

Storm Data and Unusual Weather Phenomena - August 2014

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

(OK-Z001) CIMARRON, (OK-Z002) TEXAS, (OK-Z003) BEAVER

	08/01/14 00:00 CST	0	Drought
	08/31/14 23:59 CST	0	

August was a drier than normal month for most of the Oklahoma Panhandle. Eastern Beaver County received between 3 to 6 inches of rainfall, but most of the remaining parts of the Panhandle received less than 2 inches. The Oklahoma Panhandle experienced a mix of Severe (D2) to Extreme (D3) Drought conditions through August. Guymon recorded 0.73 inches of precipitation for the month (2.19 inches below normal).

Soil moisture was rated mostly short to adequate during the month. Crops were beginning to suffer in drier areas, but other crops actually caught up on heat units during the warm and dry month. Rangeland and pasture continued to improve in some areas, but cattle herd sizes remained limited due to prolonged drought. Upper soil zones were mostly in the 10 to 30 percent full range, with a few locations much better or much worse. Deeper soil moisture was still below normal in much of the Oklahoma Panhandle, but values were estimated to be greater than 100 percent of normal where rainfall was most frequent over the last year. The Palmer Drought Severity Index indicated a rating of Moderate Drought conditions for the Oklahoma Panhandle. No burn bans were in effect.

Reservoirs and stream flows across the Oklahoma Panhandle were at near or below normal levels through August.

Economic losses due to the drought through August were predominately the result of supplemental watering in the driest areas and supplemental feed for cattle on drought-thinned rangeland and pastures.

TEXAS COUNTY --- 1.0 W HOOKER [36.87, -101.24]

	08/18/14 18:30 CST	0	Thunderstorm Wind (MG 52 kt)
	08/18/14 18:31 CST	0	Source: Mesonet

As a diminishing thunderstorm neared the town of Hooker (Texas County), the Oklahoma mesonet site 1 mile west of Hooker (Texas County) measured a 60 mph thunderstorm downburst. After producing this gust, the thunderstorm continued to diminish and did not produce any further severe weather.

A weak shortwave trough and a stationary front allowed thunderstorms to develop across southwestern Kansas during the evening hours of the 18th. Outflow boundaries produced by these storms pushed the storms southward and into the central Oklahoma Panhandle. Having moved too far south of dynamic forcing the storms quickly diminished over the Oklahoma Panhandle and produced an isolated severe thunderstorm downburst.

BEAVER COUNTY --- 3.0 NW LOGAN [36.60, -100.26]

	08/22/14 19:25 CST	0	Thunderstorm Wind (MG 60 kt)
	08/22/14 19:26 CST	0	Source: Mesonet

Scattered thunderstorms developed across Beaver County during the evening hours of the 22nd. As a storm approached the town of Slapout (Beaver County), the Oklahoma mesonet site 8 miles west of Slapout (Beaver County) reported a 69 mph thunderstorm downburst. After producing this downburst, no further severe weather was reported.

The combination of a weak upper level trough and a surface boundary provided the large scale forcing needed for thunderstorms to develop during the afternoon hours of the 22nd. Marginal deep layer shear and weak instability allowed strong to marginally severe storms to form along the surface trough situated over the eastern Oklahoma Panhandle. Given the marginal deep layer shear, storm cores collapsed upon themselves causing isolated downburst winds. As the afternoon progressed, the outflow from the storms caused the atmosphere to become stabilized.

BEAVER COUNTY --- 6.7 NW CLEAR LAKE [36.75, -100.35], 3.4 WNW CLEAR LAKE [36.70, -100.33], 7.2 ENE ELMWOOD [36.67, -100.41], 6.2 SE BEAVER [36.76, -100.44]

	08/27/14 04:14 CST	0	Flash Flood (due to Heavy Rain)
	08/27/14 09:00 CST	0	Source: Emergency Manager

A cluster of slow moving thunderstorms brought intense rainfall to southeastern Beaver County during the early morning hours of the 27th. This intense rainfall led to the development of flash flooding on State Highway 1450 southeast of the town of Beaver (Beaver County), and bar ditches in this area were also full as reported by the County Emergency Manager. No reports of stranded motorist were relayed with this report of flash flooding.

The combination of a weak upper level wave and a surface trough provided the large scale forcing to initiate convection during the early morning hours of the 27th. Steering winds during this period caused these storms to move slowly, and the above average atmospheric moisture available to the storms led to intense rainfall rates. This resulted in flash flooding across portion of Beaver County. By midday the storms had progressed into western Oklahoma which brought an end to flash flooding.

