

## Storm Data and Unusual Weather Phenomena - August 2008

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>NORTH DAKOTA, Central and West</b>				
<b>DUNN COUNTY --- 22.1 NW KILLDEER [47.60, -103.10]</b>				
	08/01/08 17:50 MST	0		Hail (2.50 in)
	08/01/08 17:57 MST	0		Source: Trained Spotter
No damage was reported with the large hail.				
<b>MOUNTRAIL COUNTY --- 0.8 SW NEW TOWN [47.97, -102.49]</b>				
	08/01/08 18:45 CST	0		Hail (0.75 in)
	08/01/08 18:52 CST	0		Source: Trained Spotter
<b>DUNN COUNTY --- 9.7 NNW WERNER [47.50, -102.55]</b>				
	08/01/08 18:55 MST	0		Hail (1.75 in)
	08/01/08 19:12 MST	0		Source: Trained Spotter
The hail varied in size with the largest stones the size of golf balls. No damage was reported.				
<b>MOUNTRAIL COUNTY --- 0.5 E PLAZA [48.03, -101.96]</b>				
	08/01/08 19:15 CST	0		Hail (1.00 in)
	08/01/08 19:26 CST	0		Source: Public
<b>DUNN COUNTY --- 0.5 W HALLIDAY [47.35, -102.34]</b>				
	08/01/08 19:17 MST	0		Hail (1.00 in)
	08/01/08 19:37 MST	0		Source: COOP Observer
Hail up to one inch in diameter was reported for twenty minutes.				
<b>WARD COUNTY --- 7.6 N MAKOTI [48.08, -101.81]</b>				
	08/01/08 19:24 CST	0		Hail (1.50 in)
	08/01/08 19:32 CST	0		Source: Public
<b>WARD COUNTY --- 0.9 W MINOT [48.23, -101.30], 0.4 N SURREY [48.24, -101.13]</b>				
	08/01/08 20:14 CST	0		Hail (1.00 in)
	08/01/08 20:27 CST	0		Source: Broadcast Media
A west to east swath of nickel to quarter size hail fell from the city of Minot to the town of Surrey.				
<b>MOUNTRAIL COUNTY --- 2.8 S NEW TOWN [47.94, -102.49]</b>				
	08/01/08 20:42 CST	0		Hail (1.75 in)
	08/01/08 20:45 CST	0		Source: Trained Spotter
In the early evening hours of Friday, August 1st, scattered diurnal thunderstorms developed across western North Dakota in the presence of steep lapse rates and strong vertical shear. Severe Thunderstorm Watch 789 was issued later in the evening as a nocturnal low level jet was developing and expected to intensify, supporting ongoing convection and promoting additional development. A dozen warnings were issued. Several reports of large hail were received.				
<b>MOUNTRAIL COUNTY --- 0.9 W ROSS [48.32, -102.55]</b>				
	08/02/08 05:08 CST	0		Hail (1.75 in)
	08/02/08 05:14 CST	0		Source: Broadcast Media
No damage reports were received from the large hail.				
<b>MOUNTRAIL COUNTY --- 3.1 NNW STANLEY [48.36, -102.41]</b>				
	08/02/08 05:09 CST	0		Hail (1.00 in)
	08/02/08 05:11 CST	0		Source: COOP Observer
<b>WARD COUNTY --- 1.1 SW DONNYBROOK [48.51, -101.89]</b>				

