

## Storm Data and Unusual Weather Phenomena - December 2021

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

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

12/01/21 00:00 CST	0	Drought
12/31/21 23:59 CST	0	

December was an extremely dry month for the combined Oklahoma and Texas Panhandles. Absolutely no precipitation occurred and this contributed to worsening soil conditions. Soil across the area went from dry to very dry. Cattle and livestock needed supplemental feeding with range land grasses being non-existent. Winter wheat was suffering in dry lands. There were even reports of the dry soils leading to wheat fields being lost to high wind events. Also, multiple wildfires occurred during high wind events during the month with fuels being extremely dry.

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#### (OK-Z002) TEXAS

12/05/21 20:40 CST	0	High Wind (MAX 51 kt)
12/05/21 20:53 CST	0	

A strong upper level system dipped down into the Southern Plains. This sent a cold front surging south late in the evening with strong winds. Much higher winds aloft were able to mix down to the surface causing many winds to gusts upwards of 64 mph. Several ground stations across the area measured multiple wind gusts in excess of 58 mph during the evening of the 5th of December.

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#### (OK-Z002) TEXAS

12/10/21 09:13 CST	0	High Wind (MAX 60 kt)
12/10/21 12:50 CST	0	

Strong southwesterly winds occurred across the Panhandles during the day on Friday, December 10th. The surface cyclone developed in southeast Colorado the morning of the 10th, before moving east into southwest Kansas and deepening further. Deep mixing occurred under mostly clear skies further enhancing winds in the area. With the position of the surface low in southeast Kansas by the afternoon hours, highest wind gusts mainly occurred in the central Panhandles during the early afternoon hours. A few gusts reported at or over 70 mph were achieved. Strong winds caused sporadic power outages. Persistent blowing dusts produced widespread conditions of limited visibility for drivers across the Panhandles which did lead to some accidents. US 287 was closed in both directions for several hours between FM 1912 and FM 2373 due to low visibility with traffic detoured to I-40. A cold front moved south through the Panhandles starting around 3-4 PM on the 10th. In the wake of the cold front, cooler and more stable conditions led to diminishing winds going into the evening hours.

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

12/15/21 09:50 CST	0	High Wind (MAX 69 kt)
12/15/21 14:40 CST	0	

A potent storm system raced across Colorado and Kansas through the day, causing strong to extreme southwest to west winds across the area, but especially across the northern Texas and Oklahoma Panhandles. By mid-morning, winds were already gusting to well over 60 mph across the northwest half of the Panhandles. Wind gusts were measured at 70 to 90 mph by observation sites during the peak of the wind event which occurred between 11 am and 3 pm. Sustained winds ranged from 40 to 50 mph during this period and some site briefly measured sustained winds close to 60 mph. These winds led to damage to trees, powerlines, and roofs in areas where the strongest winds occurred. In addition, there were several reports of semi trucks being overturned across the area. Blowing dust caused widespread visibility reductions down to 1 to 3 miles and there were reports of localized areas where visibility dropped to less than a 1/4 mile leading to several major accidents and road closures. Three of the fires in the Panhandles were classified as significant wildfires as they raced uncontrolled across the landscape.

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#### (OK-Z002) TEXAS

12/15/21 11:13 CST	0	Wildfire
12/22/21 14:39 CST	0	

A potent storm system raced across Colorado and Kansas through the day, causing strong to extreme southwest to west winds across the area, but especially across the northern Texas and Oklahoma Panhandles. By mid-morning, winds were already gusting to well over 60 mph across the northwest half of the Panhandles. Wind gusts were measured at 70 to 90 mph by observation sites during the peak of the wind event which occurred between 11 am and 3 pm. Sustained winds ranged from 40 to 50 mph during this period and some site briefly measured sustained winds close to 60 mph. These winds led to damage to trees, powerlines, and roofs in areas where the strongest winds occurred. In addition, there were several reports of semi trucks being overturned across the area. Blowing dust caused widespread visibility reductions down to 1 to 3 miles and there were reports of localized areas where visibility dropped to less than a 1/4 mile leading to several major accidents and road closures. Three of the fires in the Panhandles were classified as significant wildfires as they raced uncontrolled across the landscape.

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*Pictures of the Cobb Fire in Texas County on December 15, 2021 provided by the Guymon Fire Department and the Oklahoma Forestry Services.*

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**(OK-Z002) TEXAS**

12/26/21 11:05 CST	0	High Wind (MAX 55 kt)
12/26/21 13:45 CST	0	

Strong winds once again overtook the combined OK and TX Panhandle. Southwest to westerly winds picked up to 20 to 30 mph with gusts between 40 and 50 mph. A handful of locations across the area managed to gust upwards of 58 to 64 mph. The highest gust of 64 mph was measured near Palo Duro Reservoir, TX. Impacts from these wind speeds were relatively minimal.

