

## Storm Data and Unusual Weather Phenomena - August 2007

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<b>NORTH DAKOTA, Central and West</b>				
<b>WELLS COUNTY --- 4.7 ESE FESSENDEN [47.62, -99.53]</b>				
	08/03/07 12:20 CST		0	Hail (0.88 in)
	08/03/07 12:30 CST		0	Source: Trained Spotter
<b>PIERCE COUNTY --- 10.0 SSE RUGBY [48.24, -99.90]</b>				
	08/03/07 12:39 CST		0	Hail (0.88 in)
	08/03/07 12:46 CST		0	Source: Public
<b>WELLS COUNTY --- 5.0 N SYKESTON [47.54, -99.38], 5.0 S SYKESTON [47.40, -99.38]</b>				
	08/03/07 17:11 CST		10K	Flash Flood (due to Heavy Rain)
	08/03/07 22:10 CST		0	Source: Trained Spotter
There was standing water around all of the farm buildings.				
<b>WELLS COUNTY --- 4.0 NE FESSENDEN [47.69, -99.56], 2.0 SW FESSENDEN [47.63, -99.65]</b>				
	08/03/07 17:45 CST		40K	Flash Flood (due to Heavy Rain)
	08/03/07 22:10 CST		0	Source: Broadcast Media
Rainfall of 6.5 inches in a 2 1/2 hour period caused flooding with water rushing over roads.				
<b>In the early afternoon of Friday August 3rd, isolated severe thunderstorms developed across parts of north central and east central North Dakota. They produced large hail and flash flooding.</b>				
<b>BOWMAN COUNTY --- 9.0 SSE BOWMAN [46.06, -103.33], 3.0 ESE BOWMAN [46.16, -103.34]</b>				
	08/07/07 15:10 MST		0.30M	Thunderstorm Wind (EG 82 kt)
	08/07/07 15:30 MST		50K	Source: Emergency Manager
Farms damaged 9 miles south and 4 miles east of Bowman, 7 south and 3 east of Bowman, and 2 south and 3 east of Bowman. Some damage significant and to grain bins, barns, other outbuildings. and crops.				
<b>DUNN COUNTY --- 1.0 W HALLIDAY [47.35, -102.35]</b>				
	08/07/07 16:00 MST		0	Thunderstorm Wind (MG 63 kt)
	08/07/07 16:10 MST		0	Source: Public
Home weather station measured 72 mph wind gusts. Pea size hail accompanied the storm and covered the ground.				
<b>STARK COUNTY --- GLADSTONE [46.87, -102.55]</b>				
	08/07/07 16:15 MST		0	Thunderstorm Wind (MG 60 kt)
	08/07/07 16:20 MST		0	Source: Public
A wind gust of 69 mph was measured on a home weather station.				
<b>MOUNTRAIL COUNTY --- 5.0 W PLAZA [48.03, -102.08]</b>				
	08/07/07 16:45 CST		30K	Thunderstorm Wind (EG 70 kt)
	08/07/07 16:55 CST		50K	Source: Newspaper
Dickinson Press reports two large grain bins and grain augers blown over on farm west of Plaza. There was also crop damage as the storms were accompanied by small hail that was wind driven.				
<b>BILLINGS COUNTY --- 2.8 SW FAIRFIELD [47.15, -103.26]</b>				
	08/07/07 17:05 MST		0	Hail (0.75 in)
	08/07/07 17:12 MST		0	Source: Trained Spotter
<b>DUNN COUNTY --- 8.0 NW KILLDEER [47.45, -102.89]</b>				
	08/07/07 17:42 MST		0	Hail (0.88 in)
	08/07/07 17:51 MST		0	Source: Trained Spotter
<b>MCLEAN COUNTY --- GARRISON [47.65, -101.42]</b>				

