

Storm Data and Unusual Weather Phenomena - October 2023

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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OKLAHOMA, Western, Central and Southeast

(OK-Z008) KAY, (OK-Z023) CADDO, (OK-Z027) GRADY, (OK-Z028) MCCLAIN, (OK-Z033) HARMON, (OK-Z034) GREER, (OK-Z035) KIOWA, (OK-Z036) JACKSON, (OK-Z037) TILLMAN, (OK-Z038) COMANCHE, (OK-Z039) STEPHENS, (OK-Z040) GARVIN, (OK-Z041) MURRAY, (OK-Z042) PONTOTOC, (OK-Z043) COAL, (OK-Z044) COTTON, (OK-Z045) JEFFERSON, (OK-Z046) CARTER, (OK-Z047) JOHNSTON, (OK-Z048) ATOKA, (OK-Z050) LOVE, (OK-Z051) MARSHALL, (OK-Z052) BRYAN

10/01/23 00:00 CST	0	Drought
10/17/23 05:59 CST	0	

Despite heavy rainfall across the southern half of Oklahoma on the 4th, widespread severe (or worse) drought persisted across the aforementioned areas through the mid-month time frame.

KAY COUNTY --- 5.4 W (PNC)PONCA CITY ARPT [36.74, -97.20]

10/04/23 09:15 CST	0	Hail (0.75 in)
10/04/23 09:15 CST	0	Source: Public

MPing report. Based on radar evidence, hailfall likely occurred prior (~0910 LST) to report time.

CADDO COUNTY --- 2.3 SSW CYRIL [34.87, -98.22]

10/04/23 13:56 CST	0	Hail (0.75 in)
10/04/23 13:56 CST	0	Source: Public

MPing report.

TILLMAN COUNTY --- 2.3 SE TIPTON ARPT [34.44, -99.14]

10/04/23 14:05 CST	0	Thunderstorm Wind (MG 63 kt)
10/04/23 14:05 CST	0	Source: Mesonet

Tipton (TIPT) Mesonet observation.

TILLMAN COUNTY --- 2.3 SE TIPTON ARPT [34.44, -99.14]

10/04/23 14:10 CST	0	Thunderstorm Wind (MG 53 kt)
10/04/23 14:10 CST	0	Source: Mesonet

Tipton (TIPT) Mesonet observation.

TILLMAN COUNTY --- 5.5 SW FREDERICK [34.33, -99.09]

10/04/23 14:12 CST	20K	Thunderstorm Wind (EG 61 kt)
10/04/23 14:12 CST	0	Source: Emergency Manager

Relayed image showing silo and machine shed damage at an agricultural facility. Time is radar estimated.

GREER COUNTY --- 1.1 ENE BRINKMAN [35.02, -99.50]

10/04/23 14:15 CST	5K	Thunderstorm Wind (EG 65 kt)
10/04/23 14:15 CST	0	Source: Public

Social media image showing multiple power poles snapped along U.S. Highway 283. Time is radar estimated.

TILLMAN COUNTY --- 2.3 SE TIPTON ARPT [34.44, -99.14]

10/04/23 14:15 CST	0	Thunderstorm Wind (MG 63 kt)
10/04/23 14:15 CST	0	Source: Mesonet

Tipton (TIPT) Mesonet observation.

TILLMAN COUNTY --- 2.5 NNE FREDERICK [34.42, -99.01]

10/04/23 14:22 CST	0	Thunderstorm Wind (EG 65 kt)
10/04/23 14:22 CST	0	Source: Broadcast Media

Estimated wind gust.

COMANCHE COUNTY --- 2.9 E PUMPKIN CENTER [34.59, -98.16]

