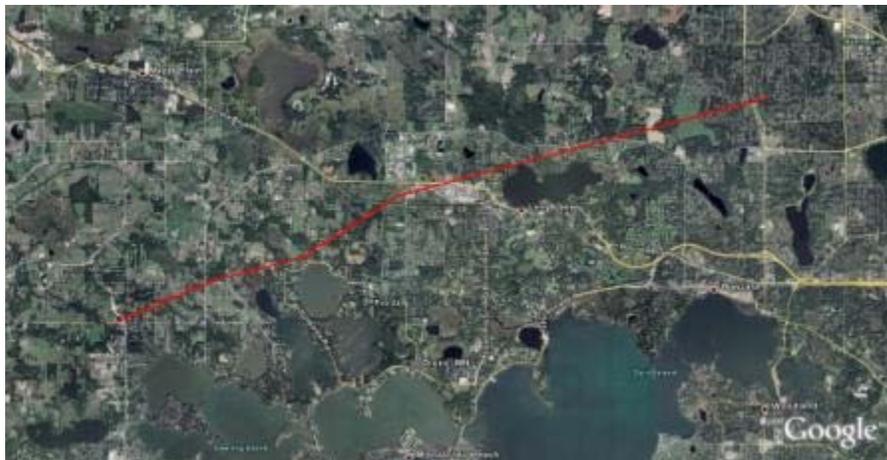


August 8, 2009: Tornado in the Western Twin Cities and Two More in Western Wisconsin

Western Twin Cities Metro EF-1 Tornado

On August 8th shortly after the bottom of the 8 PM hour, a tornado touched down in the Northeastern portion of the city of Minnetrista. The twister began in the Southwestern corner of County Rd. 110 and County Road 151. Several large trees were uprooted or sheared off in this region, with some minor damage incurred to local residences. The twister headed East Northeast across the city of Orono, hitting the edge of Stubbs Bay. A boat was thrown into Stubbs Bay, where it then sunk. The tornado moved into the city of Long Lake, back into the Northeastern part of Orono, and then trekked over the Southwestern portion of Plymouth. It finally terminated near Garland and 25th in the Southwestern portion of Plymouth. There was additional damage along the way over the city of Orono to Southwestern Plymouth to include shingles ripped from residential and commercial roofs, large trees uprooted or tree limbs or trunks sheared away. A liquor store sign was also destroyed in the city of Long Lake. The length of this EF1 tornado, (sustained winds of 85-90 mph), was a respectable 9.5 miles, with a maximum width of approximately 200 yards. Thankfully, there have been no reports of deaths or injuries from this storm.



