

Storm Data and Unusual Weather Phenomena - October 2024

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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NORTH DAKOTA, Central and West

(ND-Z001) DIVIDE, (ND-Z002) BURKE, (ND-Z009) WILLIAMS, (ND-Z017) MCKENZIE, (ND-Z031) GOLDEN VALLEY, (ND-Z032) BILLINGS, (ND-Z040) SLOPE, (ND-Z043) BOWMAN, (ND-Z044) ADAMS

10/01/24 06:00 CST	0	Drought
10/31/24 23:59 CST	0	

Severe drought (D2) rapidly developed and expanded in area and intensity (to D3) over far western North Dakota in October. With each release of the U.S. Drought Monitor through the month the drought was shown to be expanding and intensifying.

(ND-Z009) WILLIAMS, (ND-Z017) MCKENZIE

10/05/24 01:00 CST	2	19M	Wildfire
10/06/24 23:00 CST	8	13M	

Direct Fatalities: M26OU, M47OU

Multiple wildfires started during the high wind event of October 5, when humidity values dropped into the teens, and winds gusted over 70 mph in many locations in the wake of a strong cold front (see the high wind Storm Data entry from October 5). Extreme fire growth occurred, and fire fighting personnel had to fight zero visibility situations from a combination of wildfire smoke and blowing dust. Many fire fighters encountered situations where fire was burning on both sides of their vehicle. There were many occasions where the primary focus became protecting yards as the fires passed by. More than 30 agencies, including local, state, and federal, were involved in the fire fighting effort.

The largest wildfires occurred in Williams and McKenzie counties. In Williams County, there was a complex of two fires, referred to as the Ray-Tioga Fire and the Highway 85 Fire. Both of these fires crossed US Highway 2, and the Highway 85 fire nearly entered the town of Ray. Nearly 90,000 acres were burned by these fires, which resulted in two deaths and eight injuries. Approximately 425 power poles needed to be replaced as a result of the fires.

In McKenzie County there were three significant wildfires and multiple other fires, resulting in over 20,000 acres burned. The first significant fire started very early in the morning when the cold front passed through, and threatened the town of Arnegard. This fire was controlled before the strongest winds occurred. Later that morning the two main fires that developed were the Haystack Fire, which later was re-named the Elkhorn Fire, and the Bear Den Fire. The Elkhorn Fire started 13 miles southeast of Watford City, while the Bear Den Fire occurred in far eastern McKenzie County. The Bear Den Fire threatened the community of Mandaree, on the Fort Berthold Nation, which was protected by multiple airdrops of chemical fire retardant. Approximately 200 power poles in McKenzie County had to be replaced due to impact from the fires.

In total, over 270 livestock animals died from the wildfires, and around 100 miles of fence was destroyed or severely damaged. Six cattle herds suffered health impacts from the fire and smoke. Approximately 14,000 acres of pasture and rangeland were lost, 19,000 acres of cropland suffered damage, and 1,150 hay bales burned. Two farmsteads were lost along with additional buildings, approximately 30,000 bushels of stored grain was destroyed, and farm equipment including combines and tractors were burned. Multiple vehicles were lost, and many shelterbelts and windbreaks were destroyed.

(ND-Z001) DIVIDE, (ND-Z002) BURKE, (ND-Z003) RENVILLE, (ND-Z004) BOTTINEAU, (ND-Z005) ROLETTE, (ND-Z009) WILLIAMS, (ND-Z010) MOUNTRAIL, (ND-Z011) WARD, (ND-Z012) MCHENRY, (ND-Z013) PIERCE, (ND-Z017) MCKENZIE, (ND-Z018) DUNN, (ND-Z019) MERCER, (ND-Z020) OLIVER, (ND-Z021) MCLEAN, (ND-Z022) SHERIDAN, (ND-Z023) WELLS, (ND-Z025) FOSTER, (ND-Z031) GOLDEN VALLEY, (ND-Z032) BILLINGS, (ND-Z033) STARK, (ND-Z034) MORTON, (ND-Z035) BURLEIGH, (ND-Z036) KIDDER, (ND-Z037) STUTSMAN, (ND-Z040) SLOPE, (ND-Z041) HETTINGER, (ND-Z042) GRANT, (ND-Z043) BOWMAN, (ND-Z044) ADAMS

10/05/24 06:00 CST	0	High Wind (MAX 66 kt)
10/05/24 20:00 CST	0	

High winds developed behind a strong cold front that passed through the Northern Plains. The cold front pushed through much of North Dakota during the very early morning hours of October 5, with winds turning northwesterly and becoming very gusty. Winds then diminished a bit in some locations, but became even stronger during the mid-day into the afternoon hours as a secondary push of cold air moved through. The strongest wind gusts of around 75 mph occurred over west-central North Dakota, with the strongest reported gust of 76 mph occurring at Beach in Golden Valley County. In addition, the high winds combined with very low relative humidity values to produce critical fire weather conditions. Multiple very large wild fires occurred. See the October 5-6 Storm Data entry for wildfires.

(ND-Z010) MOUNTRAIL, (ND-Z018) DUNN, (ND-Z033) STARK, (ND-Z041) HETTINGER

10/15/24 06:00 CST	0	Drought
10/31/24 23:59 CST	0	

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Severe to extreme drought (D2-D3) expanded over western and into central North Dakota as the month of October wore on with little to no rain.