

Storm Data and Unusual Weather Phenomena - March 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-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN				
	03/01/21 00:00 CST		0	Drought
	03/31/21 22:59 CST		0	

Some areas saw improvement in drought conditions through the month of March while other areas continued to see exceptional drought (D4) conditions. The central and eastern South Plains as well as the western Rolling Plains and extreme south-central Texas Panhandle saw drought conditions improve. The western South Plains and extreme southwestern Texas Panhandle continued to see very little rainfall through the month of March and no improvement. A few significant precipitation events occurred in March along with severe weather on the 12th, 13th, and 22nd. These events generally brought between one and two inches of rainfall over a widespread area. This greatly improved soil moisture levels where it did rain. However, topsoil moisture levels were still very low in the western South Plains into the extreme southwestern Texas Panhandle.

HALE COUNTY --- 1.9 N COUNTYLINE [33.85, -102.03]

03/12/21 16:55 CST	0	Hail (1.00 in)
03/12/21 16:55 CST	0	Source: Storm Chaser

A storm chaser reported quarter size hail near the intersection of Farm to Market road 179 and County Road 320 in Hale County.

LUBBOCK COUNTY --- 5.7 W CALDWELL [33.76, -102.02], 4.8 W CALDWELL [33.78, -102.00]

03/12/21 17:05 CST	0	Tornado (EFU, L: 1.34 mi , W: 100 yd)
03/12/21 17:10 CST	0	Source: Trained Spotter

A trained spotter observed a brief tornado lasting for five minutes about five miles north of Shallowater. No damage was reported.

HALE COUNTY --- 2.7 N PETERSBURG [33.91, -101.59]

03/12/21 18:07 CST	0	Hail (2.50 in)
03/12/21 18:07 CST	0	Source: Public

A report was received of hail up to tennis ball size around two to three miles north of Petersburg.

DICKENS COUNTY --- 3.0 NNW MC ADOO [33.77, -101.00]

03/12/21 18:56 CST	0	Thunderstorm Wind (MG 56 kt)
03/12/21 18:59 CST	0	Source: Mesonet

A Texas Tech University West Texas mesonet site near McAdoo measured severe wind gusts from 1856 CST through 1859 CST. A peak wind of 64 mph was measured at 1857 CST.

DICKENS COUNTY --- 1.0 S GLENN [33.77, -100.85]

03/12/21 19:19 CST	0	Thunderstorm Wind (EG 56 kt)
03/12/21 19:19 CST	0	Source: Storm Chaser

A storm chaser reported that several utility poles were downed and snapped near the intersection of Farm to Market Road 193 and Texas State Highway 70 associated with rear flank downdraft winds.

COTTLE COUNTY --- 9.3 SSE NARCISSO [33.88, -100.40], 9.4 SSE NARCISSO [33.88, -100.39]

03/12/21 20:16 CST	0	Tornado (EFU, L: 0.23 mi , W: 50 yd)
03/12/21 20:18 CST	0	Source: Storm Chaser

A storm chaser observed a brief tornado about 11 miles south-southwest of Paducah.

COTTLE COUNTY --- 8.6 SSE NARCISSO [33.89, -100.40], 6.2 W CHALK [33.90, -100.33]

03/12/21 20:17 CST	0	Hail (1.75 in)
03/12/21 20:38 CST	0	Source: Storm Chaser

A swath of hail up to golf ball size occurred from a Texas Tech University West Texas mesonet ten miles southwest of Paducah to US Highway 83 seven miles south of Paducah.

The first of a multi day tornado event occurred on the evening of the 12th. A slow moving upper level low was located over southern California moving into Arizona. Ample moisture surged northward east of a dryline leading to mixed layer instability values on the order

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of 1000-1500 J/kg underneath very steep mid-level lapse rates. This strong buoyancy led to extremely tall storms which produced large hail up to tennis ball size. Damage to a Texas Tech University West Texas mesonet site occurred near Paducah (Cottle County). Very strong shear near an intersection of the dryline and a quasi-stationary front led to two tornadoes during the evening. The first was in Lubbock County just north of Shallowater. The second tornado occurred in rural southwestern Cottle County. No damage was known to be caused by the tornadoes.

