

## Storm Data and Unusual Weather Phenomena - February 2024

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

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#### HALE COUNTY --- 8.4 SE SETH WARD [34.14, -101.57]

	02/02/24 16:21 CST	0	Thunderstorm Wind (MG 50 kt)
	02/02/24 16:21 CST	0	Source: Mesonet

A Texas Tech University West Texas mesonet site near Aiken measured a wind gust to 58 mph.

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#### HALL COUNTY --- 1.6 E TAMPICO [34.48, -100.70]

	02/02/24 17:27 CST	0	Hail (1.00 in)
	02/02/24 17:27 CST	0	Source: Trained Spotter

A trained spotter reported hail up to quarter size along Texas State Highway 86 between Turkey and Estelline.

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#### COTTLE COUNTY --- 2.0 SE HACKBERRY [33.91, -100.13]

	02/02/24 17:56 CST	0	Thunderstorm Wind (MG 56 kt)
	02/02/24 17:57 CST	0	Source: Mesonet

A Texas Tech University West Texas mesonet site near Hackberry measured severe wind gusts from 1756 CST through 1757 CST. A peak wind gust of 64 mph was measured at 1756 CST.

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#### CHILDRESS COUNTY --- 8.0 S CHILDRESS [34.30, -100.20], CHILDRESS [34.42, -100.20]

	02/02/24 18:16 CST	0	Hail (1.25 in)
	02/02/24 18:22 CST	0	Source: Broadcast Media

Local broadcast media relayed a report of a swath of hail extending from the Childress/Cottle County line into Childress. Hail ranged from quarters to as large as half dollars.

**A negatively tilted short wave trough moving across the southwestern US set the stage for a cool season severe weather event in the Rolling Plains and far southeastern Texas Panhandle. Thunderstorms developed initially in the eastern South Plains along an advancing dryline. Although temperatures were relatively cool, strong boundary layer moisture and steep mid level lapse rates led to ample instability for severe thunderstorm development. Thunderstorms produced several severe wind gusts across the eastern South Plains and Rolling Plains and a swath of severe hail in and around Childress (Childress County).**

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#### (TX-Z022) CASTRO

	02/07/24 17:28 CST	0	High Wind (MAX 56 kt)
	02/07/24 17:45 CST	0	

**A powerful short wave trough tracking across the southwestern US brought strong winds and light rain showers on the afternoon of the seventh. Impressive large scale ascent spread over the West Texas region associated with a 140 knot jet streak. However, moisture within the atmosphere was limited to the mid and upper levels which brought virga showers. Strong winds already at the surface became enhanced by the virga showers producing a severe wind gust near Dimmitt (Castro County).**

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#### (TX-Z021) PARMER, (TX-Z033) COCHRAN, (TX-Z036) CROSBY, (TX-Z038) KING, (TX-Z040) TERRY, (TX-Z041) LYNN

	02/11/24 03:00 CST	0	Winter Weather
	02/11/24 23:00 CST	0	

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#### (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-Z031) MOTLEY, (TX-Z032) COTTLE, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK

	02/11/24 03:00 CST	0	Winter Storm
	02/11/24 23:00 CST	0	

**A powerful storm system digging through the four corners provided widespread precipitation across the southern High Plains on the tenth and 11th. Initially, spotty light rain affected the region on the morning of the tenth and early afternoon as a disturbance ahead of the primary storm system emerged over the region. A good portion of the South Plains did see sunshine and mild temperatures during the afternoon, but that quickly changed that night as colder air moved in behind a backdoor cold front. Immediately in advance of the colder air, a broken line of non-severe thunderstorms formed over the southern Rolling Plains but quickly shifted off to the east. Behind the cold front temperatures dipped into the lower 30s and upper 20s during the early morning hours of the 11th just as precipitation expanded in coverage and intensity. The rain changed to snow from northwest to southeast across the South Plains and Rolling Plains as the colder air moved in. The exception was across the far southern Rolling Plains, around Stonewall and Kent Counties, where temperatures remained mild enough to keep the precipitation a cold rain. The snow, heavy at times, continued through much of the day for the South Plains, southern Texas Panhandle, and northern and central Rolling Plains, before finally diminishing from west to east in**

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the evening as the upper level system shifted off into Oklahoma and North Texas. The heaviest snow was concentrated across the northern South Plains and south-central Texas Panhandle where totals in excess of six inches were common.