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**(OK-Z001) CIMARRON**

12/29/21 15:30 CST	0	Wildfire
12/31/21 13:50 CST	0	

Extreme drought conditions in the western Oklahoma Panhandle along with strong downsloping southwesterly winds and low afternoon relative humidity values and receptive fuels helped to contribute to a large grass fire in the western Oklahoma Panhandle.

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**TEXAS, North Panhandle**

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(TX-Z001) DALLAM, (TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z006) HARTLEY, (TX-Z007) MOORE, (TX-Z008) HUTCHINSON, (TX-Z009)

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>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 COUNTY, (TX-Z019) DONLEY, (TX-Z020) COLLINGSWORTH</b>				
	12/01/21 00:00 CST		0	Drought
	12/31/21 23:59 CST		0	

December was an extremely dry month for the combined Oklahoma and Texas Panhandles. Absolutely no precipitation occurred and this contributed to worsening soil conditions. Soil across the area went from dry to very dry. Cattle and livestock needed supplemental feeding with range land grasses being non-existent. Winter wheat was suffering in dry lands. There were even reports of the dry soils leading to wheat fields being lost to high wind events. Also, multiple wildfires occurred during high wind events during the month with fuels being extremely dry.

<b>(TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z006) HARTLEY, (TX-Z008) HUTCHINSON, (TX-Z010) HEMPHILL, (TX-Z011) OLDHAM, (TX-Z012) POTTER, (TX-Z013) CARSON, (TX-Z016) DEAF SMITH</b>				
	12/01/21 20:51 CST		0	High Wind (MAX 56 kt)
	12/05/21 23:19 CST		0	

A strong upper level system dipped down into the Southern Plains. This sent a cold front surging south late in the evening with strong winds. Much higher winds aloft were able to mix down to the surface causing many winds to gusts upwards of 64 mph. Several ground stations across the area measured multiple wind gusts in excess of 58 mph during the evening of the 5th of December.

<b>(TX-Z011) OLDHAM</b>				
	12/05/21 22:00 CST		0	Wildfire
	12/06/21 02:00 CST		0	

The combination of an ongoing severe drought along with very strong winds and low relative humidity values resulted in a wildfire in the western Texas Panhandle.

<b>(TX-Z018) ARMSTRONG</b>				
	12/07/21 12:00 CST		0	Drought
	12/31/21 23:59 CST		0	

December was an extremely dry month for the combined Oklahoma and Texas Panhandles. Absolutely no precipitation occurred and this contributed to worsening soil conditions. Soil across the area went from dry to very dry. Cattle and livestock needed supplemental feeding with range land grasses being non-existent. Winter wheat was suffering in dry lands. There were even reports of the dry soils leading to wheat fields being lost to high wind events. Also, multiple wildfires occurred during high wind events during the month with fuels being extremely dry.

<b>(TX-Z001) DALLAM, (TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z006) HARTLEY, (TX-Z007) MOORE, (TX-Z008) HUTCHINSON, (TX-Z010) HEMPHILL, (TX-Z011) OLDHAM, (TX-Z012) POTTER, (TX-Z014) GRAY, (TX-Z017) RANDALL COUNTY, (TX-Z018) ARMSTRONG</b>				
	12/10/21 09:34 CST		0	High Wind (MAX 63 kt)
	12/10/21 16:10 CST		0	