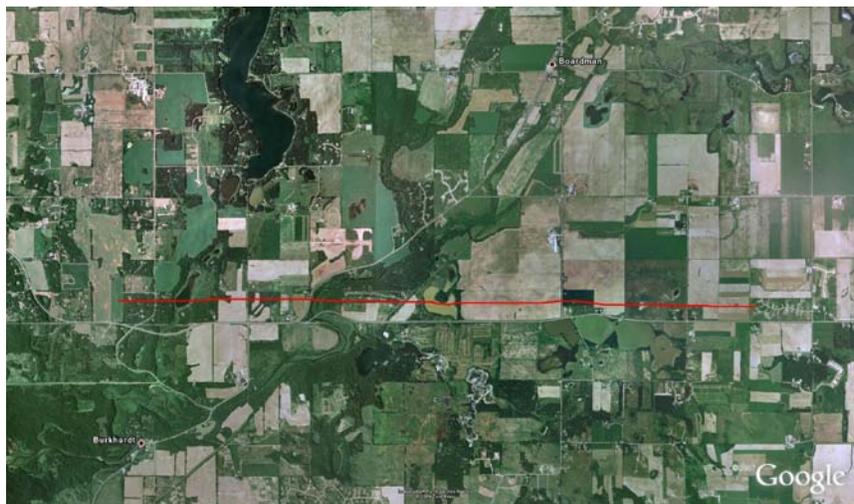
Damage Map

EF-1 and EF-0 Tornadoes in West Central Wisconsin

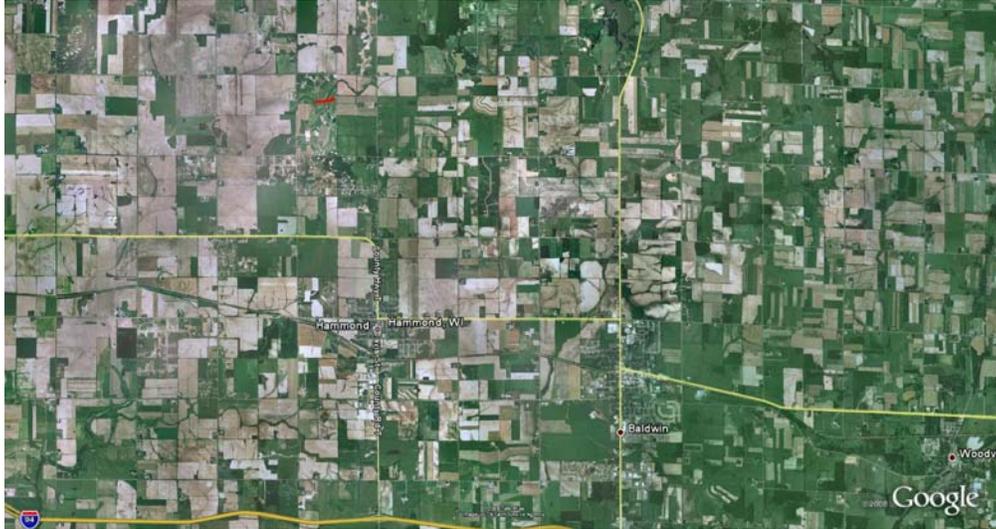
Two tornadoes struck a portion of St. Croix County Saturday evening, with the first rated a high end EF-1, which is near 100 mph. The second tornado was weaker, an EF-0 with winds around 75 to 80 mph, but it still damaged several homes, including taking a portion of a roof from one house.

The first tornado touched down one mile north-northwest of Burkhardt Wisconsin and tracked eastward for approximately five miles. The tornado lifted four miles north-northwest of Roberts, or just east of Three Lakes. The maximum width was 1/4 of a mile. Hundreds of trees were either uprooted or snapped off. Several garages north of Burkhardt were destroyed along with numerous homes with roof damage. Strong southerly inflow winds also knocked down dozens of trees about 1/4 to 1/2 mile south of the tornado, and strong northwesterly inflow winds knocked down some trees and corn about 1/2 mile north of the tornado.

The second tornado touched down approximately four miles north-northwest of Hammond Wisconsin and tracked eastward for approximately one half mile. This tornado was rated an EF-0 and lifted approximately four miles north of Hammond, with a maximum width of 50 yards. This tornado was accompanied by a strong rear flank downdraft that damaged some houses just south of the tornado.