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	08/07/07 20:08 CST		0	Thunderstorm Wind (MG 57 kt)
	08/07/07 20:11 CST		0	Source: ASOS
Garrison ASOS (Automated Surface Observing System) recorded a 66 mph wind gust.				
<b>In the mid afternoon of Tuesday, August 7th, Severe Thunderstorm Watch 566 was issued in anticipation of severe thunderstorms developing over western and central North Dakota ahead of an approaching upper short wave trough, and supported by a strengthening low level jet.</b>				
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<b>GRANT COUNTY --- 15.2 N ELGIN [46.62, -101.85]</b>				
	08/08/07 13:35 MST		0	Thunderstorm Wind (EG 52 kt)
	08/08/07 13:42 MST		0	Source: COOP Observer
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<b>KIDDER COUNTY --- 10.0 SE STEELE [46.75, -99.75]</b>				
	08/08/07 15:25 CST		0	Funnel Cloud
	08/08/07 15:29 CST		0	Source: Public
A funnel cloud was reported. It did not touch the ground.				
<b>In the mid afternoon Wednesday, August 8th, Severe Thunderstorm Watch 569 was issued with ongoing severe thunderstorms over south central North Dakota, and in anticipation of further development associated with an upper level short wave impulse over the region.</b>				
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<b>MCLEAN COUNTY --- 8.0 SW BUTTE [47.75, -100.79]</b>				
	08/10/07 04:10 CST		0	Hail (1.00 in)
	08/10/07 04:17 CST		0	Source: Trained Spotter
An isolated severe thunderstorm moved through McLean County in the early morning hours of Friday, August 10th.				
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<b>ROLETTE COUNTY --- 7.0 SE ROLETTE [48.60, -99.72]</b>				
	08/10/07 07:46 CST		0	Hail (0.88 in)
	08/10/07 07:52 CST		0	Source: Trained Spotter
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<b>SHERIDAN COUNTY --- 10.0 NNW GOODRICH [47.60, -100.20]</b>				
	08/10/07 09:42 CST		0	Hail (1.50 in)
	08/10/07 09:50 CST		0	Source: Trained Spotter
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<b>MCLEAN COUNTY --- BUTTE [47.83, -100.67]</b>				
	08/10/07 10:04 CST		0	Hail (1.00 in)
	08/10/07 10:19 CST		50K	Source: Newspaper
Crop damage from the hail was reported.				
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<b>MCLEAN COUNTY --- RIVERDALE [47.50, -101.37]</b>				
	08/10/07 10:04 CST		0	Hail (1.25 in)
	08/10/07 10:12 CST		0	Source: Broadcast Media
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<b>WELLS COUNTY --- HARVEY [47.77, -99.90]</b>				
	08/10/07 10:24 CST		0	Hail (1.50 in)
	08/10/07 10:39 CST		0	Source: Newspaper
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<b>MCLEAN COUNTY --- RIVERDALE [47.50, -101.37], 2.0 E RIVERDALE [47.50, -101.33]</b>				
	08/10/07 10:30 CST		0	Hail (1.75 in)
	08/10/07 10:45 CST		0	Source: Broadcast Media
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<b>MCHENRY COUNTY --- BALFOUR [47.95, -100.53]</b>				
	08/10/07 11:00 CST		0	Hail (1.00 in)
	08/10/07 11:09 CST		0	Source: Trained Spotter
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<b>MCLEAN COUNTY --- RIVERDALE [47.50, -101.37]</b>				