Storm Data and Unusual Weather Phenomena - August 2014

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BEAVER COUNTY --- 2.9 ESE BALKO [36.62, -100.63]				
	08/27/14 17:30 CST		0	Thunderstorm Wind (EG 61 kt)
	08/27/14 17:32 CST		0	Source: Emergency Manager

A discrete supercell entered southern Beaver County during the evening hours of the 27th. While near the town of Elmwood (Beaver County), the thunderstorm produced a downburst which caused 13 power pole to either be blown down or lean along State Highway 412 (Beaver County). After producing this downburst, no further severe weather was reported.

The combination of a weak upper level wave and residual outflow boundaries from early morning convection led to the development of convection across the northeastern corner of the Texas Panhandle. A discrete supercell moved north and entered southern Beaver County. This storm quickly began to diminish upon entering the county. After the discrete storm diminished no further reports of severe weather were relayed.

TEXAS, North Panhandle

(TX-Z001) DALLAM, (TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z004) OCHILTREE, (TX-Z005) LIPSCOMB, (TX-Z006) HARTLEY, (TX-Z007) MOORE, (TX-Z008) HUTCHINSON, (TX-Z010) HEMPHILL, (TX-Z012) POTTER, (TX-Z013) CARSON, (TX-Z014) GRAY, (TX-Z015) WHEELER, (TX-Z017) RANDALL, (TX-Z018) ARMSTRONG, (TX-Z019) DONLEY, (TX-Z020) COLLINGSWORTH				
	08/01/14 00:00 CST		0	Drought
	08/31/14 23:59 CST		0	

August was a drier than normal month for most of the Texas Panhandle. Scattered areas around the Panhandle measured over 3 inches of rain during the month, but most locations received less than 2 inches. A band of Extreme (D3) to Exceptional (D4) Drought remained from Carson County northwestward to eastern Dallam County. Deaf Smith County to western Hartley County had improved to Moderate (D1) Drought. Otherwise, the remainder of the Panhandles were rated at Severe (D2) Drought conditions. Amarillo recorded 1.76 inches of precipitation for the month (1.15 inches below normal), Dalhart recorded 0.88 inches of precipitation (1.97 inches below normal), and Borger recorded 0.71 inches of precipitation (2.46 inches below normal).

Soil moisture was rated mostly short to adequate during the month. Crops were beginning to suffer in drier areas, but other crops actually caught up on heat units during the warm and dry month. Rangeland and pasture continued to improve in some areas, but cattle herd sizes remained limited due to prolonged drought. Upper soil zones were mostly in the 10 to 30 percent full range, with a few locations much better or much worse. Deeper soil moisture was still below normal in much of the Texas Panhandle, but values were estimated to be greater than 150 percent of normal where rainfall was most frequent over the last year. The Palmer Drought Severity Index indicated a rating of Severe Drought conditions for the Texas Panhandle. Countywide burn bans were supported in several counties.

Stream flows across the Texas Panhandle ranged from near normal to much below normal during August, leading to some areas of moderate hydrological drought. The reservoirs of Lake Meredith and Palo Duro were below 5 percent and 3 percent capacity respectively, and Greenbelt Lake was below 13 percent capacity. Water watches for several public water systems persisted through August while voluntary to mandatory mild water restrictions were continued.

Economic losses due to the drought through August were predominately the result of supplemental watering in the driest areas and supplemental feed for cattle on drought-thinned rangeland and pastures.

ARMSTRONG COUNTY --- 3.7 ESE WASHBURN [35.16, -101.52], 6.6 ENE WASHBURN [35.20, -101.47]				
	08/08/14 15:00 CST		0	Hail (1.75 in)
	08/08/14 15:01 CST		0	Source: Trained Spotter

Discrete thunderstorms developed across Armstrong County during the afternoon hours of the 8th. As these thunderstorms approached the town of Washburn (Armstrong County), a trained storm spotter reported golf ball size hail (1.75 inches). After producing this hail the storms continued to move to the northeast across the southern Texas Panhandle.

HUTCHINSON COUNTY --- 1.4 S BORGER [35.65, -101.38], 1.7 E BORGER [35.67, -101.35]				
	08/08/14 16:04 CST		0	Hail (1.00 in)
	08/08/14 16:05 CST		0	Source: Trained Spotter

Discrete thunderstorms developed across Hutchinson County during the afternoon hours of the 8th. As these thunderstorms approached the town of Borger (Hutchinson County), a trained storm spotter reported quarter size hail (1.00 inch) one mile east-southeast of Borger (Hutchinson County). After producing this hail the storms continued to move to the northeast across the southern Texas Panhandle.

