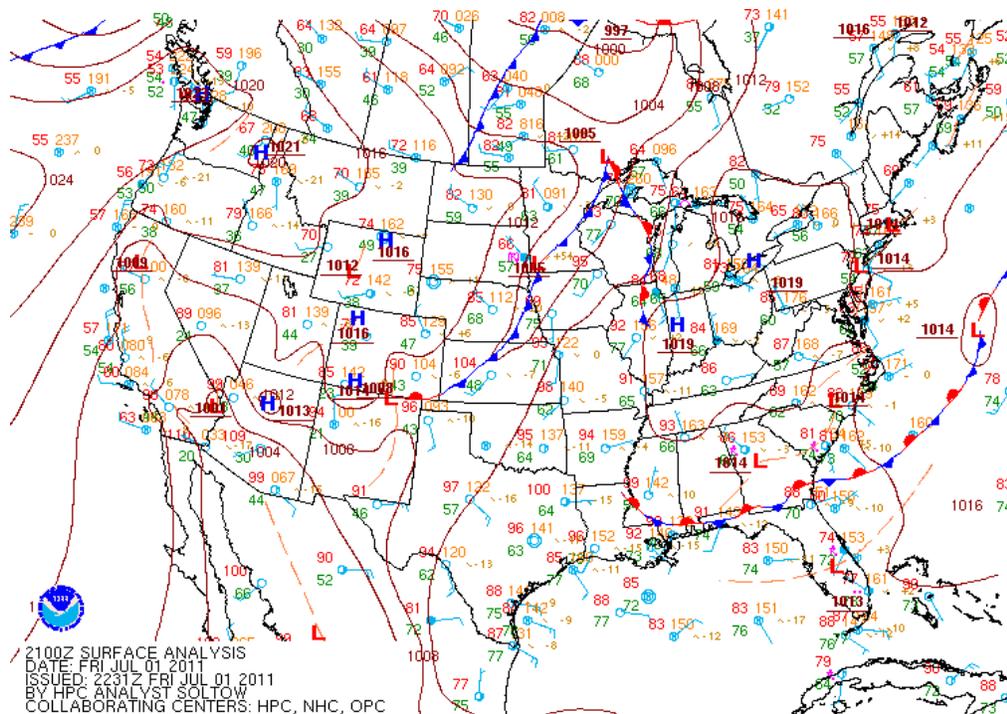


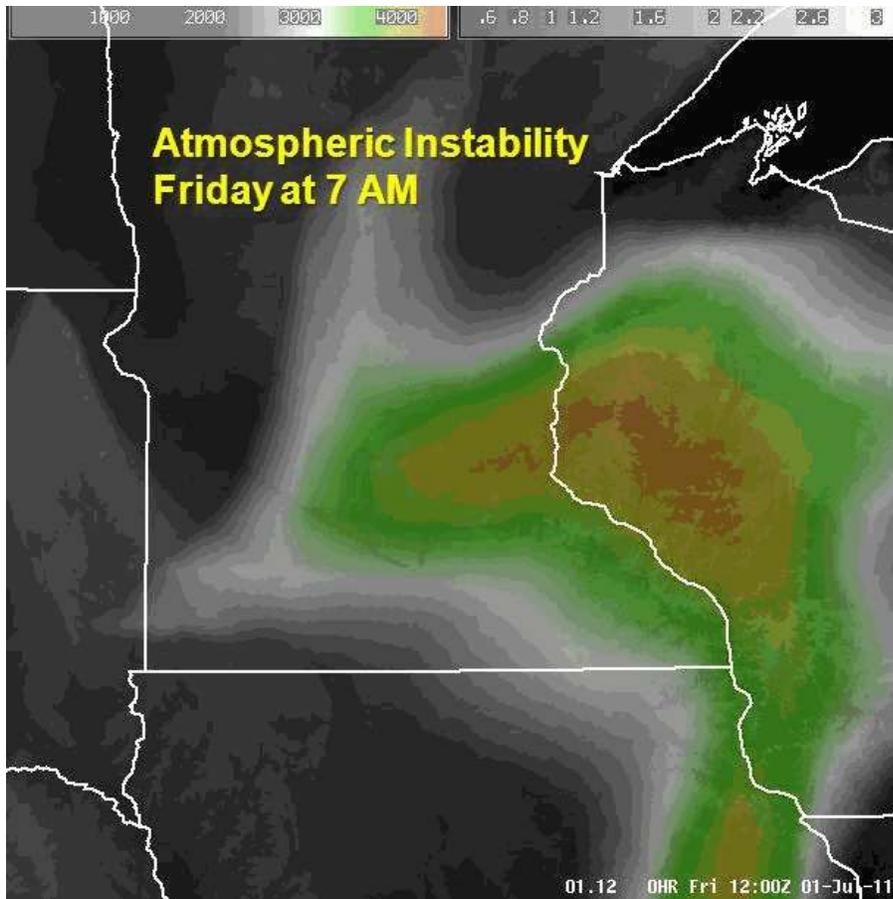
July 1, 2011: Extreme Damaging Wind Event

Synopsis

A warm and very moist air mass had enveloped much of the Midwest on Thursday, June 30th into Friday, July 1st. The air mass on July 1st was characterized by temperatures in the 90s (high of 99° in Minneapolis) and dew points in the middle 70s. This created high to extreme instability values. A loop of this through the day can be seen below. See to the right, a surface cool front was working slowly east, acting to focus (or converge) the moisture and resulting instability along it. As stronger upper level winds between 10,000 and 30,000 ft moved into western Minnesota by later in the afternoon, this further enhanced the ability for thunderstorms to develop and especially to continue. This is because such upper level winds can often produce greater wind shear and resulting better thunderstorm organization. Such was the case on July 1st, and thunderstorms which developed over southeast South Dakota into southwest Minnesota that afternoon quickly organized and propagated northeast. They evolved into what meteorologists refer to as a mesoscale convective system (MCS). In particular there was an evident area of broad rotation within this, making it a mesoscale convective vortex (MCV), which is a feature that often lasts for hours. The MCV moved along this front draped from southwest Minnesota to northwest Wisconsin. This was the swath that experienced areas of major wind damage, attributed primarily to severe winds, but there were a few tornadoes.