Damage Map: EF-1 Tornado



Damage Map: EF-0 Tornado

Wind Damage in Northern and Northeast Twin Cities Metro

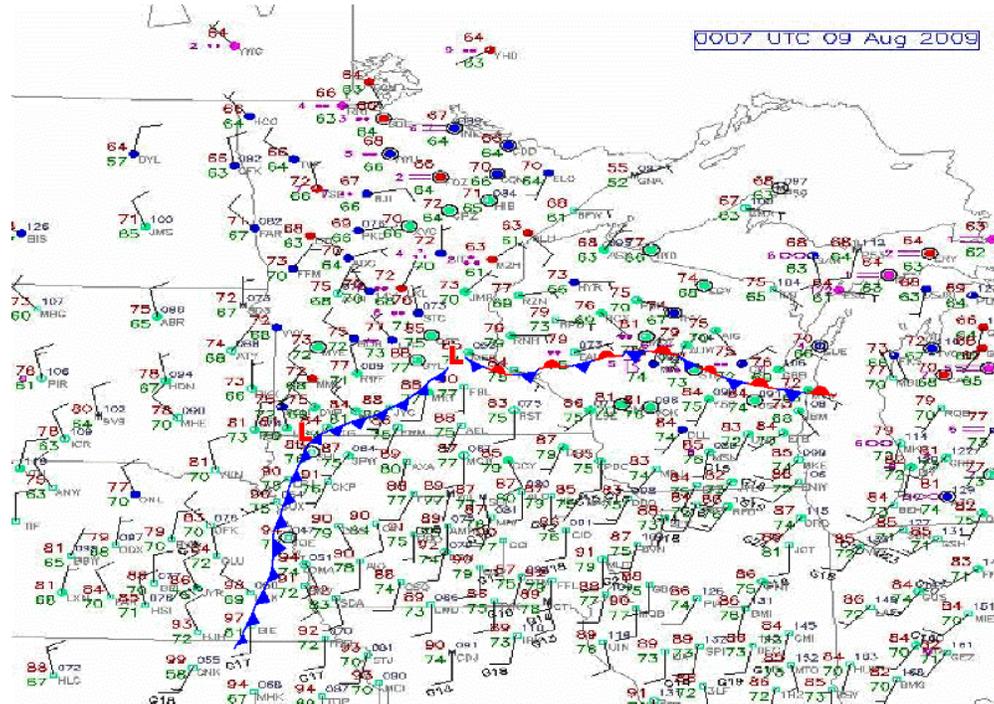
Damage from the city of Lexington and extreme southeast Blaine was deemed to be due to a downburst, with winds of about 60 mph. Approximately two dozen trees were toppled.

Tree damage in New Brighton (just northwest of 35W and 694) may well have been near or under the part of the storm that was strongly rotating, but the damage was so scant that it was not possible to definitively say whether a tornado had touched down. Only four trees and some large limbs were felled, and no convergent pattern was noted.

Similarly, tree damage in southeast Hugo, near Sunset Lake, was so scant that it was not possible to say whether a tornado had touched down. This area had also been directly under the part of the storm that was strongly rotating.

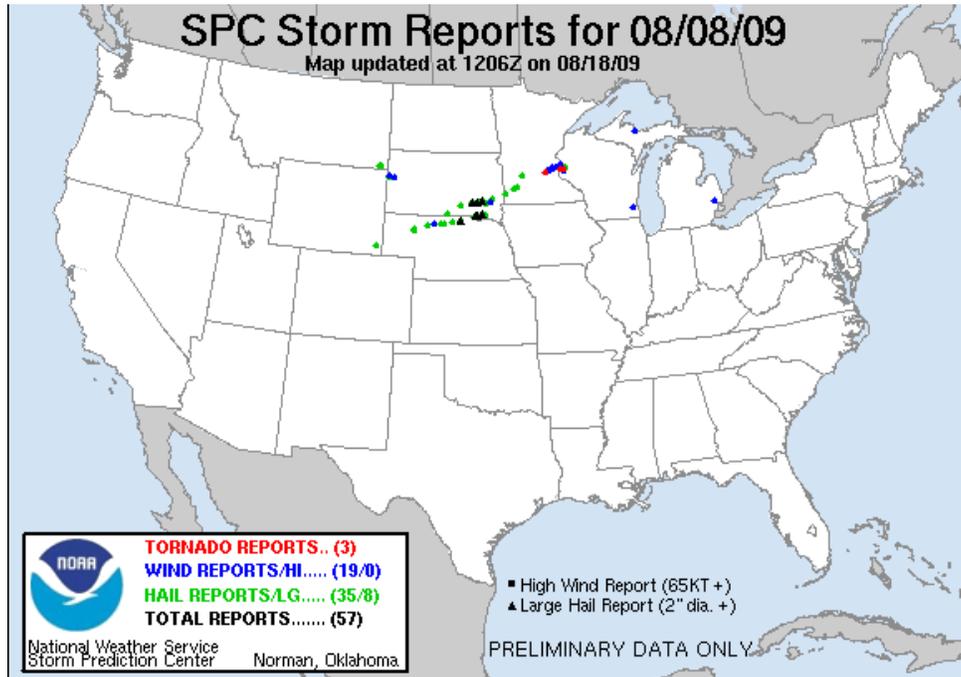
Tree damage from East Farmington (Polk County) was determined to have been produced by a downburst as the storm was gusting out.

