

July 19, 2008: EF-0 Tornado Near Becker and Big Lake

EF-0 Tornado in Sherburne County

Becker and Big Lake area tornado rated EF-0...

A damage survey team completed an inspection of the tornado damage from the storm east of Becker and north of Big Lake. The tornado was rated an EF-0, with winds from 65 to 85 mph. The EF Scale refers to the Enhanced Fujita Scale.

The tornado touched down 2.5 miles southeast of downtown Becker, near the intersection of Highway 10 and 137th St. It traveled east-northeast for 4 miles, breaking some trees, destroying a few sheds and causing minor house damage. The tornado dissipated just west of Eagle Lake, or 3.5 miles north of Big Lake.

Total path length was 4 miles, and the maximum width was 100 yards.

In the nominal proximity to the south of the tornado track, there was some straight-line wind damage as well, most likely from a rear-flank downdraft that accompanied the tornado.

There were numerous reports of funnel clouds and tornadoes around Sherburne County, but no other areas of significant damage. It was suspected that these other reports were from people seeing the Becker-Big Lake tornado and underestimating its distance from them.

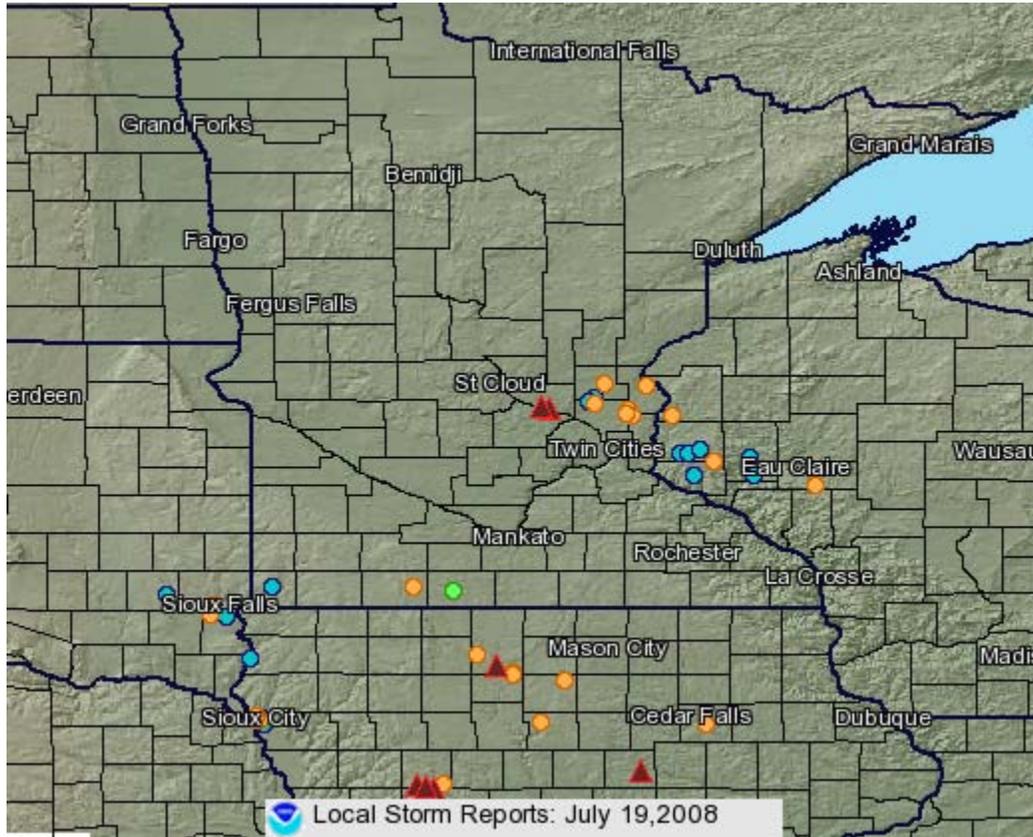
Downburst Near Eau Galle Reservoir

A survey of the extensive tree damage that occurred at the Highland Campground at the Eau Galle Reservoir was conducted. The damage that occurred was found to have been caused by a downburst that occurred around 5 PM on 7/19. Nearby observers reported that strong winds lasted for 5 to 10 minutes. The winds were estimated to have been between 60 and 70 mph.

A downburst occurs when rain-cooled air in a severe thunderstorm encounters a layer of drier air as it falls to the ground. When the raindrops evaporate as they move through this drier layer, latent heat is released. Since the rain-cooled air is more dense than the air around it, it accelerates

toward the ground. The downburst winds will spread out upon impacting the surface, which causes the damage to radiate from a central point.

All Storm Reports



PRELIMINARY LOCAL STORM REPORT...SUMMARY
 NATIONAL WEATHER SERVICE TWIN CITIES/CHANHASSEN MN
 959 PM CDT SAT JUL 19 2008

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

0205 PM	TORNADO	3 E BECKER	45.37N 93.82W
07/19/2008		SHERBURNE	MN TRAINED SPOTTER

TORNADO TOUCHED DOWN NEAR A BARN ALONG 165TH AVE NW AND DOWNED SEVERAL 2 TO 3 FT OAK TREES. TIME WAS ESTIMATED.

