

Storm Data and Unusual Weather Phenomena - December 2012

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

12/01/12 00:00 CST	0	Drought
12/31/12 23:59 CST	55M	

The month of December provided a few opportunities for improvement in drought conditions across the Oklahoma Panhandle, but fell short of showing significant improvement. Exceptional (D4) drought affects all of Beaver County and most of Texas County. Extreme (D3) drought affects the northwest corner of Texas County and the southern half of Cimarron County. Severe (D2) drought affects the northern half of Cimarron County.

Multiple snow events provided the Oklahoma Panhandle with some much needed moisture. Guymon recorded 0.97 inches of precipitation (0.33 inches above normal) for the month. Overall this month ranked as the 43rd warmest and 55th wettest December on record for the Oklahoma Panhandle. As December came to an end so did the warmest 1 year, 2 year, and 3 year period on record for the Oklahoma Panhandle.

Limited dormant fuels remain in prime condition for the spread of fires across the Panhandle. But given the recent wetting rains a marginal improvement was noted in the Keetch-Byram Drought Index for the Oklahoma Panhandle as it now falls within the 600 to 800 range.

The recent rains did little to help the growth of dryland winter wheat as crops had already failed or failed to emerge in some counties. Irrigated fields showed average growth but have required significant supplemental watering. The Palmer Drought Severity Index showed improvement for the Oklahoma Panhandle as the rating was increased to moderate drought from extreme drought. Water watches remain in effect for several public water systems through December while voluntary to mandatory water restrictions have been enacted.

Economic losses due to the drought through December were estimated near \$15 million (D3)/25 million (D4) a county, and were predominately the result for poor growth of winter wheat, heavy supplemental watering, and supplemental feed for cattle in pastures and rangeland.

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

12/19/12 13:10 CST	0	High Wind (MAX 54 kt)
12/19/12 20:00 CST	0	

A strong cold front moved across the Oklahoma Panhandle during the afternoon hours on the 19th. Behind the front, 40 to 60 mph mid-level winds were able to reach the ground. These stronger mid-level winds coupled with a strong surface pressure gradient over the Oklahoma Panhandle to result in several hours of 30 to 45 mph sustained surface winds with wind gusts up to 62 mph. These high winds made travel extremely difficult for high profile vehicles, however no vehicle accidents were reported in association to the high winds. The highest gust for the Oklahoma Panhandle was 62 mph and occurred at Goodwell (Texas County). The strong winds also coupled with light snow to reduce visibilities on area roads to near whiteout visibilities in Beaver (Beaver County) as reported by the Sheriff Office. By 8:00 PM CST the cold front had moved far enough to the southeast to no longer allow stronger mid-level winds to mix to the surface. Here is a listing of all the high wind gusts reported: Boise City (Cimarron County) 59 mph; Goodwell (Texas County) 62 mph; Guymon (Texas County) 58 mph.

(OK-Z003) BEAVER

12/19/12 18:45 CST	0	Winter Weather
12/19/12 20:50 CST	0	

A strong cold front moved across the Oklahoma Panhandle during the afternoon hours on the 19th. Behind the front, strong mid-level winds mixing to the surface with a strong surface pressure gradient over the Oklahoma Panhandle to result in several hours of 30 to 45 mph sustained surface winds with wind gusts up to 64 mph. During the same time light snow showers formed over the Southern Plains. The combination of strong winds and snowfall reduced visibilities on area roads to near whiteout conditions in Beaver (Beaver County). By 8:50 PM CST snow showers ended as the upper level support for these showers had moved well east of the area. Light snow accumulations of less than an inch were reported across the Oklahoma Panhandle.

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

12/25/12 11:15 CST	0	Winter Weather
12/25/12 19:36 CST	0	

A vigorous mid-level trough of low pressure moved out of southeastern New Mexico and into west central Texas during the early morning hours of December 25th. The lift provided by this system and low level wrap around moisture caused light snow showers to form over the Southern Plains. The snow showers persisted for several hours to produce at least 1 inch of accumulated snow in every

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county in the Oklahoma Panhandle. The snow fall began to diminish during the early evening hours as the upper low continued its eastward path into southern Arkansas and northern Louisiana.

The following is a list of snow amounts across the Oklahoma Panhandle: Beaver (Beaver County) 1.0 inch; Slapout (Beaver County) 1.0 inch; Boise City (Cimarron County) 1.0 inch; and Guymon (Texas County) 1.0 inch.

(OK-Z001) CIMARRON

	12/28/12 02:30 CST	0	Winter Weather
	12/28/12 07:50 CST	0	

A period of light snow produced 2 inches of snow across Cimarron County during the early morning hours of December 28th. The snow showers were triggered by a mid-level shortwave trough moving out of New Mexico. The shortwave lifted warm moist air over a surface cold front positioned across the southern Texas Panhandle. After a period of virga the lower levels of the atmosphere became moist enough for the snow to reach the ground. Snow showers continued to fall for several hours until the shortwave ejected northeastward into Kansas and Missouri. Trained storm spotters measured 2 inches of snow at both Wheelless (Cimarron County) and west of Boise City (Cimarron County). No impacts to area roads were reported.