4 pm Surface Map



Damage Survey Info

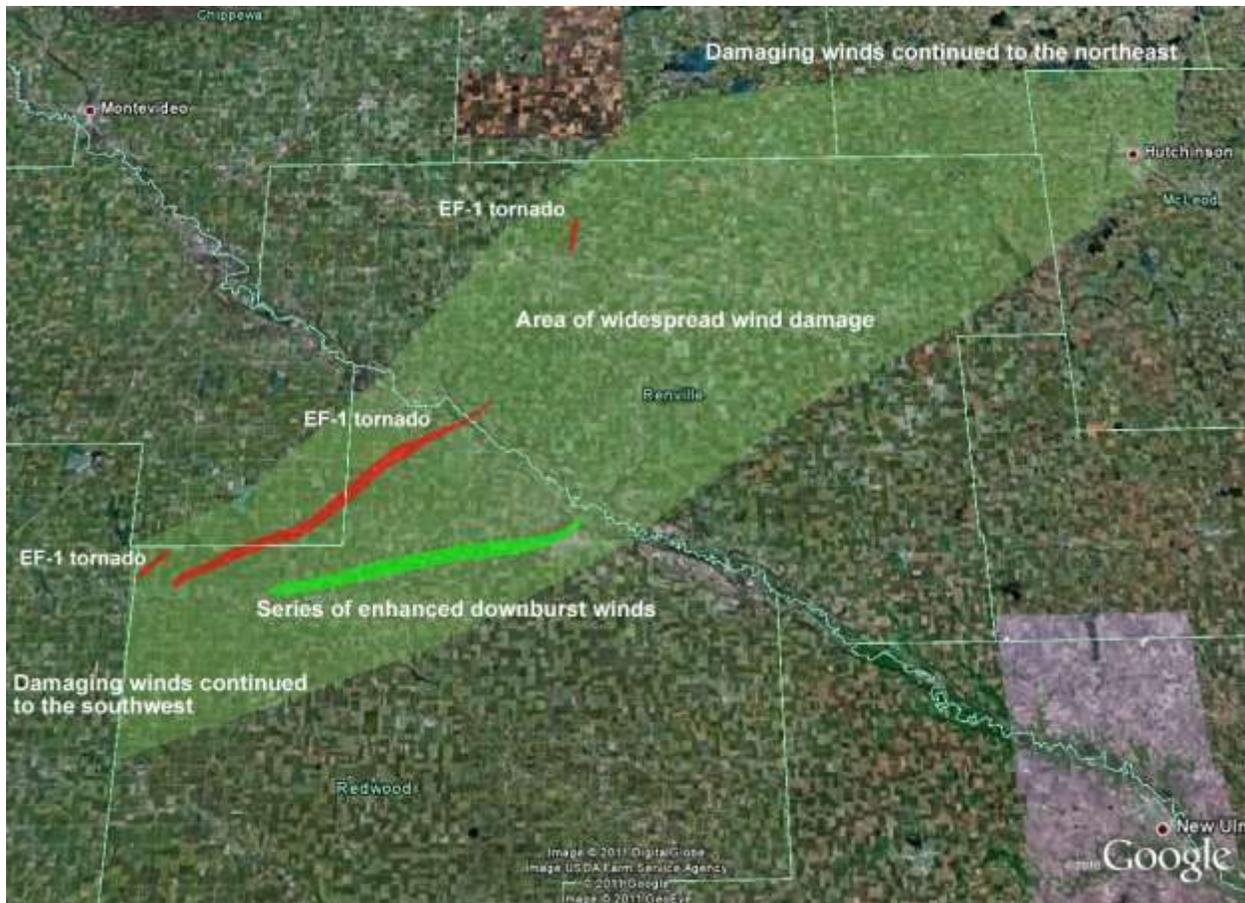
Fast Facts:

- Widespread wind damage of 70 to 110 mph was found, and interpolated based on many Skywarn storm spotter reports, from far southeast South Dakota all the way across Minnesota and into northwest Wisconsin.
- There were six tornadoes found on the surveys in Minnesota. One was rated as an EF-0 on the Enhanced Fujita Scale, four as EF-1s, and one was an EF-2 in and near the community of Tyler. Four of them were in the NWS Chanhassen County Warning Area (CWA), while the other two were in the NWS Sioux Falls CWA. There was also an EF-2 Tornado in northwest Wisconsin, near Solon Springs.

Redwood, Yellow Medicine, and Renville Counties:







...Preliminary Storm Damage Survey Results from Kandiyohi, Meeker, Redwood, Renville, and Yellow Medicine Counties...

A National Weather Service storm damage assessment team conducted a survey of the damage caused by the July 1st storms in portions of southwest and central Minnesota. This was a small segment of a long-lasting damaging wind event that moved from near the South Dakota / Minnesota border into northwest Wisconsin. The following is a summary of the results from the damage survey in Kandiyohi, Meeker, Redwood, Renville, and Yellow Medicine counties.

Widespread wind damage across the five counties...

Event: severe thunderstorm winds.

Wind speeds: 70-90 mph with isolated 90-100 mph.

Communities impacted: Cosmos, Danube, Echo, Lake Lillian, Milroy and others.

Time: Approximately 422 to 545 pm, with some areas likely experiencing severe winds for 10 to 15 minutes based on accounts and radar.

Damage: Several hundred trees snapped with dozens uprooted. A high percentage of the groves of trees within this swath had at least some visible damage. Numerous utility poles were also snapped. Large grain storage bins were dented by the force of the wind, at times collapsing. Smaller ones were blown free. There was scattered damage to outbuildings, including better constructed ones. There was large acreage of crops smashed down or bent by the wind, in some cases shredded, likely due to accompanying hail.

Remarks: The severe wind damage began across far eastern South Dakota based on reports and continued much further onward, likely to northwest Wisconsin with no breaks.

EF-1 tornado in northwest Redwood County...

Maximum winds: 85 to 95 mph.

Location: Seven miles north-northwest of Milroy, from very near the Lyon County border, northeast to eight miles north of Milroy, ending near the intersection of 100th Avenue and Balsa Avenue.

Path length: Approximately two and a half miles.

Maximum width: Approximately three hundred yards.

Time: Approximately 431 pm to 433 pm.

Damage: Several large trees snapped. A large grain bin was heavily damaged along with a convergent damage in the smashed crops.

Remarks: This tornado was embedded within the broader severe winds mentioned above.

EF-1 tornado from northwest Redwood County - across far southeast Yellow Medicine County - into western Renville County...

Maximum winds: 95 to 105 mph.

Location: Approximately 6 miles west of Vesta, northeast across Belview, across the Minnesota River, ending two miles into western Renville County near the intersection of 740th Avenue and 240th Street.

Path length: Approximately 21 miles.

Maximum width: Approximately one half mile.

Time: Approximately 431 pm to 451 pm.

Damage: Hundreds of trees were snapped with numerous uprooted. Belview saw the most widespread tree damage of any community surveyed. Some trees had fallen on homes or other residential buildings in the town. Several outbuildings were heavily damaged with the debris pieces being strewn one half to three quarters of a mile downstream. A handful of utility poles were snapped. Even more pronounced damage to the crops was seen than with the ambient winds.