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	10/04/23 14:23 CST		0	Hail (1.50 in)
	10/04/23 14:23 CST		0	Source: Law Enforcement
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TILLMAN COUNTY --- HOLLISTER [34.34, -98.87]				
	10/04/23 14:27 CST		0	Thunderstorm Wind (EG 70 kt)
	10/04/23 14:27 CST		0	Source: Trained Spotter
Relayed report. Estimated wind gust.				
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CUSTER COUNTY --- 6.8 N WEATHERFORD [35.63, -98.69]				
	10/04/23 14:29 CST		0	Hail (0.75 in)
	10/04/23 14:29 CST		0	Source: Public
MPing report.				
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TILLMAN COUNTY --- 0.2 ESE FREDERICK [34.39, -99.02]				
	10/04/23 14:30 CST		30K	Thunderstorm Wind (EG 70 kt)
	10/04/23 14:30 CST		0	Source: Emergency Manager
Widespread wind damage occurred in the community of Frederick. The most significant damage was near the intersection of South Main Street and Dahlia Avenue, where a large (older) brick building had its roof and exterior walls collapse. Additional damage included a large barn with total roof collapse, numerous large trees/limbs snapped or blown down and sporadic light roof damage. Time is radar estimated.				
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TILLMAN COUNTY --- 0.4 SSW FREDERICK ARPT [34.34, -98.98]				
	10/04/23 14:30 CST		0	Thunderstorm Wind (MG 56 kt)
	10/04/23 14:30 CST		0	Source: ASOS
Frederick Municipal Airport (KFDR) observation.				
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TILLMAN COUNTY --- 1.9 SSW FREDERICK [34.36, -99.03]				
	10/04/23 14:30 CST		8K	Thunderstorm Wind (EG 65 kt)
	10/04/23 14:30 CST		0	Source: Emergency Manager
Multiple power poles blown down near the intersection of U.S. Highway 183 and East 1830 Road. Time is radar estimated.				
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TILLMAN COUNTY --- 0.4 SSW FREDERICK ARPT [34.34, -98.98]				
	10/04/23 14:32 CST		0	Thunderstorm Wind (MG 70 kt)
	10/04/23 14:32 CST		0	Source: ASOS
Frederick Municipal Airport (KFDR) observation.				
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TILLMAN COUNTY --- 0.4 SSW FREDERICK ARPT [34.34, -98.98]				
	10/04/23 14:38 CST		0	Thunderstorm Wind (MG 74 kt)
	10/04/23 14:38 CST		0	Source: ASOS
Frederick Municipal Airport (KFDR) observation.				
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TILLMAN COUNTY --- 0.4 SSW FREDERICK ARPT [34.34, -98.98]				
	10/04/23 14:41 CST		0	Thunderstorm Wind (MG 65 kt)
	10/04/23 14:41 CST		0	Source: ASOS
Frederick Municipal Airport (KFDR) observation.				
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COMANCHE COUNTY --- 2.8 W LAWTON [34.61, -98.44], 3.0 WSW LAWTON [34.59, -98.44], 1.3 SSE LAWTON [34.59, -98.38], 0.8 E LAWTON [34.61, -98.38]				
	10/04/23 15:00 CST		10K	Flash Flood (due to Heavy Rain)
	10/04/23 18:00 CST		0	Source: Emergency Manager
Social media image and relayed reports showing flooding in/around the city of Lawton. This included multiple vehicles stalled in floodwaters, mainly along Lee and Gore Boulevards. Time is estimated.				

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
STEPHENS COUNTY --- 4.6 S COMANCHE [34.30, -97.97], 4.6 S COMANCHE [34.30, -97.96], 1.3 SSE COMANCHE [34.35, -97.96], 1.3 S COMANCHE [34.35, -97.97]				
	10/04/23 15:00 CST		0	Flash Flood (due to Heavy Rain)
	10/04/23 18:00 CST		0	Source: Emergency Manager
Report of a car stalled in floodwaters along U.S. Highway 81 near the community of Comanche.				
COMANCHE COUNTY --- 0.3 NNE LAWTON [34.61, -98.39]				
	10/04/23 15:12 CST		0	Hail (0.75 in)
	10/04/23 15:12 CST		0	Source: Public
MPing report.				
COMANCHE COUNTY --- 1.3 SSE LAWTON [34.59, -98.38]				
	10/04/23 15:17 CST		0	Hail (0.75 in)
	10/04/23 15:17 CST		0	Source: Public
MPing report.				
MCCLAIN COUNTY --- 3.0 NNW NEWCASTLE [35.29, -97.62]				
	10/04/23 15:27 CST		0	Hail (1.75 in)
	10/04/23 15:27 CST		0	Source: Broadcast Media
CLEVELAND COUNTY --- 2.7 SW MOORE [35.31, -97.52]				
	10/04/23 15:37 CST		0	Hail (0.75 in)
	10/04/23 15:37 CST		0	Source: Public
MPing report.				
CLEVELAND COUNTY --- 1.2 SW (OUN)NORMAN WESTHEIMER ARPT [35.24, -97.48]				
	10/04/23 15:43 CST		5K	Thunderstorm Wind (EG 52 kt)
	10/04/23 15:43 CST		0	Source: Public
Social media image showing a large tree blown over onto a car. Time is estimated from radar and wind gust observation at nearby Max Westheimer Airport (KOUN) AWOS.				
CLEVELAND COUNTY --- 0.5 S (OUN)NORMAN WESTHEIMER ARPT [35.24, -97.47]				
	10/04/23 15:45 CST		0	Thunderstorm Wind (MG 52 kt)
	10/04/23 15:45 CST		0	Source: AWOS
Norman/Max Westheimer Airport (KOUN) observation.				
CLEVELAND COUNTY --- 1.1 SSW (OUN)NORMAN WESTHEIMER ARPT [35.24, -97.48]				
	10/04/23 15:49 CST		0	Hail (0.75 in)
	10/04/23 15:49 CST		0	Source: Public
MPing report.				
CLEVELAND COUNTY --- 6.1 W LAKE THUNDERBIRD DAM [35.23, -97.33]				
	10/04/23 15:57 CST		0	Hail (0.75 in)
	10/04/23 15:57 CST		0	Source: Public
MPing report.				
GARVIN COUNTY --- 0.3 WNW PAULS VALLEY [34.74, -97.22], 0.1 S PAULS VALLEY [34.74, -97.22], 0.2 ENE PAULS VALLEY [34.74, -97.22], 0.3 N PAULS VALLEY [34.74, -97.22]				
	10/04/23 16:00 CST		5K	Flash Flood (due to Heavy Rain)
	10/04/23 19:00 CST		0	Source: Emergency Manager
Relayed video showing street flooding, including at least one vehicle stalled in floodwaters, near the Grant Street and South Chickasaw Street intersection. Time is estimated.				