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

	12/31/12 03:15 CST	0	Winter Weather
	12/31/12 11:50 CST	0	

Over the course of the late night hours on the 30th an upper level trough of low pressure situated over the Arizona and California state line moved eastward towards the Oklahoma Panhandle. Ahead of this trough, a 150mph-160mph jet stream coupled with a surface low pressure system diving southeastward out of southern Colorado initiated precipitation across the Southern Plains. As the surface low continued its southeasterly track, the associated cold front dropped temperatures below the freezing mark. At this time any precipitation falling transitioned quickly from rain to sleet to all snow. Snowfall continued for several hours as moisture wrapped around the surface low before ending from west to east at noon. The highest snowfall amount of 8 inches was observed in the western Oklahoma Panhandle. The snow pack created some icy spots on roadways as reported by local law enforcement. Below is a listing of snow amounts by county:

Cimarron County: 2 W Wheelless 8.0 inches; Felt 7.5 inches; Boise City 6.0 inches; 2 ESE Boise City 5.0 inches.

Texas County: Tyrone 3.0 inches; 2.0 inches.

Beaver County: 10 E Beaver 2.0 inches; Beaver 1.5 inches.



Snow covered US Highway 64 approaching 15th Street in Guymon (Texas County). Provided by Shawn Yorks onto the National Weather Service Facebook Page.

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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-Z009) ROBERTS, (TX-Z010) HEMPHILL, (TX-Z011) OLDHAM, (TX-Z012) POTTER, (TX-Z013) CARSON, (TX-Z014) GRAY, (TX-Z015) WHEELER, (TX-Z016) DEAF SMITH, (TX-Z017) RANDALL, (TX-Z018) ARMSTRONG, (TX-Z019) DONLEY, (TX-Z020) COLLINGSWORTH

12/01/12 00:00 CST	0	Drought
12/31/12 23:59 CST	0.42B	

The month of December provided a few opportunities for improvement in drought conditions across the Texas Panhandle, but fell short of showing significant improvement. Exceptional (D4) drought affects the majority of the north Texas Panhandle including Carson County. Extreme (D3) drought affects most of the southern Texas Panhandle minus the southeastern corner of the Texas Panhandle. Severe (D2) drought affects parts of the southeastern corner of the Texas Panhandle.

Multiple snow events and one severe event provided the Texas Panhandle with some much needed moisture. Amarillo recorded 0.54 inches of precipitation for December (0.17 inches below normal), Dalhart recorded 0.31 inches (0.23 inches below normal), and Borger recorded 0.50 inches of precipitation (0.27 inches below normal). Overall this month ranked as the 31th warmest and 51st wettest December on record for the Texas High Plains region. As December came to an end so did the warmest 1 year, 2 year, and 3 year period on record for the Texas High Plains.

Limited dormant fuels remain in prime condition for the spread of fires across the Panhandle. But given the recent wetting rains a very marginal improvement was noted in the Keetch-Byram Drought Index for the north-central Texas Panhandle while the rest of the area stayed relatively steady state. The southern and north-central Texas Panhandle falls within the 400 to 600 range, while the northwestern and northeastern Texas Panhandle falls within the 600 to 800 range. These prime conditions for the spread of wildfires have led to countywide burn bans for all of the Texas Panhandle except for Hansford County (Texas only).

The recent rains did little to help the growth of dryland winter wheat as crops had already failed or failed to emerge in some counties. Irrigated fields showed average growth but have required significant supplemental watering. Rangeland and pastures across the Texas panhandle have remained in very poor condition and cattle have continued to require supplemental feed as observed by the Texas Crop and Weather Report. The Palmer Drought Severity Index showed slight improvement for the Texas High Plains as the rating was increased to severe drought from extreme drought.

Reservoirs and stream flows across the Panhandles have remained well below normal levels. The reservoirs of Palo Duro and Greenbelt Lake are both below 12 percent capacity with Lake Meredith below 1 percent capacity. Water watches for several public water systems persisted through December while voluntary to mandatory water restrictions have been enacted.

Economic losses due to the drought through December were estimated near \$15 million (D3)/\$25 million (D4) a county, and were predominately the result for poor growth of winter wheat, heavy supplemental watering, and supplemental feed for cattle in pastures and rangeland.

(TX-Z017) RANDALL

12/03/12 10:20 CST	25K	Wildfire
12/03/12 12:30 CST	0	

A wildfire began around 1020CST about nine miles south southeast of Canyon Texas in Randall county. The wildfire started near Interstate 40 and Dowlen Road and consumed an estimated seventy-five acres. The wildfire started on the back of a hay trailer which contained twenty-five bales and were destroyed in the fire. The fire then spread to the grasses on strong winds and completely burned a field east of Interstate 27. The wildfire destroyed at least one barn, however one home and two other structures were saved. Three fire departments along with the Texas A&M Forest Service responded to the wildfire which was brought under control around 1230CST. There were no injuries or fatalities reported.

