Storm Data and Unusual Weather Phenomena - November 2012

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

OKLAHOMA, Panhandle

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

	11/01/12 00:00 CST	0	Drought
	11/30/12 23:59 CST	80M	

A dry November caused the ongoing drought conditions to worsen across the Oklahoma Panhandle. 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.

There were very few opportunities for the Oklahoma Panhandle to see any relief in the form of precipitation and even fewer locations saw any precipitation during the month of November. The Guymon (Texas County) ASOS recorded a trace of precipitation (0.53 inches below normal). This lack of rain for the month ranked as the 26th driest November for the Oklahoma Panhandle on record. Also this November was the 10th warmest November for the Oklahoma Panhandle on record.

The dry conditions and more frequent freezes throughout the month of November have helped to further cure fuels across the Panhandle. This has kept the Keetch-Byram Drought Index steady state for the Oklahoma Panhandle with a rating within the 600 to 800 range.

The lack of rain during both October and November has limited the growth of dryland winter wheat. In some counties where dryland crops are planted, crops have already failed or even failed to emerge. Irrigated fields showed average growth but have required significant supplemental watering. The Palmer Drought Severity Index showed the Oklahoma Panhandle has degraded to the Extreme Drought rating.

Reservoirs and streamflows across the Panhandle have remained well below normal levels. Water watches for several public water systems persisted through November while voluntary to mandatory water restrictions have been enacted.

Economic losses due to the drought through November were estimated between $20 and $30 million a county, and were predominately the result of poor growth of winter wheat, heavy supplemental watering, and supplemental feed for cattle in pastures and rangeland.

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

	11/10/12 10:50 CST	2K	High Wind (MAX 58 kt)
	11/10/12 18:31 CST	0	

A potent weather system moved across the Great Plains region during the day of the 10th. This system brought a lee side low into southeastern Colorado with a cold front stretching back to the southwest across New Mexico by mid-morning. At the same time a 46 mph (40kt) low level jet and a 63 mph (55 kt) 500mb jet were setting up across the Oklahoma Panhandle.

As the morning progressed boundary layer mixing and the approaching low pressure center allowed a steady increase of surface wind gusts. By 9 AM CST wind gusts of 30 to 35 mph (26-30 kt) out of the southwest were already being reported. The first High Wind report of 66 mph (57 kt) came in at 10:50 AM CST from the Oklahoma Mesonet site at Kenton (Cimarron County).

As the day progressed, mixing continued to bring stronger winds aloft to the surface. The 6 PM CST upper air sounding from Amarillo showed that winds from as high as 500mb, where winds were 75 to 86 mph (65 to 75 kt), were able to mix down to the surface. This culminated in a max wind gust for the Oklahoma Panhandle of 67 mph (58 kt) at the Oklahoma Mesonet site in Kenton (Cimarron County).

The Emergency Manager for Beaver County relayed a report of a large outbuilding in Clear Water area (Beaver County) being destroyed between 6 to 7 PM CST. Winds of 63 mph (55 kt) were estimated from radar and damage descriptions, and property damage was estimated as two thousand dollars. No reports of injuries or fatalities were reported with this damage, nor were any reported in relation to the high winds.

The following is a listing of the highest wind reports from the Oklahoma Mesonet, media mesonets, and ASOS: Kenton (Cimarron County) 67 mph; Guymon (Texas County) 64 mph; Goodwell (Texas County) 60 mph; Oklahoma Panhandle State University in Goodwell (Texas County) 58 mph; Boise City (Cimarron County) 63 mph; Balko Independent School in Balko (Beaver County) 58 mph; and Hooker (Texas County) 59 mph.

(OK-Z001) CIMARRON

	11/11/12 19:20 CST	0	Winter Weather
	11/11/12 22:10 CST	0	

Isolated snow showers moved out of northeast New Mexico and into the extreme western Oklahoma Panhandle during the evening hours on November 11th. The snow showers formed behind an upper level trough which had moved into the Central Plains earlier in