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	08/02/08 05:52 CST		0	Hail (1.75 in)
	08/02/08 05:59 CST		0	Source: Public
No damage reports were received.				
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<b>MOUNTRAIL COUNTY --- 3.3 NNW STANLEY [48.36, -102.42]</b>				
	08/02/08 06:14 CST		0	Hail (1.00 in)
	08/02/08 06:21 CST		0	Source: COOP Observer
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<b>MCLEAN COUNTY --- ROSEGLEN [47.75, -101.83]</b>				
	08/02/08 06:30 CST		0	Hail (1.00 in)
	08/02/08 06:38 CST		0	Source: Mesonet
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<b>WARD COUNTY --- 1.4 S (MIB)MINOT AFB [48.41, -101.37]</b>				
	08/02/08 07:01 CST		0	Hail (1.00 in)
	08/02/08 07:09 CST		0	Source: Mesonet
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<b>MCLEAN COUNTY --- 9.1 NNW GARRISON [47.77, -101.50]</b>				
	08/02/08 07:06 CST		0	Hail (1.00 in)
	08/02/08 07:13 CST		0	Source: Mesonet
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<b>MCLEAN COUNTY --- 0.5 E MAX [47.82, -101.29]</b>				
	08/02/08 07:18 CST		0	Hail (0.88 in)
	08/02/08 07:22 CST		0	Source: Mesonet
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<b>WARD COUNTY --- 0.9 W MINOT [48.23, -101.30]</b>				
	08/02/08 07:50 CST		0	Hail (1.75 in)
	08/02/08 07:57 CST		0	Source: COOP Observer
No damage reports were received.				
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<b>WARD COUNTY --- FOXHOLM [48.37, -101.57]</b>				
	08/02/08 07:59 CST		0	Hail (1.00 in)
	08/02/08 08:05 CST		0	Source: Public
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<b>WARD COUNTY --- 0.9 W MINOT [48.23, -101.30]</b>				
	08/02/08 08:20 CST		0	Hail (1.25 in)
	08/02/08 08:26 CST		0	Source: Law Enforcement
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<b>RENVILLE COUNTY --- 0.7 N GLENBURN ARPT [48.51, -101.22]</b>				
	08/02/08 09:00 CST		0	Hail (1.00 in)
	08/02/08 09:09 CST		0	Source: Trained Spotter
Nickel to quarter size hail was reported.				
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<b>BOTTINEAU COUNTY --- 2.7 ESE LANSFORD ARPT [48.60, -101.33]</b>				
	08/02/08 09:23 CST		0	Hail (0.88 in)
	08/02/08 09:29 CST		0	Source: Trained Spotter
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<b>BOTTINEAU COUNTY --- 6.9 E FORFAR SIDING [48.57, -101.13]</b>				
	08/02/08 09:51 CST		0	Hail (1.00 in)
	08/02/08 09:54 CST		0	Source: Amateur Radio
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<b>BOTTINEAU COUNTY --- 0.5 W LANSFORD [48.63, -101.38]</b>				
	08/02/08 09:52 CST		0	Hail (0.75 in)
	08/02/08 09:55 CST		0	Source: COOP Observer
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<b>BOTTINEAU COUNTY --- 2.7 ESE LANSFORD ARPT [48.60, -101.33]</b>				

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	08/02/08 10:04 CST		0	Hail (1.00 in)
	08/02/08 10:06 CST		0	Source: Trained Spotter

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### ROLETTE COUNTY --- 5.1 W FONDA [48.68, -100.13]

	08/02/08 11:15 CST		0	Hail (0.88 in)
	08/02/08 11:30 CST		0	Source: COOP Observer

Torrential rain and estimated winds up to 60 mph accompanied pea to nickel size hail.

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### PIERCE COUNTY --- 5.0 W WOLFORD [48.50, -99.81]

	08/02/08 12:04 CST		0	Hail (0.75 in)
	08/02/08 12:16 CST		0	Source: Trained Spotter

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### FOSTER COUNTY --- 2.8 W MC HENRY [47.58, -98.66]

	08/02/08 13:48 CST		0	Hail (1.00 in)
	08/02/08 13:50 CST		0	Source: COOP Observer

A surface cold front pushing west to east across the northern half of the state was the primary trigger for widespread thunderstorm development from the early morning to the early afternoon of Saturday, August 2nd. Numerous severe thunderstorm warnings were issued. Numerous reports of large hail were received during the morning and early afternoon hours.

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### MERCER COUNTY --- 9.2 NNE ZAP [47.41, -101.88]

	08/03/08 01:45 MST		3K	Thunderstorm Wind (EG 52 kt)
	08/03/08 01:54 MST		0	Source: Trained Spotter

The severe thunderstorm wind gusts snapped three inch in diameter tree limbs.

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### MOUNTRAIL COUNTY --- 0.5 E PLAZA [48.03, -101.96]

	08/03/08 03:53 CST		0	Thunderstorm Wind (MG 62 kt)
	08/03/08 03:57 CST		0	Source: Mesonet

This was from a North Dakota Agriculture Weather Network site measurement.

