

## Storm Data and Unusual Weather Phenomena - August 2022

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

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#### ROLETTE COUNTY --- 12.8 NNW SAN HAVEN [48.99, -100.17]

	08/15/22 07:12 CST	0	Hail (1.00 in)
	08/15/22 07:15 CST	0	Source: Trained Spotter

Thunderstorms developed along a frontal boundary over north central into southwest North Dakota. One storm became severe over far north central North Dakota, with one inch diameter hail reported in Rolette County.

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#### MCLEAN COUNTY --- 3.8 E RUSO [47.84, -100.85], 3.8 E RUSO [47.83, -100.85]

	08/15/22 16:08 CST	0	Tornado (EFU, L: 0.35 mi , W: 25 yd)
	08/15/22 16:09 CST	0	Source: Law Enforcement

This was the first of three tornadoes this day in McLean County, all near Ruso and in less than a one hour period of time. The tornado touched down in an open field east of Ruso and impacted no structures. There was no damage to evaluate. By National Weather Service policy the tornado is rated EF Unknown.

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#### MCLEAN COUNTY --- 1.4 S RUSO [47.81, -100.93], 3.6 S RUSO [47.78, -100.92]

	08/15/22 16:10 CST	25K	Tornado (EF1, L: 2.24 mi , W: 100 yd)
	08/15/22 16:35 CST	0	Source: Emergency Manager

This was the second of three tornadoes this day in McLean County, all near Ruso and in less than a one hour period of time. Hardwood trees were snapped and an animal shelter was destroyed shortly after development. Based on the damage done the tornado was rated EF-1, with winds estimated to be approximately 110 MPH.

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#### MCLEAN COUNTY --- 5.4 SSW RUSO [47.76, -100.97], 7.2 S RUSO [47.73, -100.95]

	08/15/22 16:30 CST	0.25M	Tornado (EF2, L: 2.27 mi , W: 100 yd)
	08/15/22 16:50 CST	10K	Source: Emergency Manager

This was the third of three tornadoes this day in McLean County, all near Ruso and in less than a one hour period of time. The tornado formed in an open field and approached a farmstead, passing just to the west and south of it. Near the farmstead the tornado destroyed three small wooden granaries, flipped a large seed cart attached to an air seeder, flipped anhydrous ammonia tanks, and tossed hay bales. The tornado continued on south of the farmstead where it tossed multiple hay bales before dissipating. Based on the damage done the tornado was rated EF-2, with winds estimated to be approximately 120 MPH.

There were three tornadoes this day in McLean County, all near Ruso and in less than a one hour period of time. Thunderstorms developed along a variety of weak surface boundaries over southwest and central North Dakota as a weak short-wave trough passed through the area. One small area of storms developed along a very distinct surface boundary near Ruso in McLean County. In less than a one hour period of time three tornadoes developed. Initially, these tornadoes appeared to be of the landspout variety, but then two of the longer-lived tornadoes appeared to become supercellular as noted by rotation aloft which was shown during radar analysis. The first tornado was short lived and caused no damage and so was rated EF Unknown by NWS policy. The second tornado snapped hardwood trees and destroyed an animal shelter, and was rated EF-1 based on that damage. The third tornado developed while the second one was still on the ground, with both remaining on the ground for five minutes before the second tornado dissipated. The third tornado destroyed three small wooden granaries, flipped a large seed cart attached to an air seeder, tossed hay bales, flipped anhydrous ammonia tanks, and tossed hay bales, and was rated EF-2 based on the damage.

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#### MCKENZIE COUNTY --- 1.9 E WATFORD CITY [47.80, -103.24]

	08/17/22 18:59 MST	0	Thunderstorm Wind (MG 53 kt)
	08/17/22 19:02 MST	0	Source: Mesonet

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#### MORTON COUNTY --- 5.6 WNW MANDAN [46.86, -101.01]

	08/17/22 19:04 CST	0	Hail (0.75 in)
	08/17/22 19:08 CST	0	Source: Law Enforcement

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#### KIDDER COUNTY --- 11.8 S TAPPEN [46.70, -99.62]

	08/17/22 20:46 CST	0	Thunderstorm Wind (EG 52 kt)
	08/17/22 20:50 CST	0	Source: Trained Spotter

Thunderstorm wind gusts were estimated by a trained spotter.

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#### MCHEMRY COUNTY --- 8.5 ENE KARLSRUHE [48.16, -100.46]