HUTCHINSON COUNTY --- 1.5 SSW BORGER [35.65, -101.39], 0.9 S BORGER [35.66, -101.38]				
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Storm Data and Unusual Weather Phenomena - August 2014

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	08/08/14 16:09 CST		0	Hail (0.75 in)
	08/08/14 16:10 CST		0	Source: Public

Discrete thunderstorms developed across Hutchinson County during the afternoon hours of the 8th. As these thunderstorms approached the town of Borger (Hutchinson County), a member of the public reported penny size hail (0.75 inch) one mile southeast of Borger (Hutchinson County). After producing this hail the storms continued to move to the northeast across the southern Texas Panhandle .

DONLEY COUNTY --- 2.1 SSE HOWARDWICK [35.04, -100.91]

08/08/14 17:25 CST	0	Thunderstorm Wind (EG 61 kt)
08/08/14 17:26 CST	0	Source: Amateur Radio

Discrete thunderstorms developed across Donley County during the afternoon hours of the 8th. As these thunderstorms moved over Howardwick (Donley County), an amateur radio operator reported an estimated 80 mph thunderstorm downburst which damaged multiple trailers, blew down 100 trees, and lifted roof of trailer house and a old restaurant. After producing this gusts the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 2.1 SSE HOWARDWICK [35.04, -100.91]

08/08/14 17:36 CST	0	Thunderstorm Wind (EG 70 kt)
08/08/14 17:37 CST	0	Source: Storm Chaser

Discrete thunderstorms developed across Donley County during the afternoon hours of the 8th. As these thunderstorms moved over Howardwick (Donley County), a storm chaser reported an estimated 80 mph thunderstorm downburst which damaged 5 carports. After producing this gusts the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 8.1 ESE HOWARDWICK [35.02, -100.79]

08/08/14 17:57 CST	0	Thunderstorm Wind (EG 61 kt)
08/08/14 17:58 CST	0	Source: Storm Chaser

Discrete thunderstorms developed across Donley County during the afternoon hours of the 8th. As these thunderstorms moved over Clarendon (Donley County), a storm chaser reported an estimated 70 mph thunderstorm downburst which blew down a large tree across County Road 20 and on Farm-to-Market 1260. After producing this gusts the storms continued to move to the northeast across the county.

Scattered convection developed across the southern Texas Panhandle during the afternoon hours of the 8th. The combination of a surface trough, weak shortwave, and marginally unstable atmosphere allowed the storms to become briefly severe. Weak steering flow caused these storms to collapse upon themselves quickly after forming. By 8PM CST, all storms fell below severe limits.

ROBERTS COUNTY --- 27.3 NNW CODMAN [35.99, -100.96]

08/16/14 15:41 CST	0	Thunderstorm Wind (EG 61 kt)
08/16/14 15:42 CST	0	Source: Public

Scattered thunderstorms developed across Roberts County during the afternoon hours of the 16th. A diminishing thunderstorm approaching Codman (Roberts County) produced an estimated 70 mph downburst. A member of the public reported this downburst blew over several 2ft in diameter Cottonwood trees roughly 27 miles north-northwest of Codman (Roberts County).

POTTER COUNTY --- 0.9 NE (AMA)AMARILLO INTL A [35.23, -101.71]

08/16/14 15:51 CST	0	Thunderstorm Wind (MG 59 kt)
08/16/14 15:56 CST	0	Source: ASOS

A cluster of thunderstorms approached the northern portion of Amarillo (Potter County) during the evening hours of the 16th. Within this cluster two cores descended which caused the cold pool to accelerate and produce a 68 MPH thunderstorm wind gust at the NWS ASOS 7 miles east-northeast of Amarillo (Potter County). After producing this gust, no further severe weather was observed.

The combination of monsoonal flow and weak steering winds led to the development of an isolated severe thunderstorm gust during the afternoon hours of the 16th. The weak steering flow caused convection to develop in the form of pulse convection. The vast majority of storms produced sub-severe hail and wind gusts with the exception to the two storms which collapsed near the Amarillo WFO. After this gust, no further severe weather was observed.