Remarks: This damage was embedded within the broader severe winds mentioned above but was more concentrated, stronger, and within a path. It aligned with tight rotation on radar that was just southeast of the center of the long-lived mesoscale convective vortex. At times there was enhanced damage to the south of this path, possibly being an enhancement of the storm rear-flank downdraft. A combination of this and the actual tornado looked to have moved across Belview.

Concentrated wind damage from Vesta to Redwood Falls...

Event: A series of downbursts.

Wind speeds: 90-100 mph.

Length of damage: Approximately 13 miles.

Width: Around three-quarters of a mile.

Time: Approximately 437 to 500 pm. Public video indicated winds up to severe limits for at least four continuous minutes in Redwood Falls.

Damage: Within Vesta, there were dozens of trees downed and a church roof had been partially uplifted. While all of Redwood Falls saw tree damage, the most intense area was the northern part of the town which was in this path. There were numerous large trees fallen in an elevated area. In between the two communities there was tree damage and utility poles snapped.

EF-1 tornado north of Danube...

Wind speeds: 100-110 mph.

Location: Approximately one half mile north-northwest of

Danube, north-northeast along Renville County Road 1, to three miles north of Danube.

Path length: Approximately two and a half miles.

Maximum width: Approximately three hundred yards.

Time: Approximately 503 to 507 pm.

Damage: A house had much of its roof lifted off and a large equipment shed was almost entirely destroyed, with debris flung nearly one mile downstream. A half dozen utility poles were snapped. Numerous large trees snapped or downed, with a few having been more shredded with only the largest limbs left. Also an older building within the path had major siding damage which appeared to be due to wind-driven large hail.

The damage is so widespread across so many counties in the Chanhassen forecast area that it is not possible to look at every bit of damage in every location. Therefore surveys in these types of situations are typically limited to those areas where damage occurred and spotters reported a funnel or tornado, or where damage occurred coincident with radar indication of a possible tornado.

Stearns County:





...TORNADO IN WAITE PARK AND A DOWNBURST IN ST CLOUD...

The National Weather Service assessed the damage caused by the storms Friday evening, July 1, in eastern Stearns County, including the cities of Waite Park and St Cloud.

Tornado Location: the tornado touched down just northeast of the intersection of Interstate 94 and Highway 23. It moved northeast and dissipated in Waite Park, about 1.5 miles west of the intersection of Highways 15 and 23.

Path length: 2.3 miles.

Maximum wind speed: About 65 mph.

Maximum width: Approximately 30 yards.

Tornado damage: Dozens of trees were broken or toppled as it moved northeast. It did not appear that the tornado was continuously on the ground but there were five distinct locations of convergent damage along its path.

Timing: It appears to have touched down at about 623 pm and dissipated at about 626 pm. This is estimated based on radar.

Downburst location: Most damage was north of downtown St Cloud and was spread over several square miles. it extended into Benton County.

Downburst maximum wind speed: 65 to 70 mph.

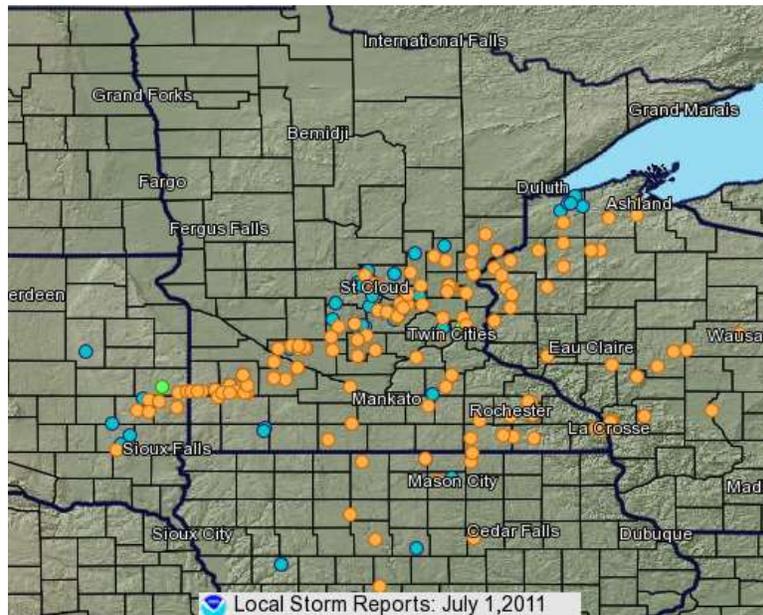
Downburst damage: Hundreds of trees were toppled, broken or pushed over. Many trees landed on houses, sheds and vehicles. The downburst damage was far more widespread and significant than the tornado damage.

Downburst notes: it is likely that the downburst lasted for many minutes in some areas.

Other damage: There was sporadic tree damage from Rockville to St Cloud. This was much less concentrated than the Waite Park tornado damage or the St Cloud downburst damage.

The National Weather Service would like to thank Skywarn storm spotters, law enforcement, and media who provided or relayed critical reports to the National Weather Service in real time. A special thank you is given to Stearns County Emergency Management for assisting in the damage survey.

Storm Reports



PRELIMINARY LOCAL STORM REPORT...SUMMARY
 NATIONAL WEATHER SERVICE TWIN CITIES/CHANHASSEN MN
 757 AM CDT WED JUL 06 2011

..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...
..DATE...	...MAG....	..COUNTY LOCATION..ST..	...SOURCE....
	..REMARKS..		
0431 PM 07/01/2011	TORNADO	6 NNW MILROY REDWOOD	44.51N 95.58W MN NWS STORM SURVEY

TORNADO RATED EF-1. TOUCHED DOWN JUST EAST OF THE BORDER WITH LYON COUNTY AND MOVED NORTHEAST TO 8 N MILROY. PATH LENGTH 2.5 MILES WITH A MAXIMUM WIDTH OF 300 YARDS. TREES WERE SNAPPED AND A GRAIN BIN WAS HEAVILY DAMAGED.

0431 PM 07/01/2011	TORNADO	6 W VESTA REDWOOD	44.51N 95.54W MN NWS STORM SURVEY
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TORNADO RATED EF-1. IT TOUCHED DOWN IN REDWOOD COUNTY... MOVED ACROSS A CORNER OF YELLOW MEDICINE COUNTY... BACK INTO REDWOOD COUNTY WHERE IT MOVED THROUGH BELVIEW... THEN INTO RENVILLE COUNTY... DISSIPATING NEAR 740TH AVENUE AND 240TH STREET AT 451 PM. PATH LENGTH 21 MILES AND MAXIMUM WIDTH 1/2 MILE. HUNDREDS OF TREES WERE SNAPPED OR UPROOTED...SOME ON HOMES. SEVERAL OUTBUILDINGS HEAVILY DAMAGED.