CASTRO COUNTY --- 8.0 NW HART [34.46, -102.22]

	03/13/21 14:38 CST	0	Hail (1.25 in)
	03/13/21 14:38 CST	0	Source: Storm Chaser

A storm chaser reported hail up to half dollar size between Hart and Dimmitt.

CASTRO COUNTY --- 3.3 WSW NAZARETH [34.53, -102.15], 2.5 SW NAZARETH [34.53, -102.13]

	03/13/21 14:55 CST	0	Tornado (EFU, L: 0.92 mi , W: 20 yd)
	03/13/21 14:57 CST	0	Source: Storm Chaser

A storm chaser documented a brief tornado southwest of Nazareth.

SWISHER COUNTY --- 8.0 WSW HAPPY [34.71, -101.99], 5.1 WNW HAPPY [34.75, -101.94]

	03/13/21 15:15 CST	0	Tornado (EF1, L: 4.05 mi , W: 377 yd)
	03/13/21 15:26 CST	0	Source: NWS Storm Survey

This is the beginning of an eventual wide and long tracked tornado that eventually moved into Randall County (WFO Amarillo). The tornado began on ranch land west-southwest of Happy and damaged mainly power poles and a few structures as it moved northeast.

CASTRO COUNTY --- 2.4 N HART [34.41, -102.11], 3.3 NNE HART [34.43, -102.11]

	03/13/21 15:54 CST	0	Tornado (EF0, L: 1.42 mi , W: 30 yd)
	03/13/21 15:56 CST	0	Source: NWS Storm Survey

This short-lived EF-0 tornado touched down in a farm field just north of Hart flipping a center pivot irrigation system and creating minor roof damage to a small outbuilding. A wind gust of 87 mph was recorded at the Texas Tech West Texas mesonet location north of Hart as this tornado passed nearby.

CASTRO COUNTY --- 2.5 SE NAZARETH [34.52, -102.07], 2.4 SE NAZARETH [34.53, -102.07]

	03/13/21 15:55 CST	0	Tornado (EFU, L: 0.30 mi , W: 30 yd)
	03/13/21 15:57 CST	0	Source: Storm Chaser

A storm chaser video revealed a brief tornado southeast of Nazareth over open land. No damage was known.

SWISHER COUNTY --- 6.7 E HAPPY [34.73, -101.73], 8.1 E HAPPY [34.75, -101.71]

	03/13/21 16:05 CST	0	Tornado (EF0, L: 1.57 mi , W: 50 yd)
	03/13/21 16:08 CST	0	Source: NWS Storm Survey

This EF-0 tornado was video recorded by storm chasers over rural areas of Swisher County east of Happy. The only damage observed were two broken power poles near the intersection of County Road B and County Road 16. This tornado crossed into Randall County, where it was surveyed by WFO Amarillo.

LYNN COUNTY --- 1.0 N O'DONNELL [32.98, -101.83]

	03/13/21 16:20 CST	0	Thunderstorm Wind (MG 53 kt)
	03/13/21 16:20 CST	0	Source: Mesonet

A Texas Tech University West Texas mesonet site near O'Donnell measured a wind gust to 61 mph.

HALE COUNTY --- 4.5 SE FURGUSON STA [34.08, -101.70]

	03/13/21 16:21 CST	0	Tornado (EFU, L: 0.04 mi , W: 20 yd)
	03/13/21 16:21 CST	0	Source: Storm Chaser

A storm chaser photographed a brief tornado to the south of Plainview in an open field.

HALE COUNTY --- 11.0 E SETH WARD [34.23, -101.49]

	03/13/21 16:46 CST	0	Tornado (EFU, L: 0.05 mi , W: 20 yd)
	03/13/21 16:46 CST	0	Source: Storm Chaser

A storm chaser photographed a brief tornado northwest of the intersection of Farm to Market Road 2286 and County Road 77.

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GARZA COUNTY --- 5.4 SSW GRAHAM CHAPEL [33.08, -101.52]				
	03/13/21 16:53 CST		0	Thunderstorm Wind (MG 53 kt)
	03/13/21 16:54 CST		0	Source: Mesonet

A Texas Tech University West Texas mesonet site near Graham measured a wind gust to 61 mph.