HUTCHINSON COUNTY --- 16.1 ENE PRINGLE [36.05, -101.19]

08/21/14 16:44 CST	0	Thunderstorm Wind (EG 52 kt)
08/21/14 16:45 CST	0	Source: Trained Spotter

Scattered convection affected Hutchinson County during the early evening hours of the 21st. As storms neared the town of Spearman (Hutchinson County), a trained spotter reported an estimated 60 mph thunderstorm downburst caused a semi-tractor trailer to overturn 10 miles south of Spearman (Hutchinson County). No injuries were reported with this damage. After producing this downburst, the storms diminished over Hutchinson County.

Storm Data and Unusual Weather Phenomena - August 2014

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
HANSFORD COUNTY --- 0.6 E SPEARMAN [36.20, -101.19]				
	08/21/14 17:15 CST		0	Thunderstorm Wind (EG 52 kt)
	08/21/14 17:16 CST		0	Source: Trained Spotter
<p>Scattered convection affected Hutchinson County during the early evening hours of the 21st. While storms were over the town of Spearman (Hutchinson County), a trained spotter reported an estimated 60 mph thunderstorm downburst caused a semi-tractor trailer to overturn on the west side of town (Hutchinson County). No injuries were reported with this damage. After producing this downburst, the storms diminished over Hutchinson County.</p>				
OCHILTREE COUNTY --- 0.7 S PERRYTON [36.39, -100.80]				
	08/21/14 18:10 CST		0	Thunderstorm Wind (EG 52 kt)
	08/21/14 18:11 CST		0	Source: Public
<p>Scattered convection affected Ochiltree County during the early evening hours of the 21st. While storms were over the town of Perryton (Ochiltree County), a member of the public reported an estimated 60 mph thunderstorm downburst in town (Ochiltree County). After producing this downburst, the storms diminished over Ochiltree County.</p>				
OCHILTREE COUNTY --- 0.7 N PERRYTON MUNI ARPT [36.41, -100.75]				
	08/21/14 18:15 CST		0	Thunderstorm Wind (MG 52 kt)
	08/21/14 18:16 CST		0	Source: AWOS
<p>Scattered convection affected Ochiltree County during the early evening hours of the 21st. While storms were near the town of Perryton (Ochiltree County), the Perryton AWOS reported a 60 mph thunderstorm downburst 3 miles east-northeast of Perryton (Ochiltree County). After producing this downburst, the storms diminished over Ochiltree County.</p> <p>A surface trough situated across the Texas Panhandle and a weak upper level wave provided the lift needed to developed convection across the northern Texas Panhandle during the evening hours of the 21st. Storm type was limited to pulse convection due to weak deep layer shear. As storm cores collapsed upon the updraft, severe downbursts occurred. By 6:30 PM, convection weakened due to the loss of heating as the sun set.</p>				
HARTLEY COUNTY --- 5.2 NW CHANNING [35.73, -102.40]				
	08/22/14 14:30 CST		0	Thunderstorm Wind (EG 61 kt)
	08/22/14 14:31 CST		0	Source: Trained Spotter
<p>Scattered thunderstorms developed across Hartley County during the afternoon hours of the 22nd. As a storm approached the town of Channing (Hartley County), a trained storm spotter reported an estimated 70 mph thunderstorm downburst which turned over a center pivot irrigation system 5 miles northwest of Channing (Hartley County). After producing this downburst, no further severe weather was reported.</p> <p>The combination of a weak upper level trough and a surface boundary provided the large scale forcing needed for thunderstorms to develop during the afternoon hours of the 22nd. Marginal deep layer shear and weak instability allowed strong to marginally severe storms to for along the surface trough situated over the western Texas Panhandle. Given the marginal deep layer shear, storm cores collapsed upon themselves causing isolated downburst winds. As the afternoon progressed, the outflow from the storms caused the atmosphere to become stabilized.</p>				
ARMSTRONG COUNTY --- 0.6 E GOODNIGHT [35.03, -101.19]				
	08/24/14 15:10 CST		0	Thunderstorm Wind (EG 52 kt)
	08/24/14 15:11 CST		0	Source: Law Enforcement
<p>A cluster of thunderstorms developed over Armstrong County during the early afternoon hours of the 24th. After developing, they quickly began to collapse, and produced an estimated 60 mph thunderstorm downburst. The Armstrong County Sherriff's Office reported the downburst turned over two semi tractor trailers in the town of Goodnight (Armstrong County). No injuries were reported with this damage.</p> <p>The presence of a surface trough and moderate elevated instability allowed thunderstorms to develop across Armstrong County during the early afternoon hours of the 24th. The storms were limited to pulse convection due to weak deep layer shear, and the main severe weather hazard was damaging wind gusts. The resulting outflow boundary produced by the initial storm complex helped to stabilize conditions across the southern Texas Panhandle and prevented any further severe weather for the day.</p>				
OLDHAM COUNTY --- 1.3 ENE ADRIAN [35.28, -102.66]				
	08/25/14 14:55 CST		0	Thunderstorm Wind (EG 52 kt)
	08/25/14 14:56 CST		0	Source: Fire Department/Rescue
<p>Scattered thunderstorms developed over Oldham County during the evening hours of the 25th. While over the city of Adrian (Oldham County), a downburst gust was estimated to be 60 mph by a member of the Adrian (Oldham County) Fire and Rescue. After producing the downburst the thunderstorms diminished.</p>				