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
CARTER COUNTY --- 0.3 NNE ARDMORE [34.17, -97.14], 0.3 SSE ARDMORE [34.17, -97.14], 0.8 ESE ARDMORE [34.17, -97.13], 0.9 ENE ARDMORE [34.17, -97.12]				

10/04/23 16:30 CST	10K	Flash Flood (due to Heavy Rain)
10/04/23 19:30 CST	0	Source: Emergency Manager

Report of several feet of water on roadways with multiple vehicles stalled in the city of Ardmore. Time is estimated.

PONTOTOC COUNTY --- 0.6 WNW ADA [34.77, -96.69], 1.3 SSW ADA [34.75, -96.69], 2.0 SE ADA [34.75, -96.65], 1.6 E ADA [34.77, -96.65]				
10/04/23 17:30 CST	0	Flash Flood (due to Heavy Rain)		
10/04/23 20:30 CST	0	Source: Trained Spotter		

Report of flash flooding across the southern portions of the city of Ada. Time is estimated.

A high-amplitude upper trough swept across the Central and Southern Plains on the 4th. The southern branch/maxima of the upper jet provided sufficient synoptic lift that, combined with multiple surface fronts across the area (cold front approaching from northwest with stationary boundary along Red River) aided in widespread strong to severe thunderstorm development in areas along and south of the I-40 corridor. While much of the area remained north of the stationary front during the event, precluding surface-based storm hazards (i.e. wind/tor), strong deep-layer shear and elevated instability still promoted a hail concern with multiple thunderstorms. Early in the event, thunderstorm clusters developing in the warm sector (i.e. along/south of the stationary front) lead to significant wind damage/gusts across portions of southwest Oklahoma (primarily in Tillman County). By the mid to late evening, widespread heavy rainfall, including repeated rounds of heavy convection across southern Oklahoma, lead to reports of flash flooding across these areas.

(OK-Z004) HARPER, (OK-Z005) WOODS, (OK-Z009) ELLIS, (OK-Z015) DEWEY				
10/16/23 03:30 CST	0	Frost/Freeze		
10/16/23 07:25 CST	0			

The first freeze of the fall/winter season affected portions of far northwestern Oklahoma during the early morning of the 16th.

(OK-Z008) KAY, (OK-Z013) NOBLE, (OK-Z021) BECKHAM, (OK-Z022) WASHITA, (OK-Z023) CADDO, (OK-Z027) GRADY, (OK-Z033) HARMON, (OK-Z034) GREER, (OK-Z035) KIOWA, (OK-Z036) JACKSON, (OK-Z037) TILLMAN, (OK-Z038) COMANCHE, (OK-Z039) STEPHENS, (OK-Z041) MURRAY, (OK-Z042) PONTOTOC, (OK-Z043) COAL, (OK-Z044) COTTON, (OK-Z045) JEFFERSON, (OK-Z046) CARTER, (OK-Z047) JOHNSTON, (OK-Z048) ATOKA, (OK-Z050) LOVE, (OK-Z051) MARSHALL, (OK-Z052) BRYAN				
10/17/23 06:00 CST	0	Drought		
10/31/23 05:59 CST	0			

Areas of severe (or worse) drought expanded slightly across southern into south-central Oklahoma from the mid to late-month period.