(TX-Z011) OLDHAM, (TX-Z012) POTTER, (TX-Z016) DEAF SMITH, (TX-Z017) RANDALL

12/09/12 19:00 CST	0	Winter Weather
12/10/12 23:00 CST	0	

A strong upper level system stretching from Minnesota southwest to New Mexico and Arizona moved across the Texas Panhandle during the evening and overnight hours on December 9th. The rear entrance region of a 90-110 knot (104-127 mph) polar jet coupled with a 500mb longwave trough to produce light snow showers across the western and southern Texas Panhandle. Snow began across eastern New Mexico approximately 5 PM CDT then spread eastward to enter the western Texas Panhandle at approximately 7:30 PM. Snow showers continued to move southeast stretching into the south central and eventually southeastern Texas Panhandle before exiting the area just before midnight.

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While snow occurred across the western and southeastern Texas Panhandle, snow accumulations were isolated to the southwestern and south central Texas Panhandle. The highest snow accumulation for this system was 1 inch reported by a trained storm spotter a few miles south of Wildorado (Deaf Smith County). Another trained storm spotter reported 8 tenths of an inch of snow in Adrian (Oldham County), and the State Trooper Station in Vega (Oldham County), approximately 14 miles to the east of Adrian, reported 3 tenths of an inch. The National Weather Service Office in Amarillo (Potter County) recorded 2 tenths of an inch of snow with this system and reports from around town reflected this same amount. Several traffic accidents were reported in Amarillo due to vehicles encountering icy patches on roadways and sliding off the road. No injuries or fatalities were reported in association to this system.



Picture taken by NWS employees showing the snow as it fell at the NWS office in Amarillo, Texas (Randall County). Near one inch of snow was reported at the office.

DEAF SMITH COUNTY --- 9.4 ENE SIMMS [35.09, -102.51]

12/14/12 15:20 CST	0	Thunderstorm Wind (EG 56 kt)
12/14/12 15:21 CST	0	Source: Trained Spotter

A line of thunderstorms moved into Oldham County and produced multiple thunderstorm wind gusts across the county. Center pivots used in irrigation were blown over 12 miles to the south-shoutwest of Vega. These winds were estimated to be between 60 mph and 70 mph by radar. At the same location pea size hail was also observed.

OLDHAM COUNTY --- 0.9 NW WILDORADO [35.21, -102.21]

12/14/12 15:29 CST	0	Thunderstorm Wind (MG 51 kt)
12/14/12 15:30 CST	0	Source: Broadcast Media

The KVII schoolnet mesonet two miles to the east-southeast of Wildorado recorded a thunderstorm winds gust of 59 mph.

OLDHAM COUNTY --- 17.3 NNE ADRIAN [35.51, -102.62], 1.4 S BOYS RANCH [35.51, -102.25]

12/14/12 15:29 CST	0	Hail (1.00 in)
12/14/12 15:30 CST	0	Source: Trained Spotter

A trained spotter in Boys Ranch reported 1 inch hail.

DEAF SMITH COUNTY --- 1.5 NNW HEREFORD [34.84, -102.41]

12/14/12 15:30 CST	0	Thunderstorm Wind (MG 57 kt)
12/14/12 15:31 CST	0	Source: Broadcast Media