Storm Data and Unusual Weather Phenomena - August 2014

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A surface trough situated along the Texas/New Mexico state lines provided the low level forcing for scattered thunderstorms to develop during the early evening hours of the 25th. Weak deep layer shear, marginal elevated instability, and a fairly dry sub-cloud layer resulted in pulse convection with the main severe weather hazard being downburst gusts as storm cores collapse. Storms lost severe potential by the late evening hours as the sun set.

DONLEY COUNTY --- 3.9 SSE HOWARDWICK [35.02, -100.90], 3.6 SSE HOWARDWICK [35.03, -100.89]

08/28/14 13:42 CST	0	Hail (1.25 in)
08/28/14 13:43 CST	0	Source: Trained Spotter

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As these storms neared Greenbelt Lake (Donley County), a trained storm spotter reported half dollar size hail (1.25 inch) one mile east of Greenbelt Lake (Donley County). After producing this hail, the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 4.3 SSE HOWARDWICK [35.01, -100.90], 3.4 SE HOWARDWICK [35.03, -100.89]

08/28/14 13:42 CST	0	Hail (1.00 in)
08/28/14 13:43 CST	0	Source: Trained Spotter

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As these storms neared Greenbelt Lake (Donley County), a trained storm spotter reported quarter size hail (1.00 inch) one mile east of Greenbelt Lake (Donley County). After producing this hail, the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 0.2 SSW CLARENDON [34.93, -100.90], 2.7 NE CLARENDON [34.96, -100.87]

08/28/14 13:43 CST	0	Funnel Cloud
08/28/14 14:03 CST	0	Source: Law Enforcement

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As the storms moved over the town of Clarendon (Donley County), local law enforcement and many member of the public reported a funnel cloud and possible brief tornado in town. Numerous photos were provided and the local newspaper reported on the funnel cloud however, no damage was reported. As a result, the existence of a tornado was not confirmed. The funnel dissipated as the storm moved northeast of town.

DONLEY COUNTY --- 2.1 SSE HOWARDWICK [35.04, -100.91], 1.8 ESE HOWARDWICK [35.06, -100.89]

08/28/14 13:51 CST	0	Hail (1.00 in)
08/28/14 13:52 CST	0	Source: Trained Spotter

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As these storms neared Greenbelt Lake (Donley County), a trained storm spotter reported quarter size hail (1.00 inch) one mile east of Greenbelt Lake (Donley County). After producing this hail, the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 4.2 N CLARENDON [34.99, -100.89], 5.0 SSE HOWARDWICK [35.01, -100.87]

08/28/14 13:52 CST	0	Hail (2.00 in)
08/28/14 13:53 CST	0	Source: Public

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As these storms neared Greenbelt Lake (Donley County), a member of the public reported hen egg size hail (2.00 inches) four miles north of the town of Clarendon (Donley County). After producing this hail, the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 4.3 SSE HOWARDWICK [35.01, -100.90], 3.7 SE HOWARDWICK [35.03, -100.88]

08/28/14 13:55 CST	0	Hail (2.50 in)
08/28/14 13:56 CST	0	Source: Trained Spotter

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As these storms neared Greenbelt Lake (Donley County), a trained storm spotter reported tennis ball size hail (2.50 inches) one mile east of Greenbelt Lake (Donley County). After producing this hail, the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 4.5 ENE ASHTOLA [35.03, -101.00], 3.0 WSW HOWARDWICK [35.06, -100.97]

08/28/14 14:23 CST	0	Hail (1.75 in)
08/28/14 14:24 CST	0	Source: Law Enforcement

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As these storms moved west of the town of Clarendon (Donley County), a law enforcement officer reported golf ball size hail (1.75 inches) nine miles northwest of Clarendon (Donley County). After producing this hail, the storms continued to move to the northeast across the county.