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### MCLEAN COUNTY --- 0.8 NE MERCER [47.49, -100.71]

	08/03/08 04:52 CST		0	Thunderstorm Wind (EG 61 kt)
	08/03/08 04:57 CST		0	Source: Public

In the early morning hours of Sunday, August 3rd, Severe Thunderstorm Watch 800 was issued for much of west and central North Dakota. this in anticipation of ongoing thunderstorms over eastern Montana and northwest South Dakota expanding east-northeast into North Dakota. The storms were forecast to strengthen as an upper level short wave impulse moved into the northern plains. Several severe thunderstorm warnings were issued. Three reports of severe thunderstorm wind gusts were received in the early morning hours.

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### STARK COUNTY --- 3.2 N DICKINSON [46.93, -102.78]

	08/10/08 00:43 MST		40K	Lightning
	08/10/08 00:43 MST		0	Source: Newspaper

Lightning struck a house north of Dickinson, igniting a fire which damaged the roof and the attic.

A home north of Dickinson was damaged after being struck by lightning.

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### GOLDEN VALLEY COUNTY --- BEACH [46.92, -104.00]

	08/10/08 14:40 MST		0	Hail (1.00 in)
	08/10/08 14:49 MST		0	Source: Trained Spotter

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### GOLDEN VALLEY COUNTY --- BEACH [46.92, -104.00]

	08/10/08 14:40 MST		25K	Hail (2.25 in)
	08/10/08 15:12 MST		50K	Source: Newspaper

Hail in various sizes up to two and one-quarter inches in diameter fell over the city of Beach for a half hour. Damage was reported to homes in Beach and crops around Beach.

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<b>DIVIDE COUNTY --- 7.3 NNE WESTBY [48.97, -104.00]</b>				
	08/10/08 19:29 CST		0	Thunderstorm Wind (MG 56 kt)
	08/10/08 19:45 CST		0	Source: Mesonet
Thunderstorm wind gusts were measured at the Crosby Remote Automated Weather Station site.				
<b>DIVIDE COUNTY --- 7.3 NNE WESTBY [48.97, -104.00]</b>				
	08/10/08 20:29 CST		0	Thunderstorm Wind (MG 54 kt)
	08/10/08 20:35 CST		0	Source: Mesonet
Thunderstorm wind gusts were measured at the Crosby Remote Automated Weather Station site.				
<p>In the early afternoon hours of Sunday, August 10th, Severe Thunderstorm Watch 820 was issued for southwestern North Dakota, and later expanded to include all of western North Dakota, in anticipation of thunderstorms developing and increasing in intensity as a surface boundary and upper level short wave trough pushed into the state. Several severe thunderstorm warnings were issued. Two reports of large hail and two reports of severe thunderstorm winds were received during the late afternoon and evening hours.</p>				
<b>BURLEIGH COUNTY --- 3.0 NW MENOKEEN [46.85, -100.56], 2.0 NNW MENOKEEN [46.85, -100.54]</b>				
	08/11/08 12:08 CST		0	Tornado (EF0, L: 1.38 mi , W: 35 yd)
	08/11/08 12:12 CST		0	Source: Public
The public reported this tornado as being visible by swirling dirt and dust on the ground. The tornado impacted no structures so there was no damage.				
<b>BURLEIGH COUNTY --- 2.3 NE FT LINCOLN [46.84, -100.56]</b>				
	08/11/08 12:17 CST		0	Funnel Cloud
	08/11/08 12:19 CST		0	Source: Law Enforcement
This funnel cloud was reported by a Burleigh County Deputy Sheriff.				
<b>EMMONS COUNTY --- 11.0 NW HAZELTON [46.59, -100.44]</b>				
	08/11/08 12:40 CST		0	Funnel Cloud
	08/11/08 12:41 CST		0	Source: Public
The public reported this brief funnel cloud.				
<b>SHERIDAN COUNTY --- 3.7 SW PICKARDVILLE [47.43, -100.63], 2.7 SSW PICKARDVILLE [47.43, -100.59]</b>				
	08/11/08 15:00 CST		0	Tornado (EF0, L: 1.86 mi , W: 35 yd)
	08/11/08 15:05 CST		0	Source: Trained Spotter
This tornado was reported by several sources, including trained spotters from the Mercer Fire Department, and other trained spotters. It was reported to be in an open field, impacting no structures and causing no damage.				
<b>MCHENRY COUNTY --- 4.5 E VOLTAIRE [48.02, -100.73], 5.5 E VOLTAIRE [48.02, -100.71]</b>				
	08/11/08 15:20 CST		0	Tornado (EF0, L: 1.00 mi , W: 35 yd)
	08/11/08 15:23 CST		0	Source: Public
The public reported this tornado as being briefly on the ground. There was no damage and no reports of structures being impacted.				
<b>MCHENRY COUNTY --- 1.0 SE KARLSRUHE [48.09, -100.60], 2.0 SE KARLSRUHE [48.08, -100.59]</b>				
	08/11/08 15:25 CST		0	Tornado (EF0, L: 1.00 mi , W: 35 yd)
	08/11/08 15:27 CST		0	Source: Public
The public reported this brief touchdown of a tornado. There were no reports of damage as this tornado remained in open field.				
<b>MCHENRY COUNTY --- 4.0 SW BALFOUR [47.91, -100.59], 4.0 SSW BALFOUR [47.90, -100.56]</b>				
	08/11/08 15:48 CST		0	Tornado (EF0, L: 1.56 mi , W: 35 yd)
	08/11/08 15:53 CST		0	Source: Public
This tornado remained in open field and impacted no structures. No damage was reported.				