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
The KVII schoolnet mesonet site in Hereford recorded a thunderstorm wind gust of 66 mph.				
DEAF SMITH COUNTY --- 1.8 WNW HEREFORD [34.83, -102.43]				
	12/14/12 15:30 CST		0	Thunderstorm Wind (MG 53 kt)
	12/14/12 15:31 CST		0	Source: Mesonet
The West Texas Mesonet site in west-northwest of Hereford recorded a 61 mph thunderstorm wind gust.				
OLDHAM COUNTY --- 11.2 WSW BOYS RANCH [35.46, -102.43]				
	12/14/12 15:32 CST		0	Thunderstorm Wind (EG 60 kt)
	12/14/12 15:33 CST		0	Source: Broadcast Media
As the line of thunderstorms moved across Oldham County from west to east it caused hazardous cross winds on north-south running roads, three tractor trailers on US Highway 385 were overturned. No injuries or fatalities were reported with these vehicle accidents.				
RANDALL COUNTY --- 11.8 SE BUFFALO LAKE [34.76, -101.96]				
	12/14/12 15:44 CST		0	Thunderstorm Wind (MG 59 kt)
	12/14/12 15:45 CST		0	Source: Broadcast Media
The KVII schoolnet mesonet site southeast of Buffalo Lake in Randall County recorded a 68 mph thunderstorm wind gust.				
RANDALL COUNTY --- 1.8 ENE CANYON [34.99, -101.89]				
	12/14/12 15:50 CST		0	Thunderstorm Wind (EG 60 kt)
	12/14/12 15:52 CST		0	Source: Emergency Manager
Hazardous cross winds were produced on north-south running roads as the line of thunderstorms moved across Randall County. A tractor trailer was blown over on Interstate 27 between Amarillo and Canyon. The time of the accident and wind speed were estimated using radar. No injuries were reported in this vehicle accident.				
RANDALL COUNTY --- 1.1 W CANYON [34.98, -101.94]				
	12/14/12 15:52 CST		0	Thunderstorm Wind (EG 52 kt)
	12/14/12 15:54 CST		0	Source: Public
As the line of thunderstorm moved over the city of Canyon a member of the public reported a 60 mph thunderstorm wind gust at Canyon Junior High School.				
RANDALL COUNTY --- 6.6 SW AMARILLO [35.14, -101.91]				
	12/14/12 15:54 CST		0	Thunderstorm Wind (EG 61 kt)
	12/14/12 15:55 CST		0	Source: NWS Employee
A NWS employee reported pea size hail and estimated a 70 mph thunderstorm wind gust as the line of thunderstorms moved over his residence.				
RANDALL COUNTY --- 7.9 WSW AMARILLO [35.14, -101.94]				
	12/14/12 15:54 CST		0	Thunderstorm Wind (EG 52 kt)
	12/14/12 15:56 CST		0	Source: NWS Employee
A NWS employee estimated a 60 mph thunderstorm wind gust as the line of thunderstorms moved over his residence.				
POTTER COUNTY --- 3.1 NW AMARILLO [35.23, -101.86]				
	12/14/12 15:57 CST		0	Thunderstorm Wind (MG 56 kt)
	12/14/12 15:58 CST		0	Source: Broadcast Media
The KVII schoolnet mesonet site on the northwest side of Amarillo recorded a 64 mph thunderstorm wind gust.				
RANDALL COUNTY --- 1.7 WNW TIMBERCREEK CANYON [35.06, -101.85]				
	12/14/12 16:00 CST	1	0	Thunderstorm Wind (EG 60 kt)
	12/14/12 16:01 CST		0	Source: Emergency Manager

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<p>A 69 mph thunderstorm winds gusts estimated via radar caused a tractor trailer rollover accident at the intersection of McAfee Road and Washington Street in Amarillo (Randall County). The tractor trailer was traveling south along Washington Street as a line of thunderstorms moved from west to east across Amarillo. The line of thunderstorms produced a downdraft which struck the tractor trailer perpendicular to its path of travel causing the driver to lose control of the vehicle. The driver of the semi-tractor trailer died as a result of the rollover.</p>				

Direct Fatalities: M??VE

RANDALL COUNTY --- 1.8 NW LAKE TANGLEWOOD [35.08, -101.80]

12/14/12 16:00 CST	0	Thunderstorm Wind (EG 67 kt)
12/14/12 16:02 CST	0	Source: Public

A member of the public in Lake Tanglewood estimated a 77 mph wind gusts which also caused the corner of a metal shed to peel back.

RANDALL COUNTY --- 3.5 WNW TIMBERCREEK CANYON [35.06, -101.88]

12/14/12 16:00 CST	0	Thunderstorm Wind (EG 60 kt)
12/14/12 16:02 CST	0	Source: Emergency Manager

The Amarillo Emergency Manager reported a radio tower being blown down onto railroad tracks. A thunderstorm wind gust of 69 mph was estimated using radar images from the time the damage occurred.

RANDALL COUNTY --- 5.7 SW AMARILLO [35.14, -101.89]

12/14/12 16:01 CST	0	Thunderstorm Wind (EG 53 kt)
12/14/12 16:02 CST	0	Source: Public

A member of the public on the southwest Amarillo estimated a thunderstorm wind gust of 61 mph as the line of thunderstorms moved over his location.

RANDALL COUNTY --- 3.0 NNW PALO DURO CANYON STATE PARK [34.99, -101.69]

12/14/12 16:02 CST	0	Thunderstorm Wind (MG 52 kt)
12/14/12 16:03 CST	0	Source: Mesonet

The West Texas Mesonet site in Palo Duro Canyon recorded a thunderstorm wind gust of 60 mph.

RANDALL COUNTY --- CANYON [34.98, -101.92]

12/14/12 16:10 CST	0	Thunderstorm Wind (EG 55 kt)
12/14/12 16:14 CST	0	Source: Broadcast Media

As the thunderstorms moved through Canyon, downdrafts produced by the storms blew power lines onto the intersection of 15th Street and the railroad tracks.