DONLEY COUNTY --- 1.8 WNW CLARENDON [34.94, -100.93], 1.8 NNW CLARENDON [34.95, -100.91]

Storm Data and Unusual Weather Phenomena - August 2014

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	08/28/14 14:39 CST		0	Hail (1.50 in)
	08/28/14 14:40 CST		0	Source: Law Enforcement

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. As these storms neared Clarendon (Donley County), a law enforcement officer reported half ping pong ball size hail (1.50 inches) two miles west of Clarendon (Donley County). After producing this hail, the storms continued to move to the northeast across the county.

WHEELER COUNTY --- 2.1 NNW NEW MOBEETIE [35.56, -100.44]

08/28/14 15:10 CST	0	Hail (1.00 in)
08/28/14 15:11 CST	0	Source: Trained Spotter

A cluster of thunderstorms moved into Wheeler County during the evening hours of the 28th. As the cluster of storms neared the town of New Mobeetie (Wheeler County), a trained spotter reported quarter size hail (1.00 inch) 2 miles north of New Mobeetie (Wheeler County). After producing this hail, the cluster of storms continued to move east.

LIPSCOMB COUNTY --- 0.9 NW BOOKER [36.46, -100.54]

08/28/14 17:30 CST	0	Hail (1.00 in)
08/28/14 17:31 CST	0	Source: Emergency Manager

A discrete thunderstorm moved into Lipscomb County during the evening hours of the 28th. As the storm approached the town of Booker (Lipscomb County), the County Emergency Manager reported quarter size hail (1.00 inch) in the town of Booker (Lipscomb County). After producing this hail the storm diminished as it crossed into the Oklahoma Panhandle.

ROBERTS COUNTY --- 25.3 NNW CODMAN [35.96, -100.97]

08/28/14 20:35 CST	0	Thunderstorm Wind (MG 50 kt)
08/28/14 20:36 CST	0	Source: AWOS

A diminishing thunderstorm moved into Roberts County during the evening hours of the 28th. As the weakening storm approached the town of Miami (Robert County), the AWOS reported a downburst of 58 mph 26 miles northwest of Miami (Roberts County). After producing this downburst, the thunderstorm completely diminished.

The combination of an upper level disturbance, a surface trough, and moderate elevated instability led to the development of severe thunderstorms during the afternoon hours of the 28th. These thunderstorms produced hail up to the size of tennis balls and a sizable funnel cloud which caused local concern for possible tornadoes. The outflow from these storms caused convective activity to quickly progress into western Oklahoma. No tornado damage could be located in the area the funnel cloud was observed.

DONLEY COUNTY --- 4.3 NW CLARENDON [34.98, -100.95], 4.2 NNW CLARENDON [34.99, -100.92], 2.8 NNW CLARENDON [34.97, -100.92], 3.5 NW CLARENDON [34.97, -100.94]

08/28/14 16:30 CST	0	Flash Flood (due to Heavy Rain)
08/28/14 16:50 CST	0	Source: Law Enforcement

A cluster of thunderstorms developed over Donley County during the afternoon hours of the 28th. These thunderstorms produced intense rainfall which led to the development of flash flooding in rural areas northwest of the town of Clarendon (Donley County). A local law enforcement officer reported that a foot of flowing water was covering a low water crossing 3 miles northwest of Clarendon (Donley County). This flooding diminished quickly once precipitation moved east of the area.

The combination of an upper level disturbance, a surface trough situated over the south-central Texas Panhandle, and above normal precipitable water resulted in intense rain producing thunderstorms during the afternoon hours of the 28th. The intense rainfall from these storms led to the development of localized flash flooding in Donley County. This flash flooding quickly diminished once convection moved east of the Panhandle.

(TX-Z012) POTTER, (TX-Z013) CARSON, (TX-Z016) DEAF SMITH, (TX-Z017) RANDALL, (TX-Z018) ARMSTRONG

08/29/14 03:00 CST	0	Dense Fog
08/29/14 05:30 CST	0	

The combination of abundant near surface moisture, and light winds led to the development of dense fog during the early morning hours of the 29th. Visibility on roadways across the southern Texas Panhandle dropped below a quarter mile from 3 AM CST until improving above a quarter mile by 5:30 CST AM.

The following is a list of locations which dropped below a quarter mile: Amarillo (Potter and Randall County), Claude (Armstrong County), Hereford (Deaf Smith County), and Panhandle (Carson County).