0440 PM 07/01/2011	TSTM WND DMG	LUCAN REDWOOD	44.41N 95.41W MN TRAINED SPOTTER
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NUMEROUS TREES DOWN UP TO 3 FEET IN DIAMETER. SOME FELL ONTO HOUSES AND BUILDINGS. TIME WAS ESTIMATED.

0441 PM 07/01/2011	TSTM WND DMG	ECHO YELLOW MEDICINE	44.62N 95.41W MN LAW ENFORCEMENT
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BARN AND OUTBUILDING DAMAGE. WIDESPREAD TREE DAMAGE.

0450 PM 07/01/2011	TSTM WND DMG	WABASSO REDWOOD	44.40N 95.25W MN AMATEUR RADIO
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TIME ESTIMATED. 5 INCH DIAMETER TREE BRANCHES DOWN.

0451 PM 07/01/2011	TSTM WND GST M59.00 MPH	REDWOOD FALLS REDWOOD	44.54N 95.11W MN ASOS
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MEASURED AT REDWOOD FALLS AIRPORT

0456 PM 07/01/2011	TSTM WND GST M62.00 MPH	REDWOOD FALLS REDWOOD	44.54N 95.11W MN MESONET
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MEASURED AT REDWOOD VALLEY HIGH SCHOOL

0457 PM 07/01/2011	HAIL M0.75 INCH	REDWOOD FALLS REDWOOD	44.54N 95.11W MN AMATEUR RADIO
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0457 PM 07/01/2011	TSTM WND DMG	REDWOOD FALLS REDWOOD	MN	44.54N 95.11W AMATEUR RADIO
5 INCH DIAMETER BRANCHES DOWN				
0458 PM 07/01/2011	TSTM WND GST M78.00 MPH	REDWOOD FALLS REDWOOD	MN	44.54N 95.11W STORM CHASER
MEASURED WITH CAR ANEMOMETER.				
0500 PM 07/01/2011	HAIL M1.25 INCH	REDWOOD FALLS REDWOOD	MN	44.54N 95.11W STORM CHASER
0500 PM 07/01/2011	TSTM WND DMG	DANUBE RENVILLE	MN	44.79N 95.10W TRAINED SPOTTER
PATH OF DAMAGE NEAR COUNTY ROAD 11...INCLUDING AT LEAST 4 BARN...HOUSE...SCHOOL HOUSE...SILO...AND DOWNED TREES. TIME ESTIMATED.				
0500 PM 07/01/2011	TSTM WND DMG	1 N DANUBE RENVILLE	MN	44.81N 95.10W TRAINED SPOTTER
3 POWER POLES DOWN. TOP PART OF AN 80 FOOT TREE ROUGHLY 2.5 FEET IN DIAMETER TAKEN OFF. REPORT FROM SPOTTER A-20.				
0500 PM 07/01/2011	TSTM WND DMG	RENVILLE RENVILLE	MN	44.79N 95.21W TRAINED SPOTTER
RIPPED METAL SHEETS OFF BUILDING EXTERIOR.				
0502 PM 07/01/2011	HAIL M2.75 INCH	2 S DASSEL MEEKER	MN	45.05N 94.31W TRAINED SPOTTER
0503 PM 07/01/2011	HAIL M1.75 INCH	DARWIN MEEKER	MN	45.10N 94.40W AMATEUR RADIO
0503 PM 07/01/2011	TORNADO	1 NW DANUBE RENVILLE	MN	44.80N 95.12W NWS STORM SURVEY
TORNADO RATED EF-1. TOUCHED DOWN ABOUT 1/2 MILE NORTHWEST OF DANUBE AND MOVED NORTH-NORTHEAST. IT DISSIPATED 3 N DANUBE. PATH LENGTH 2.5 MILES AND MAXIMUM WIDTH 300 YARDS. A HOUSE HAD MUCH OF ITS ROOF LIFTED OFF AND A LARGE EQUIPMENT SHED WAS NEARLY COMPLETELY DESTROYED.				
0504 PM 07/01/2011	HAIL M1.00 INCH	RENVILLE RENVILLE	MN	44.79N 95.21W TRAINED SPOTTER
ESTIMATED TIME				
0505 PM 07/01/2011	HAIL M1.00 INCH	2 N MANANNAH STEARNS	MN	45.34N 94.64W TRAINED SPOTTER
0507 PM 07/01/2011	FUNNEL CLOUD	FRANKLIN RENVILLE	MN	44.53N 94.89W TRAINED SPOTTER

0508 PM TSTM WND DMG 1 N DANUBE 44.81N 95.10W
07/01/2011 RENVILLE MN TRAINED SPOTTER

THREE POWER LINES DOWN.

0509 PM HAIL 2 SE DASSEL 45.06N 94.28W
07/01/2011 M1.00 INCH MEEKER MN TRAINED SPOTTER

0510 PM HAIL 1 N DANUBE 44.81N 95.10W
07/01/2011 M0.88 INCH RENVILLE MN TRAINED SPOTTER

REPORT FROM SPOTTER A-20. DIME TO NICKEL SIZE HAIL.

0511 PM TSTM WND GST REDWOOD FALLS 44.54N 95.11W
07/01/2011 M63.00 MPH REDWOOD MN ASOS

MEASURED FROM THE REDWOOD FALLS AIRPORT

0512 PM HAIL DASSEL 45.08N 94.31W
07/01/2011 M1.00 INCH MEEKER MN TRAINED SPOTTER

0515 PM HAIL 2 S DASSEL 45.05N 94.31W
07/01/2011 M2.00 INCH MEEKER MN TRAINED SPOTTER

0517 PM TSTM WND DMG REDWOOD FALLS 44.54N 95.11W
07/01/2011 REDWOOD MN STORM CHASER

NUMEROUS TREES DOWN...SOME AS WIDE AS 2.5 FEET. SEVERAL
POWER LINES DOWN...SOME ROOF DAMAGE. ALL REPORTED IN
DOWNTOWN AREA.

0517 PM HAIL 4 SW DASSEL 45.04N 94.37W
07/01/2011 M4.25 INCH MEEKER MN STORM CHASER

VIA SPOTTER NETWORK

0518 PM HAIL COSMOS 44.94N 94.70W
07/01/2011 M0.75 INCH MEEKER MN TRAINED SPOTTER

DIME SIZE HAIL REPORTED FOR SEVERAL MINUTES.

0524 PM HAIL COLLEGEVILLE 45.60N 94.37W
07/01/2011 M1.00 INCH STEARNS MN AMATEUR RADIO

0525 PM TSTM WND DMG 4 SW BROWNTON 44.69N 94.41W
07/01/2011 MCLEOD MN LAW ENFORCEMENT

SEMI-TRAILER ROLLED INTO DITCH ON COUNTY ROAD 15...THREE
MILES SOUTH OF INTERSECTION OF STATE ROAD 212 AND COUNTY
ROAD 15. DRIVER INJURED.