0240 PM	FUNNEL CLOUD	2 S ST FRANCIS	45.41N 93.31W
07/19/2008		ANOKA	MN AMATEUR RADIO

SPOTTED NEAR NOWTHEN AND TROUT BROOK ROAD IN BURNS TOWNSHIP.

0243 PM 07/19/2008	HAIL M0.75 INCH	1 W ST FRANCIS ISANTI	MN	45.44N 93.33W AMATEUR RADIO
ON HWY 47 1 MILE W OF TOWN.				
0245 PM 07/19/2008	TSTM WND DMG	CAMBRIDGE ISANTI	MN	45.56N 93.23W LAW ENFORCEMENT
TWO TREES DOWN.				
0255 PM 07/19/2008	HAIL M1.00 INCH	ST FRANCIS ANOKA	MN	45.40N 93.39W AMATEUR RADIO
NEAR HWY 28 AND BARNIUM.				
0315 PM 07/19/2008	TSTM WND DMG	3 WSW BETHEL ANOKA	MN	45.38N 93.32W LAW ENFORCEMENT
3 TO 4 FT DIAMETER TREE DOWN BLOCKING NIGHTINGALE ST IN EAST BETHEL. ALSO NUMEROUS OTHER TREES DOWN AT THE INTERSECTION OF NIGHTINGALE AND 202ND AND NIGHTINGALE AND SIMMS RD AS REPORTED BY FIRE DEPT.				
0322 PM 07/19/2008	TSTM WND DMG	FOREST LAKE WASHINGTON	MN	45.28N 92.99W AMATEUR RADIO
2 TO 3 INCH DIAMETER BRANCHES DOWNED ON LAKE DRIVE.				
0330 PM 07/19/2008	TSTM WND DMG	6 ENE NORTH BRANCH CHISAGO	MN	45.55N 92.86W LAW ENFORCEMENT
TREE DOWN IN SUNRISE.				
0330 PM 07/19/2008	TSTM WND DMG	FOREST LAKE WASHINGTON	MN	45.28N 92.99W LAW ENFORCEMENT
TREE DOWN ACROSS ROAD.				
0348 PM 07/19/2008	TSTM WND DMG	3 WNW FOREST LAKE ANOKA	MN	45.29N 93.04W AMATEUR RADIO
4 TO 5 INCH BRANCHES DOWN AT KETTLE RIVER BLVD IN COLUMBUS TWP.				
0350 PM 07/19/2008	TSTM WND DMG	5 SE OSCEOLA POLK	WI	45.27N 92.62W STORM CHASER
TWO LARGE TREES DOWN 1 MILE WEST OF HORSE CREEK ON CO RD X.				
0405 PM 07/19/2008	HEAVY RAIN E0.00 INCH	WELCOME MARTIN	MN	43.67N 94.62W LAW ENFORCEMENT
STREET FLOODING DUE TO HEAVY DOWNPOURS.				
0434 PM 07/19/2008	HAIL M0.75 INCH	4 S ROBERTS ST. CROIX	WI	44.93N 92.55W AMATEUR RADIO

0435 PM HAIL 4 SSW HAMMOND 44.93N 92.47W
07/19/2008 M1.00 INCH ST. CROIX WI TRAINED SPOTTER

1/2 MILE WEST OF INTERSECTION OF CO RD N AND T.

0447 PM HAIL BALDWIN 44.96N 92.37W
07/19/2008 M0.75 INCH ST. CROIX WI TRAINED SPOTTER

0500 PM HAIL MENOMONIE 44.89N 91.91W
07/19/2008 M0.75 INCH DUNN WI LAW ENFORCEMENT

0500 PM TSTM WND DMG 1 N SPRING VALLEY 44.86N 92.24W
07/19/2008 ST. CROIX WI LAW ENFORCEMENT

OFFICER ESTIMATED MANY HUNDREDS OF TREES DOWN AT HIGHLAND
CAMPGROUND ON NORTH SIDE OF EAU GALLE RESERVOIR. TRAINED
SPOTTER REPORTED TREES WERE DOWNED FROM NORTHWEST TO
SOUTHEAST.

0525 PM HAIL 4 E ELLSWORTH 44.73N 92.41W
07/19/2008 M1.25 INCH PIERCE WI TRAINED SPOTTER

0546 PM HAIL 9 W ROCK FALLS 44.72N 91.87W
07/19/2008 M0.75 INCH DUNN WI AMATEUR RADIO

0620 PM TSTM WND DMG 1 S FOSTER 44.63N 91.31W
07/19/2008 EAU CLAIRE WI LAW ENFORCEMENT

TREE DOWN BLOCKING ROAD.