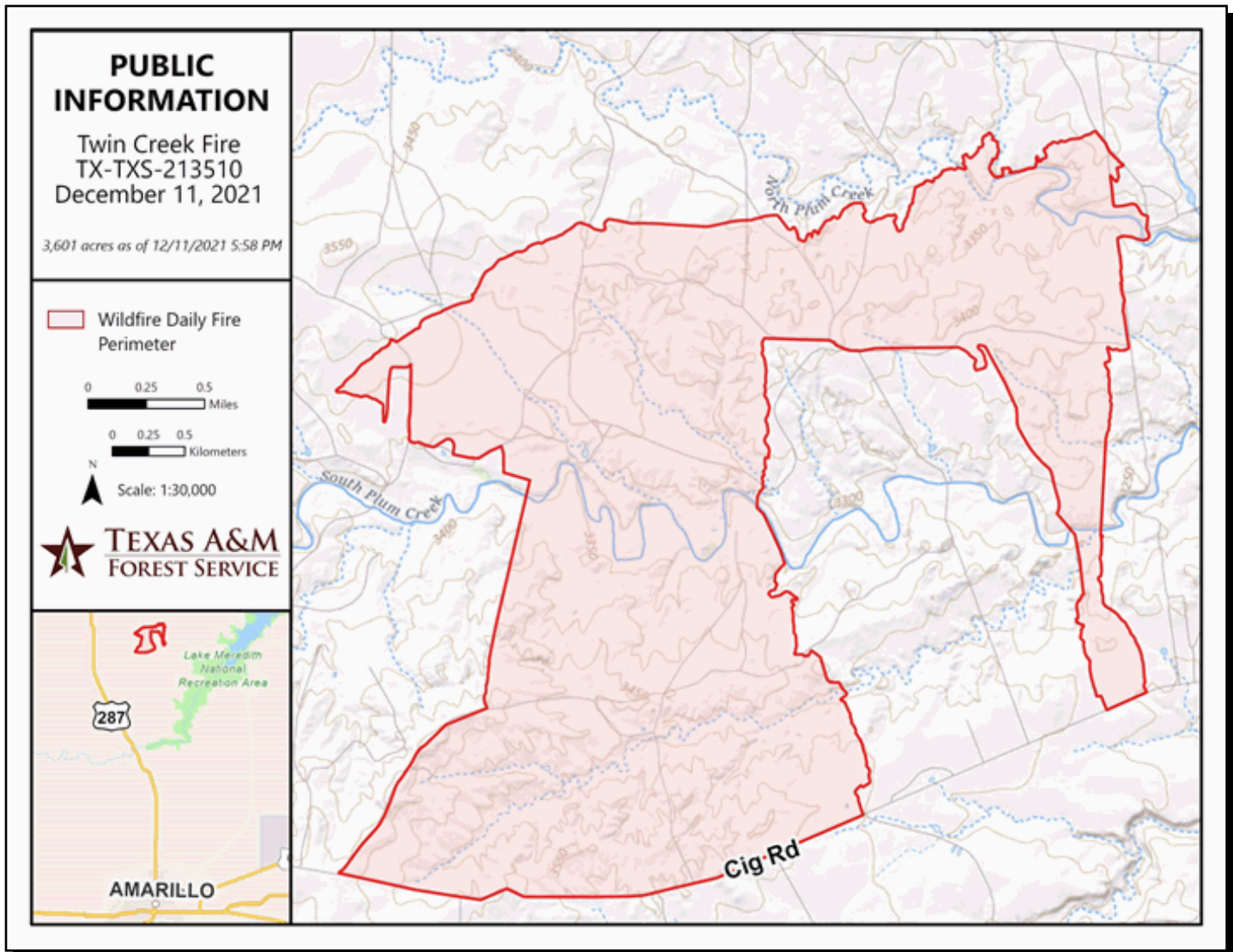
Strong southwesterly winds occurred across the Panhandles during the day on Friday, December 10th. The surface cyclone developed in southeast Colorado the morning of the 10th, before moving east into southwest Kansas and deepening further. Deep mixing occurred under mostly clear skies further enhancing winds in the area. With the position of the surface low in southeast Kansas by the afternoon hours, highest wind gusts mainly occurred in the central Panhandles during the early afternoon hours. A few gusts reported at or over 70 mph were achieved. Strong winds caused sporadic power outages. Persistent blowing dusts produced widespread conditions of limited visibility for drivers across the Panhandles which did lead to some accidents. US 287 was closed in both directions for several hours between FM 1912 and FM 2373 due to low visibility with traffic detoured to I-40. A cold front moved south through the Panhandles starting around 3-4 PM on the 10th. In the wake of the cold front, cooler and more stable conditions led to diminishing winds going into the evening hours.

<b>(TX-Z007) MOORE, (TX-Z016) DEAF SMITH</b>				
	12/10/21 14:30 CST		0	Wildfire
	12/13/21 20:30 CST		0	

Underlying drought, critical fuel dryness and elevated to critical fire weather combined to produce a fire environment supportive of significant fire activity. Extreme fire behavior and fast rate of spread was observed.

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*GPS mapping of the Twin Creek wildfire on December 10, 2021 provided by the Texas A&M Forest Service.*

(TX-Z004) OCHILTREE, (TX-Z005) LIPSCOMB

12/14/21 12:00 CST	0	Drought
12/31/21 23:59 CST	0	

December was an extremely dry month for the combined Oklahoma and Texas Panhandles. Absolutely no precipitation occurred and this contributed to worsening soil conditions. Soil across the area went from dry to very dry. Cattle and livestock needed supplemental feeding with range land grasses being non-existent. Winter wheat was suffering in dry lands. There were even reports of the dry soils leading to wheat fields being lost to high wind events. Also, multiple wildfires occurred during high wind events during the month with fuels being extremely dry.