0525 PM HAIL 3 SW BUFFALO 45.15N 93.91W
07/01/2011 M1.25 INCH WRIGHT MN AMATEUR RADIO

HIGHWAY 55 AND COUNTY ROAD 12

0525 PM TSTM WND DMG 2 NE HECTOR 44.76N 94.68W
07/01/2011 RENVILLE MN TRAINED SPOTTER

TWO FOOT TREES DOWN.

0526 PM HAIL 1 WSW BUFFALO 45.17N 93.89W
07/01/2011 E2.00 INCH WRIGHT MN TRAINED SPOTTER

0530 PM HAIL OLIVIA 44.78N 95.00W
07/01/2011 M1.00 INCH RENVILLE MN TRAINED SPOTTER

0530 PM TSTM WND DMG BROWNTON 44.73N 94.35W
07/01/2011 MCLEOD MN LAW ENFORCEMENT

UPPER THIRD OF LARGE TREE TOPPLED ONTO
MINI-VAN...CRUSHING SEVERELY. EIGHT YEAR OLD GIRL WITH
MULTIPLE INJURIES ADMITTED TO LOCAL HOSPITAL.

0530 PM TSTM WND DMG S HUTCHINSON 44.89N 94.37W
07/01/2011 MCLEOD MN TRAINED SPOTTER

ONE AND A HALF INCH DIAMETER BRANCHES DOWN. HIGHWAY 15.

0530 PM TSTM WND DMG OLIVIA 44.78N 95.00W
07/01/2011 RENVILLE MN TRAINED SPOTTER

ONE FOOT DIAMETER TREES DOWN ALONG WITH POWER LINES.

0531 PM HAIL 4 SSE SILVER CREEK 45.26N 93.91W
07/01/2011 M1.00 INCH WRIGHT MN TRAINED SPOTTER

0532 PM HAIL ST JOSEPH 45.57N 94.32W
07/01/2011 M1.75 INCH STEARNS MN AMATEUR RADIO

INTERSTATE 94 AND COUNTY ROAD 2

0534 PM TSTM WND GST HUTCHINSON 44.89N 94.37W
07/01/2011 M58.00 MPH MCLEOD MN AWOS

REPORTED AT HUTCHINSON AIRPORT

0538 PM TSTM WND DMG ST STEPHEN 45.70N 94.28W
07/01/2011 STEARNS MN AMATEUR RADIO

POWER POLES DOWN

0539 PM HAIL ANNANDALE 45.26N 94.12W
07/01/2011 M1.00 INCH WRIGHT MN TRAINED SPOTTER

0540 PM TSTM WND DMG HUTCHINSON 44.89N 94.37W
07/01/2011 MCLEOD MN AMATEUR RADIO

2 INCH TO 4 INCH DIAMETER BRANCHES DOWN. MAIN STREET.

0540 PM HAIL DARWIN 45.10N 94.40W
07/01/2011 M1.75 INCH MEEKER MN AMATEUR RADIO

0540 PM	HAIL	DASSEL	45.08N 94.31W
07/01/2011	M1.00 INCH	MEEKER	MN AMATEUR RADIO
0540 PM	HAIL	2 S MONTICELLO	45.28N 93.80W
07/01/2011	M2.00 INCH	WRIGHT	MN TRAINED SPOTTER
0540 PM	HAIL	HUTCHINSON	44.89N 94.37W
07/01/2011	M1.25 INCH	MCLEOD	MN AMATEUR RADIO
	MAIN STREET		
0540 PM	TSTM WND DMG	14 S HUTCHINSON	44.69N 94.37W
07/01/2011		MCLEOD	MN TRAINED SPOTTER
	SEMI TRAILER BLOWN OVER.		
0540 PM	HAIL	4 S DASSEL	45.02N 94.31W
07/01/2011	M2.00 INCH	MEEKER	MN AMATEUR RADIO
0541 PM	HAIL	GROVE CITY	45.15N 94.68W
07/01/2011	M1.00 INCH	MEEKER	MN TRAINED SPOTTER
0543 PM	HAIL	7 SW MONTICELLO	45.23N 93.90W
07/01/2011	M1.00 INCH	WRIGHT	MN TRAINED SPOTTER
0544 PM	HAIL	5 NNW ST CLOUD	45.62N 94.22W
07/01/2011	M1.00 INCH	STEARNS	MN TRAINED SPOTTER
0544 PM	HAIL	3 N FOLEY	45.71N 93.91W
07/01/2011	M1.00 INCH	BENTON	MN AMATEUR RADIO
0545 PM	TSTM WND DMG	SACRED HEART	44.78N 95.35W
07/01/2011		RENVILLE	MN TRAINED SPOTTER
	NUMEROUS TREES DOWNED OR UPROOTED ON HIGHWAY 212. TWO BUSINESSES HAVE PORTIONS OF ROOFS OFF. ONE BUSINESS HAD WALL BLOWN IN.		
0545 PM	HAIL	MONTICELLO	45.30N 93.80W
07/01/2011	M2.75 INCH	WRIGHT	MN TRAINED SPOTTER
	TIME ESTIMATED.		
0545 PM	HAIL	SARTELL	45.62N 94.21W
07/01/2011	M1.75 INCH	STEARNS	MN AMATEUR RADIO
0546 PM	HAIL	BIG LAKE	45.34N 93.75W
07/01/2011	M0.75 INCH	SHERBURNE	MN AMATEUR RADIO
0546 PM	TSTM WND DMG	14 S HUTCHINSON	44.69N 94.37W
07/01/2011		MCLEOD	MN TRAINED SPOTTER
	SEMI BLOWN OFF THE ROAD INTO THE DITCH.		
0546 PM	HAIL	MONTICELLO	45.30N 93.80W
07/01/2011	M1.00 INCH	WRIGHT	MN AMATEUR RADIO