Meteorological Setup



August 8, 2009: 7 pm Surface Weather Map

Storm Reports



PRELIMINARY LOCAL STORM REPORT...SUMMARY
 NATIONAL WEATHER SERVICE TWIN CITIES/CHANHASSEN MN
 642 PM CDT TUE AUG 11 2009

..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...
..DATE...MAG....	..COUNTY LOCATION..ST..	...SOURCE....
	..REMARKS..		
0833 PM 08/08/2009	TORNADO	1 N MOUND HENNEPIN	44.94N 93.66W MN NWS STORM SURVEY

DAMAGE SURVEY DETERMINED AN EF-1 TORNADO TOUCHED DOWN JUST WEST OF CR110 AND CR151 IN NORTHEAST MINNETRISTA. IT CONTINUED FOR 9.5 MILES THROUGH ORONO AND LONG LAKE AND DISSIPATED IN THE SOUTHWEST PORTION OF PLYMOUTH NEAR GARLAND AND 25TH. NUMEROUS TREES WERE SNAPPED...DOZENS OF OTHER TREES FELL ON HOMES AND VEHICLES...BOATS TOSSED...ROOFS PARTIALLY REMOVED FROM TWO HOMES AND A BUSINESS. TIME LISTED IS TIME OF TOUCHDOWN IN MINNETRISTA. TORNADO DISSIPATED AT ABOUT 850 PM.

0855 PM 08/08/2009	FUNNEL CLOUD	PLYMOUTH HENNEPIN	45.02N 93.46W MN TRAINED SPOTTER
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FUNNEL SIGHTED JUST EAST OF INTERSECTION OF 494 AND ROCKFORD ROAD.

0904 PM 08/08/2009	FUNNEL CLOUD	PLYMOUTH HENNEPIN	45.02N 93.46W MN TRAINED SPOTTER
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FUNNEL CLOUD APPROACHING COUNTY ROAD 169 ALONG COUNTY ROAD 9.

0916 PM 08/08/2009	TSTM WND DMG	1 N NEW BRIGHTON RAMSEY	45.08N 93.20W MN NWS STORM SURVEY
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TREE DOWN ACROSS PATH IN LONG LAKE PARK. FEW OTHER TREES AND LARGE BRANCHES DOWN.

0916 PM 08/08/2009	TSTM WND DMG	3 SE BLAINE ANOKA	45.14N 93.17W MN NWS STORM SURVEY
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ABOUT TWO DOZEN TREES DOWN IN THE CITY OF LEXINGTON AND ALSO IN EXTREME SOUTHEAST BLAINE... FROM THE INTERSECTION OF RESTWOOD ROAD AND SYNDICATE AVENUE TO JUST WEST OF 85TH AVENUE AND LEXINGTON AVENUE. ALL TREES WERE TOPPLED FROM NORTH TO SOUTH.

0945 PM 08/08/2009	TSTM WND DMG	1 SSE HUGO WASHINGTON	45.14N 92.95W MN NWS STORM SURVEY
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A FEW TREES DOWN AROUND SUNSET LAKE IN SOUTHEAST HUGO.

1010 PM 08/08/2009	FUNNEL CLOUD	1 NW HUDSON ST. CROIX	44.98N 92.76W WI LAW ENFORCEMENT
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1020 PM TSTM WND DMG 2 SSW EAST FARMINGTON 45.23N 92.71W
08/08/2009 POLK WI NWS STORM SURVEY

TREE DOWN ACROSS ROAD. DOWNBURST.

1025 PM TSTM WND DMG 4 E EAST FARMINGTON 45.25N 92.61W
08/08/2009 POLK WI NWS STORM SURVEY

ABOUT SIX TREES DOWNED FROM A DOWNBURST.