During the afternoon hours of August 11th, five tornadoes occurred in central North Dakota, across Burleigh, Sheridan, and McHenry counties. These tornadoes were the result of a localized area of sufficient low level buoyancy and low level vorticity coincident over

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<b>central North Dakota. A surface cold front stretched north to south across the central plains. All of the five tornadoes remained in open country and impacted no structures. As a result, they were rated EF0 on the Enhanced Fujita Scale.</b>				
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<b>WARD COUNTY --- 3.5 S MAKOTI ARPT [47.90, -101.80]</b>				
	08/21/08 17:30 CST		0	Thunderstorm Wind (EG 52 kt)
	08/21/08 17:40 CST		0	Source: Trained Spotter
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<b>BILLINGS COUNTY --- 3.5 SE GORHAM [47.12, -103.26]</b>				
	08/21/08 18:50 MST		0	Hail (0.88 in)
	08/21/08 19:01 MST		0	Source: Public
Hail was accompanied by estimated 60 mph winds.				
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<b>STARK COUNTY --- 6.2 N DICKINSON [46.97, -102.79]</b>				
	08/21/08 19:04 MST		0	Thunderstorm Wind (EG 52 kt)
	08/21/08 19:11 MST		0	Source: Amateur Radio
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<b>STARK COUNTY --- 4.9 N DICKINSON [46.95, -102.79]</b>				
	08/21/08 19:05 MST		0	Hail (1.25 in)
	08/21/08 19:11 MST		0	Source: Amateur Radio
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<b>STARK COUNTY --- 4.9 N BOYLE [46.97, -102.53]</b>				
	08/21/08 19:24 MST		0	Thunderstorm Wind (MG 50 kt)
	08/21/08 19:29 MST		0	Source: Trained Spotter
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<b>ROLETTE COUNTY --- 0.8 SSE ROLETTE ARPT [48.66, -99.84]</b>				
	08/21/08 19:25 CST		0	Hail (0.88 in)
	08/21/08 19:55 CST		0	Source: Broadcast Media
Hail up to the size of nickels fell for thirty minutes.				
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<b>MCHENRY COUNTY --- 0.5 W ANAMOOSSE [47.88, -100.24]</b>				
	08/21/08 19:29 CST		0	Hail (0.88 in)
	08/21/08 19:35 CST		0	Source: Broadcast Media
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<b>STARK COUNTY --- 8.3 N ANTELOPE [46.97, -102.19]</b>				
	08/21/08 20:00 MST		0	Hail (1.00 in)
	08/21/08 20:09 MST		0	Source: Trained Spotter
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<b>BILLINGS COUNTY --- 0.8 SE MEDORA [46.91, -103.52]</b>				
	08/21/08 20:20 MST		0	Hail (0.75 in)
	08/21/08 20:26 MST		0	Source: Law Enforcement
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<b>STARK COUNTY --- 6.2 N LEHIGH [46.96, -102.67]</b>				
	08/21/08 21:12 MST		0	Hail (0.88 in)
	08/21/08 21:22 MST		0	Source: Trained Spotter
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<b>OLIVER COUNTY --- CENTER [47.12, -101.30]</b>				
	08/21/08 21:30 CST		0	Hail (0.88 in)
	08/21/08 21:36 CST		0	Source: Law Enforcement
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<b>MCLEAN COUNTY --- 0.8 NW WASHBURN ARPT [47.36, -101.03]</b>				
	08/21/08 21:55 CST		0	Hail (0.88 in)
	08/21/08 22:03 CST		0	Source: Public
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<b>STARK COUNTY --- RICHARDTON [46.88, -102.32]</b>				
	08/21/08 23:40 MST		0	Hail (0.75 in)
	08/21/08 23:46 MST		0	Source: Law Enforcement