BRISCOE COUNTY --- 2.1 SW SILVERTON [34.45, -101.33]				
	03/13/21 17:08 CST		0	Tornado (EFU, L: 0.06 mi , W: 20 yd)
	03/13/21 17:08 CST		0	Source: Storm Chaser

A storm chaser photographed a brief tornado about two miles southwest of Silverton in an open field.

BRISCOE COUNTY --- 7.0 ESE SILVERTON [34.43, -101.19]				
	03/13/21 17:15 CST		0	Thunderstorm Wind (MG 51 kt)
	03/13/21 17:15 CST		0	Source: Mesonet

A Texas Tech University West Texas mesonet site near Silverton measured a wind gust to 59 mph.

DICKENS COUNTY --- 3.0 NNW MC ADOO [33.77, -101.00]				
	03/13/21 17:51 CST		0	Thunderstorm Wind (MG 53 kt)
	03/13/21 17:51 CST		0	Source: Mesonet

A Texas Tech University West Texas mesonet site near McAdoo measured a wind gust to 61 mph.

An intense upper level low slowly moving east near the four corners region Saturday afternoon resulted in an outbreak of tornadic thunderstorms across the Panhandle and South Plains of West Texas. An upper level jet streak rotating around the upper low enhanced large scale lift across the region by the afternoon hours. Surface cyclogenesis in the Texas Panhandle drew the surface warm sector northward. Initial thunderstorm development occurred along a dryline located roughly along the US Highway 385 corridor. Storms quickly became severe as they moved into a very unstable airmass characterized by mixed layer CAPEs of 1500-2000 J/kg. Very strong effective layer shear and low level helicities were conducive to produce tornadic supercells. A NWS storm survey reviewed three tornado paths from the 13th. The largest and longest duration tornado developed to the west-southwest of the town of Happy (Swisher County) and had a maximum damage rating of EF-1. This tornado extended well into the Texas Panhandle where it caused EF-2 damaged as determined by a survey by the NWS Weather Forecast Office in Amarillo. Another tornado north of Hart passed near a Texas Tech University West Texas mesonet recording a wind gust to 87 mph. A total of eight tornados were observed this day with three given EF ratings. The remaining five tornadoes were given ratings of EF-Unknown due to no survey being conducted and no reports of damage.

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Photograph of a snapped off power pole west of Happy near the intersection of County Road C and County Road 3. Photograph taken by an NWS storm survey team.

COTTLE COUNTY --- CEE VEE [34.22, -100.45]

03/16/21 18:15 CST	0		Hail (1.75 in)
03/16/21 18:15 CST	0		Source: Trained Spotter

A trained weather spotter reported golf ball size hail in the town of Cee Vee. No damage was reported.

CHILDRESS COUNTY --- CHILDRESS [34.42, -100.20]

03/16/21 18:55 CST	0		Hail (1.50 in)
03/16/21 18:55 CST	0		Source: Trained Spotter

A trained weather spotter reported ping pong size hail in the city of Childress. No damage was reported.

A potent and compact upper level low was located near the Four Corners region on the afternoon of the 16th. Strong surface cyclogenesis developed in the eastern Texas Panhandle this day allowing the dryline to surge well into the Rolling Plains. Higher dew points surged northward east of the dryline allowing for strong instability by late afternoon from the eastern Rolling Plains into the extreme southeastern Texas Panhandle. Although the atmosphere was weakly capped, strong height falls aloft allowed a couple of thunderstorms to develop in Cottle and Childress Counties. These storms did not persist for very long but were able to produce hail up to the size of golf balls.

(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-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z035) LUBBOCK, (TX-Z036) CROSBY, (TX-Z037) DICKENS, (TX-Z042) GARZA

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	03/17/21 05:00 CST		0	High Wind (MAX 57 kt)
	03/17/21 16:00 CST		0	

A strong upper level low pressure system moved from eastern New Mexico into the Texas Panhandle during the day of the 17th. A strong cold front moved through during the early morning hours and brought widespread high winds to the area due to a strong pressure gradient. The highest winds extended from the extreme southern Texas Panhandle into the central South Plains.