0552 PM 07/01/2011	HAIL M1.00 INCH	RICE BENTON	MN	45.75N 94.23W TRAINED SPOTTER
0552 PM 07/01/2011	TSTM WND DMG	2 NW OLIVIA RENVILLE	MN	44.80N 95.03W STORM CHASER
	OUT BUILDINGS FLATTENED, TREES UPROOTED, GRAIN BINS BLOWN OVER.			
0555 PM 07/01/2011	TSTM WND DMG	HUTCHINSON MCLEOD	MN	44.89N 94.37W AMATEUR RADIO
	CROW RIVER VET HOSPITAL ON HIGHWAY 7 ROOF OFF. POWER POLE DOWN. ADDRESS IS 890 SOUTH GRADE ROAD. ESTIMATED TIME.			
0555 PM 07/01/2011	TSTM WND DMG	HUTCHINSON MCLEOD	MN	44.89N 94.37W TRAINED SPOTTER
	LARGE TREES DOWN. TREES UP TO 36 INCHES SNAPPED IN HALF. ROOF OFF A VET CLINIC. ESTIMATED TIME.			
0556 PM 07/01/2011	TSTM WND DMG	1 SE MONTICELLO WRIGHT	MN	45.29N 93.79W TRAINED SPOTTER
	UTILITY POWER LOST.			
0556 PM 07/01/2011	HAIL M2.00 INCH	BIG LAKE SHERBURNE	MN	45.34N 93.75W TRAINED SPOTTER
	COUNTY ROAD 81 AND HIGHWAY 10			
0558 PM 07/01/2011	HAIL M1.75 INCH	2 NNE BIG LAKE SHERBURNE	MN	45.37N 93.73W TRAINED SPOTTER
0558 PM 07/01/2011	HAIL M1.25 INCH	SARTELL BENTON	MN	45.62N 94.21W TRAINED SPOTTER
	DENTS ON TRUCK			
0600 PM 07/01/2011	TSTM WND DMG	6 SW LITCHFIELD MEEKER	MN	45.06N 94.61W TRAINED SPOTTER
	24 INCH DIAMETER TREE UPROOTED.			
0600 PM 07/01/2011	TSTM WND DMG	3 NW SILVER LAKE MCLEOD	MN	44.94N 94.25W TRAINED SPOTTER
	BIG TREES DOWN. 24 INCH TREE SPLIT OFF.			
0600 PM 07/01/2011	TSTM WND DMG	DARWIN MEEKER	MN	45.10N 94.40W AMATEUR RADIO
	24 INCH TREE DOWN			
0600 PM 07/01/2011	HAIL M1.25 INCH	4 ENE BECKER SHERBURNE	MN	45.39N 93.81W TRAINED SPOTTER

0600 PM TSTM WND DMG 1 S COSMOS 44.92N 94.70W
07/01/2011 MEEKER MN TRAINED SPOTTER

SEVERAL LARGE TREES DOWN...A FEW HOMES DAMAGED.

0600 PM TSTM WND DMG KINGSTON 45.20N 94.31W
07/01/2011 MEEKER MN TRAINED SPOTTER

ESTIMATED 70 MPH WIND GUSTS TOOK OUT SEVERAL LARGE TREE LIMBS AND UPROOTED A TREE.

0601 PM TSTM WND GST 1 S BIG LAKE 45.32N 93.75W
07/01/2011 M70.00 MPH SHERBURNE MN AMATEUR RADIO

0602 PM HAIL 5 N BIG LAKE 45.41N 93.75W
07/01/2011 M2.75 INCH SHERBURNE MN AMATEUR RADIO

0606 PM HAIL 1 N SOUTH HAVEN 45.31N 94.22W
07/01/2011 M1.00 INCH WRIGHT MN AMATEUR RADIO

0608 PM HAIL ST AUGUSTA 45.44N 94.19W
07/01/2011 M1.00 INCH STEARNS MN TRAINED SPOTTER

0610 PM TSTM WND DMG ST CLOUD 45.55N 94.17W
07/01/2011 STEARNS MN TRAINED SPOTTER

NUMEROUS TREES DOWN JUST NORTH OF DOWNTOWN BY HOSPITAL. TIME ESTIMATED.

0610 PM TSTM WND DMG CENTERVILLE 45.17N 93.05W
07/01/2011 ANOKA MN TRAINED SPOTTER

12 TO 18 INCH TREES DOWN BY CENTERVILLE ROAD AND CTY 14

0610 PM TSTM WND DMG ST CLOUD 45.55N 94.17W
07/01/2011 STEARNS MN TRAINED SPOTTER

NUMEROUS TREES DOWN JUST NORTH OF DOWNTOWN BY HOSPITAL. TIME ESTIMATED.

0613 PM TSTM WND GST MONTICELLO 45.30N 93.80W
07/01/2011 M52.00 MPH WRIGHT MN TRAINED SPOTTER

CTY 18 AND I 94

0614 PM TSTM WND GST BUFFALO 45.18N 93.87W
07/01/2011 M68.00 MPH WRIGHT MN AWOS

MEASURED AT BUFFALO AIRPORT

0615 PM FUNNEL CLOUD WAITE PARK 45.55N 94.22W
07/01/2011 STEARNS MN TRAINED SPOTTER

0615 PM TSTM WND GST 4 W BIG LAKE 45.34N 93.83W
07/01/2011 E70.00 MPH WRIGHT MN AMATEUR RADIO

0615 PM TSTM WND GST 1 S BIG LAKE 45.32N 93.75W

07/01/2011 M71.00 MPH SHERBURNE MN AMATEUR RADIO
 0617 PM HAIL 5 SSW CAMBRIDGE 45.50N 93.27W
 07/01/2011 M0.88 INCH ISANTI MN TRAINED SPOTTER
 0617 PM HAIL 14 N MILACA 45.96N 93.65W
 07/01/2011 M1.00 INCH MILLE LACS MN TRAINED SPOTTER
 0617 PM TSTM WND DMG HUTCHINSON 44.89N 94.37W
 07/01/2011 MCLEOD MN TRAINED SPOTTER

MANY LARGE TREES DOWNED. ROOF DAMAGE TO HOME RESIDENCE.

0620 PM HAIL NORTH BRANCH 45.51N 92.98W
 07/01/2011 M0.88 INCH CHISAGO MN TRAINED SPOTTER
 0620 PM TSTM WND DMG 2 NNW ST CLOUD 45.58N 94.18W
 07/01/2011 STEARNS MN NWS STORM SURVEY

DOWNBURST WINDS OF 65 TO 70 MPH BEGAN HITTING THE
 NORTHERN PORTION OF ST CLOUD. HUNDREDS OF TREES WERE
 TOPPLED OR BROKEN ACROSS SEVERAL SQUARE MILES NEAR THE
 HOSPITAL.

0622 PM TSTM WND GST PRINCETON 45.57N 93.59W
 07/01/2011 M62.00 MPH MILLE LACS MN AWOS

MEASURED AT PRINCETON AIRPORT

0623 PM HAIL 1 SW ZIMMERMAN 45.44N 93.60W
 07/01/2011 M1.00 INCH SHERBURNE MN TRAINED SPOTTER
 0623 PM TORNADO 5 WSW ST CLOUD 45.52N 94.27W
 07/01/2011 STEARNS MN NWS STORM SURVEY

TORNADO RATED EF-0. IT TOUCHED DOWN JUST NORTHEAST OF THE
 INTERSECTION OF I-94 AND HIGHWAY 23. DOZENS OF TREES WERE
 BROKEN... TOPPLED OR PUSHED OVER AS THE TORNADO MOVED
 NORTHEAST. IT DISSIPATED IN WAITE PARK...ABOUT 1.5 MILES
 WEST OF THE INTERSECTION OF HIGHWAYS 15 AND 23. TOTAL
 PATH LENGTH 2.3 MILES. IT DID NOT APPEAR THAT THE TORNADO
 WAS CONTINUOUSLY ON THE GROUND BUT THERE WERE FIVE
 DISTINCT LOCATIONS OF CONVERGENT DAMAGE ALONG ITS PATH.