KAY COUNTY --- 0.5 SE (PNC)PONCA CITY ARPT [36.72, -97.09], 1.3 WSW PONCA CITY [36.70, -97.10], 0.8 ESE PONCA CITY [36.70, -97.07], 1.8 NNE PONCA CITY [36.72, -97.07]				
10/24/23 13:30 CST	0	Flash Flood (due to Heavy Rain)		
10/24/23 17:30 CST	0	Source: Emergency Manager		

Widespread street flooding reported in the city of Ponca City. A portion of Business Highway 60 closed due to flooding. Time is estimated.

KAY COUNTY --- 1.9 S KILDARE [36.78, -97.05], 2.0 S KILDARE [36.78, -97.05], 2.0 S KILDARE [36.78, -97.05], 1.9 S KILDARE [36.78, -97.05]				
10/24/23 14:30 CST	0	Flash Flood (due to Heavy Rain)		
10/24/23 17:30 CST	0	Source: Law Enforcement		

Relayed image showing flooding along East Tower Road, just east of the East Tower Road and North Pecan Road intersection. Time is estimated.

COMANCHE COUNTY --- 2.1 ESE WICHITA MTNS NWR HQ [34.72, -98.67], 2.4 ESE WICHITA MTNS NWR HQ [34.71, -98.67], 3.0 SE WICHITA MTNS NWR HQ [34.70, -98.67], 3.5 ESE WICHITA MTNS NWR HQ [34.71, -98.66], 3.1 ESE WICHITA MTNS NWR HQ [34.72, -98.66], 2.7 ESE WICHITA MTNS NWR HQ [34.72, -98.66]				
10/24/23 17:00 CST	0	Flood (due to Heavy Rain)		
10/24/23 21:00 CST	0	Source: Public		

Social media image showing water overtopping the Burford Lake Dam, flooding portions of Panther Creek. Time is estimated.

A corridor of heavy rainfall, centered from southwest into north-central Oklahoma, occurred from the morning into early evening of the 24th. Widespread one to nearly four-inch rainfall totals were observed/reported during the period, with the highest totals located across far northern Oklahoma (Kay County). This resulted in sporadic occurrences of (flash) flooding.

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GARVIN COUNTY --- 4.9 SSW WYNNEWOOD [34.58, -97.21]

	10/25/23 15:58 CST	0	Tornado (EF0, L: 0.30 mi , W: 20 yd)
	10/25/23 15:58 CST	0	Source: Public

Motorists along Interstate 35 observed and took video of a weak tornado just north of the Interstate 35/Ruppe Road interchange about 5 miles south-southwest of Wynnewood.

POTTAWATOMIE COUNTY --- 3.4 SE JOHNSON [35.38, -96.79], 3.5 ESE JOHNSON [35.39, -96.78]

	10/25/23 17:30 CST	0	Tornado (EF0, L: 0.50 mi , W: 20 yd)
	10/25/23 17:31 CST	0	Source: NWS Storm Survey

An otherwise weak line of thunderstorms produced a brief tornado observed by tornado debris signature on the KTLX radar. The only damage that was observed were to branches that had previously been cut and collected on the side of the road on County Road 3490 just south of Interstate 40 were picked up and blown northeast.

A weak shortwave trough lifted from northern Mexico into west Texas on the 25th. While this contributed to increasing (and sufficient) wind shear, only weak instability was present across the region (owing to widespread rain showers/clouds). Despite this, a weak quasi-linear convective system (QLCS) developed and swept across portions of south-central into east-central Oklahoma during the early evening. Localized pockets of low-level instability yielded sufficient conditions for the development of two weak/brief tornadoes across these areas.

(OK-Z006) ALFALFA, (OK-Z007) GRANT, (OK-Z008) KAY, (OK-Z010) WOODWARD, (OK-Z012) GARFIELD, (OK-Z013) NOBLE, (OK-Z014) ROGER MILLS, (OK-Z016) CUSTER, (OK-Z017) BLAINE, (OK-Z018) KINGFISHER, (OK-Z019) LOGAN, (OK-Z020) PAYNE, (OK-Z021) BECKHAM, (OK-Z022) WASHITA, (OK-Z023) CADDO, (OK-Z024) CANADIAN, (OK-Z025) OKLAHOMA, (OK-Z026) LINCOLN, (OK-Z027) GRADY, (OK-Z028) MCCLAIN, (OK-Z029) CLEVELAND, (OK-Z030) POTTAWATOMIE, (OK-Z031) SEMINOLE, (OK-Z032) HUGHES, (OK-Z033) HARMON, (OK-Z034) GREER, (OK-Z035) KIOWA, (OK-Z036) JACKSON, (OK-Z037) TILLMAN, (OK-Z038) COMANCHE, (OK-Z039) STEPHENS, (OK-Z040) GARVIN, (OK-Z041) MURRAY, (OK-Z042) PONTOTOC, (OK-Z043) COAL, (OK-Z044) COTTON, (OK-Z045) JEFFERSON, (OK-Z046) CARTER, (OK-Z047) JOHNSTON, (OK-Z048) ATOKA, (OK-Z050) LOVE, (OK-Z051) MARSHALL, (OK-Z052) BRYAN

