

Storm Data and Unusual Weather Phenomena - April 2024

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-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z039) YOAKUM				
	04/06/24 08:30 CST		0	High Wind (MAX 57 kt)
	04/06/24 15:18 CST		0	

A strong upper level low pressure system moving across the southwestern US brought widespread high winds to West Texas from the morning into the afternoon of the sixth. A Pacific cold front initially moved through the region beginning around sunrise in the western South Plains and exiting the Rolling Plains before noon. Strong westerly surface winds were immediately observed in the wake of the cold front. Deep boundary layer mixing carried strong winds to the surface from 850mb shortly after sunrise and persisted into the afternoon for most of the South Plains and extreme southwestern Texas Panhandle.

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

- 66 mph at Muleshoe (Bailey County),
- 65 mph at Shallowater (Lubbock County),
- 64 mph at Friona (Parmer County),
- 63 mph at Plainview (Hale County),
- 62 mph at Abernathy (Hale County),
- 62 mph at Dimmitt (Castro County),
- 61 mph at Floydada (Floyd County),
- 60 mph at Amherst (Lamb County),
- 60 mph at Happy (Swisher County),
- 60 mph at Silverton (Briscoe County),
- 59 mph at Hart (Castro County),
- 59 mph at Tulia (Swisher County),
- 59 mph at Plains (Yoakum County),
- 59 mph at Denver City (Yoakum County),
- 58 mph at Anton (Hockley County), and
- 58 mph at Reese (Lubbock County).

The following high wind reports are from Automated Surface Observing Stations (ASOS):

66 mph at Lubbock International Airport (Lubbock County).

GARZA COUNTY --- 3.8 ENE POST [33.20, -101.32]

04/08/24 17:27 CST	0	Hail (1.75 in)
04/08/24 17:27 CST	0	Source: NWS Employee

An off-duty NWS employee reported hail up to golf ball size east of Post along US Highway 380. No damage was reported.

GARZA COUNTY --- 7.1 ENE JUSTICEBURG [33.08, -101.09]

04/08/24 18:28 CST	0	Hail (1.00 in)
04/08/24 18:28 CST	0	Source: Public

A report was received of quarter size hail just to the north of Lake Alan Henry.

LUBBOCK COUNTY --- 1.0 S SLATON [33.42, -101.65]

04/08/24 18:57 CST	0	Hail (1.00 in)
04/08/24 18:57 CST	0	Source: Broadcast Media

Local broadcast media relayed a report of quarter size hail in Slaton.

STONEWALL COUNTY --- 0.4 N ASPERMONT [33.16, -100.23]

04/08/24 19:36 CST	0	Hail (1.00 in)
04/08/24 19:36 CST	0	Source: Public

A public report was received of quarter size hail in Aspermont.

CROSBY COUNTY --- 0.4 SE CROSBYTON [33.67, -101.24]

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	04/08/24 19:51 CST		0	Hail (0.88 in)
	04/08/24 19:51 CST		0	Source: COOP Observer

LUBBOCK COUNTY --- 1.6 NW SLATON [33.45, -101.67]

	04/08/24 20:04 CST		0	Hail (1.25 in)
	04/08/24 20:08 CST		0	Source: Trained Spotter

A trained spotter reported hail up to the size of half dollars in Slaton.

LUBBOCK COUNTY --- 5.0 W SHALLOWATER [33.68, -102.07]

	04/09/24 03:12 CST		0	Thunderstorm Wind (EG 52 kt)
	04/09/24 03:12 CST		0	Source: Public

A porch awning and storage shed were heavily damaged near Shallowater.

HALE COUNTY --- 2.0 WSW PLAINVIEW [34.19, -101.73]

	04/09/24 04:05 CST		0	Thunderstorm Wind (EG 52 kt)
	04/09/24 04:05 CST		0	Source: COOP Observer

An NWS cooperative weather observer reported that several power poles were blown over after a thunderstorm moved through the area.

GARZA COUNTY --- 8.8 ENE JUSTICEBURG [33.08, -101.06]

	04/09/24 05:48 CST		0	Thunderstorm Wind (MG 60 kt)
	04/09/24 05:49 CST		0	Source: Mesonet

A Texas Tech University West Texas mesonet site near Lake Alan Henry measured severe wind gusts from 0548 CST through 0549 CST. A peak wind gust of 69 mph was measured at 0548 CST.