0625 PM TSTM WND DMG ANNANDALE 45.26N 94.12W
 07/01/2011 WRIGHT MN TRAINED SPOTTER

MULTIPLE REPORTS OF DOWNED TREES BLOCKING ROADS. POWER
 LINES DOWN OVER ROADS.

0629 PM HAIL CAMBRIDGE 45.56N 93.23W
 07/01/2011 M1.00 INCH ISANTI MN AMATEUR RADIO
 0629 PM TSTM WND DMG FORESTON 45.73N 93.71W
 07/01/2011 MILLE LACS MN TRAINED SPOTTER

ROOF BLOWN OFF. JUNCTION OF 155TH AND 165TH AVE. ESTIMATED

3 MILES FROM BENTON COUNTY BORDER.

0630 PM TSTM WND DMG 7 N OGILVIE 45.93N 93.42W
07/01/2011 KANABEC MN TRAINED SPOTTER

TREE DOWN 20 INCHES IN DIAMETER

0630 PM TSTM WND DMG 3 NNE MAPLEWOOD 45.49N 93.25W
07/01/2011 ISANTI MN TRAINED SPOTTER

THREE TO FOUR INCH TREE LIMBS DOWNED.

0630 PM TSTM WND DMG 1 SSE CAMBRIDGE 45.55N 93.22W
07/01/2011 ISANTI MN TRAINED SPOTTER

2 LARGE 12 INCH DIAMETER TREES DOWN ACROSS PAULS LAKE
ROAD. 6 INCH DIAMETER PINE TREE DOWN ON FENCE ALONG 16TH
ST SE. TIME ESTIMATED.

0630 PM TSTM WND DMG COON RAPIDS 45.17N 93.31W
07/01/2011 ANOKA MN TRAINED SPOTTER

18 TO 24 INCH TREES UPROOTED NEAR NORTHDALE AND FOLEY.
TREE FELL ON TRUCK.

0631 PM HAIL ISANTI 45.49N 93.25W
07/01/2011 M1.50 INCH ISANTI MN LAW ENFORCEMENT

0632 PM HAIL 12 N MORA 46.05N 93.29W
07/01/2011 M1.00 INCH KANABEC MN TRAINED SPOTTER

0632 PM TSTM WND DMG E SAUK RAPIDS 45.59N 94.17W
07/01/2011 BENTON MN AMATEUR RADIO

NUMEROUS TREES DOWN

0632 PM TSTM WND GST MAPLE LAKE 45.23N 94.00W
07/01/2011 M68.00 MPH WRIGHT MN ASOS

0635 PM HAIL CAMBRIDGE 45.56N 93.23W
07/01/2011 M1.75 INCH ISANTI MN TRAINED SPOTTER

0636 PM HAIL SSE CAMBRIDGE 45.56N 93.22W
07/01/2011 M1.25 INCH ISANTI MN TRAINED SPOTTER

0638 PM TSTM WND DMG SAUK RAPIDS 45.59N 94.17W
07/01/2011 BENTON MN AMATEUR RADIO

BENTON DRIVE BEING CLOSED DUE TO TREES IN ROADWAY.

0641 PM TSTM WND DMG 1 E MORA 45.88N 93.27W
07/01/2011 KANABEC MN AMATEUR RADIO

14 INCH TO 16 INCH TREES DOWN

0641 PM TSTM WND GST CAMBRIDGE 45.56N 93.23W
07/01/2011 M60.00 MPH ISANTI MN AMATEUR RADIO

50-60 MPH MEASURED

0645 PM TSTM WND GST 1 SSW BUFFALO 45.17N 93.87W
07/01/2011 M73.00 MPH WRIGHT MN STORM CHASER

6 INCH TO 8 INCH BRANCHES DOWN

0645 PM TSTM WND DMG 1 SE CAMBRIDGE 45.55N 93.21W
07/01/2011 ISANTI MN TRAINED SPOTTER

ONE FOOT DIAMETER TREE DOWN.

0645 PM TSTM WND DMG 4 SSW NORTH BRANCH 45.47N 93.02W
07/01/2011 ISANTI MN TRAINED SPOTTER

TREES DOWN

0650 PM TSTM WND DMG ST LOUIS PARK 44.95N 93.36W
07/01/2011 HENNEPIN MN TRAINED SPOTTER

TREES DOWN AROUND HIGHWAY 169...4 MILES SOUTH OF 49TH
AVE. TIME ESTIMATED.