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<b>MCLEAN COUNTY --- 3.5 WNW WASHBURN [47.30, -101.09]</b>				
	08/22/08 01:35 CST		6K	Thunderstorm Wind (EG 65 kt)
	08/22/08 01:43 CST		0	Source: Emergency Manager

Severe thunderstorm winds blew down three large cotton wood trees at Fort Mandan.

**A strong surface cold front, coinciding with cooling air aloft as an upper level trough approached the northern plains, triggered thunderstorms throughout the evening hours of the 21st and the early morning hours of the 22nd. Multiple severe thunderstorm warnings and several tornado warnings were issued. Reports of large hail and severe thunderstorm wind gusts were received.**

<b>ROLETTE COUNTY --- 0.3 WSW ROLETTE [48.67, -99.84], 0.1 WSW ROLETTE ARPT [48.67, -99.85], 0.7 S ROLETTE ARPT [48.66, -99.85], 0.8 SSW ROLETTE [48.66, -99.83]</b>				
	08/21/08 20:15 CST		20K	Flash Flood (due to Heavy Rain)
	08/22/08 00:15 CST		0	Source: Trained Spotter

Up to four inches of rain over a two hour period caused water nearly a foot deep to flow through the streets in the city of Rollete and into some yards and basements. The water had receded by around 1 AM CDT.

<b>WELLS COUNTY --- 0.9 NW HARVEY [47.78, -99.91], 1.6 SW HARVEY ARPT [47.78, -99.95], 2.4 WSW HARVEY [47.76, -99.95], 0.8 SW HARVEY [47.76, -99.91]</b>				
	08/21/08 20:30 CST		25K	Flash Flood (due to Heavy Rain)
	08/22/08 00:30 CST		0	Source: Law Enforcement

Up to five inches of rain caused street flooding and blocked underpasses in the city of Harvey. In low spots in the city water was flowing through yards and into basements. The water had receded by around 1 AM CDT.

**Training thunderstorms brought very heavy rain to parts of central North Dakota during the evening of August 21st, with flash flooding occurring over parts of Rolette and Wells counties. Up to four inches of rain within a two hour period caused water nearly a foot deep to flow over roadways in the city of Rollete, Rolette County. Up to five inches of rain fell in the city of Harvey, Wells County, which resulted in flooded streets and blocked underpasses. Flood waters receded during the early morning of August 22nd.**

<b>(ND-Z043) BOWMAN, (ND-Z044) ADAMS</b>				
	08/22/08 11:00 CST		0	High Wind (MAX 38 kt)
	08/22/08 13:00 CST		0	

**A strong cold front brought gusty west to northwest winds across west and central North Dakota during the late morning and afternoon hours of Friday, August 22nd. High wind warning criteria sustained winds were met over Adams County and Bowman County early in the afternoon.**

<b>SIOUX COUNTY --- 12.0 SSW SOLEN [46.27, -100.63]</b>				
	08/26/08 18:27 MST		0	Hail (0.75 in)
	08/26/08 18:34 MST		0	Source: Public

<b>EMMONS COUNTY --- 1.0 W HAGUE [46.03, -100.00]</b>				
	08/26/08 18:40 CST		0	Hail (0.88 in)
	08/26/08 18:47 CST		0	Source: Trained Spotter

**A surface cold front and an associated negatively tilted upper level trough combined with a destabilizing atmosphere to trigger scattered late afternoon and evening thunderstorms across central North Dakota. Several of these thunderstorms prompted warnings. Two reports of large hail were received during the early to mid evening hours.**