-Z029) HALE, (TX-Z032) COTTLE				
	01/09/21 23:00 CST		0	Winter Weather
	01/10/21 19:00 CST		0	

A major winter storm impacted the South Plains, Rolling Plains, and extreme southern Texas Panhandle from late on the 9th through the

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10th. A strong upper level low pressure system moved to the southeast across the Intermountain West on the 9th emerging in New Mexico late in the evening. The system then tracked into southeastern New Mexico and eastward on the 10th. Snow began late on the 9th in the western South Plains and spread eastward early on the 10th. As the upper level system moved away from the area late on the 10th, lingering light snow continued into late in the afternoon tapering off from west to east. The largest swath of heavy snow fell across the southwestern South Plains. This storm system brought a larger swath of heavy snow to Colorado, Texas, Oklahoma, Louisiana, and Mississippi.

Snowfall reports are from NWS cooperative weather observers:

11.0 inches at Denver City (Yoakum County), 9.0 inches at Post (Garza County), 8.0 inches at Tahoka (Lynn County), 7.6 inches at Lubbock International Airport (Lubbock County), 7.0 inches at Plains (Yoakum County), 7.0 inches at Jayton (Kent County), 7.0 inches at Crosbyton (Crosby County), 7.0 inches at Spur (Dickens County), 7.0 inches at Brownfield (Terry County), 7.0 inches at White River Lake (Crosby County), 6.0 inches at Ropesville (Hockley County), 5.3 inches at Levelland (Hockley County), 5.0 inches at Matador (Motley County), 5.0 inches at Floydada (Floyd County), 5.0 inches at Aspermont (Stonewall County), 4.0 inches at Guthrie (King County), 4.0 inches at Silverton (Briscoe County), 4.0 inches at Turkey (Hall County), 3.9 inches at Shallowater (Lubbock County), 3.5 inches at Vigo Park (Swisher County), 3.0 inches at Levelland (Lamb County), 3.0 inches at Hart (Castro County), 3.0 inches at Olton (Lamb County), 2.5 inches at Muleshoe (Bailey County), 2.5 inches at Dimmitt (Castro County), 2.5 inches at Friona (Parmer County), 2.5 inches at Tulia (Swisher County), 1.9 inches at Plainview (Hale County), 1.5 inches at Tell (Childress County), and 1.0 inch at Childress (Childress County).



Heavy snow blanketing Brownfield on the morning of 10 January. The picture is courtesy of David Drummond.

(TX-Z023) SWISHER, (TX-Z025) HALL

01/14/21 04:58 CST	0	High Wind (MAX 55 kt)
01/14/21 06:44 CST	0	

Early in the morning on the 14th, a strong cold front moved through the region. Very strong winds aloft were able to mix down to the surface along with strong pressure rises behind the cold front.

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

63 mph at Lesley (Hall County), 61 mph at Memphis (Hall County), and 58 mph at Tulia (Swisher County).

LYNN COUNTY --- 1.1 N NEW MOORE [33.04, -102.03], 5.3 NNW DRAW [33.10, -101.69]

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	01/24/21 23:00 CST		0	Hail (2.25 in)
	01/24/21 23:21 CST		0	Source: COOP Observer

A large swath of hail began near New Moore near the intersection of Farm to Market Roads 213 and 179. The hail tracked to the east-northeast across Lynn County crossing US Highway 87 ending to the northeast of the intersection of Farm to Market Roads 3332 and 2956. The size of the hail varied from golf ball size near New Moore to tennis ball size east of US Highway 87. Extensive damage was also reported the next day from this hail storm including damage to vehicles and farm equipment. It was also reported that 302 birds were killed by the hail.

An unusual January severe storm occurred late on the 24th in Lynn County. Warm and moist air was drawn up into the region from the south in response to an approaching upper level storm system in the southwestern United States. As a result, a broken line of thunderstorms developed from northeast to southwest and moved eastward late in the evening. Many of these storms dropped small hail but one in Lynn County became severe producing hail up to the size of billiard balls. Numerous reports of property and crop damage were received, as well as a report of numerous wildlife deaths.

(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-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z040) TERRY, (TX-Z042) GARZA

01/30/21 08:39 CST	0	High Wind (MAX 59 kt)
01/30/21 14:50 CST	0	

(TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK

01/30/21 11:00 CST	0	Dust Storm
01/30/21 13:00 CST	0	

A powerful upper level storm system which brought several feet of snow to the Sierra Nevada mountains of California also brought widespread high winds to the South Plains and extreme southern Texas Panhandle. This system quickly accelerated as it moved across the Intermountain West emerging onto the High Plains early in the morning of the 30th. Strong winds aloft, already in place over the region early in the morning, quickly mixed down to the surface after sunrise. Most of the South Plains and extreme southern Texas Panhandle saw wind gusts in excess of 58 mph or sustained winds exceeding 40 mph during the morning to early afternoon hours. As the upper level storm system pulled away from the region during the afternoon, winds diminished through the afternoon hours. The strong winds also brought widespread blowing dust which reduced visibilities to under one mile at times. In Hockley and Lubbock Counties, visibility was reduced to near zero in some locations.

High wind gusts per county are from the Texas Tech University West Texas mesonet:

68 mph at Reese Center (Lubbock County), 64 mph at Ralls (Crosby County), 64 mph at Roaring Springs (Motley County), 62 mph at McAdoo (Dickens County), 61 mph at Littlefield (Lamb County), 61 mph at Levelland (Hockley County), 61 mph at Graham (Garza County), 60 mph at Turkey (Hall County), 60 mph at Abernathy (Hale County), 60 mph at Floydada (Floyd County), 59 mph at Brownfield (Terry County), 58 mph at Morton (Cochran County), 58 mph at Caprock Canyons State Park (Briscoe County), and 58 mph at Hackberry (Cottle County).

Sustained high wind reports per county from the Texas Tech University West Texas mesonet are below:

45 mph at Vigo Park (Swisher County), 42 mph at Dimmitt (Castro County), and 42 mph at Muleshoe (Bailey County).

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Photograph of thick blowing dust in Hockley County showing zero visibility. Photo is courtesy of Mike Hill.