CARSON COUNTY --- 9.4 S PANTEX [35.19, -101.58], 8.0 W CONWAY [35.22, -101.52]

12/14/12 16:17 CST	0	Tornado (EF0, L: 3.00 mi , W: 200 yd)
12/14/12 16:22 CST	0	Source: NWS Storm Survey

The tornado touched down three miles northeast of Washburn in Carson County at 4:17 PM CST. The tornado was on the ground for three miles with a maximum width of 200 yards. The tornado dissipated at 4:22 PM CST six miles northeast of Washburn. This tornado was rated an EF-0 with winds of 65 mph. No damage was reported with this tornado but photographic evidence was provided by BJ Shipp, a local storm spotter.

ARMSTRONG COUNTY --- 0.9 SE CLAUDE [35.11, -101.36]

12/14/12 16:26 CST	0	Thunderstorm Wind (EG 52 kt)
12/14/12 16:28 CST	0	Source: Law Enforcement

A 60 mph thunderstorm wind gust was estimated by law enforcement officers in Claude.

DONLEY COUNTY --- 2.6 N LELIA LAKE [34.94, -100.79], 2.8 NNE LELIA LAKE [34.94, -100.77]

12/14/12 16:53 CST	0	Tornado (EF0, L: 0.95 mi , W: 50 yd)
12/14/12 16:54 CST	20K	Source: NWS Storm Survey

This tornado touched down five miles south-southeast of Clarendon in Donley County at 4:53 PM CST. The tornado was on the ground for less than one mile with a maximum width of 50 yards. The tornado dissipated at 4:54 PM CST, five miles southeast of Clarendon. This tornado has been rated an EF-0 with winds of 80 mph. There was considerable damage to a metal barn, overhead doors were blown in and part of the roof was blown off. In addition, a small shed was destroyed, and empty diesel tank was blown off the stand and shingles on the roof of a nearby house were blown off.

DONLEY COUNTY --- 0.7 N LELIA LAKE [34.91, -100.78], 1.0 NNE LELIA LAKE [34.91, -100.77]

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	12/14/12 16:58 CST		0	Tornado (EF0, L: 0.44 mi , W: 50 yd)
	12/14/12 16:59 CST		10K	Source: NWS Storm Survey

This tornado touched down one mile northwest of Lelia Lake in Donley County at 4:58 PM CST. The tornado was on the ground for less than one half mile with a maximum width of 50 yards. The tornado dissipated at 4:59 PM CST, one mile north-northwest of Lelia Lake. This tornado has been rated as an EF-0 with winds of 80 mph. There was significant tree damage with large limbs down. Irrigation pipe supply lines were blown out of position. Another irrigation pipe was blown 100 yards into a field.

COLLINGSWORTH COUNTY --- 2.1 NNE WELLINGTON [34.88, -100.21]

12/14/12 17:34 CST	0	Thunderstorm Wind (EG 50 kt)
12/14/12 17:35 CST	0	Source: COOP Observer

A NWS cooperative observer reported a fifth wheeler trailer blown over while being pulled by a pickup at the intersection of U.S. Highway 83 and Highway 203. Also reported were tree limbs on U.S. Highway 203 that were 8 to 12 inches in diameter.

An anomalously dynamic upper level system caused a rare severe weather outbreak during the afternoon and evening hours of December 14th. This outbreak was very dynamically driven with very minimal instability values. However this lack of instability was overcome by a 150 mph tropical jet streak, a negatively tilted mid-level trough, 45 mph low level jet, and the presence of a surface warm front and cold front.

Thunderstorm initiated over eastern New Mexico as single cells, but transitioned into a linear structure along the leading edge of a surface cold front as they entered the western Texas Panhandle. Once transitioned into a linear structure, severe thunderstorm wind gusts became the primary threat. This was reflected in the storm reports as numerous thunderstorm wind gusts and wind damage were received, but only one report of 1 inch hail was received. The first report of damage for the outbreak was south-southwest of the town of Vega (Deaf Smith County) where thunderstorm downdrafts blew over center pivots used for irrigation. Several more reports of thunderstorm wind gusts between 60 and 70 mph were received from Deaf Smith, Randall, Potter, and Oldham Counties as the line of thunderstorms moved across the southern Texas Panhandle. In Oldham County three tractor trailers were overturned on US Highway 385 north of the city of Vega.

As the thunderstorms moved across Potter and Randall County thunderstorm wind gusts of 60 to 70 mph were reported all across the counties. Two additional tractor trailers rollover accidents were reported on Interstate 27 between Amarillo (Randall County) and Canyon (Randall County), and at the intersection of McAfee Road and Washington Street on the southeast side of Amarillo (Randall County). The accident at McAfee Road and Washington Street resulted in one fatality. Given the west to east track of the line of thunderstorms, vehicles on north-south running roads faced the most hazardous driving conditions due to cross winds, and as a result all rollovers reported occurred on north-south roads.

Also the turbulent winds near this line of thunderstorm contributed to an aircraft mishap over Armstrong County. The pilot, a locally known dentist from Colorado Springs, Co, and the passenger, the pilot's father, were killed when their double prop Beechcraft E-90 airplane had an in-flight break-up according to a preliminary report released by the National Transportation Safety Board. The report went on to state that the turbulent air flows caused the aircraft to experience updrafts and downdrafts that tore the fuselage apart. Wreckage from the aircraft were located near the city of Claude (Armstrong County).