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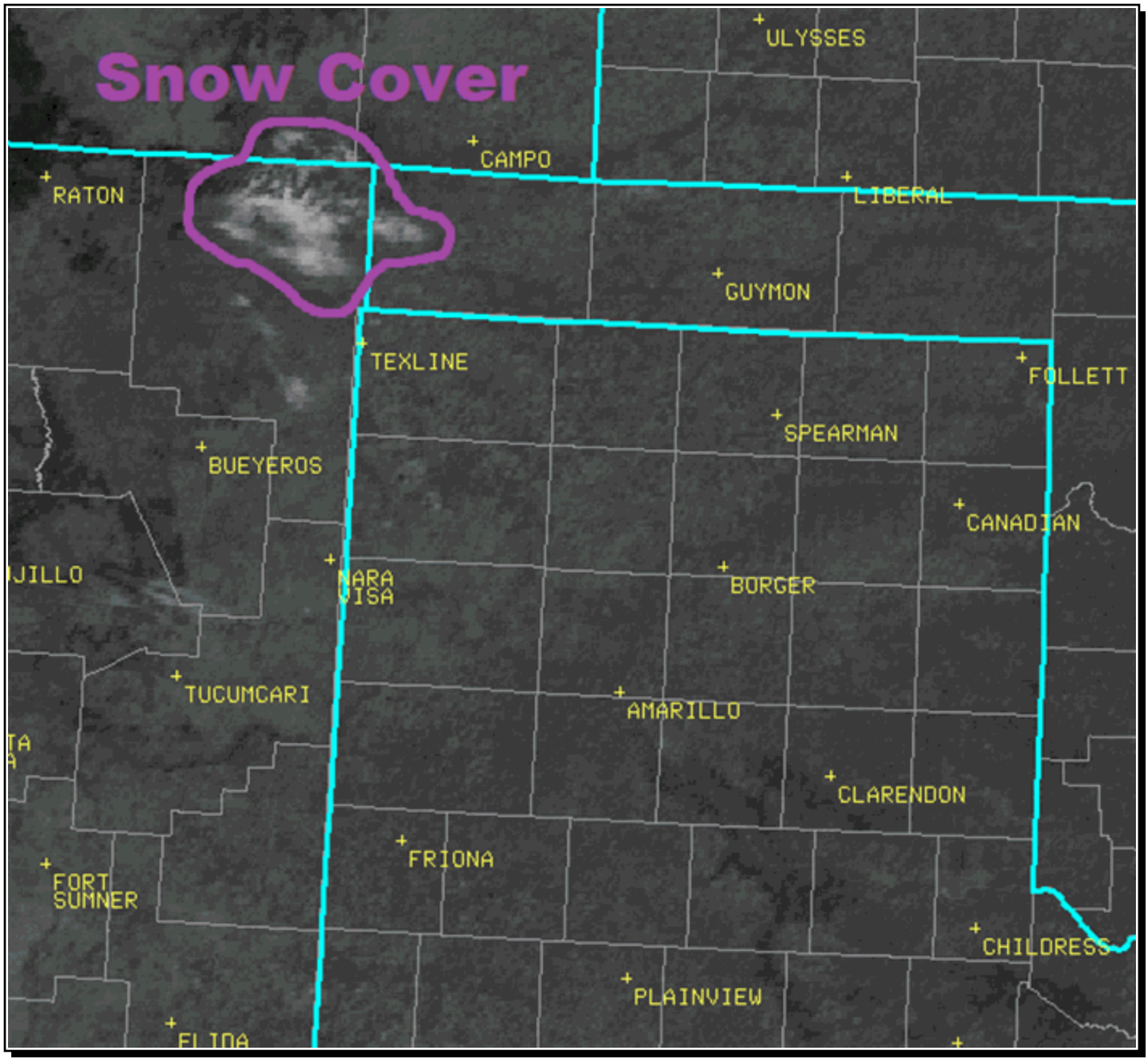
the day. The snow showers were not long lived and dissipated roughly 3 hours after forming. The cooperative observer 2 miles west-northwest of Wheeless (Cimarron County) reported up to an inch of accumulated snow. No accidents or injuries were reported in association with the snow showers or snow accumulation.



Visible satellite imagery in AWIPS from the morning of the 12th showing the snow accumulations over Cimarron County, Oklahoma.

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

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	11/01/12 00:00 CST		0	Drought
	11/30/12 23:59 CST		0.51B	

A dry November caused the ongoing drought conditions to worsen across the Texas Panhandle. 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.

There were very few opportunities for the Texas Panhandle to see any relief in the form of precipitation and even fewer locations saw any precipitation during the month of November. The only reason the entire Texas Panhandle is not under D3 and D4 Drought is because of the convection that developed over the southeastern Texas Panhandle on November 10th. Amarillo recorded 0.01 inches of precipitation for November (0.79 inches below normal), Dalhart recorded 0.00 inches (0.58 inches below normal), and Borger recorded a trace of precipitation (0.84 inches below normal). This lack of rain placed this November as the 9th driest for the Texas High Plains region on record. Also this November was the 7th warmest November for the Texas High Plains region on record.