GARZA COUNTY --- 8.2 ENE JUSTICEBURG [33.08, -101.07]

	04/09/24 05:49 CST		0	Hail (1.00 in)
	04/09/24 05:49 CST		0	Source: Public

A public report was received of quarter size hail on the north side of Lake Alan Henry.

DICKENS COUNTY --- 1.0 W SPUR [33.48, -100.87]

	04/09/24 06:31 CST		0	Thunderstorm Wind (MG 51 kt)
	04/09/24 06:31 CST		0	Source: Mesonet

A Texas Tech University West Texas mesonet site near Spur measured a wind gust of 59 mph.

KENT COUNTY --- JAYTON [33.25, -100.58]

	04/09/24 06:36 CST		0	Hail (0.88 in)
	04/09/24 06:36 CST		0	Source: COOP Observer

(TX-Z030) FLOYD

	04/09/24 08:40 CST		0	High Wind (MAX 51 kt)
	04/09/24 09:44 CST		0	

BRISCOE COUNTY --- CAPROCK CANYONS STATE PARK [34.41, -101.07]

	04/09/24 10:29 CST		0	Thunderstorm Wind (MG 76 kt)
	04/09/24 10:30 CST		0	Source: Mesonet

A Texas Tech University West Texas mesonet site at Caprock Canyons State Park measured severe wind gusts from 1029 CST through 1030 CST. A peak wind gust of 88 mph was measured at 1029 CST.

Several rounds of severe thunderstorms developed from the afternoon of the eighth into the late morning hours of the ninth. A slow moving closed off upper level low pressure system moved across Arizona and New Mexico on these days. This system brought broad large scale lift over the region aiding in thunderstorm development. A slow moving cold front tracked southward through West Texas during the daytime hours of the eighth creating sufficient low level convergence for thunderstorms. Moisture streamed northward from the Gulf of Mexico in advance of the approaching upper level storm system. Strong instability developed underneath steep mid-level lapse rates despite a total solar eclipse briefly preventing solar insolation. This instability combined with strong deep layer shear produced storms with rotating updrafts promoting stronger updrafts and large hail. Most reports of hail ranged from sizes of

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quarter to golf ball. Relatively high cloud bases also promoted strong downdraft thunderstorm winds. The afternoon and evening thunderstorm activity quickly shifted to the east of the Rolling Plains and diminished after midnight. However, more widespread showers and thunderstorms rapidly redeveloped across eastern New Mexico and the western South Plains in the predawn hours of the ninth as the primary lift emerged across the southern High Plains. Isolated severe thunderstorms continued through the remainder of the morning hours of the ninth. One area of non-thunderstorm wind gusts were observed near Floydada (Floyd County) as light rain showers moved over a Texas Tech University West Texas mesonet.

STONEWALL COUNTY --- 11.9 NNE SWENSON [33.38, -100.25]

04/15/24 17:32 CST		0		Hail (1.00 in)
04/15/24 17:36 CST		0		Source: Public

A report from mPING was received of quarter size hail just south of the King County / Stonewall County line along US Highway 83.

(TX-Z031) MOTLEY

04/16/24 04:38 CST		0		High Wind (MAX 51 kt)
04/16/24 04:38 CST		0		

A powerful upper level storm system tracked across the central Rocky Mountains on the 15th. A strong surface cyclone developed in eastern Colorado out ahead of this system also producing a compact dryline. This dryline started out in the western South Plains in the morning and moved eastward through the day tightening its dew point gradient along the way. Ample instability existed east of the dryline along with sufficient deep layer wind shear to produce severe storms. However, cloud cover prevented convective initiation for much of the afternoon. Once clouds cleared out late in the afternoon, thunderstorms quickly developed and became severe. One severe storm produced hail up to quarter size as it tracked to the northeast across Stonewall County. Later in the evening, a pacific cold front rushed through the area. Strong westerly winds in the wake of the front produced a severe wind gust of 59 mph near Roaring Springs measured by the Texas Tech University West Texas mesonet.