As the line of thunderstorms reached the eastern edge of Potter and Randall County, they reached the intersection of the cold front and warm front. The additional low level shear provided by this intersection allowed for three brief tornadoes to form in southern Carson County and central Donley County. The tornado in Carson County lasted 5 minutes and traveled three miles without causing any damage. However a trained spotter provided photographic evidence of its occurrence. Two tornadoes occurred in Donley County; one near Clarendon and another near Lelia Lake. Both lasted a minute in duration but were able to produce noticeable structural damage. All three tornadoes were classified as EF-0.

By 6 PM CST, the line of thunderstorms became disorganized as the upper level dynamics moved further to the northeast, and no further reports of damage or severe gusts were received.

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The scene of a rollover accident at the intersection of McAfee Road and Washington Street. Image provided by the Amarillo Globe News.

(TX-Z012) POTTER

12/14/12 20:37 CST	0	High Wind (MAX 54 kt)
12/14/12 21:15 CST	0	

Two high wind gusts of 62 mph and 59 mph occurred at the Amarillo International Airport during the late evening hours of Dec 14th. These gusts occurred as a vigorous upper level disturbance moved from southeast to northwest across the Texas Panhandle. The 6 PM CST upper air sounding from Amarillo showed a well-mixed atmosphere up to 700 mb. This allowed 58 mph to 75 mph mid-level winds to reach the surface. The only limiting factor to keep these stronger winds from constantly reaching the surface was a shallow inversion near the surface. As the night went on the low level inversion strengthened and the strong mid-level winds moved out of the Texas Panhandle to the northeast by midnight of the 15th. While no reports of damage or injuries were reported with these gusts, the Amarillo International Airport, Tradewind Airport, and Lifestar Med Flight had to suspend operations until the high wind threat ended.

(TX-Z014) GRAY

12/16/12 22:00 CST	0	Freezing Fog
12/17/12 04:55 CST	0	

On the evening of the 16th a cold front moved through the Texas and Oklahoma Panhandle. This dropped temperatures during the night hours of the 16th and morning of the 17th to the freezing point. Also due to the proximity of the surface front located over east central Oklahoma low level wrap around moisture combined with light surface winds and clear skies allowing fog to develop. Due to the temperature being at and slightly below the freezing mark, ice accumulation was reported on vehicles and vehicle antennas in Pampa (Gray County) as reported by the Gray County Sheriff's Office. Visibility at the time of the report was estimated to be around 1000 feet. The fog began to dissipate by 5 AM CST as surface winds began to climb increasing low level mixing. No vehicle accidents or injuries were reported in association to the freezing fog.

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Freezing fog formed ice on vehicles in Gray County. Provided to the NWS Amarillo Facebook page.