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	08/10/07 11:17 CST		0	Hail (1.50 in)
	08/10/07 11:22 CST		0	Source: Law Enforcement
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<b>MCLEAN COUNTY --- BUTTE [47.83, -100.67]</b>				
	08/10/07 11:24 CST		0	Hail (1.00 in)
	08/10/07 11:30 CST		0	Source: Public
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<b>PIERCE COUNTY --- 21.0 S RUGBY [48.07, -99.98]</b>				
	08/10/07 11:30 CST		0	Hail (0.88 in)
	08/10/07 11:50 CST		0	Source: Trained Spotter
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Hail up to nickel size lasted 20 minutes.				
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<b>MCHENRY COUNTY --- 0.5 W DRAKE [47.92, -100.38]</b>				
	08/10/07 11:45 CST		0	Hail (0.75 in)
	08/10/07 11:57 CST		0	Source: Trained Spotter
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<b>LOGAN COUNTY --- NAPOLEON [46.50, -99.77]</b>				
	08/10/07 15:45 CST		60K	Hail (2.50 in)
	08/10/07 15:55 CST		0	Source: Newspaper
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Windows were broken on cars and there was other property damage.				
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<b>SIOUX COUNTY --- FT YATES [46.08, -100.63]</b>				
	08/10/07 16:30 MST		0	Hail (0.88 in)
	08/10/07 16:48 MST		0	Source: Law Enforcement
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This was a prolonged period of hail with the largest stones 0.88 inch diameter.				
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<b>SIOUX COUNTY --- FT YATES [46.08, -100.63]</b>				
	08/10/07 16:51 MST		0	Hail (1.50 in)
	08/10/07 17:03 MST		0	Source: COOP Observer
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<b>SIOUX COUNTY --- 6.0 S SELFRIDGE [45.94, -100.93]</b>				
	08/10/07 17:03 MST		0	Hail (1.75 in)
	08/10/07 17:10 MST		0	Source: Trained Spotter
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<b>EMMONS COUNTY --- 18.0 SW LINTON [46.09, -100.50], 12.0 SW LINTON [46.15, -100.41]</b>				
	08/10/07 17:53 CST		0	Funnel Cloud
	08/10/07 18:28 CST		0	Source: Storm Chaser
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Storm chasers and law enforcement report multiple funnels over southwest Emmons County.				
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<b>WILLIAMS COUNTY --- RAY [48.35, -103.17]</b>				
	08/10/07 21:10 CST		0	Hail (1.75 in)
	08/10/07 21:30 CST		0	Source: Public
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This was a prolonged period of hail with the largest stones 1.75 inch diameter.				
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<b>DIVIDE COUNTY --- CROSBY [48.92, -103.28]</b>				
	08/10/07 21:45 CST		65K	Thunderstorm Wind (EG 78 kt)
	08/10/07 21:55 CST		0	Source: Public
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Tree limbs 10 to 12 inches in diameter were snapped. Part of a pool hall roof was blown off. Several buildings doors were torn off.				
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<b>WILLIAMS COUNTY --- 7.5 SSE ALAMO [48.48, -103.41], 8.5 SSE ALAMO [48.47, -103.40]</b>				
	08/10/07 22:04 CST		0	Tornado (EF0, L: 1.00 mi , W: 40 yd)
	08/10/07 22:15 CST		0	Source: Airplane Pilot
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This tornado was sighted by a weather modification pilot. The tornado hit no structures.				

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<b>DIVIDE COUNTY --- NOONAN [48.88, -103.00]</b>				
	08/10/07 22:30 CST		0	Thunderstorm Wind (EG 52 kt)
	08/10/07 22:35 CST		0	Source: Public
<b>WILLIAMS COUNTY --- 7.0 SW MC GREGOR [48.53, -103.04]</b>				
	08/10/07 22:30 CST		2K	Thunderstorm Wind (EG 56 kt)
	08/10/07 22:42 CST		0	Source: Trained Spotter
The wind snapped a 10 inch diameter tree half way up.				
<b>WILLIAMS COUNTY --- TIOGA [48.40, -102.93]</b>				
	08/10/07 22:40 CST		0	Thunderstorm Wind (EG 52 kt)
	08/10/07 22:50 CST		0	Source: Broadcast Media
<b>MORTON COUNTY --- 1.0 S HEBRON [46.89, -102.03], 3.0 S GLEN ULLIN [46.78, -101.83]</b>				
	08/10/07 23:58 CST		40K	Hail (2.75 in)
	08/11/07 00:35 CST		40K	Source: Newspaper
Newspaper and trained spotters reported golf ball to baseball sized hail from 1 mile south of Hebron to 3 miles south of Glen Ullin from the same storm as it tracked east. Damage sustained to vehicles, other property, and crops.				
<b>MORTON COUNTY --- 2.0 S NEW SALEM [46.82, -101.42]</b>				
	08/11/07 00:48 CST		0	Thunderstorm Wind (MG 64 kt)
	08/11/07 00:53 CST		0	Source: Mesonet
<b>MORTON COUNTY --- HEBRON [46.90, -102.03]</b>				
	08/11/07 01:00 CST		0	Hail (1.00 in)
	08/11/07 01:15 CST		10K	Source: Trained Spotter
The hail was accompanied by 50 to 55 mph winds.				
<b>BURLEIGH COUNTY --- BISMARCK [46.80, -100.77]</b>				
	08/11/07 01:01 CST		0	Hail (0.75 in)
	08/11/07 01:05 CST		0	Source: Broadcast Media
<b>BURLEIGH COUNTY --- (BIS)BISMARCK MUNI A [46.78, -100.75]</b>				
	08/11/07 01:35 CST		0	Hail (0.75 in)
	08/11/07 01:40 CST		0	Source: Official NWS Observations
Wind gusts of 51 mph were also measured at Bismarck Municipal Airport.				
<b>BURLEIGH COUNTY --- BISMARCK [46.80, -100.77]</b>				
	08/11/07 01:54 CST		0	Hail (1.00 in)
	08/11/07 02:04 CST		0	Source: Other Federal
<b>KIDDER COUNTY --- 4.9 S STEELE [46.78, -99.90]</b>				
	08/11/07 02:38 CST		0	Hail (0.75 in)
	08/11/07 02:49 CST		0	Source: COOP Observer
Penny sized hail covered the ground. The storm also produced heavy rain and estimated 50 mph winds.				
<b>A complex and lengthy severe weather event occurred over west and central North Dakota starting in the morning of Friday, August 10th, and lasting into the early morning hours of Saturday, August 11th.</b>				
Scattered severe thunderstorms continuously redeveloped over the area along a surface trough that was oriented from southwest to northeast, from around Dickinson, to near Grand Forks. Convection was also supported by a favorable overrunning situation when the southerly low level jet intensified and persisted. Numerous warnings were issued, and numerous severe weather reports were received.				
Severe Thunderstorm Watch 582 was issued due to ongoing convection and in anticipation of future development/intensification across				