	10/29/23 20:20 CST	0	Frost/Freeze
	10/31/23 08:25 CST	0	

As a 1030s millibar high pressure cell settled across the Colorado Front Range, a cold airmass (with Canadian origin) spread across the Central and Southern Plains. The first freeze of the fall/winter season was noted for most locations across northern, central, and southern Oklahoma during predawn hours of the 30th and/or 31st.

(OK-Z008) KAY, (OK-Z033) HARMON, (OK-Z034) GREER, (OK-Z035) KIOWA, (OK-Z036) JACKSON, (OK-Z037) TILLMAN, (OK-Z043) COAL

	10/31/23 06:00 CST	0	Drought
	10/31/23 23:59 CST	0	

Areas of heavy rainfall, generally in the one to four-inch range, fell during the late month period. This helped to relieve severe drought across portions of the region. However, some drought areas persisted across southern Oklahoma.

TEXAS, Western North

(TX-Z083) HARDEMAN, (TX-Z084) FOARD, (TX-Z085) WILBARGER, (TX-Z086) WICHITA, (TX-Z089) ARCHER, (TX-Z090) CLAY

	10/01/23 00:00 CST	0	Drought
	10/31/23 05:59 CST	0	

Severe to extreme drought persisted across the Red River Valley throughout most of the month.

HARDEMAN COUNTY --- 4.7 SE QUANAH [34.26, -99.67]

	10/04/23 13:33 CST	0	Hail (1.00 in)
	10/04/23 13:33 CST	0	Source: County Official

WILBARGER COUNTY --- 3.9 ENE ODELL [34.37, -99.35]

	10/04/23 13:46 CST	0	Thunderstorm Wind (MG 53 kt)
	10/04/23 13:46 CST	0	Source: Mesonet

Odell (ODEL) Mesonet observation.

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FOARD COUNTY --- CROWELL [33.98, -99.72]				
	10/04/23 14:45 CST	0		Hail (1.50 in)
	10/04/23 14:45 CST	0		Source: Storm Chaser

FOARD COUNTY --- THALIA [33.98, -99.54]				
	10/04/23 15:00 CST	0		Hail (1.25 in)
	10/04/23 15:00 CST	0		Source: Storm Chaser

Social media video.

WICHITA COUNTY --- 5.8 SSE PLEASANT VALLEY [33.86, -98.58]				
	10/04/23 16:10 CST	0		Thunderstorm Wind (MG 50 kt)
	10/04/23 16:10 CST	0		Source: Trained Spotter

BAYLOR COUNTY --- 0.7 WNW SEYMOUR [33.59, -99.27]				
	10/04/23 16:58 CST	0		Hail (1.00 in)
	10/04/23 16:58 CST	0		Source: Public

MPing report.

A high-amplitude trough swept across the Central and Southern Plains on the 4th. The southern branch/maxima of the upper jet provided sufficient synoptic lift that, combined with multiple surface fronts across the area (cold front approaching from northwest with stationary boundary along Red River) aided in widespread strong to severe thunderstorm development across western-north Texas. Strong deep-layer shear and elevated instability promoted a hail concern with multiple thunderstorms. Early in the event, thunderstorm clusters developing in the warm sector (i.e. south of the stationary front) lead to reports of severe-caliber wind gusts across the area.

(TX-Z085) WILBARGER, (TX-Z086) WICHITA, (TX-Z089) ARCHER, (TX-Z090) CLAY				
	10/31/23 02:55 CST	0		Frost/Freeze
	10/31/23 07:35 CST	0		

As a 1030s millibar high pressure cell settled across the Colorado Front Range, a cold airmass (with Canadian origin) spread across the Central and Southern Plains. The first freeze of the fall/winter season was noted for most locations across western-north Texas during predawn hours of the 31st.

(TX-Z083) HARDEMAN, (TX-Z085) WILBARGER, (TX-Z086) WICHITA, (TX-Z090) CLAY				
	10/31/23 06:00 CST	0		Drought
	10/31/23 23:59 CST	0		

Heavy rains during the late month period helped to lower (or eliminate) severe or worse drought areas across western-north Texas.