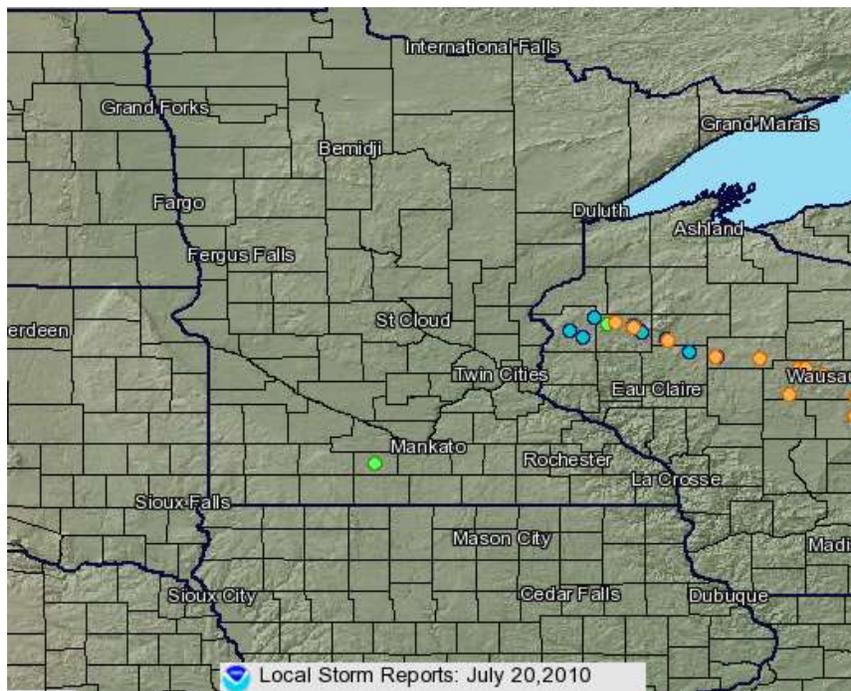


July 20, 2010: Large Hail and Isolated Wind Damage Across Western Wisconsin



PRELIMINARY LOCAL STORM REPORT...SUMMARY

**NATIONAL WEATHER SERVICE TWIN CITIES/CHANHASSEN MN
731 PM CDT TUE JUL 20 2010**

..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...
..DATE...MAG....	..COUNTY LOCATION..ST..	...SOURCE....
..REMARKS..			
0159 PM 07/20/2010	FUNNEL CLOUD	3 W CUMBERLAND BARRON	45.54N 92.09W WI EMERGENCY MNGR
AT EAGLE POINT CAMPGROUND. FUNNEL CAME OUT OF CLOUDS AND WENT BACK UP.			
0203 PM 07/20/2010	HAIL M1.25 INCH	2 N MCKINLEY POLK	45.60N 92.18W WI TRAINED SPOTTER
0212 PM 07/20/2010	HAIL M0.75 INCH	CUMBERLAND BARRON	45.54N 92.02W WI LAW ENFORCEMENT
0220 PM 07/20/2010	HAIL E0.75 INCH	CUMBERLAND BARRON	45.54N 92.02W WI LAW ENFORCEMENT
0220 PM 07/20/2010	TSTM WND DMG	4 E CUMBERLAND BARRON	45.54N 91.94W WI LAW ENFORCEMENT

THE LOCAL LAW ENFORCEMENT OFFICIALS REPORTED THAT A TURKEY BARN ROOF WAS BLOWN OFF APPROXIMATELY 4 MILES EAST OF CUMBERLAND. SOME DAMAGE ALSO OCCURRED WITH THE HOME AT

THE SAME LOCATION. TIME IS APPROXIMATE BASED ON RADAR DATA.

0241 PM HAIL 4 WSW RICE LAKE 45.47N 91.82W
07/20/2010 E0.75 INCH BARRON WI TRAINED SPOTTER

0245 PM HAIL 1 SW RICE LAKE 45.49N 91.75W
07/20/2010 E1.50 INCH BARRON WI TRAINED SPOTTER

1.5 INCH HAIL WAS REPORTED BY THE TURTLEBACK GOLF COURSE.

0245 PM TSTM WND DMG 1 NW RICE LAKE 45.50N 91.74W
07/20/2010 BARRON WI TRAINED SPOTTER

A SIX INCH DIAMETER TREE WAS BLOWN DOWN ON 18TH STREET AND HIGHWAY 48 IN RICE LAKE

0245 PM HAIL RICE LAKE 45.50N 91.74W
07/20/2010 M1.00 INCH BARRON WI TRAINED SPOTTER

0249 PM HAIL 1 NNW RICE LAKE 45.51N 91.75W
07/20/2010 M1.25 INCH BARRON WI TRAINED SPOTTER

HAIL CAME DOWN FOR 20 MINUTES AND WAS COVERING THE GROUND. WINDS ESTIMATED AT 50 MPH...BUT NO DAMAGE.

0254 PM HAIL 4 SE RICE LAKE 45.46N 91.68W
07/20/2010 M2.50 INCH BARRON WI TRAINED SPOTTER

0259 PM HAIL CANTON 45.43N 91.66W
07/20/2010 M1.00 INCH BARRON WI TRAINED SPOTTER

0302 PM HAIL WSW ST JAMES 43.98N 94.63W
07/20/2010 E0.25 INCH WATONWAN MN TRAINED SPOTTER

HEAVY RAIN.

0306 PM FLOOD 1 WSW CUMBERLAND 45.53N 92.03W
07/20/2010 BARRON WI TRAINED SPOTTER

ROADS FLOODED WITH 12 INCHES OF WATER. CARS STALLED.