Snowfall reports from NWS cooperative weather observers are listed below:

- 12.0 inches at Plainview (Hale County),
- 11.0 inches at Olton (Lamb County),
- 10.0 inches at Vigo Park (Swisher County),
- 10.0 inches at Turkey (Hall County),
- 9.4 inches at Abernathy (Hale County),
- 8.7 inches at Floydada (Floyd County),
- 8.5 inches at Hart (Castro County),
- 7.5 inches at Flomot 2E (Motley County),
- 7.0 inches at Dimmitt (Castro County),
- 6.0 inches at Littlefield 5SE (Lamb County),
- 6.0 inches at Silverton (Briscoe County),
- 6.0 inches at Roaring Springs (Motley County),
- 5.7 inches at Shallowater (Lubbock County),
- 5.7 inches at Reese 4E (Lubbock County),
- 5.5 inches at Ropesville 6NNW (Hockley County),
- 5.0 inches at Tulia (Swisher County),
- 5.0 inches at Muleshoe Wildlife Refuge (Bailey County),
- 5.0 inches at Matador (Motley County),
- 5.0 inches at Northfield (Motley County),
- 5.0 inches at Paducah 10S (Cottle County),
- 5.0 inches at Floydada 9SE (Floyd County),
- 4.5 inches at Muleshoe (Bailey County),
- 4.0 inches at Childress (Childress County),
- 4.0 inches at Tell 3S (Childress County),
- 4.0 inches at Woodrow 3W (Lubbock County),
- 3.6 inches at Lubbock Preston Smith International Airport (Lubbock County),
- 3.3 inches at Morton (Cochran County),
- 3.2 inches at Levelland (Hockley County),
- 3.1 inches at Dumont (King County),
- 3.0 inches at Paducah 7E (Cottle County),
- 3.0 inches at Friona (Parmer County),
- 2.5 inches at Kirkland 1W (Childress County),
- 2.5 inches at Dodson 5S (Childress County),
- 2.3 inches at Childress 7NW (Childress County),
- 2.0 inches at Slaton (Lubbock County),
- 2.0 inches at Crosbyton (Crosby County),
- 2.0 inches at Memphis (Hall County),
- 1.8 inches at Southland (Garza County),
- 1.5 inches at Brownfield (Terry County), and
- 1.0 inch at Tahoka (Lynn County).

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(TX-Z021) FARMER, (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-Z033) COCHRAN, (TX-Z034) HOCKLEY, (TX-Z035) LUBBOCK, (TX-Z039) YOAKUM

02/27/24 11:06 CST	0	High Wind (MAX 56 kt)
02/27/24 18:26 CST	0	

A large storm system digging into the four corners region spread strong wind energy across a large portion of the nation including a large portion of West Texas. Warm temperatures allowed for deep boundary layer mixing which permitted strong winds aloft to mix down to the surface. The strong winds also lifted dust over the South Plains, dropping the visibility as low as two miles in Lubbock (Lubbock County) on the afternoon of the 27th.

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

- 64 mph at Turkey (Hall County),
- 61 mph at Muleshoe (Bailey County),
- 58 mph at Silverton (Briscoe County),
- 58 mph at Lesley (Hall County),
- 58 mph at Sundown (Cochran County), and
- 58 mph at Hart (Castro County).

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

62 mph at Lubbock International Airport (Lubbock County).

Sustained high winds of 40 mph or greater were observed by the Texas Tech University West Texas mesonet sites below:

45 mph at Levelland (Hockley County),  
 44 mph at Earth (Lamb County),  
 44 mph at Happy (Swisher County),  
 44 mph at Amherst (Lamb County),  
 43 mph at Abernathy (Hale County),  
 42 mph at Tulia (Swisher County),  
 42 mph at South Plains (Floyd County),  
 42 mph at Friona (Parmer County),  
 42 mph at Denver City (Yoakum County),  
 41 mph at Olton (Lamb County), and  
 41 mph at Floydada (Floyd County).

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(TX-Z021) PARMER, (TX-Z022) CASTRO, (TX-Z027) BAILEY, (TX-Z028) LAMB	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	02/29/24 04:00 CST	0		Winter Weather
	02/29/24 11:00 CST	0		

A quick-moving, but potent disturbance moving across southern New Mexico and Far West Texas brought strong lift and enough moisture to generate widespread precipitation. Initially, the lower atmosphere was quite dry, but as it moistened from cloud level downward, the precipitation did make it all the way to the surface. Temperatures were cool enough in the extreme southwestern Texas Panhandle to see accumulating snowfall.

Snowfall reports from NWS cooperative weather observers are listed below:

3.0 inches at Friona (Parmer County),  
 2.8 inches at Farwell (Parmer County),  
 2.5 inches at Muleshoe (Bailey County),  
 1.8 inches at Olton (Lamb County),  
 1.5 inches at Dimmitt (Castro County),  
 1.0 inch at Earth (Lamb County), and  
 1.0 inch at Hart (Castro County).