(TX-Z001) DALLAM, (TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z004) OCHILTREE, (TX-Z006) HARTLEY, (TX-Z007) MOORE, (TX-Z008) HUTCHINSON, (TX-Z009) ROBERTS, (TX-Z010) HEMPHILL, (TX-Z011) OLDDHAM, (TX-Z012) POTTER, (TX-Z013) CARSON, (TX-Z014) GRAY, (TX-Z016) DEAF SMITH, (TX-Z017) RANDALL COUNTY

12/15/21 09:20 CST	0	High Wind (MAX 78 kt)
12/15/21 15:51 CST	0	

A potent storm system raced across Colorado and Kansas through the day, causing strong to extreme southwest to west winds across the area, but especially across the northern Texas and Oklahoma Panhandles. By mid-morning, winds were already gusting to well over 60 mph across the northwest half of the Panhandles. Wind gusts were measured at 70 to 90 mph by observation sites during the peak of the wind event which occurred between 11 am and 3 pm. Sustained winds ranged from 40 to 50 mph during this period and some site

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briefly measured sustained winds close to 60 mph. These winds led to damage to trees, powerlines, and roofs in areas where strongest winds occurred. In addition, there were several reports of semi trucks being overturned over in the area. Blowing dust caused widespread visibilities of 1 to 3 miles and there were reports of localized visibilities of less than a 1/4 mile that led to several additional major accidents in the area, which led to road closures. The combination of high winds, ongoing drought, and very dry conditions also led to 6 or more wildfires across the area which was on the southern end of a significant wildfire outbreak that extended well into Kansas. Three of the fires in the Panhandles were classified as significant wildfires as they raced uncontrolled across the landscape. The Parker Creek Fire (7000 acres as of Dec 16th) started in northwest Oldham county, briefly threatened the city of Channing in southeast Hartley County and crossed into southwest Moore County before being contained with the help of agricultural barriers. The Cobb fire (7,987 acres as of Dec 16) started in Texas County and raced east threatening Guymon, prompting evacuations and the issuance of Fire Warnings for the west side of the city before being controlled. The North 207 Fire (15,000 acres as of Dec 16th) started along Highway 207 in northern Carson County between Borger and Panhandle. This fire raced east, moved across a canyon area, and threatened Skellytown, prompting evacuations and the issuance of Fire Warnings. This fire finally slowed its progress near the Pampa Airport and Wayside as winds subsided in the evening.

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(TX-Z011) OLDHAM, (TX-Z013) CARSON

12/15/21 11:15 CST	0	Wildfire
12/19/21 16:29 CST	0	

A potent storm system raced across Colorado and Kansas through the day, causing strong to extreme southwest to west winds across the area, but especially across the northern Texas and Oklahoma Panhandles. By mid-morning, winds were already gusting to well over 60 mph across the northwest half of the Panhandles. Wind gusts were measured at 70 to 90 mph by observation sites during the peak of the wind event which occurred between 11 am and 3 pm. Sustained winds ranged from 40 to 50 mph during this period and some site briefly measured sustained winds close to 60 mph. These winds led to damage to trees, powerlines, and roofs in areas where the strongest winds occurred. In addition, there were several reports of semi trucks being overturned across the area. Blowing dust caused widespread visibility reductions down to 1 to 3 miles and there were reports of localized areas where visibility dropped to less than a 1/4 mile leading to several major accidents and road closures. Three of the fires in the Panhandles were classified as significant wildfires as they raced uncontrolled across the landscape.

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*Pictures of the Parker Creek Wildfire that began in Oldham County on December 15, 2021 provided by the Texas A&M Forest Service.*

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(TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z006) HARTLEY, (TX-Z011) OLDHAM, (TX-Z012) POTTER, (TX-Z013) CARSON, (TX-Z014) GRAY, (TX-Z016) DEAF SMITH, (TX-Z017) RANDALL COUNTY

12/24/21 13:21 CST	0	High Wind (MAX 53 kt)
12/24/21 15:35 CST	0	

Strong dynamics were present on the afternoon of the 24th with the presence of an upper level jet. Winds gusted 40 to 50 mph as higher winds aloft mixed to the surface. A few weather observation stations measured a few gusts of 58 to 61 mph on separate occasions across the Texas Panhandle.

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(TX-Z002) SHERMAN, (TX-Z003) HANSFORD, (TX-Z006) HARTLEY, (TX-Z011) OLDHAM

12/26/21 12:15 CST	0	High Wind (MAX 56 kt)
12/26/21 15:11 CST	0	

Strong winds once again overtook the combined OK and TX Panhandle. Southwest to westerly winds picked up to 20 to 30 mph with gusts between 40 and 50 mph. A handful of locations across the area managed to gust upwards of 58 to 64 mph. The highest gust of 64 mph was measured near Palo Duro Reservoir, TX.

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(TX-Z011) OLDHAM

12/28/21 15:48 CST	0	Wildfire
12/28/21 19:00 CST	0	

Worsening drought conditions in the severe to extreme category along with strong southwest winds and low relative humidities during

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the afternoon and also receptive fuels contributed to a large wildfire in the western Texas Panhandle.