Highest wind gusts in each County from the Texas Tech University West Texas mesonet follow:

66 mph at White River Lake (Crosby County),
 64 mph at Memphis (Hall County), and Reese Center (Lubbock County),
 61 mph at Plainview and Aiken (Hale County),
 59 mph at Hart (Castro County),
 58 mph at Silverton (Briscoe County), McAdoo (Dickens County), Graham (Garza County), and Floydada (Floyd County).

Sustained high winds of 40 mph or greater were observed at the following Texas Tech University West Texas meosnet sites and the Childress Municipal Airport Automated Surface Observing System (ASOS):

50 mph at Vigo Park (Swisher County),
 44 mph at Olton (Lamb County), and Roaring Springs (Motley County), and
 41 mph at Childress (Childress County), and Paducah (Cottle County).

GARZA COUNTY --- 5.4 SSW GRAHAM CHAPEL [33.08, -101.52]

03/22/21 12:51 CST	0	Thunderstorm Wind (MG 66 kt)
03/22/21 12:53 CST	0	Source: Mesonet

A Texas Tech University West Texas mesonet site near Graham measured severe wind gusts from 1251 to 1253 CST. A peak wind gust of 76 mph was measured at 1251 CST.

CROSBY COUNTY --- CROSBYTON [33.67, -101.25]

03/22/21 13:13 CST	0	Hail (1.00 in)
03/22/21 13:13 CST	0	Source: Law Enforcement

Crosby County law enforcement reported quarter size hail in the city of Crosbyton.

DICKENS COUNTY --- DICKENS [33.62, -100.83]

03/22/21 13:43 CST	0	Thunderstorm Wind (EG 56 kt)
03/22/21 13:43 CST	0	Source: Law Enforcement

The Dickens County Sheriff's Office reported that a carport had been blown down in Dickens and a roof was blown off of a home.

MOTLEY COUNTY --- 2.0 NNE SUMMIT [34.00, -100.61]

03/22/21 14:10 CST	0	Hail (0.75 in)
03/22/21 14:10 CST	0	Source: Fire Department/Rescue

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

03/22/21 14:45 CST	0	High Wind (MAX 67 kt)
03/22/21 18:17 CST	0	

(TX-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z039) YOAKUM, (TX-Z040) TERRY, (TX-Z041) LYNN, (TX-Z042) GARZA

03/22/21 14:45 CST	0	Dust Storm
03/22/21 17:31 CST	0	

COTTLE COUNTY --- 4.0 S PADUCAH [33.96, -100.30]

03/22/21 18:44 CST	0	Tornado (EFU, L: 0.01 mi , W: 20 yd)
03/22/21 18:44 CST	0	Source: Trained Spotter

A trained spotter recorded a video of a brief tornado south of Paducah along the leading edge of a thunderstorm.

A strong upper level storm system brought both severe weather and a haboob with strong winds to the region. This storm system moved eastward over central New Mexico on the afternoon of the 22nd bringing very strong lift overhead. The lift encountered better

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moisture over the central South Plains bringing scattered showers and thunderstorms. Many locations received hail with the largest reported hail in Crosbyton (Crosby County) of quarter size. Scattered thunderstorms intensified into a line as they moved eastward during the afternoon hours also bringing severe wind gusts. Additional showers and thunderstorms developed underneath the center of the low in eastern New Mexico in the afternoon. Very dry surface air was present in eastern New Mexico which helped generate an intense outflow that raced from southeastern New Mexico across the southern South Plains and southern Rolling Plains. Wind gusts in excess of 70 mph lofted copious amounts of blowing dust and generated a haboob. The wall of dust dropped the visibility to near zero as it moved through.

High wind gusts from the Texas Tech University West Texas mesonet follow:

77 mph at Plains (Yoakum County),
76 mph at Slaton (Lubbock County), and Graham (Garza County),
74 mph at Sundown (Cochran County),
73 mph at Denver City (Yoakum County), and Brownfield (Terry County),
67 mph at Wolfforth (Lubbock County),
65 mph at Levelland (Hockley County),
61 mph at O'Donnell (Lynn County),
60 mph at Post (Garza County),
59 mph at New Home and Tahoka (Lynn County), and White River Lake (Crosby County).



A wall of dust (haboob) rolling through Hobbs, New Mexico on the afternoon of the 22nd. Photograph is courtesy of @BLD_BTH on twitter.