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<b>south central North Dakota.</b>				
<b>Late in the afternoon on Friday, Severe Thunderstorm Watch 584 was issued for all of western and much of central North Dakota. Storms were expected to reintensify during the evening and spread east as large scale upper level support and a cold front approached.</b>				
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<b>BOWMAN COUNTY --- 18.0 SW RHAME [46.05, -103.92]</b>				
	08/12/07 07:07 MST		0	Hail (0.88 in)
	08/12/07 07:27 MST		0	Source: Trained Spotter
The spotter reported a long duration hail event, 20 minutes.				
<b>Isolated thunderstorms developed in southwest North Dakota on the morning of August 12th. One report of large hail was received.</b>				
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<b>RENVILLE COUNTY --- MOHALL [48.77, -101.50]</b>				
	08/13/07 06:45 CST		0	Hail (1.75 in)
	08/13/07 06:54 CST		0	Source: Public
There was no report of damage.				
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<b>MCHENRY COUNTY --- 6.0 E BANTRY [48.50, -100.47]</b>				
	08/13/07 07:50 CST		0	Hail (1.00 in)
	08/13/07 07:55 CST		0	Source: Trained Spotter
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<b>MCHENRY COUNTY --- 2.8 N TOWNER [48.39, -100.40]</b>				
	08/13/07 08:01 CST		0	Hail (0.88 in)
	08/13/07 08:08 CST		0	Source: Trained Spotter
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<b>MCHENRY COUNTY --- 6.0 E BANTRY [48.50, -100.47]</b>				
	08/13/07 08:15 CST		0	Hail (2.00 in)
	08/13/07 08:22 CST		0	Source: Trained Spotter
The hail was accompanied by very heavy rain. No damage or flooding was reported.				
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<b>MCHENRY COUNTY --- 2.0 N TOWNER [48.38, -100.40]</b>				
	08/13/07 08:23 CST		0	Hail (1.00 in)
	08/13/07 08:30 CST		0	Source: Trained Spotter
The storm was accompanied by very heavy rain.				
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<b>MCINTOSH COUNTY --- 10.0 E ASHLEY [46.03, -99.16]</b>				
	08/13/07 08:35 CST		0	Hail (0.75 in)
	08/13/07 08:45 CST		0	Source: COOP Observer
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<b>PIERCE COUNTY --- 9.0 NW BALTA [48.26, -100.17], 5.0 SE BALTA [48.12, -99.95]</b>				
	08/13/07 08:43 CST		45K	Thunderstorm Wind (EG 65 kt)
	08/13/07 08:58 CST		0.50M	Source: Newspaper
High wind blew down four 40 foot trees. Nickel to walnut sized hail was also reported with the winds. Buildings were damaged on a farmstead northwest of Balta, along with major crop damage across central Pierce county due to the combined affects of the wind and hail.				
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<b>WELLS COUNTY --- 3.0 N BREMEN [47.79, -99.37]</b>				
	08/13/07 09:40 CST		0	Hail (0.75 in)
	08/13/07 09:43 CST		0	Source: Trained Spotter
<b>Around daybreak on Monday, August 13th, scattered thunderstorms developed across north central North Dakota in response to low level warm air advection and large scale ascent from an incoming upper level short wave trough. Severe Thunderstorm Watch 591 was issued by mid morning in anticipation of continued severe thunderstorm development through the morning hours over the eastern parts of the Bismarck CWA (County Warning Area).</b>				
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<b>LOGAN COUNTY --- 4.0 NNW NAPOLEON [46.55, -99.80], 20.0 ENE NAPOLEON [46.61, -99.38]</b>				
	08/26/07 18:45 CST		0.25M	Hail (3.50 in)
	08/26/07 19:50 CST		0.50M	Source: Law Enforcement