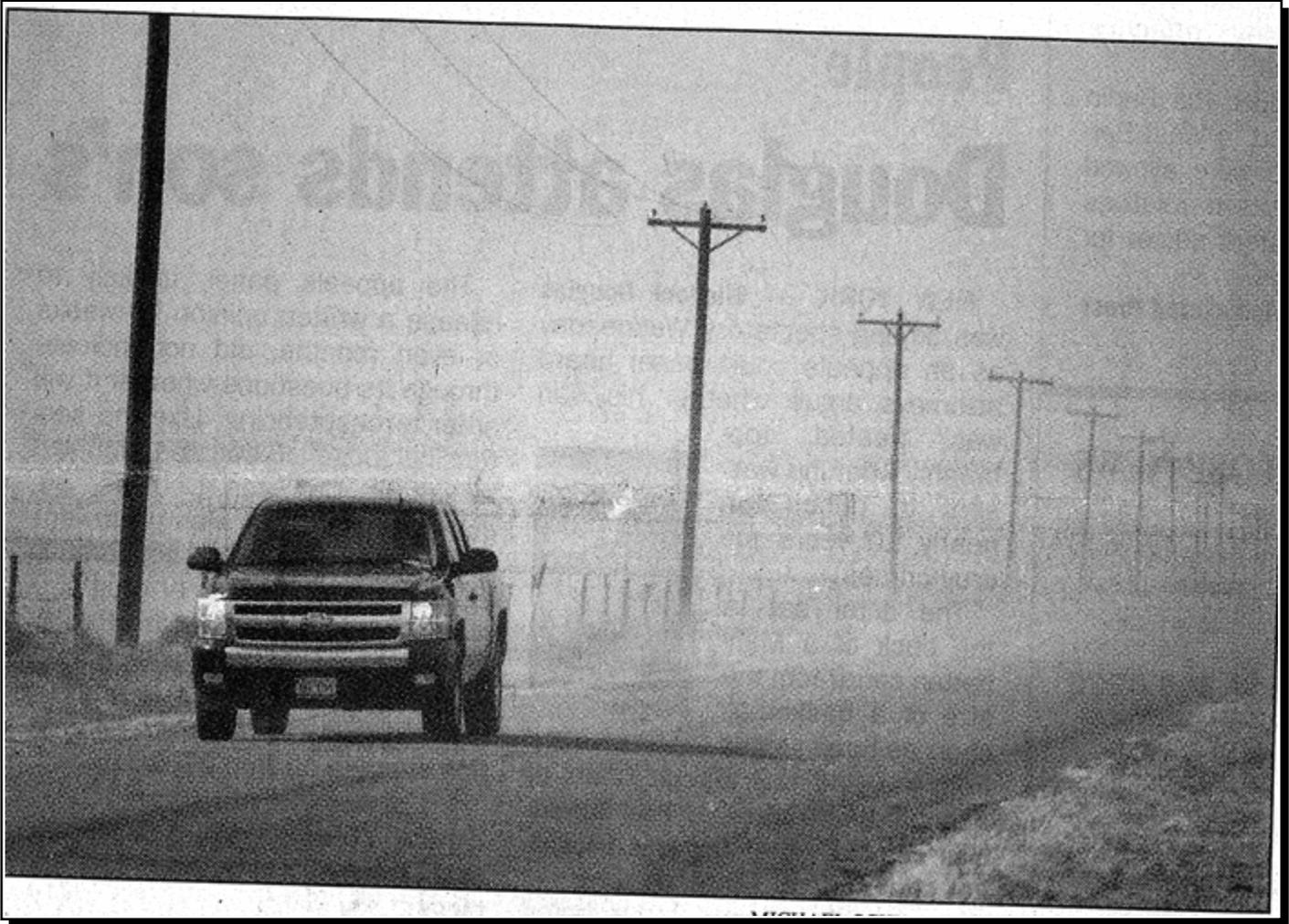
(TX-Z011) OLDHAM, (TX-Z012) POTTER, (TX-Z016) DEAF SMITH, (TX-Z017) RANDALL

12/19/12 12:00 CST	0	Dust Storm
12/19/12 14:33 CST	0	

A strong cold front moved across the Texas Panhandle during the day on the 19th. The strong surface pressure gradient out ahead of the cold front caused southwesterly surface winds of 25 to 35 mph with brief gusts up to 50 mph. Loose dirt and dust in dry lake beds in eastern New Mexico was lifted and carried into the southwestern Texas Panhandle by these strong winds. The dust and dirt reduced visibilities to less than a mile on many roadways. The lowest visibility reported occurred in Bushland (Potter County) where visibilities dropped to a half mile. Amarillo (Randall County), Canyon (Randall County), Vega (Oldham County), and Hereford (Deaf Smith County) all reported one mile visibility. As the cold front moved southeastward across the southwestern Texas Panhandle surface winds shift around to the northwest sending the blowing dirt and dust south of the area.

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Blowing Dust lowering visibilities on SW 34th Street in Amarillo (Randall County). Provided by Michael Schumacher of the Amarillo Globe News.

(TX-Z007) MOORE, (TX-Z012) POTTER, (TX-Z014) GRAY, (TX-Z017) RANDALL, (TX-Z018) ARMSTRONG, (TX-Z019) DONLEY	12/19/12 14:15 CST	0	High Wind (MAX 56 kt)
	12/19/12 21:23 CST	0	

A strong cold front moved across the Texas Panhandle during the afternoon hours on the 19th. Behind the front, 40 to 60 mph mid-level winds were able to reach the ground. These stronger mid-level winds coupled with a strong surface pressure gradient over the Texas Panhandle to result in several hours of 30 to 45 mph sustained surface winds with wind gusts up to 64 mph. These high winds made travel extremely difficult for high profile vehicles, however no vehicle accidents were reported in association to the high winds. The highest gust for the Texas Panhandle was 64 mph and occurred northeast of Lake Tanglewood (Randall County). The strong winds also coupled with light snow to reduce visibilities on area roads to near whiteout visibilities in Dalhart (Dallam County), Texline (Dallam County), Dumas (Moore County), Amarillo (Randall County), Canadian (Hemphill County), and Perryton (Ochiltree County). By 9:20 PM CST the cold front had moved far enough to the southeast to no longer allow stronger mid-level winds to mix to the surface. Here is a listing of all the high wind gusts reported: Dumas (Moore County) 60 mph; Amarillo (Randall County) 60 mph; NE Lake Tanglewood (Randall County) 64 mph; Masterson (Potter County) 62 mph; Clarendon (Donley County) 60 mph; Goodnight (Armstrong County) 62 mph; Pampa (Gray County) 59 mph.