The dry conditions and more frequent freezes throughout the month of November have helped to further cure fuels across the Panhandle. This has led to a marginal increase in the Keetch-Byram Drought Index for the north Texas Panhandle placing it inthe 600 to 800 range while the rest of the Panhandles stayed relatively steady state within the 400 to 600 range. These prime conditions for the spread of wildfires has led to countywide burn bans for all of the Texas Panhandle except for Hansford County.

The lack of rain during both October and November has limited the growth of dryland winter wheat. In some counties where dryland crops are planted, crops have already failed or even failed to emerge. 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 remained steady state this month with the Texas High Plains region in the Extreme Drought rating.

Reservoirs and streamflows 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 November while voluntary to mandatory water restrictions have been enacted.

Economic losses due to the drought through November were estimated between $20 and $30 million a county, and were predominately the result of poor growth of winter wheat, heavy supplemental watering, and supplemental feed for cattle in pastures and rangeland.

(TX-Z003) HANSFORD, (TX-Z006) HARTLEY, (TX-Z007) MOORE, (TX-Z016) DEAF SMITH

11/10/12 11:52 CST	0	High Wind (MAX 55 kt)
11/10/12 13:36 CST	0	

A potent weather system moved across the Great Plains region during the day of the 10th. This system brought a lee side low into southeastern Colorado with a cold front stretching back to the southwest across New Mexico by mid-morning. At the same time a 46 mph (40kt) low level jet and a 63 mph (55 kt) 500mb jet was setting up across the Texas Panhandle.

As the morning progressed boundary layer mixing and the approaching low pressure center allowed a steady increase of surface wind gusts. By 9 AM CST wind gusts of 30 to 35 mph (26-30 kt) out of the southwest were already being reported. The first High Wind report of 58 mph (50 kt) came in at 11:52 AM CST from the West Texas Mesonet site at Bootleg (Deaf Smith County).

As the day progressed, mixing continued to bring stronger winds aloft to the surface. The 6 PM CST upper air sounding from Amarillo showed that winds from as high as 500mb, where winds were 75 to 86 mph (65 to 75 kt), were able to mix down to the surface. This culminated in a max wind gust for the Texas Panhandle of 63 mph (55 kt) at both the West Texas Mesonet site in Bootleg (Deaf Smith County) and at the Dalhart (Hartley County) ASOS.

No reports of injuries or fatalities were reported in relation to the high winds.

The following is a listing of the highest wind reports from the West Texas Mesonet, KVII Schoolnet, Texas Department of Transportation AWOS, and ASOS: Bootleg (Deaf Smith County) 63 mph; Dalhart (Hartley County) 63 mph; Gruver Junior High School (Hansford County) 59 mph; and Dumas (Moore County) 58 mph.

WHEELER COUNTY --- 5.6 NNW KELTON [35.48, -100.16], 8.1 NNE ALLISON [35.70, -100.02]

11/10/12 19:10 CST	0	Hail (1.00 in)
11/10/12 19:17 CST	0	Source: COOP Observer

The left moving portion of a storm split intensified as it moved across Wheeler County. As it moved north-northeast across the county it passed over a COOP observer in Allison (Wheeler County) who reported 1 inch hail. The storm continued to move to the north-northeast and exited state of Texas.

GRAY COUNTY --- 0.9 SE MC LEAN [35.22, -100.59], 3.8 NE MC LEAN [35.26, -100.55]

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	11/10/12 20:35 CST		0	Thunderstorm Wind (MG 56 kt)
	11/10/12 20:35 CST		0	Source: Mesonet

A KVII schoolnet (mesonet) site recorded a thunderstorm wind gust of 65 mph (56 kt) as a thunderstorm moved over the city of McLean (Gray County).

DONLEY COUNTY --- 2.2 WSW LELIA LAKE [34.89, -100.82], 3.3 ENE LELIA LAKE [34.91, -100.72]

	11/10/12 20:44 CST	0	Hail (0.75 in)
	11/10/12 20:46 CST	0	Source: Storm Chaser

A storm chaser on Highway 287 reported Pea size hail covering the highway.

A 500mb negatively tilted shortwave sparked convection during the evening hours of November 10th from southwest Minnesota into the eastern Texas Panhandle. Convection over the eastern Texas Panhandle started out as isolated cells ahead of a cold front moving across the Panhandle that developed into a linear complex. While the storms were isolated in nature they posed primarily a severe hail threat. This was verified by a 1 inch hail report out of Allison (Wheeler County). However, as convection transitioned into a linear complex the main threat became severe thunderstorm wind gusts. This was also confirmed when a 65 mph (56 kt) thunderstorm wind gust was recorded by the McLean (Gray County) mesonet site. Convection continued well into the early morning hours of the 11th, but severe reports ceased by 9 PM CST on the 10th.