LYNN COUNTY --- NEW MOORE [33.02, -102.03]

04/25/24 22:07 CST		0		Hail (1.25 in)
04/25/24 22:07 CST		0		Source: Public

A report from the public was received of hail up to the size of half dollars.

LYNN COUNTY --- TAHOKA [33.18, -101.78]

04/25/24 22:22 CST		0		Hail (0.75 in)
04/25/24 22:22 CST		0		Source: Public

DICKENS COUNTY --- 1.0 W SPUR [33.48, -100.87]

04/25/24 23:17 CST		0		Thunderstorm Wind (MG 58 kt)
04/25/24 23:19 CST		0		Source: Mesonet

A Texas Tech University West Texas mesonet site near Spur measured severe wind gusts from 2317 CST through 2319 CST. A peak wind gust of 67 mph was measured at 2317 CST.

KING COUNTY --- 10.0 WSW GUTHRIE [33.56, -100.49]

04/25/24 23:45 CST		0		Thunderstorm Wind (MG 56 kt)
04/25/24 23:46 CST		0		Source: Mesonet

A Texas Tech University West Texas mesonet site near Guthrie measured severe wind gusts from 2345 CST through 2346 CST. A peak wind gust of 65 mph was measured at 2346 CST.

KENT COUNTY --- 4.0 W GIRARD [33.35, -100.74]

04/26/24 00:30 CST		0		Hail (1.75 in)
04/26/24 00:30 CST		0		Source: Public

A report of golf ball size hail was received from the public.

On the afternoon and evening of the 25th, a short wave trough was ejecting out of the central Rockies onto the Central High Plains. A strengthening surface low in southeastern Colorado allowed a dryline, initially positioned near the Texas/New Mexico state line, to mix eastward through the afternoon. However, through the afternoon, the moist sector east of the dryline remained strongly capped preventing convection. A strong low level jet developed after sunset providing lift to generate thunderstorms late on the 25th into the early morning hours of the 26th. Scattered severe thunderstorms resulted during this time period producing severe wind gusts and large hail up to golf ball size across the southern South Plains and southern Rolling Plains.

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(TX-Z021) PARMER, (TX-Z027) BAILEY, (TX-Z028) LAMB				
	04/27/24 19:56 CST		0	High Wind (MAX 61 kt)
	04/27/24 22:52 CST		0	
STONEWALL COUNTY --- 2.7 SE ASPERMONT [33.12, -100.20], 1.3 SW OLD GLORY [33.12, -100.06], 1.5 NW OLD GLORY [33.14, -100.07], 1.7 E ASPERMONT [33.15, -100.20]				
	04/27/24 21:45 CST		0	Flash Flood (due to Heavy Rain)
	04/27/24 23:45 CST		0	Source: Law Enforcement

Beginning around 1700 CST to 1800 CST, severe thunderstorms began to train over eastern Stonewall County. These thunderstorms continued to back build for several hours not ending until approximately 2200 CST. Periodic rainfall rates of one to two inches per hour were estimated within this activity with a total of three to four inches of rainfall. Late in the evening, the Stonewall County sheriff's office stated that water was nearly flowing over US Highway 380 between Aspermont and Old Glory. Downstream of the reported flooding, the Double Mountain Fork Brazos River near Rule in Haskell County, Texas saw its fourth highest flow in the past four years of 2740 cubic feet per second.

Late on the evening of the 27th, severe wind gusts were occurring in the extreme southwestern Texas Panhandle while flash flooding was transpiring in Stonewall County. A dryline which had mixed east of the Rolling Plains during the daytime had retreated back into the southeastern Rolling Plains. Very unstable air east of the dryline and convergence along the dryline allowed intense thunderstorms to develop. These thunderstorms trained over eastern Stonewall County for several hours producing flash flooding along US Highway 380 between Aspermont and Old Glory. At the same time, a pacific cold front crossing into West Texas from the west generated severe wind gusts behind the front across the extreme southwestern Texas Panhandle.

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

- 70 mph at Amherst (Lamb County),
- 65 mph at Earth (Lamb County),
- 65 mph at Muleshoe (Bailey County), and
- 65 mph at Friona (Parmer County).