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	08/18/22 00:30 CST		0	Thunderstorm Wind (EG 52 kt)
	08/18/22 00:33 CST		0	Source: Trained Spotter
Thunderstorm wind gusts were estimated by a trained spotter.				
<b>Thunderstorms initially developed along and ahead of a weak southeasterly moving cold front over western North Dakota, with a second area of storms developing over south central North Dakota along a staunch outflow boundary. A few of these storms became severe, producing strong wind gusts. The strongest reported wind gust of 61 mph occurred near Watford City in McKenzie County.</b>				
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<b>MOUNTRAIL COUNTY --- 2.3 SE PARSHALL [47.95, -102.09], 0.2 SSE WABEK DIFFLEY ARPT [47.85, -101.97]</b>				
	08/23/22 15:05 CST		0	Hail (1.00 in)
	08/23/22 15:25 CST		0.50M	Source: Trained Spotter
Hail combined with winds gusting to over 70 mph to produce extensive crop damage to lentils, wheat, canola, and corn.				
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<b>MOUNTRAIL COUNTY --- 1.6 ENE WABEK DIFFLEY ARPT [47.86, -101.94]</b>				
	08/23/22 15:16 CST		0	Thunderstorm Wind (MG 66 kt)
	08/23/22 15:20 CST		0	Source: Mesonet
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<b>MCLEAN COUNTY --- 7.8 NNE RAUB [47.85, -101.97], ROSEGLLEN [47.75, -101.83]</b>				
	08/23/22 15:25 CST		0	Hail (1.00 in)
	08/23/22 15:45 CST		0.50M	Source: Trained Spotter
Hail combined with winds gusting to over 70 mph to produce extensive crop damage to lentils, wheat, canola, and corn.				
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<b>MCLEAN COUNTY --- MAX [47.82, -101.30]</b>				
	08/23/22 15:25 CST		0	Hail (1.00 in)
	08/23/22 15:28 CST		0	Source: Trained Spotter
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<b>MCLEAN COUNTY --- 0.5 E TURTLE LAKE [47.52, -100.89]</b>				
	08/23/22 16:18 CST		0	Hail (1.00 in)
	08/23/22 16:21 CST		0	Source: Public
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<b>MCLEAN COUNTY --- 4.3 ESE TURTLE LAKE [47.49, -100.82]</b>				
	08/23/22 16:20 CST		0	Thunderstorm Wind (EG 52 kt)
	08/23/22 16:23 CST		25K	Source: Public
The thunderstorm wind gusts combined with dime size hail to cause crop damage.				
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<b>MCLEAN COUNTY --- 0.5 E TURTLE LAKE [47.52, -100.89]</b>				
	08/23/22 16:33 CST		0	Hail (1.00 in)
	08/23/22 16:36 CST		0	Source: Trained Spotter
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<b>MCLEAN COUNTY --- 11.8 WSW FALKIRK [47.32, -101.34]</b>				
	08/23/22 16:55 CST		0	Hail (1.00 in)
	08/23/22 16:59 CST		0	Source: Public
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<b>OLIVER COUNTY --- 4.9 N HANNOVER [47.19, -101.41]</b>				
	08/23/22 17:00 CST		0	Hail (1.00 in)
	08/23/22 17:03 CST		0	Source: Public
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<b>BOTTINEAU COUNTY --- 3.1 ESE BOTTINEAU ARPT [48.81, -100.36]</b>				
	08/23/22 17:10 CST		0	Thunderstorm Wind (MG 52 kt)
	08/23/22 17:13 CST		0	Source: Trained Spotter
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<b>BURLEIGH COUNTY --- 4.9 N BALDWIN [47.10, -100.75]</b>				
	08/23/22 17:25 CST		0	Thunderstorm Wind (EG 52 kt)
	08/23/22 17:28 CST		0	Source: Public

Thunderstorm wind gusts were estimated by the public.

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<b>BURLEIGH COUNTY --- 2.5 ESE (BIS)BISMARCK MUNI A [46.77, -100.70]</b>				
	08/23/22 18:40 CST		0	Thunderstorm Wind (EG 52 kt)
	08/23/22 18:44 CST		0	Source: NWS Employee

Thunderstorm wind gusts were estimated by an NWS Employee.

<b>BURLEIGH COUNTY --- 6.7 NNW BISMARCK [46.88, -100.84], 2.3 SW (BIS)BISMARCK MUNI A [46.76, -100.79], 3.9 SSE FT LINCOLN [46.77, -100.56], 4.6 N FT LINCOLN [46.89, -100.61]</b>				
	08/23/22 19:10 CST		0.25M	Flash Flood (due to Heavy Rain)
	08/23/22 21:10 CST		0	Source: Public

Flash flooding occurred primarily in and around the city of Bismarck. Vehicles were stranded in flood waters to the south of the North Dakota State Capitol Grounds, and in the 7th Street underpass. Storm sewers were overwhelmed, with manhole covers being pushed off and flood waters escaping.

Severe weather developed over central into parts of western North Dakota in an environment of enhanced instability and marginal deep layer shear. Many crops were damaged as hail combined with strong wind gusts. The strongest reported wind gust was 76 mph in Mountrail County, while the largest hail was one inch in diameter and occurred with several of the storms in Oliver, McLean, and Mountrail counties. Later in the episode, the focus turned towards flash flooding which occurred in Burleigh County, primarily in and around the city of Bismarck. Vehicles were stranded in flood waters to the south of the North Dakota State Capitol Grounds, and in the 7th Street underpass. Storm sewers were overwhelmed, with manhole covers being pushed off and flood waters escaping.

<b>(ND-Z011) WARD</b>				
	08/25/22 06:45 CST		0.20M	Dense Fog
	08/25/22 07:45 CST		0	

A multi-vehicle crash occurred along Highway 52 one mile east of Sawyer in Ward County in patchy dense fog. The crash involved four commercial vehicles and eight passenger vehicles. Four injuries were reported.

<b>GOLDEN VALLEY COUNTY --- BEACH [46.92, -104.00]</b>				
	08/26/22 19:23 MST		0	Hail (1.25 in)
	08/26/22 19:26 MST		0	Source: Public

Thunderstorms moved through eastern Montana and approached western North Dakota where an unstable environment with elevated deep layer shear was present. One storm became severe, producing half-dollar size hail at Beach in Golden Valley County.