0652 PM TSTM WND DMG BUFFALO 45.18N 93.87W
07/01/2011 WRIGHT MN TRAINED SPOTTER

12 INCH PINE TREE DOWN BY HWY 55 AND HWY 25

0652 PM TSTM WND DMG N SHERBURN 43.65N 94.73W
07/01/2011 MARTIN MN TRAINED SPOTTER

24 INCH TREE DOWN AT 261ST STREET AND CTY 5

0653 PM TSTM WND DMG BUFFALO 45.18N 93.87W
07/01/2011 WRIGHT MN TRAINED SPOTTER

TOP OF LARGE TREES BEING SNAPPED

0655 PM TSTM WND GST MONTICELLO 45.30N 93.80W
07/01/2011 M56.00 MPH WRIGHT MN AMATEUR RADIO

0656 PM TSTM WND DMG 8 N BIG LAKE 45.45N 93.75W
07/01/2011 SHERBURNE MN AMATEUR RADIO

2 FOOT TREES DOWN. DAMAGE IS IN THE TOWN OF ORROCK.

0657 PM TSTM WND DMG ELK RIVER 45.33N 93.57W
07/01/2011 SHERBURNE MN AMATEUR RADIO

TREES DOWN OVER ROADS IN TOWN

0700 PM TSTM WND DMG 2 N TRUMAN 43.86N 94.44W
07/01/2011 WATONWAN MN LAW ENFORCEMENT

LARGE BRANCHES BLOCKING HIGHWAY 15

0700 PM 07/01/2011	TSTM WND DMG	HUTCHINSON MCLEOD	MN	44.89N 94.37W AMATEUR RADIO
3 FOOT TREE DOWN. POWER OUTAGES. ROOF OF VET HOSPITAL.				
0700 PM 07/01/2011	TSTM WND DMG	3 NE RUSH CITY CHISAGO	MN	45.71N 92.92W TRAINED SPOTTER
WIDESPREAD WIND DAMAGE AROUND RUSH CITY INCLUDING MULTIPLE 12 INCH DIAMETER TREES SNAPPED.				
0700 PM 07/01/2011	HAIL M0.75 INCH	2 N TRUMAN WATONWAN	MN	43.86N 94.44W LAW ENFORCEMENT
0704 PM 07/01/2011	HEAVY RAIN M2.75 INCH	SARTELL BENTON	MN	45.62N 94.21W TRAINED SPOTTER
2.75 INCHES MEASURED IN 2 HOURS.				
0707 PM 07/01/2011	HAIL M1.00 INCH	MORRISTOWN RICE	MN	44.22N 93.44W TRAINED SPOTTER
0710 PM 07/01/2011	TSTM WND DMG	NEW ULM BROWN	MN	44.31N 94.46W LAW ENFORCEMENT
FEW TREES DOWN				
0713 PM 07/01/2011	FUNNEL CLOUD	4 W GLENCOE MCLEOD	MN	44.77N 94.23W TRAINED SPOTTER
0720 PM 07/01/2011	TSTM WND DMG	2 W NORTHFIELD RICE	MN	44.45N 93.21W LAW ENFORCEMENT
2 FOOT DIAMETER TREES DOWN.				
0722 PM 07/01/2011	TSTM WND GST M68.00 MPH	5 W AMERY POLK	WI	45.30N 92.47W TRAINED SPOTTER
MEASURED WITH HAND HELD ANEMOMETER.				
0723 PM 07/01/2011	HAIL M0.75 INCH	BROOKLYN PARK HENNEPIN	MN	45.11N 93.35W AMATEUR RADIO
0725 PM 07/01/2011	TSTM WND DMG	GLENCOE MCLEOD	MN	44.77N 94.15W AMATEUR RADIO
TREES DOWN ALONG HWY 15 TOWARD BROWNTON. ESTIMATED TIME.				
0730 PM 07/01/2011	TSTM WND DMG	CLAYTON POLK	WI	45.32N 92.17W TRAINED SPOTTER
LARGE SIX INCH DIAMETER TREE BRANCH FELLED.				
0730 PM 07/01/2011	TSTM WND DMG	1 S CLAYTON POLK	WI	45.31N 92.17W TRAINED SPOTTER
THREE INCH DIAMETER TREE BRANCH DOWN.				

0730 PM HAIL GLENCOE 44.77N 94.15W
07/01/2011 M1.25 INCH MCLEOD MN AMATEUR RADIO

AT GLENCOE AIRPORT. ESTIMATED TIME.

0734 PM HAIL FAIRMONT 43.64N 94.46W
07/01/2011 M0.75 INCH MARTIN MN TRAINED SPOTTER

0738 PM TSTM WND DMG FARIBAULT 44.30N 93.27W
07/01/2011 RICE MN LAW ENFORCEMENT

2 FOOT DIAMETER TREE DOWN

0740 PM TSTM WND DMG CAMBRIDGE 45.56N 93.23W
07/01/2011 ISANTI MN TRAINED SPOTTER

ROOF BLOWN OFF SUPER AMERICA, TREES DOWN

0741 PM TSTM WND DMG 1 W MILLTOWN 45.53N 92.52W
07/01/2011 POLK WI AMATEUR RADIO

10 INCH TREE DOWN ON POWER LINES, MULTIPLE OTHER TREES
DOWN NEARBY.

0748 PM TSTM WND DMG WASECA 44.08N 93.50W
07/01/2011 WASECA MN TRAINED SPOTTER

POWER LINES DOWN

0748 PM TSTM WND DMG WASECA 44.08N 93.50W
07/01/2011 WASECA MN EMERGENCY MNGR

NUMEROUS TREES AND POWER LINES DOWN, IN WASECA AND
ELSEWHERE ACROSS THE COUNTY. TREES ON HOUSES IN WASECA.

0750 PM HEAVY RAIN 2 N MANANNAH 45.34N 94.64W
07/01/2011 M2.30 INCH STEARNS MN TRAINED SPOTTER

0755 PM TSTM WND GST CUMBERLAND 45.54N 92.02W
07/01/2011 M62.00 MPH BARRON WI AWOS

MEASURED AT CUMBERLAND AIRPORT

0800 PM TSTM WND GST 3 W WASECA 44.08N 93.56W
07/01/2011 M62.00 MPH WASECA MN AWOS

THERE WAS ALSO LOTS OF TREE DAMAGE AND POWERLINES DOWN IN
AND AROUND THE TOWN OF WASECA

0815 PM HAIL 5 NNW MINNEAPOLIS 45.03N 93.31W
07/01/2011 M1.25 INCH HENNEPIN MN NWS EMPLOYEE

MOSTLY NICKEL, SOME TO 1.25 INCHES.

0815 PM HAIL MINNEAPOLIS 44.96N 93.27W
07/01/2011 M0.88 INCH HENNEPIN MN TRAINED SPOTTER

OCCURRED NEAR BROADWAY AND INTERSTATE 94.

0835 PM HEAVY RAIN VADNAIS HEIGHTS 45.06N 93.07W
07/01/2011 E0.00 INCH RAMSEY MN PUBLIC

FLOODING IN PARKING LOTS AND STREETS.

0845 PM TSTM WND DMG SOMERSET 45.13N 92.68W
07/01/2011 ST. CROIX WI LAW ENFORCEMENT

COUPLE OF TREES DOWN

0848 PM TSTM WND DMG JORDAN 44.67N 93.63W
07/01/2011 SCOTT MN LAW ENFORCEMENT

TWO FOOT DIAMETER TREE DOWN ON HOME.

0855 PM TSTM WND DMG 1 SSW SAUK RAPIDS 45.58N 94.17W
07/01/2011 STEARNS MN TRAINED SPOTTER

10 INCH DIAMETER TREE AND POWER LINE POLE UPROOTED.

0900 PM TSTM WND DMG BALSAM LAKE 45.46N 92.45W
07/01/2011 POLK WI LAW ENFORCEMENT

NUMEROUS TREES AND POWER LINES DOWN IN SOUTH AND EAST
PORTION OF POLK COUNTY.

0903 PM TSTM WND DMG EMMONS 43.51N 93.48W
07/01/2011 FREEBORN MN LAW ENFORCEMENT

SOME DAMAGE TO TREES AND POWERLINES

0912 PM TSTM WND DMG GLENVILLE 43.57N 93.28W
07/01/2011 FREEBORN MN LAW ENFORCEMENT

SOME DAMAGE TO TREES AND POWERLINES...TIME OF REPORT IS
AN ESTIMATE BASED ON RADAR AND INFORMATION FROM LAW
ENFORCEMENT.

0930 PM TSTM WND DMG EAU GALLE 44.69N 92.01W
07/01/2011 DUNN WI LAW ENFORCEMENT

TREE DOWN ACROSS ROAD.