1025 PM TORNADO 1 NNW BURKHARDT 45.04N 92.68W
08/08/2009 ST. CROIX WI NWS STORM SURVEY

DAMAGE SURVEY DETERMINED AN EF-1 TORNADO TOUCHED DOWN AND TRAVELLED FIVE MILES TO TWO MILES SOUTHEAST OF BOARDMAN. NUMEROUS TREES WERE SNAPPED. SEVERAL GARAGES AND A BOAT WERE BLOWN AWAY. TORNADO WAS ACCOMPANIED BY VERY STRONG SOUTHERLY INFLOW WINDS THAT ALSO KNOCKED DOWN NUMEROUS TREES 1/4 TO 1/2 MILE SOUTH OF THE TORNADO. TIME LISTED IS RADAR ESTIMATED TIME OF TOUCHDOWN.

1051 PM TORNADO 4 NNW HAMMOND 45.03N 92.46W
08/08/2009 ST. CROIX WI NWS STORM SURVEY

DAMAGE SURVEY DETERMINED EF-0 TORNADO FOR ABOUT 1/2 MILE. SEVERAL GARAGE DOORS WERE BLOWN IN. PORTION OF A ROOF BLOWN OFF HOUSE. NUMEROUS SOFFETS BLOWN OFF. CORN BLOWN DOWN. DAMAGE IN THE AREA OF 167TH STREET. TIME ESTIMATED FROM RADAR.

Photos



Damage on West Branch Rd, just west of route 110 in Minnetrista.



Second picture of damage on West Branch Rd, just west of route 110 in Minnetrista.



Damage from the north end of Stubbs Bay (Lake Minnetonka).



Damage southwest of Plymouth.



Damage in Long Lake.



Damage near Garland and 25th Streets in southwest Plymouth.



Damage in an industrial park in Orono.



Damage to residential roof four miles north-northwest of Hammond, Wisconsin.



Tree damage near Burkhardt, Wisconsin. Cut trees in foreground are part of an area in the background which had numerous large trees downed.



Tree damage near Burkhardt, Wisconsin.



House damage near Burkhardt, Wisconsin.

Rainfall Reports

PRELIMINARY LOCAL STORM REPORT...SUMMARY
 NATIONAL WEATHER SERVICE TWIN CITIES/CHANHASSEN MN
 1108 AM CDT SAT AUG 08 2009

..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...
..DATE...MAG....	..COUNTY LOCATION..ST..	...SOURCE....
	..REMARKS..		

0210 AM	FLASH FLOOD	SHAKOPEE	44.77N 93.48W
08/08/2009		SCOTT	MN LAW ENFORCEMENT

COUNTY DISPATCH REPORTED CARS STALLED OUT IN HIGH WATER
 AT SEVERAL LOCATIONS ACROSS SHAKOPEE.

0210 AM	HEAVY RAIN	PRESCOTT	44.75N 92.79W
08/08/2009	M5.50 INCH	PIERCE	WI TRAINED SPOTTER

0230 AM	HEAVY RAIN	2 SSE ALTOONA	44.78N 91.43W
08/08/2009	M2.50 INCH	EAU CLAIRE	WI TRAINED SPOTTER

LOCAL MEDIA REPORTS SOME MINOR STREET FLOODING IN EAU
 CLAIRE AS WELL.

0624 AM	HEAVY RAIN	SHAKOPEE	44.77N 93.48W
08/08/2009	M4.62 INCH	SCOTT	MN TRAINED SPOTTER

ALSO RECEIVED AN ADDITIONAL 1.50 INCHES THAT FELL FROM
 YESTERDAY MORNING UNTIL 7PM LAST EVENING. 4.62 INCHS FELL
 OVERNIGHT.