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Multiple reports from various sources of large hail over north central and northeast Logan County, including in the city of Napoleon. Most of the hail was 1.50 to 2.50 inches in diameter. The largest stones were 3.50 inches diameter from 4 miles northeast of Napoleon to 8 miles northeast of Napoleon, and in the area 17 miles east of Napoleon. The swath of hail damage to crops was a few miles wide in spots. Reports came from law enforcement, newspapers, emergency management, weather spotters, and the public. The same supercell storm produced two tornadoes in Logan County on August 26.

**LOGAN COUNTY --- 6.0 NNW NAPOLEON [46.58, -99.82], 3.0 NNE NAPOLEON [46.54, -99.75]**

08/26/07 19:05 CST	0	Tornado (EF0, L: 4.42 mi , W: 75 yd)
08/26/07 19:20 CST	10K	Source: Newspaper

Public reported tornado touched down four times along this path. Tornado lifted to a funnel cloud and then touched down repeatedly. NWS storm damage survey also indicated this as the evidence was sporadic along the path, indicating the tornado was not on the ground the entire time / length. No structures impacted. Damage to crops. See the second tornado entry for Logan County August 26 for the same supercell storm. Also see the large hail entry, again from the same supercell.

**STUTSMAN COUNTY --- MEDINA [46.88, -99.30]**

08/26/07 19:09 CST	0	Hail (0.88 in)
08/26/07 19:18 CST	0	Source: Public

**LOGAN COUNTY --- 5.0 NE NAPOLEON [46.55, -99.70], 6.0 NE NAPOLEON [46.56, -99.68]**

08/26/07 19:35 CST	0	Tornado (EF0, L: 1.00 mi , W: 35 yd)
08/26/07 19:40 CST	5K	Source: Newspaper

Damage to trees and hay and straw bales. Bales were blown a few hundred feet. NWS storm damage survey completed. No structures impacted. See the first tornado entry for Logan County August 26 for the same supercell storm. Also see the large hail entry, again from the same supercell.

**LOGAN COUNTY --- 12.0 SW GACKLE [46.51, -99.31]**

08/26/07 20:00 CST	0	Hail (0.88 in)
08/26/07 20:08 CST	0	Source: Mesonet

In the late afternoon of Sunday, August 26th, Tornado Watch 653 was issued in anticipation of severe thunderstorms developing ahead of a cold front situated across western North Dakota. Strong low level wind shear ahead of the front and MLCAPE values near 3500 j/kg increased the potential for tornadic supercells. Logan County was hit especially hard.

**LOGAN COUNTY --- 4.8 NW NAPOLEON [46.55, -99.84]**

08/27/07 11:30 CST	0	Hail (1.00 in)
08/27/07 11:40 CST	0	Source: NWS Employee

**SIOUX COUNTY --- 6.0 E PORCUPINE [46.22, -99.99]**

08/27/07 11:40 MST	0	Hail (1.00 in)
08/27/07 11:45 MST	0	Source: Public

In the early afternoon of Monday, August 27th, scattered elevated thunderstorms developed across south central North Dakota in an area of strong mid level convergence at the 850mb level.

**(ND-Z003) RENVILLE, (ND-Z004) BOTTINEAU, (ND-Z011) WARD, (ND-Z012) MCHENRY**

08/10/07 00:15 CST	0	High Wind (MAX 52 kt)
08/11/07 02:00 CST	0	

In the early morning hours of Saturday, August 11th, severe thunderstorms were diminishing and pushing east across North Dakota. As this occurred, an outflow boundary with winds of 60 mph, moved across parts of north central North Dakota. The high wind occurred away from convection, with no thunderstorms in progress at the location of these high winds.