0315 PM HEAVY RAIN WSW ST JAMES 43.98N 94.63W
07/20/2010 E1.00 INCH WATONWAN MN TRAINED SPOTTER

RAIN FELL IN A SHORT PERIOD OF TIME.

0325 PM HAIL 4 SSE WEYERHAEUSER 45.37N 91.38W
07/20/2010 M1.75 INCH RUSK WI LAW ENFORCEMENT

GOLF BALL SIZE HAIL WAS REPORTED AT THE JUNCTION OF HIGHWAY 40 AND COUNTY ROAD D...SOUTHEAST OF WEYERHAEUSER

0330 PM TSTM WND DMG 2 N ISLAND LAKE 45.35N 91.37W
07/20/2010 RUSK WI LAW ENFORCEMENT

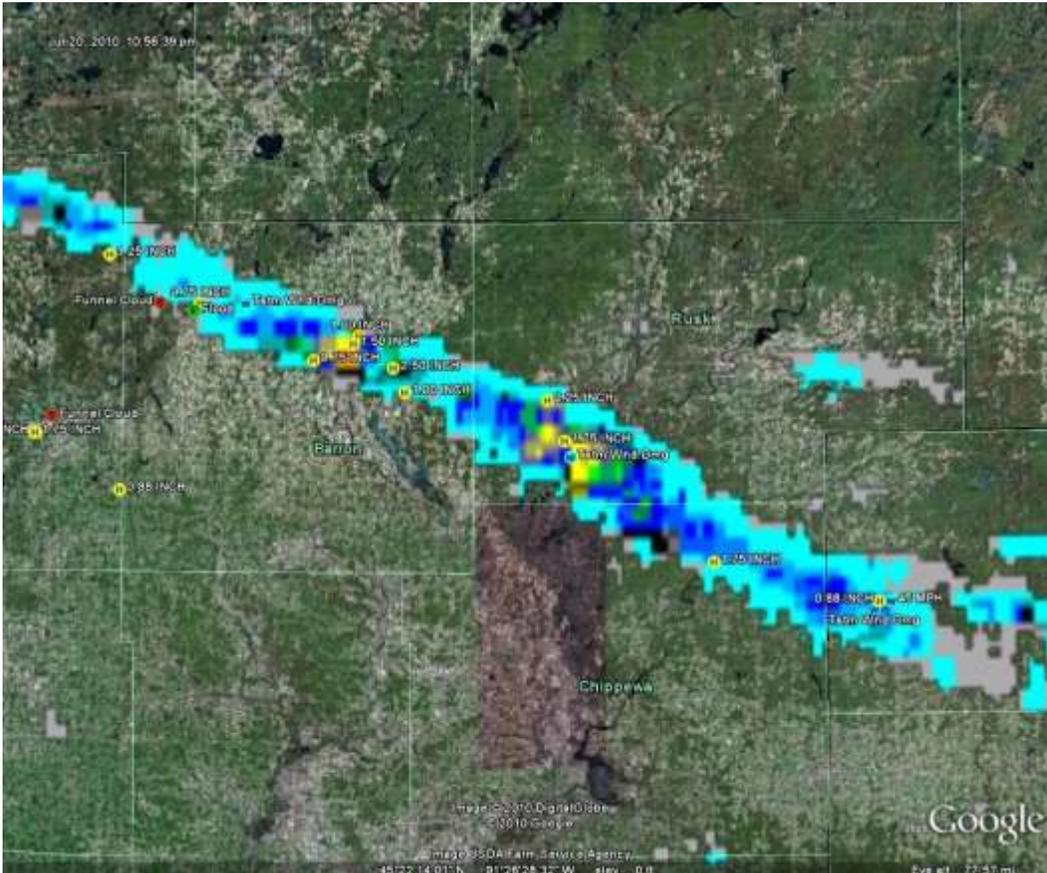
LARGE PINE TREE DOWN AND NUMEROUS BRANCHES DOWN NEAR
HIGHWAY 40.

0349 PM	HAIL	HOLCOMBE	45.22N 91.12W
07/20/2010	E1.75 INCH	CHIPPEWA	WI LAW ENFORCEMENT
0555 PM	HAIL	N BALSAM LAKE	45.46N 92.45W
07/20/2010	M0.75 INCH	POLK	WI TRAINED SPOTTER
0556 PM	HAIL	BALSAM LAKE	45.46N 92.45W
07/20/2010	M1.25 INCH	POLK	WI LAW ENFORCEMENT
0615 PM	FUNNEL CLOUD	RANGE	45.40N 92.28W
07/20/2010		POLK	WI FIRE DEPT/RESCUE

NEAR COUNTY ROAD D.

0620 PM	HAIL	2 SW RANGE	45.38N 92.31W
07/20/2010	M1.75 INCH	POLK	WI TRAINED SPOTTER
0638 PM	HAIL	1 SSE CLAYTON	45.31N 92.16W
07/20/2010	M0.88 INCH	POLK	WI TRAINED SPOTTER

NWS Doppler Radar has many algorithms that can calculate various storm-based parameters to assist NWS warning forecasters in storm monitoring and forecasting. One of those is MESH, or Maximum Estimated Size of Hail. This is based on the thunderstorm's reflected power, or reflectivity, and the environmental temperature profile and correlating these through past research to give a hail size forecast. While the magnitude is rarely perfect, it can often give a reasonable idea of hail size. In addition, looking at this parameter over time and space can reveal where the heaviest hail damage may have occurred.



July 20th NWS Chanhassen Doppler Radar MESH Algorithm of the Polk to Taylor County Storm and Preliminary Storm Reports Overlaid: 1 pm-6 pm