0637 AM	HEAVY RAIN	ST LOUIS PARK	44.95N 93.36W
08/08/2009	M1.95 INCH	HENNEPIN	MN TRAINED SPOTTER

0637 AM	HEAVY RAIN	4 E RIVER FALLS	44.86N 92.54W
08/08/2009	M4.50 INCH	PIERCE	WI TRAINED SPOTTER

0637 AM	HEAVY RAIN	WACONIA	44.85N 93.79W
08/08/2009	M5.49 INCH	CARVER	MN NWS EMPLOYEE

0637 AM	HEAVY RAIN	2 NW CHASKA	44.84N 93.63W
08/08/2009	M6.20 INCH	CARVER	MN CO-OP OBSERVER

0700 AM	HEAVY RAIN	BROWNTON	44.73N 94.35W
08/08/2009	M4.70 INCH	MCLEOD	MN CO-OP OBSERVER

0730 AM	HEAVY RAIN	MINNEAPOLIS	44.96N 93.27W
08/08/2009	M2.92 INCH	HENNEPIN	MN ASOS

0730 AM	HEAVY RAIN	EDEN PRAIRIE	44.85N 93.46W
08/08/2009	M4.29 INCH	HENNEPIN	MN ASOS

TORRENTIAL RAIN OCCURRED AT FLYING CLOUD AIRPORT.

0730 AM	HEAVY RAIN	CHANHASSEN	44.86N 93.56W
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08/08/2009 M4.87 INCH CARVER MN NWS EMPLOYEE

OCCURRED AT NWS FORECAST OFFICE.

0820 AM HEAVY RAIN PRIOR LAKE 44.73N 93.43W
08/08/2009 M3.96 INCH SCOTT MN NWS EMPLOYEE

0820 AM HAIL RENVILLE 44.79N 95.21W
08/08/2009 M1.75 INCH RENVILLE MN TRAINED SPOTTER

0830 AM HEAVY RAIN WATERTOWN 44.96N 93.85W
08/08/2009 M2.44 INCH CARVER MN NWS EMPLOYEE

0830 AM HEAVY RAIN PLUM CITY 44.63N 92.19W
08/08/2009 M3.95 INCH PIERCE WI TRAINED SPOTTER

0830 AM HEAVY RAIN HAMBURG 44.73N 93.96W
08/08/2009 M5.43 INCH CARVER MN CO-OP OBSERVER

0830 AM HEAVY RAIN 2 N JORDAN 44.70N 93.63W
08/08/2009 M4.00 INCH SCOTT MN TRAINED SPOTTER

0850 AM HEAVY RAIN 3 N MAIDEN ROCK 44.61N 92.31W
08/08/2009 M3.10 INCH PIERCE WI TRAINED SPOTTER

0900 AM HEAVY RAIN LESTER PRAIRIE 44.88N 94.04W
08/08/2009 M5.96 INCH MCLEOD MN CO-OP OBSERVER

0900 AM HEAVY RAIN 3 SSW BURNSVILLE 44.73N 93.31W
08/08/2009 M3.70 INCH DAKOTA MN TRAINED SPOTTER

0945 AM HEAVY RAIN HUTCHINSON 44.89N 94.37W
08/08/2009 M4.01 INCH MCLEOD MN CO-OP OBSERVER

OBSERVER MEASURED 3.30 AT HIS 0800 OB TIME WITH
ADDITIONAL AMOUNT TOTAL OF 4.01 THROUGH 945 AM.

1043 AM FLASH FLOOD BLAINE 45.17N 93.21W
08/08/2009 ANOKA MN LAW ENFORCEMENT

STREET FLOODING NEAR COUNTY ROAD 10 AND JEFFERSON STREET.

1045 AM FLASH FLOOD ROGERS 45.19N 93.55W
08/08/2009 HENNEPIN MN LAW ENFORCEMENT

SEVERAL AREAS OF STREET FLOODING REPORTED. WATER HALF WAY
UP VEHICLE TIRES IN SPOTS.

1047 AM HEAVY RAIN RIVER FALLS 44.86N 92.62W
08/08/2009 M5.52 INCH PIERCE WI TRAINED SPOTTER

24 HOUR RAINFALL AMOUNT.

1058 AM HEAVY RAIN KIMBALL 45.31N 94.30W
08/08/2009 M4.16 INCH STEARNS MN TRAINED SPOTTER