(TX-Z001) DALLAM, (TX-Z004) OCHILTREE, (TX-Z006) HARTLEY, (TX-Z007) MOORE, (TX-Z010) HEMPHILL, (TX-Z017) RANDALL	12/19/12 16:00 CST	0	Winter Weather
	12/19/12 19:31 CST	0	

A strong cold front moved across the Texas Panhandle during the afternoon and evening hours on the 19th. Behind the front, strong mid-level winds mixing to the surface with a strong surface pressure gradient over the Texas Panhandle to result in several hours of 30 to 45 mph sustained surface winds with wind gusts up to 64 mph. During the same time light snow showers formed over the Southern Plains. The combination of strong winds and snowfall reduced visibilities on area roads to near whiteout conditions in Dalhart (Dallam

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County), Texline (Dallam County), Dumas (Moore County), Amarillo (Randall County), Canadian (Hemphill County), and Perryton (Ochiltree County). By 7:30 PM CST snow showers ended as the upper level support for these showers had moved well east of the area. Light snow accumulations of less than an inch were reported across the Texas 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-Z009) ROBERTS, (TX-Z010) HEMPHILL, (TX-Z011) OLDHAM, (TX-Z012) POTTER, (TX-Z013) CARSON, (TX-Z014) GRAY, (TX-Z015) WHEELER, (TX-Z017) RANDALL, (TX-Z018) ARMSTRONG, (TX-Z019) DONLEY, (TX-Z020) COLLINGSWORTH	12/25/12 05:16 CST		0	Winter Weather
	12/25/12 17:48 CST		0	

A vigorous mid-level trough of low pressure moved out of southeastern New Mexico and into west central Texas during the early morning hours of December 25th. The lift provided by this system and low level wrap around moisture caused snow showers to form over the Southern Plains. The snow showers persisted for several hours to produce at least 1 inch of accumulated snow in every county in the Texas Panhandle. The snow fall began to diminish during the early evening hours as the upper low continued its eastward path into southern Arkansas and northern Louisiana.

In Amarillo 2 inches of snow fell which gave the city its second consecutive white Christmas in over 100 years. The last time this occurred was the Christmas of 1894 and 1895. A band of moderate snow developed over the city of Glenrio (Oldham County) to produce 4 inches of snow and near zero visibilities as winds gusted to 45 mph. The snow also caused slick road conditions in Vega (Oldham County) and Amarillo (Randall and Potter County). In Amarillo, 25 wrecks were reported by local law enforcement between 7 AM CST and 3 PM CST, but no serious injuries or fatalities were reported. The following is a list of snow amounts across the Texas Panhandle: Claude (Armstrong County) 2.0 inches; Panhandle (Carson County) 2.5 inches; Skellyton (Carson County) 1.0 inch; Lutie (Collingsworth County) 3.0 inches; Clarendon (Donley County) 1.0 inch; Pampa (Gray County) 1.5 inches; Spearman (Hansford County) 1.0 inch; Dalhart (Hartley and Dallam County) 1.0 inch; Canadian (Hemphill County) 1.5 inches; Borger (Hutchinson County) 1.0 inch; Lipscomb (Lipscomb County) 3.0 inches; Dumas (Moore County) 1.0 inch; Perry ton (Ochiltree County) 1.5 inches; Glenrio (Oldham County) 4.0 inches; Boys Ranch (Oldham County) 2.5 inches; Vega (Oldham County) 2.0 inches; ENE Amarillo (Potter County) 2.0; SW Amarillo (Randall County) 1.3 inches; Canyon (Randall County) 3.0 inches; Miami (Roberts County) 2.5 inches; Stratford (Sherman County) 2.0 inches; Shamrock (Wheeler County) 3.0 inches; and Wheeler (Wheeler County) 2.0 inches.

(TX-Z001) DALLAM, (TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z004) OCHILTREE, (TX-Z006) HARTLEY	12/31/12 03:06 CST		0	Winter Weather
	12/31/12 11:45 CST		0	

Over the course of the late night hours on the 30th an upper level trough of low pressure situated over the Arizona and California state line moved eastward towards the Texas Panhandle. Ahead of this trough, a 150mph-160mph jet stream coupled with a surface low pressure system diving southeastward out of southern Colorado to initiate precipitation across the Southern Plains. As the surface low continued its southeasterly track the associated cold front dropped temperatures below the freezing mark. At this time any precipitation falling transitioned quickly from rain to sleet to all snow. Snowfall continued for several hours as moisture wrapped around the surface low before ending from west to east at noon. The highest snowfall amount of 8 inches was observed in the northwestern Texas Panhandle. The snow pack created some icy spots on roadways as reported by local law enforcement. Below is a listing of snow amounts by county:

Dallam County: Texline 8.0 inches; 4 E Dalhart 2.0 inches.
 Hartley County: Dalhart 3.0 inches.
 Hansford County: 1 NE Gruver 2.0 inches.
 Ochiltree County: 1 W Perryton 1.0 inch; Perryton 1.0 inch.
 Sherman County: Stratford 1.0 inch.

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Snow packed roads in Texline (Dallam County) provided by K Cross Photo's to the NWS Amarillo Facebook page.